



## CHAPTER ONE



# The Use of Portfolios in Preservice Teacher Education

### *A Critical Appraisal*

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Portfolios are now extensively used throughout the education system from elementary schools to institutions of higher education. They are used to document and assess students' learning, teachers' teaching, and the working of schools and programs. They are part of the process of making decisions on licensure, certification, hiring, promotion and tenure, and program accreditation. Other than the dossiers compiled by higher education faculty members for promotion and tenure or by the few teachers nominated for an award, the use of portfolios in education is a fairly recent phenomenon. In this chapter, we focus exclusively on portfolios in preservice teacher education programs. To understand how and why they are used in this context, however, as well as their meanings and purposes, we first retrace the history of portfolio in education and analyze the first teaching portfolios developed for the purpose of assessing practicing teachers. Following a review of the portfolio literature to clarify differences in portfolio practices and the claims that have been made regarding their use, we raise a number of issues related to whether practicing teacher assessment portfolios constitute a useful model for preservice teacher education programs. We then present and contrast two cases purposefully selected to highlight differences in teacher education use of portfolios. Finally, we comment on how portfolios might be ideally envisioned in preservice teacher education.



## RETROSPECTIVE ON TEACHING PORTFOLIOS

Although almost every decade in the history of public education in the United States can be characterized as such, the 1980s represented yet another moment of intense questioning and great concern about the nation's schools, colleges, and universities, including the quality of teaching, learning, and the curriculum at the different education levels. *A Nation at Risk*, a report from the National Commission on Excellence in Education submitted to the U.S. secretary of education in 1983, called for educational reforms of school curriculum, teacher education curriculum, and university curriculum in general. Higher and more rigorous standards of performance for both students and prospective teachers were emphasized, among other things, along with accountability recommendations, including nationwide standardized testing of students' achievement at key transition points of the educational system. At the same time, educators were generally leery of additional testing requirements and became preoccupied with finding alternative forms of assessment.

To tackle the report's issues related to teacher education and the professionalization of teaching, the Carnegie Forum on Education and the Economy commissioned Lee Shulman and Gary Sykes to write a paper for consideration by the Carnegie Foundation's Task Force in Teaching as a Profession. In this paper, Shulman and Sykes (1986) outlined what they perceived to be the knowledge base of teaching, devised prototype assessments of this knowledge, and made recommendations for the creation and implementation of a national board for teaching standards. After receiving this position paper, the Task Force on Teaching as a Profession issued a report, *A Nation Prepared: Teachers for the 21st Century* (Carnegie, Foundation Task Force on Teaching as a Profession, 1986) and funded the Teacher Assessment Project (TAP) at Stanford University under Shulman's direction. The TAP's work from 1986 to 1990 consisted of imagining and developing new forms of teacher assessment in order to assist the National Board for Professional Teaching Standards (NBPTS), created soon after in 1987, with the development of professional standards for teachers and the implementation of an assessment system for the purpose of awarding national certification to accomplished elementary and secondary school teachers. The traditional mode of teacher assessment (the National Teachers Examination and later the PRAXIS examinations) had been generally recognized as inadequate, or at least insufficient, to capture the complexity and contextualization of teaching and teacher knowledge—hence the impetus for developing new forms of teacher assessment.

For the first two years, TAP researchers developed and tried out assessment center simulation exercises of teaching, such as developing and teaching a lesson and evaluating student work, for elementary mathematics and high school history. In the next two years, recognizing the importance of documenting

teaching over time and in the context of the teachers' own classrooms, the TAP team turned its attention to the development of portfolios for documenting and evaluating teaching in elementary literacy and high school biology (Wolf, 1991). The focus on portfolios to document and represent teaching can partly be explained by how they have been used in other occupations (for example, architects, artists, professional writers), although early on, Bird (1990) warned the field about adopting them wholesale without carefully considering their purposes in the context of teaching.

The attention to the portfolio as a method of documentation and assessment of teaching by the Stanford researchers nevertheless played a pivotal role in their proliferation at all educational levels. Although some university faculty members had experimented with student portfolios in the teaching of freshman reading and writing in the late 1970s and early 1980s (Elbow & Belanoff, 1991), their use was minimal compared to what we would witness in the 1990s and thereafter.

Other initiatives also converged with the TAP work to create the momentum for the portfolio proliferation that would ensue. In 1987, funded by a grant from the National Governors' Association, the state of Connecticut formed a consortium with the state of California in collaboration with Stanford University to overhaul their standards and procedures for teacher licensure. As a part of this effort, they began to study the new assessments developed by the Stanford team and, in some modified forms, their viability for evaluating beginning teachers. This consortium quickly led to the creation of the Interstate New Teacher Assessment and Support Consortium (INTASC), an organization that now includes more than thirty states and was highly influential in the development of standards and assessments for beginning teachers across states. Meanwhile based on the initial efforts of the TAP, the NBPTS had begun its work and in 1990 released the first request for proposal for development of the first assessment for experienced English language arts teachers to be used for the purpose of awarding national certification. The University of Pittsburgh, in collaboration with the Connecticut State Department of Education, received the award for the Early Adolescent/English Language Arts Assessment Development Laboratory (ADL) and began its work in 1991, drawing in important ways on the TAP's work on assessment center exercises and portfolios. The assessment developed for the first ADL included a portfolio and became a model followed by recipients of subsequent ADL awards in other certification areas. To date, more than sixty-four thousand teachers nationwide have been awarded national certification.

Given the advocacy for the use of portfolios for assessment in the process of licensing beginning teachers and their use for awarding national certification to accomplished experienced teachers, as well as a strong call for performance-based assessment and alignment of standards and assessment at

all levels, teacher education programs felt pressure to prepare their students for the initial licensing process and its assessment. By the late 1990s, many teacher education programs had adopted or were in the process of adopting a system of portfolio assessment aligned with state, professional, and INTASC teaching standards. In addition, the National Council for Accreditation of Teacher Education (NCATE) also contributed to the development of teaching portfolios through its program review requirements for accreditation. These program reviews are now typically conducted by professional organizations in the content area under review. And since some of these organizations also use the language of the teaching portfolio in the criteria that they consider important for an effective assessment and evaluation system for student-teachers (see, for example, National Council of Teachers of English, 2006), they exercise pressure on teacher education programs to include portfolios as a requirement for course or program completion or both.

To understand how portfolios are currently used in teacher education programs, it is important to analyze the context in which these portfolios were first developed, how they were defined, their form and content, and the purpose of their use. The first teaching portfolios (TAP, NBPTS) were developed exclusively for summative assessment purposes. They were designed to document various aspects of a teacher's best work on which a certification decision could be made. Portfolios were defined "as a container for storing and displaying evidence of a teacher's knowledge and skills . . . [that] embodies an attitude that assessment is dynamic and that the richest portrayals of teacher (and student) performance are based on multiple sources of evidence collected over time in authentic settings" (Wolf, 1991, p. 130).

The first NBPTS portfolios were designed to capture experienced and accomplished teaching around core propositions and standards defined by the NBPTS and greatly influenced by Shulman's definition of the knowledge base for teaching (Shulman, 1987). They were, and still are, highly structured around specific teaching tasks (for example, conducting and evaluating an interpretive discussion with students, collecting and responding to students' work over a three-month period) and included multiple sources of evidence: curriculum material, unit and lesson plans, student work, videotape of teaching, and teachers' commentaries on their work and the work of their students, for example. The tasks are independent of each other, and, given the relatively high-stakes certification decision for which portfolios are used, comparability and standardization are important to ensure fairness and require providing detailed instructions for teachers to follow in constructing their portfolios. The NBPTS portfolio has more than two hundred pages of directions on how to proceed with their development. The teaching performances reflected in these portfolios are evaluated using a system of scoring rubrics directly linked to the NBPTS standards. Portfolio entries are judged independently by different

assessors, and weighted scores for each portfolio entry are aggregated with other parts of the assessment (assessment center exercises and documented accomplishments entry) to yield a total weighted scaled score for which a passing score has been established.

Almost simultaneously with the efforts of the NBPTS, there was an attempt to develop similar assessment portfolios to be used in the context of state licensure. With the assistance of INTASC, some states, including Connecticut, that had been instrumental in the development of the first NBPTS portfolio took the lead in developing portfolio assessments for teachers seeking a teaching license after a period of induction. Given the call for alignment and the fact that some of the same people were involved in their development, the NBPTS and the INTASC portfolio prototypes were quite similar in form and content. Initially a group of fifteen states participated in the design of these portfolios, and several states experimented with them. By 2003 INTASC had developed three portfolio prototypes in mathematics, English language arts, and science. Like the NBPTS portfolios, these also require teachers to collect evidence of their teaching during their induction years over a period of weeks and according to very specific directions for specific tasks linked to the INTASC standards and principles. The plan was for these portfolios to be evaluated by trained teachers who used rubrics linked to the INTASC standards and principles and rating scales based on which licensure decisions could be made. Some states also experimented with pass/fail decisions (Indiana was one of them).

As of 2004 and after ten years of development, however, only three states (and one additional state where portfolios are optional) had adopted a portfolio assessment system as a requirement of their teacher induction program leading to the award of an initial teaching license (Council of Chief School State Officers, 2004). The current pressure on states' budgets and the high cost of establishing and maintaining such an assessment system may partly explain why more states have not adopted this type of assessment. Although only a few states are now using portfolios with beginning teachers, the rhetoric of performance-based assessment by professional organizations, their mandates by state agencies, and the message of preparing student teachers for future performance-based assessment led to a proliferation of portfolios in teacher education programs that seems to have developed a life of its own.

## LEARNING FROM THE PORTFOLIO LITERATURE

Following the dissemination of the TAP and NBPTS work, literature on portfolios emerged in the early 1990s. Barton and Collins (1993) reported finding over two hundred articles on the use of portfolios, mainly for the purpose of instruction and student assessment in reading, art, the performing arts, and

science. Our own literature search on teaching and teacher portfolios returned approximately 175 articles and books published between 1990 and 2008. Of these, approximately a third specifically address the use of portfolios in pre-service teacher education, with the rest equally divided between their use for evaluating teaching in higher education and in K-12 schools.

Here we focus most exclusively on the recent literature related to pre-service teacher education and draw from elsewhere only to strengthen specific arguments. The majority of articles in this area consist primarily of narrative descriptions of portfolio use in specific programs or courses (Barton & Collins, 1993; Darling Farr, 2001; Hartmann, 2004; Hallman, 2007) and analyses of the ways teaching portfolios have been implemented or ways to conceptualize their use (Wolf & Dietz, 1998; Zeichner & Wray, 2001; Habib & Wittek, 2007). In addition, responding to the great anticipation that portfolios would be required for teacher licensure by many states, a number of books were published to promote the use of portfolios and offer procedural guidelines for constructing them (for example, Campbell, Cignetti, Melenyzer, Nettles, & Wyman, 1997; Anderson, Du Mez, & Peter, 1998; Wyatt & Looper, 1999; Campbell, Melenyzer, Nettles, & Wyman, 2000; Cole, Ryan, Kick, & Mathies, 2000; Bullock & Hawk, 2001). The few studies that have been conducted in this area mainly focus on student teachers' perception of the process of constructing a teaching portfolio and their perceived impact on their own learning, development, and reflection about teaching and rely primarily on self-report data using questionnaires, or essays, and interviews (Loughran & Corrigan, 1995; Wade & Yarbrough, 1996; Borko, Michalec, Timmons, & Siddle, 1997; Lyons, 1998; Meyer & Tusin, 1999; Darling Farr, 2001; Donnelly, 2005; Orland-Barak, 2005; Mansvelter-Longayroux, Beijaard, Verloop, & Vermunt, 2007; Wray, 2007). A few other studies have focused on the criteria used in evaluating portfolios and the reliability and validity of the ratings they generate (Smith & Tillema, 2007; Tillema & Smith, 2007; Derham & Diperna, 2007), the difference between notebooks or three-ring binders and electronic portfolios (Milman, 2005; Capraro, 2006; Hallman, 2007), the use of information and communication technology in constructing portfolios and their impact on professional learning (Hauge, 2006), and the perspectives of school administrators on using teaching portfolios for hiring decisions (Pardieck, 2002; Sullivan, 2004).

Most of these studies, however, do not specifically examine the portfolios themselves; the nature of the conversations, interactions, reflections, or learning that went on during portfolio development; or the representations of teaching that evolve during this process. In one study, Delandshere and Arens (2003) purposefully analyzed the nature of the evidence in the portfolios in the conversations about the portfolio between faculty and students and in their own conversations with them, as well as in the representations of teaching

implied in these activities. But such studies are scarce, and there is unanimous agreement throughout the portfolio literature that although many claims have been made with regard to the benefits of teaching portfolios in teacher education, these claims have not been investigated through systematic inquiry and lack supporting evidence. Research studies of the use of portfolios with preservice teachers are few and are conducted in specific contexts, generally on a small number of cases, and they rely mostly on self-report data. As a result, it does not seem possible yet to make general claims about their impact on student teachers' learning, development, or reflection. We will, however, review and analyze the main characteristics on which teaching portfolios and their uses have been differentiated in the literature and the related claims that have been made about their use.

### Differences in Portfolio Practices

Several definitions and conceptions of teaching portfolios have been provided by researchers and professional organizations (Bird, 1990; Wolf, 1991; Wolf & Dietz, 1998; National Board for Professional Teaching Standards, 2006; National Council for Accreditation of Teacher Education, 2008). Definitions range from broadly encompassing to narrowly focusing on a particular use. The following examples are illustrative:

The term *portfolio* is used to cover a wide range of pedagogical practices. It is used not only to describe the physical artifact that students build up either for their own sake or for the purpose of formative or summative assessment but also to refer to the various working patterns that arise when taking such tools into use, as well as the ways various types of users think and talk about the artifacts [Habib & Wittek, 2007, p. 268].

[A portfolio is an] accumulation of evidence about individual proficiencies, especially in relation to explicit standards and rubrics, used in evaluation of competency as a teacher or other school professional. Contents might include end-of-course evaluations and tasks used for instructional or clinical experience purposes such as projects, journals, and observations by faculty, videos, comments by cooperating teachers or internship supervisors, and samples of student work [National Council for Accreditation of Teacher Education, 2008, p. 89].

Such differences in how portfolios are conceived and why they are used make it difficult to work from a single definition. The main differences identified in the literature relate to their purpose; their structure and content, and how prespecified these are; the process by which they are constructed, including the level of interactions, collaboration, and feedback; and whether and how they are

evaluated (Wolf & Dietz, 1998; Zeichner & Wray, 2001). Although these distinctions have been made in the literature, the connections between them are not always explicit. For example, how do differences in purpose affect the structure of portfolios and the process followed for their development? In our analysis, it did not seem possible to consider these differences independent of each other; therefore, we attempt to make the connections between them explicit.

Three broad portfolio purposes are generally recognized: learning, assessment, and employment portfolios. Learning portfolios are presumably used to engage student teachers in inquiry about their own learning and teaching and to document this process of learning, development, and reflection. Although the focus is on inquiry about teaching here, in most instances where learning portfolios appear to be used, it is unclear what students are actually learning about inquiry in developing their portfolios. Assessment portfolios (or credentials portfolios) are used to document proficiency on some prespecified criteria or teaching standards, such as state professional teaching standards or INTASC principles. Some teacher education programs also use credential portfolios as supporting evidence in the accreditation process. Finally, employment portfolios are used in the search for teaching positions and presumably include student teachers' best work.

Others (Loughran & Corrigan, 1995; Meyer & Tusin, 1999; Orland-Barak, 2005) have made a distinction between process and product portfolios, although this distinction does not directly address the issue of purpose and seems to be more a question of emphasis than of distinct alternatives. Student teachers' perceptions of purpose are not always consistent with those of the faculty. Loughran and Corrigan (1995), who used what appears to be a learning portfolio (open-ended and ungraded), report that 35 percent of the respondents in their study did not see a clear purpose for the portfolio, another 30 percent perceived it as an assessment assignment and "a hurdle to pass the year" (p. 570), and the other 35 percent viewed it as a job interview tool. In addition, although the portfolio was introduced early in the school year, half of the respondents did not start until later in the year, mainly because the due date was approaching—a practice that does not seem compatible with viewing the portfolio as a learning tool. Similarly Wade and Yarbrough (1996), studying the use of an open-ended learning and development portfolio in a social studies methods course, report that student teachers perceived different purposes and uses, with only 23 percent acknowledging that the portfolio helped them learn through reflection about teaching. In their conclusion, they emphasize the importance of students' understanding of the portfolio purpose and process for learning and reflection.

The structure, content, and prespecification of portfolios are not unrelated to their purpose, although in some instances, this relationship seems to be overlooked, particularly when purposes are confounded. Broadly speaking,

portfolios can range from being highly structured to being more open ended. Highly structured portfolios are often organized by a set of required tasks (for example, planning a three-week unit) or prespecified rating criteria or standards (for example, attention to student learning and diversity) and may vary based on the content selected by the student teachers to perform the task or illustrate a particular standard. We did not find examples where the specific content of the task, say, teaching a lesson on ratio and proportion, was specified, although this could presumably occur in the context of course portfolios, where the focus is on particular disciplinary concepts, as in a course on mathematics methods.

Portfolios can also be more or less structured around program themes or principles. In more open-ended portfolios, the structure and organization are left up to the student teachers. They are often guided by a set of guiding questions or considerations provided by the faculty or negotiated with the students, or they are defined by the students themselves—that is, by students working on their own questions about teaching and learning (Grant & Huebner, 1998). Barton and Collins (1993) found that combining prescribed and elective tasks and documentations yielded the richest portfolios.

In the studies we reviewed, student teachers have generally acknowledged their lack of familiarity with portfolios, being very confused, lost, and overwhelmed at the beginning of the process and not clearly understanding the purpose. This would seem to indicate a need for some structure or support. Yet when guidelines are provided about what to include in the portfolio (for example, teaching philosophy, planning and teaching entries, or reflection), and even when allowances are made for self-selected entries, Borko et al. (1997) found students complaining about the overly prescriptive nature of the guidelines regarding content and structure and how they perceived these as being in conflict with developing portfolios that represent their own values and commitments.

The issue raised by the content, structure, and organization of portfolios, as they relate to purpose of the portfolios, seems to be a double-edged sword. On the one hand, if portfolios are used to promote learning, development, and reflection, imposing a particular structure, organization, or content may interfere with individuals' learning and development. It could discourage student teachers from formulating their own questions and gathering the data necessary to address these questions. In a sense, given the inquiry focus of learning portfolios, it would be akin to imposing a particular research methodology on all researchers regardless of their research questions or focuses. The absence of an externally imposed structure would seem workable only if a high level of individual support is in place for all student teachers—a level of support comparable to the mentoring of doctoral students working on their dissertation. This further highlights the interconnections between purpose, structure, and process or level of support, guidance, and feedback available to students.

The process by which portfolios are constructed, including the level and nature of interactions, collaborations, and the types of feedback provided, is another area that has not been well documented or studied. The time span allocated to portfolio development varies from one semester (Borko et al., 1997) to several semesters (Darling Farr, 2001), and from the culmination of a program of study, integrating experience in course work and student teaching, to focusing on a single course or on the student teaching experience only. Even when several semesters are allocated to portfolio development, it appears that in some cases, students wait until the due date is fast approaching to put it together.

The level of guidance for student teachers during this process varies from their working mostly independently, to providing detailed directions or some sample questions and regular assignments with feedback to help focus their efforts; discussions about the process during classes or seminars or regular workshops; meetings with faculty supervisors, school mentors, and other students to clarify problematic issues and provide feedback; public conversations with critical friends about teaching and learning to providing models of portfolios; or some combination of these. The frequency, intensity, and nature of these interactions are not documented in any of the studies that we reviewed. Yet this process would seem to be where learning, development, and reflection take place and are the most visible. Again, the nature of this process has some direct connection to the portfolio purpose, structure, and content, as well as to the way it is evaluated.

A learning portfolio would seem to call for a more open-ended structure to accommodate students' own questions and inquiry, and this would require a high level of support and guidance in the process of development. An assessment portfolio may require more prespecified structure, depending on how it will be evaluated at the end. When a particular structure and organization is externally imposed—recall the NBPTS portfolios with more than two hundred pages of directions on how to proceed—then the process of development becomes an exercise in following directions, and the support needed serves to ensure that the final product will meet the specifications. In other words, a highly structured and standardized portfolio limits the conversation about teaching and learning to what is required by the externally defined tasks and rating criteria and is not conducive to further inquiry about teaching. Snyder, Lippincott, and Bower (1998) observed this mechanistic understanding of teaching when they were studying whether it was possible to use one portfolio as both “a tool for inquiry into personal practice in the professional development of pre-service teachers and as a means of evaluation in their licensure” (p. 46). Their observation led to their decision to use two different portfolios. This is why we believe that for preservice teachers, a more open-ended structure would be important to allow students to engage in their own inquiry about issues relevant to their learning.

Intertwined in the purpose, structure, and process is whether and how the portfolios are evaluated. Predetermined and externally defined assessment criteria call for a more highly structured portfolio—a structure often imposed externally or self-imposed by the student teachers to ensure that documentation will be included for all rating criteria. Structuring one's own thinking is a great part of learning, however, and an externally imposed structure in a sense takes away individual responsibility or opportunity to learn. Richert (1990) also found that self-determination of portfolio content and structure was an important feature for student teachers and one that capitalized on how they normally collect material about their teaching and does not interfere with typical practice. Moreover, prestructured portfolios, externally imposed or self-imposed because of particular rating criteria, would not seem very conducive to inquiry, experimentation, or critical reflection.

For these reasons, we argue that, ideally, learning portfolios should have only a broad or loose structure externally imposed to serve as a guide or as general principles rather than as an organizational blueprint. In addition, assessment criteria can indirectly impose a particular structure. We observed that when the INTASC principles were used as scoring criteria, student teachers automatically organized their portfolios by these principles, with every entry labeled in reference to these principles (Delandshere & Arens, 2003). This seems to have prevented them from thinking about teaching in any terms other than these principles. This, to us, is greatly problematic because it essentially prevents them from considering multiple ways to learn about teaching.

Ideally, learning portfolios should not be scored, rated, or graded other than perhaps in terms of engagement, participation, and completion. Student teachers have expressed their fear of judgment and their need for a safe and nonevaluative environment where they can experiment, make mistakes, and be supported (Richert, 1990)—in other words, where they can learn. Of course, evaluative judgments are made during conversations, interactions, and feedback during portfolio construction, but these are tailored responses to the work of individual students and in support of their learning; they are not based on a set of criteria applied to all students regardless of the content of their work and on which they receive a failing or passing grade. Analysis of these conversations and feedback would be informative for understanding learning and reflection about teaching. In our review of the literature, it was not always clear whether and how learning portfolios are evaluated. In some cases (Loughran & Corrigan, 1995), these portfolios are required for program completion, but they are ungraded. Borko et al. (1997) report that the portfolio used in their program was intended mainly to support students' learning and reflection but also contributed to the grades in a professional seminar. In other cases (Darling Farr, 2001), the product is evaluated using broad, agreed-on

criteria (for example, coherence, comprehensiveness, clarity) and often contributes to course grades, but the process of development does not appear to be evaluated other than in the weekly interactions and feedback among students and with the instructors. There is, however, no systematic study of the nature of interactions, dialogues, and feedback and how these contribute to furthering students' understandings.

An evaluative function is inherent in the assessment and employment portfolios. Most assessment portfolios appear to be rated or scored according to a predetermined set of criteria, standards, themes, or principles for which a passing score or rating has been determined. Others are evaluated as pass or fail. As we have observed, certain rating criteria tend to be used with student teachers to impose a particular structure and organization on the portfolio. Teacher educators have typically addressed the reliability of ratings issued by using multiple readers and reaching consensus on portfolio grades, scores, or ratings. Employment portfolios are not explicitly evaluated, and at this point, it is unclear what role they play in hiring decisions. Other than a few studies of school administrators' perception of the value of portfolios, we do not know how they are used in the application process. When all three purposes are explicitly folded into one portfolio development (Delandshere & Arens, 2003), the assessment purpose—hence the structure, process, and evaluation—appears to supersede all others, and the learning function in essence disappears, as we will see in a case example of current practice later in this chapter.

This situation has created many dilemmas and tensions for students and faculty and led some programs to require different portfolios for different purposes (Snyder et al., 1998). At this point, however, there are no comprehensive data on whether, why, and how teacher education programs across the states use portfolios for these different purposes. One of the reasons for using portfolios most often cited by teacher educators, at least in the United States, has been the anticipation that the states would require them for induction programs and licensure or program accreditation (Borko et al., 1997; Delandshere & Arens, 2003). This externally imposed reason has also often been justified by the claim that portfolios are best suited to represent teaching in context, over time, and from multiple sources of evidence.

### Claims Made About Portfolios

Most claims made about teaching portfolios relate to their potential rather than to their current use. Most claims are also about single elements, such as reflection, but without careful consideration of the conditions that would be necessary to realize and support these elements. One of the initial claims was that compared to traditional forms of assessment, portfolios made it possible to represent the context and complexity of teaching by using many sources

and forms of representations (Shulman, 1987; Wolf, 1991; Darling-Hammond & Snyder, 2000). It is undeniable that compared to a multiple-choice test, a portfolio allows the documentation of many different aspects of teaching over a period of time and in different contexts. Just because this potential exists, however, does not warrant that teaching will always be represented in meaningful and complex ways when portfolios are used. A scrapbook of uninterpreted teaching artifacts, even if varied and sampled over time, is not very useful for the assessment or understanding of someone's teaching.

Perhaps the most universal claim made about portfolios, and mentioned in practically all writings on them, is that they provide student teachers with opportunities to engage in deep thinking and reflection about teaching and learning and, in turn, contribute to professional growth and development. An exploration of the concept of reflection is beyond the scope of this chapter. Reflection has been variously defined (Dewey, 1933; Schön, 1987; Zeichner & Liston, 1987) and is considered a critical aspect of one's teaching practice and a condition for learning and development. We have no doubt that it is possible to use a portfolio as a reflective tool, but simply introducing portfolios cannot be expected to yield greater reflection unless other conditions are met.

Reflection and self-reflection are difficult and do not occur naturally or automatically. To optimize the chance of meaningful reflection, student teachers have to be engaged in tasks, activities, or experiences conducive to reflection, and they need to be guided, encouraged, and supported in their efforts to be reflective. In addition, theoretical knowledge about learning and pedagogy, as well as understandings of the social, political, and historical foundations of education, also appear indispensable to reflection on teaching experiences (Yost, Sentner, & Forienza-Bailey, 2000). Without these understandings, there would be no framework within which to construct or reconstruct their meaning. The point is that reflection and its contribution to learning and understanding is the focus here, not the portfolio itself. If student teachers have never been asked to reflect on their learning, reason from evidence over time and in different contexts, or deliberate about the nature of evidence, it is unlikely that the portfolio alone will make that happen. In other words, we do not see reflection as a consequence of portfolio use. The portfolio is neither necessary nor sufficient for reflection; it is simply a place and a means to represent it if and when it happens.

The evidence that supports the link between reflection, learning, and portfolio construction is mixed and is primarily based on self-report data. Some respondents perceived that they learned a great deal through reflection when working on their portfolios, while others regarded it as just another hurdle (Wade & Yarbrough, 1996; Borko et al., 1997; Darling, 2001). We wonder how much these findings can be explained by the fact that portfolios in the programs studied were introduced to the students as a reflective tool. Could it

be that some students simply repeat what they were told about the purpose of the portfolios or the program's theme? Darling (2001) noticed this happening in her own study. Whether student teachers are indeed as reflective about their learning and teaching as they say they are and the nature of their reflections are issues that have not been sufficiently investigated. Delandshere and Arens (2003) analyzed portfolios and their process of development, along with how they were evaluated by the faculty in three different teacher education programs; they found very little evidence of student teachers' reflection, even though many of them claimed that working on their portfolios forced them to reflect on their own teaching and "who they were as teachers." Yet when attempting to explain why they had selected particular artifacts to include in their portfolios or how these reflected their understanding of teaching or learning, many students could make only descriptive or declarative statements.

Lyons (1998) reports similar findings based on her pilot studies of reflection with interns and undergraduate student teachers engaged in constructing portfolios. Snyder et al. (1998) report finding evidence of reflection in both the portfolios and what student teachers said about the process. This study was conducted in a small master's of education program where they experimented with a learning portfolio and where the emphasis was on reflection, growth over time, and explanation of artifacts. The purpose was to support learning and reflection around student teachers' own questions and concerns with ongoing guidance and support from a collaborative network of critical friends within a safe environment, where students were allowed to fail and encouraged to analyze these failures. From what we have read elsewhere, this is an unusual level of support, with ongoing conversations and deliberations about the big ideas of teaching. Although we would want to see a more extensive analysis of reflection and learning in the portfolios and conversations related to their development, it is not surprising to find deeper reflection in this context given the purpose, the open-ended structure, and the highly collaborative and supportive process of development. We contrast this case with what appears to be a more typical portfolio development in the next section on current practices.

A related claim is that portfolios allow collaboration, dialogue, and feedback that promote learning (Lyons, 1998). Sociocultural learning theory does indeed emphasize the importance of participation, dialogue, deliberation, the intentional engagement with "knowing others" (Gill, 1993), and people's relational dependency (Lave & Wenger, 1991) to develop new understandings of the world and transform it. Except for a few references to the idea that portfolios support a constructivist view of learning, the portfolio literature has not explicitly articulated the claim about collaboration, dialogue, and feedback on theoretical grounds. From a sociocultural conception of learning, it would be possible to view portfolios as containing the cultural artifacts used in the process of learning, so this kind of engagement with others and with cultural

artifacts of teaching is possible in the process of portfolio development, but, again, portfolios are not necessary or sufficient to create such engagement. Collaboration, dialogue, and feedback require a great deal of time and commitment from participants, commitment to their own learning, and commitment to the learning of the other. Dialogue and feedback from knowledgeable others and the intellectual, social, and emotional tools and dispositions that these imply are key conditions to furthering one's learning. There is scant evidence, however, about the nature of collaboration, dialogue, and feedback in the portfolio literature. In studying the nature of reflection of student teachers working in partnership (with and without portfolios), Richert (1990) reports that the most important elements of partnerships as perceived by student teachers were (1) time to reflect, (2) safety or nonevaluative environment, (3) a partner's observation of one's teaching so that they have a common basis for conversation, (4) knowledgeable partner, and (5) opportunity for deep reflective conversations. Although this study is based on students' self-report data and not on an actual observation and analysis of partnership, it constitutes a rare attempt to understand collaboration and dialogue in preservice teacher education. Also in a study based on self-report data, Wade and Yarbrough (1996) found significant differences in the reported experience and satisfaction of constructing a portfolio between student teachers working with different supervisors. We can only speculate at this point that the quality of dialogue and feedback and nature of collaborative engagement with the task may have contributed to some of the differences they found.

Other claims made are that by constructing portfolios, student teachers can bridge theory and practice and develop self-confidence and identity through reflection on what they do or how they think about teaching (Richert, 1990; Barton & Collins, 1993; Darling-Hammond & Snyder, 2000), but no supporting evidence could be found to substantiate these claims. A portfolio practice has also been presented as something that preservice teachers could take with them and continue through their years of teaching—a practice that would presumably result in improved teaching and student learning (Barton & Collins, 1993). Except for a few anecdotal cases (Lyons, 1998), there is no evidence that preservice teachers actually continue their portfolio practice after graduating. Teaching load and school organization are typically not conducive to such reflective and collaborative practice. Finally, to date, the impact of preservice portfolio development on teaching and learning has not been systematically investigated.

Conspicuously missing from the portfolio literature is any substantive discussion or theoretical elaboration on the meaning or nature of teaching, learning, or learning to teach. It seems peculiar to us that a means by which to represent teaching and learning would be promoted without fully addressing the meaning of these representations, and whether the forms of representation are consistent with the theoretical perspectives taken. Is it the case that we all

understand teaching and learning in the same way? Is it the case that portfolios are a universal form of representation regardless of differing perspectives on learning and teaching? Later we illustrate how preservice teachers' portfolios can be used for quite different purposes, in quite different ways, and not always successfully. Yet we get a sense from the field and from the literature that portfolios are generally "good." But preservice teacher portfolios, which often have been modeled on licensure or certification portfolios, not only have not been studied in practice, they also do not appear to have been theoretically conceptualized as a form of engagement and for their potential to enhance or limit our understandings of teaching, learning, and learning about teaching. Let us then consider the models of teaching represented in the portfolios used for licensure and certification and the impact that these had on the use of portfolios in preservice teacher education programs.

## **PORTFOLIO ASSESSMENTS OF EXPERIENCED TEACHERS AS MODELS FOR PRESERVICE TEACHERS**

The concept of a portfolio was transplanted to teaching from other occupations. Judging by current practices, though, portfolios appear to have lost some of their potential due to overstandardization and the prescriptive process of their development for summative assessment purposes. Architects' portfolios, for example, are used to represent and promote one's work to other firms or potential clients, so in that sense, they are evaluated by people with varied conceptions and expectations of architecture. These portfolios are extremely visual—a characteristic not very suitable to representing teaching since much of it is intangible—and communicate quite effectively the elements of design, form, aesthetics, materials, and so on, and the values that are important to an architect or architectural firm. Portfolios here are also highly personalized; they include different pieces of work as examples of what each architect does best. Architects are not required to include in their portfolios samples of accomplishment on the same set of tasks (for example, a house, a bridge, and a bathroom). In other words, there are many ways to represent architectural accomplishments, not just those centered on specific projects that would have been predetermined by some board of architects. This is a critical point and one that differs greatly from many current uses of teaching portfolios. The open, evolving, ongoing, and creative process of developing portfolios in other occupations appears to have been lost when teaching borrowed this concept for the assessment of accomplished teachers, as the process became closed-ended and much more standardized and prescriptive—a process that was then passed down to beginning teachers and then quickly to preservice teachers in teacher education programs.

At this juncture, the first question we need to ask is whether it is appropriate to require of beginning teachers the same types of performances and similar tasks as those expected from accomplished teachers. Why not, one might ask, given that beginning and experienced teachers have the same responsibilities? This is of course a plausible question, and the fact that the INTASC principles, standards, and portfolio prototypes are so similar to those of the NBPTS indicates that the developmental nature of teaching—one that would require a much more open process of representation—was not carefully considered in the development of these standards and portfolio assessments. There are likely different paths to becoming an accomplished teacher, and assuming that beginning teachers are doing the same things and thinking in the same way as accomplished teachers, only in less sophisticated ways, seems overly simplistic and linear. But more specifically to our purpose here, the INTASC principles developed for beginning teachers and aligned on the NBPTS standards were then adopted by many states to guide their own standards development for teacher licensure and to frame the accreditation process of preservice teacher education programs. So core ideas developed in the context of accomplished teaching have been imposed not only on beginning teachers but now also on student teachers, that is, students learning about teaching, who in many cases have just a few months of actual teaching experience by the time they graduate from their programs.

It seems to us that there is a fundamental difference between experienced teaching and learning about teaching and that the principles of learning and the ways to document such learning, even for assessment purposes, should also be fundamentally different. Experts and novices are often compared in the research literature with the implicit assumption that if we could just teach novices to act and think like experts, the problem of education would be solved. What we do not know much about, however, is how experts become experts in the first place. Furthermore, in a fast-changing world, tomorrow's experts might be quite different from today's, and for novices to simply emulate them might not be the most useful learning strategy. Ignoring these critical issues, many teacher education programs and syllabi, as well as professional and state teaching standards (also modeled on the INTASC principles), have been rewritten in the language of INTASC principles that now define many program curricula and the framework within which portfolios are used in preservice teacher education programs across the states.

Another issue that raises concerns about the adequacy of a summative assessment portfolio as a model for preservice teacher education programs concerns the static, fragmented, and prescriptive nature of the representations of teaching contained in portfolios such as those developed for the NBPTS. These do not exactly constitute the dynamic assessment—something evolving

and unfolding over time—that Wolf (1991) envisioned, unless the assessment offers an opportunity for teachers to engage in meaningful discussions about teaching with colleagues or unless it significantly improves their teaching. There is, however, scant evidence—other than anecdotal accounts and self-reports—that such meaningful discussions occur or that the assessment has a beneficial effect on teaching. In addition, these portfolios are constructed by sampling different teaching performances from different classes, different units, and different students and teachers. Teachers are not asked to look across these different performances or to analyze them for continuity or coherence. Similarly, different assessors rate the performances on the different portfolio tasks independently. Requiring the same tasks from all teachers and judging performances on these tasks independently with predetermined criteria represent teaching in a particular and rather fragmented way. It is only one way to represent teaching, because the standards on which the assessment is constructed view teaching as a set of skills, knowledge, and dispositions and not, for example, as a form of civic and social engagement. And it is a fragmented view because the standards are written as lists of these skills, knowledge, and dispositions that do not explicitly articulate the theoretical perspective that underlies the standards or makes connection between them.

Given the purpose of the portfolio as the basis for awarding national certification, we understand the standardization issue, the sampling framework on which these portfolios were conceived, and the related concern for the independence of ratings (a fundamental classical measurement assumption); however, this approach portrays the whole of teaching as the sum of some of its parts and leaves virtually no opportunity for the construction of understandings and representations of the whole of teaching or for reflection on these. The whole of teaching resides in “an articulated social and political ideal or theory of teaching, the role of teachers, and the purpose of schooling and education in general” (Delandshere & Arens, 2001, p. 557). But since such an overarching conceptualization of teaching is not an explicit part of teaching standards, it is not surprising to find it absent from the portfolio process. Yet we must wonder how one makes meaningful decisions about teaching without references to such an ideal. A related and equally serious issue for the education of future teachers is that such a prescriptive and deterministic representation of teaching is not at all conducive to thinking critically about teaching. How to think about teaching is predetermined by the standards and criteria used to judge the performances. Yet since these constitute only one possible interpretation of teaching, it may prevent future teachers from inquiring about other interpretations and representations.

A final consideration regarding how and whether practicing teacher assessment portfolios serve as a model to be used in preservice teacher education relates to the very term *portfolio*. As we have described them so far, practicing

teacher portfolios used for assessment in the context of teacher licensure or certification are basically a means to package a set of performance tasks compiled by teachers at one point in time. The absence of connections among the entries makes these portfolios little more than containers documenting teaching. Except for the fact that the performances are documented in the context of teachers' classrooms, the portfolio entries are not very different from other performance exercises (for example, the NBPTS assessment center exercises). There is no whole to the portfolios in their conception or in the way they are read and evaluated. Separate folders could easily serve the same purpose. Moreover, they do not appear to be revisited, except for teachers who fail their first attempt to pass the assessment. There is no evidence that portfolios are used as an ongoing means to inquire into one's teaching or that they are kept by teachers as a running documentation or for reflection on their practice. If that is the case, these portfolios have not become a working tool for teachers or a way to study and revisit their practice over time. This limited use of portfolios has to some extent been replicated in many teacher education programs. We now examine two cases of preservice teacher portfolios to highlight existing and potential differences in their use.

## CASE EXAMPLES OF PORTFOLIO PRACTICE

In this section we analyze two cases of portfolio use with preservice teachers purposefully selected to illustrate quite different practices in the field. The first case is reconstructed from a study Delandshere and Arens (2003) conducted in three different teacher education programs to understand how teaching was represented, the quality of the evidence constructed, and the inferences drawn from the evidence. Based on the abundant feedback they received and are still receiving about this study, we believe that this is a typical use of portfolios in a number of teacher education programs across the country. The second case represents the use of a learning portfolio that is an integral part of a master of arts of teaching (M.A.T.) program designed to focus on teaching as a process of inquiry. These two cases are not directly comparable for a number of reasons, but they do provide an opportunity to understand the problems, dilemmas, tensions, and possibilities associated with using portfolios in preservice teacher education programs.

### Case 1: A Typical Mixed-Purposes Portfolio

This first case, we believe, is typical of undergraduate programs in states with a strong emphasis on teaching standards (state or INTASC standards and principles) and uses these as the basis for awarding teaching licenses and accrediting programs. The teacher education program faculty in this case view

their use of portfolios as a response to the call for performance assessment in the accreditation process and anticipated state mandates to require portfolio for licensure. Not wanting to simply satisfy a mandate, they also considered portfolios useful to evaluate the program, develop and evaluate students' understandings of teaching according to the standards and their ability to exhibit these in the classroom, and prepare students for job interviews. All purposes here are expected to be served by a single portfolio that students are asked to develop over a period of time as a culmination of their program of study and student teaching.

This confounding of purposes is problematic for students in the program, with most of them focusing on the most utilitarian function of the portfolio and believing that the primary purpose was to showcase their best teaching qualities and prepare them for employment. Although some students mentioned that developing a portfolio made them think critically about their teaching, most of them did not regard the development of their understanding of teaching as a primary purpose. Students are introduced to this culminating portfolio during a workshop at the beginning of their final year, although they may already have prepared a course portfolio in the previous year. The workshop provides the students with a copy of the standards and emphasizes that portfolios should provide evidence that the students have "met the standards." Model portfolios from previous years are made available to students, and faculty suggest acceptable artifacts for the different standards. Rating criteria (some reformulation of the standards and program themes) used for the assessment of the portfolios, along with accompanying rubrics, are also provided to guide the selection of artifacts. Other than the fact that the portfolios have to provide evidence that the standards have been met, no particular structure or content is explicitly required to organize the portfolios, and this is apparently left up to each student. Throughout the year, the students discuss artifacts that they are considering for inclusion in their portfolios with the program faculty during seminars, course work, and individual meetings. They also consult with their student teaching supervisor. Discussions focus on some aspects of the standards and how the artifacts can be used to illustrate how students are "meeting the standards."

The faculty report that this process takes an enormous amount of time during course work and seminars to ensure that all students include sufficient evidence for all standards. At the end, the students present their portfolios to a team of faculty and supervisors. Portfolios are then rated using the rubrics on the basis of which a pass/fail decision is made or additional work is requested until they can receive a passing grade. No particular structure is imposed, but students tend to organize their portfolios according to the rating criteria or standards. The final product is a collection of artifacts (pictures, diagrams, brief lessons or unit descriptions, assessment beliefs, and students' work arranged

by standards) with brief descriptive captions in the language of the standards (for example, “This classroom diagram demonstrates INTASC principle no. 5; it displays my ability to create a cooperative learning environment”). Most entries remain unexplained, and the arguments that would turn the artifacts into supporting evidence of their understandings about teaching are not articulated. At times, the match between captions, standards, and artifacts appeared random, and when we asked students why they had selected a particular artifact to address a particular standard, they acknowledged that they really did not have a good explanation.

Teaching is represented in these portfolios as an eclectic set of discrete and generic skills, beliefs, and activities, with no explicit underlying conceptual structure and no connections among the different sections of the portfolios that at times appear inconsistent. Declarative statements of beliefs about various aspects of teaching and learning written in the language of the standards are presented as philosophy statements. Yet when students were interviewed about these statements, some were hard pressed to remember their own teaching philosophy. It is difficult for outside readers to make sense of these portfolios, given the absence of explanations and reflective statements. Nevertheless, most students in this case received high grades for their portfolios, and a few were given additional time to complete the requirement.

In reading and evaluating the portfolios, teacher educators call on an extensive repertoire of information (about the students, the program, their colleagues, the accountability requirements) that goes well beyond the portfolios. The inferences they draw are only partially based on the portfolios—which they recognize lack evidence of students’ understanding about teaching—and consist of literal interpretations about their content (for example, a psychology paper written about a developmental theory is interpreted as understanding how students learn and develop) and how artifacts match to the standards. A lot of guesses and assumptions are made in the process. They rely heavily on what they already know about the students and the experiences they have had with them during course work and supervision. They deplore the lack of explanation and reflection in the portfolios, but generally resist making judgments about students’ understanding or critically analyzing the work. They want to be supportive of students and “get them through the program.” They also acknowledge that it is difficult to evaluate the students’ performance based on the INTASC standards, given that they have very little teaching experience. At the end, both students and faculty appear overwhelmed by the process.

### Case 2: A Single-Purpose Learning Portfolio

In this case, the portfolio is a centerpiece of a four-semester M.A.T program of studies that focuses on inquiry teaching and learning in its methods courses and field experience. Before beginning their portfolio, students study theory

and action research cases to learn about the uses of various kinds of artifacts as evidence—units and lessons, students’ work samples, classroom routines and rituals, physical configurations of classrooms, assessments, tests, classroom talk, students’ performances, and so on—and the kinds of claims they can support when they are annotated, explained, or interpreted for their uses as evidence. Their studies and readings of action research cases and theory help students understand the ways artifacts, including classroom talk, can be used as evidence and the kinds and levels of explanation it takes to make a strong case based on compelling evidence. Students learn to annotate and interpret artifacts in writing for their use as evidence and explain how the evidence supports their claims.

Students then work on their portfolios in a discipline-specific capstone course (mathematics, English, and so on), taken during their student teaching, specifically designed to study their own teaching and their students’ learning. The portfolio is designed to organize students’ learning in the course and is not used by the program in any other way. Although program faculty once considered rating the portfolios against a common rubric, they decided against it after a small pilot project with two capstone courses. The mere fact of the portfolio being used in this way—that is, against a rubric—dramatically affected students’ perceptions of and work on the portfolio. Their attention shifted to completing the entries in terms of the rubric rather than in thinking of the entries as open-ended problems or invitations to explore issues in their terms with the help of action research.

Given that learning was the primary focus of the course, students had time and many opportunities to present their work to peers and faculty for discussion and critique. When students took their capstone course, they were already familiar with cases, claims, artifacts, and uses and explanations of evidence. In their methods courses, they had studied examples of teaching from multiple cases in the professional literature, so that in their sequence of four mathematics methods courses, for example, they would have studied at least two cases of mathematics teaching in each course. Once in the capstone course, they continued their work with cases by formally studying action research. This meant that they thought about cases both practically and theoretically from examples of action research theory and practice. The tasks and the activities in which students engaged in developing their portfolio are presented as inquiry, in the language used and with the examples of cases that they study and analyze together. Each portfolio entry is conceived of as a type of action research. A student in the English capstone course, for example, would study his or her use of questions with literary selections by taping twenty minutes of a class discussion based on those questions for the portfolio entry on questioning and discussion. The student teacher would then transcribe the discussion and study it to understand how the questions affected

the students' participation: for instance, who talks, the types of responses, the range of youngsters responding, the influence of the classroom configuration, and the nature of the ensuing discussion—whether a recitation or a discussion where students talk with each other. By engaging in this work, student teachers gain access to a set of tools and strategies that they can use in their careers to study their teaching and inquire into problems or issues that arise in their teaching.

Students create their portfolios in response to discipline-specific questions or tasks that allow them to design and choose the units and lessons for which they design action research projects or from which they draw their examples and artifacts to make claims about their teaching and their students' learning. The individual entries or tasks generally mesh with their studies of teaching and learning in their methods courses by highlighting critical tasks and approaches for thinking about teaching in the cases that they study in these methods courses. Their work on the portfolio is broadly structured by a set of tasks—referred to as spaces within which they work—that focus them on (1) changes they have made to their teaching, (2) experiments they have conducted with their pedagogy, (3) their uses of different pedagogies or modes of instruction, (4) the ways they adjust their instruction for diverse students or English language learners, and (5) their design and use of informal assessments.

Instructors generally write the individual entries to fit their specific disciplines, so, for example, English students study their uses of questioning and discussion in the third space, while mathematics students study their uses of students' errors as pedagogical scaffolds for students' learning. The main goal is for students to work in these spaces with studies and examples in their own disciplines rather than in any generic way. In that sense, students approach their questions through their own units and lessons of instruction rather than through standards or predesigned exercises focused on specific content. Students understand their work on the portfolio tasks as the action research thread in their inquiry preparation. The course encourages experimentation and risks, and students are expected to try different pedagogical approaches to such practices as questioning and discussions and with different lessons. As a part of this work, students are drawn into arguing in talk and writing about what they learn from different sources of evidence, so that they learn to explain the connections between artifacts and their abstract claims for the learning and performances of their students. Students are expected to tape their students and transcribe fifteen to twenty minutes of their tapes so that they can “get close to the student talk” and learn to argue from it about the kinds of learning represented. Talk and writing are the visible currencies of intellectual activity in classrooms, and they are extremely valuable windows into their students' thinking in response to teachers' questions and tasks. Students are expected

to use classroom talk as primary sources of evidence for their claims and arguments—an expectation already emphasized in their methods courses.

More specifically, for example, students design a sequence of lessons on a particular historical topic in American history, in a unit designed to study World War II with specific attention to the historical contexts in which the United States first used the atomic bomb. They design and study the effects of different kinds of questions with their students. As an example, one lesson focuses on recitation questions with correct answers. Another focuses on inquiry questions for which students use primary source documents. Another might focus on analytical questions students answer from different perspectives or positions on a topic. Students might be asked how Truman’s personal letters, for instance, could be used as evidence to support the positions that he did or did not want to use the bomb.

In many cases, student teachers design their portfolio tasks as experiments, so that they compare, for instance, the results of two or three different approaches to formative assessment. They use student talk and student work samples as data, and they have to structure their teaching to reveal the differences in their approaches to formative assessments. The student teachers then present their experiments to their instructor and peers, so that larger conversations can inform their studies. Student teachers in such situations learn to study their students’ talk as indicators of the types of thinking and learning occurring in their lessons, so they could take this approach to studying changes they make in lessons over time, their students’ engagement with the discussions over time, and their students’ discussions in pairs or small groups. To engage in this kind of experimentation, they have to be able to structure lessons that reveal differences in talk as the outcome of differences in such things as questioning, engagement, room arrangement, and group size.

Finally, students produce each portfolio task as a case in a thick ring binder, and each student is also responsible for formally presenting two or three twenty-minute cases that highlight the claims being made, the artifacts used for evidence, and the arguments that link the evidence to the claims.

At the end, students reported in exit surveys that they noticed their growing sophistication over the design and explanation of the cases. Portfolios or individual entries are not graded, but students receive ongoing and elaborate feedback from each other and from the faculty in conversations as well as written responses to the various aspects of their entries. This kind of disciplined and principled inquiry—working on the portfolio tasks and commenting meaningfully on other people’s work—requires considerable engagement on the part of both students and faculty. Students receive a grade in the course based on their level of engagement with the entries, their completion of all the entries, their uses of artifacts as evidence, their annotations and interpretation of evidence, the presentations of their entries to their colleagues, and their

engagement in discussions of their peers' presentations. Program faculties in the different disciplines readily volunteer to teach this capstone course.

To provide additional context for the case, we also need to add that as students progress through their program of studies, they also complete an electronic compliance portfolio required by the state to ensure that they meet the state teaching standards for being recommended for initial licensure. To do so, they use some of the artifacts from their leaning portfolios as well as some other attestations to fit the categories set by the state. They are assisted in this task by their university supervisor, who is also responsible for evaluating this compliance portfolio.

### Learning from the Cases

We are not presenting the second case as the only alternative to the first. Case 2 has a particular orientation to learning about inquiry into teaching, and we recognize that other orientations are possible. We also acknowledge that a study of this case (and others) similar to the one conducted for case 1 would be greatly beneficial to shed additional light on the nature of the differences between them. Nevertheless, contrasting the cases at this point is quite informative.

The most striking difference between the two cases relates to their purpose and is likely the source of the resulting differences in portfolio practices. The confounded and conflicted purposes in the first case inevitably turn faculty and student attention to the more pressing concerns for survival: accountability, licensure, and, to some extent, employment. When the first priority is to meet externally imposed criteria, attention to learning is diverted and in this case seems to be replaced by a process of mechanically matching artifacts and criteria. As we noted, this mechanical matching also happens in the second case, but the compliance portfolio is completely separate from the learning portfolio. The multiple purposes are also conflicting because they focus attention in different directions. In the first case, for instance, the faculty explicitly discouraged students from writing long explanations of their portfolio entries because they did not think that school administrators would be interested in reading them. This is in direct contrast to the second case, where the aim is for students to be able to write lengthy and sophisticated explanations of their work. In this second case, not only is the purpose clearly and singularly on learning, but also the portfolio is integrated in and contributes to the inquiry theme of the program. In other words, the portfolio is not an add-on, not something that is done because of the need to use performance assessment; rather, it is used as a means and a space to engage in and organize inquiry into teaching and learning, organize the curriculum, and give a coherent purpose to the overall program.

Another crucial difference lies in the process of portfolio development. In the first case, this process consists of on-demand, unstructured portfolio discussions occurring in the context of other courses and seminars that otherwise have their own focus and purpose, while the second case illustrates a planned and structured teaching of inquiry that is woven throughout the program. How the time spent on portfolio work is allocated and structured is, we believe, a crucial issue that has not received much attention in the literature. Although it is generally recognized that reflection takes time, what is done during that time is equally important. So, for example, in the first case, students are generally encouraged to include a teaching philosophy statement for one of the standards. Yet nowhere in their course work are they taught what constitutes a teaching philosophy, why it might be important, and how this would relate to the many teaching decisions they have to make in the classroom. They seem to simply be expected to be able to write such a statement. So it is not surprising that most of the philosophy statements included in the portfolios are lists of beliefs about teaching that have been written using key words taken from the standards. These beliefs, however, were rarely reflected in other sections of the portfolios. If we consider portfolios as a place and means to inquire about one's teaching, the requirement to provide evidence that the students are meeting particular standards or criteria appears misguided, at least from an inquiry or research standpoint. It is generally understood that conducting research is not a process of rallying evidence to prove a point but rather a genuine investigation focusing on a question, an issue, or a problem in search of answers. Asking students to engage in this investigation either presumes that they already know how to conduct such inquiry or requires that they learn to do so. This is not a trivial endeavor, and from experience, we know how long and tedious the process of educating researchers is. Yet in the first case we presented, there is no evidence that student teachers are taught how to investigate their own teaching; they appear to simply be expected to do so by participating in discussions and receiving feedback about particular artifacts. What questions or problems they are trying to address is, however, rather unclear.

Learning to teach is overwhelming, and learning to examine one's teaching is even more so. Videotapes of class sessions along with lesson plans, student work, and so on raise many questions and many issues to think about, reflect on, and understand. How do student teachers make sense of these experiences? Moving from abstract questions or problems or standards to concrete artifacts and experiences, and vice versa, entails sophisticated reasoning and explanations based on systematic observations that do not happen automatically simply because they are requested. Reconstructing these experiences requires intense cognitive and metacognitive engagement, as well as theoretical perspectives within which to anchor explanations and interpretations. When students write

statements in which they claim that particular artifacts or experiences show that they have met the standard, as they do in the first case, they are telling us that they really have not done the hard work of explaining how to connect generic standard statements with the concrete artifacts that they present as self-evident. So, for example, when a student writes that she understands how students develop because she has observed Piaget's stages of development during her student teaching, the nature of her observations and her interpretation of them are completely invisible, making it impossible to evaluate her claim and what it means in the context of her teaching. Students have to learn how to articulate questions or problems in the context of their experiences and how to gather and explain relevant information or data to address these questions. They also need to understand the rules of evidence, the role of artifacts and observations, and how to analyze and interpret these to warrant the claims they make. To do so, they have to be guided and provided the space to think about and work on their teaching, and to try out these new understandings as the second case describes. The portfolio in that case allows them to document performance over time, along with records of analyses of these performances. The portfolio space is broadly structured to focus students' attention on general tasks and problems and to give them a way into thinking about and studying their teaching. Within that space, they experiment and research how they teach and how their students learn.

This intense and substantive level of support and guidance is rare, we believe, but critical for portfolios to yield the kind of learning and reflection envisioned in the literature and to make these visible and understandable to others in writing. Structured opportunities that give students adequate time and safe environments to complete and reflect their portfolio work are important, as are structured conversations with others in different roles, such as peers, faculty, supervisors, and mentor teachers.

What is evaluated and how is another important difference between the two cases. Issues of evaluation and purposes are of course related. In the first case, since the primary emphasis is on assessment, program accountability, and employment, it is the product that gets evaluated using predetermined rating criteria (and standards). As described in the first case, this assessment system encourages students to focus their development effort on the product of the portfolio rather than on what is learned in the process. Portfolio discussions are about what to include and how, and although students collect artifacts throughout the year, the actual construction of the portfolio typically occurs at the end of student teaching and a few weeks before it is presented to the team of faculty and supervisors. What they learn over time or as a result of this process of portfolio construction is not visible or explicated, but some of this learning could actually be problematic, as Delandshere and Arens (2003) have explained:

Given the time involved, what concerns us most is the learning that results from participating in these portfolio development activities that seem to be the main focus of the program. When a list of disjointed beliefs stands for a philosophy, when declarative statements in the language of the standards stand for explanations, interpretation and reflection, and when artifacts are confounded with evidence, there is a great danger for the changes resulting from these activities to be aimless and devoid of meaning. But also, as portfolios have been sanctioned and validated by the faculty, these distorted views of what constitutes a philosophy, an explanation, or a reflection, for example, have also been validated. If student teachers are led to believe that a two-sentence declarative statement about their work constitutes an explanation, they are likely to be able to justify anything they do, but moreover, their search for further explanation or understanding may be curtailed [p. 71].

In the second case where learning about teaching is the main emphasis, assessment and feedback are ongoing and integral to the conversations, presentations, and deliberations that make up the course work sessions. And in contrast to the first case, grades here focus on the students' level of engagement with the portfolio cases; their completion of all the entries; their appropriate use of data, observations, and artifacts to build evidence; the nature of their explanations and interpretations; the quality of their presentations to peers and faculty; and their level of engagement in the class discussions. In other words, assessment does not simply focus on the physical artifacts but on how they are used, studied, debated, and so on. There is a striking contrast here between evaluating a product based on a priori criteria and evaluating a process of engagement and the resulting development of conceptual and analytical tools that, it is hoped, will endure beyond the program of study. What is valued is also communicated through the assessment process. So, for example, when the portfolio product is evaluated, students will avoid questioning their choices, intending only to represent their best performance, whereas questioning and deliberating about the meaning of one's choice is an intended part of the learning portfolio. This contrast illustrates how portfolios can be conceived of as an end in themselves, which we do not believe is advisable for working with student teachers, to using portfolios as just a means, among others, to develop important learning about the study of teaching.

## **FUTURE OF PORTFOLIOS IN PRESERVICE TEACHER EDUCATION**

Many contributors to the portfolio literature appear to be proponents of portfolios and frequently make claims about their benefits. Portfolios, however, are neither essential, nor necessary, nor sufficient for student teachers to learn about teaching. And clearly the proliferation of portfolio use in preservice teacher education programs is primarily the result of

political mandates (or their anticipation) related to licensure or accreditation requirements. This has led to many implementations similar to that described in case 1 where assessment and accountability are the primary concerns and the stakes are relatively high for students. Although these are important concerns for teacher education programs, they should not take precedence over or shortcut the main function of these programs, which is to educate preservice teachers. Based on our study of portfolios and our reading of the related literature, we hope that the future of portfolio use in preservice teacher education will emphasize learning—learning about teaching and about the study of teaching and student learning.

As we mentioned at the beginning of this chapter, there is a big difference between portfolios that are conceived of as assessment tools for practicing teachers to document what they do in their classrooms, how and why they do it, how they respond to student learning, and so on, and portfolios conceived as a structured space in which students are guided in inquiry about their own learning and understanding of teaching. The latter is unquestionably the kind of portfolio that we believe should be used in teacher education.

Having said this, portfolios should be adopted only if:

- They have been conceptualized as an integral part of a program of study where students prepare throughout their course work to engage in rigorous inquiry about their learning to teach. In other words, portfolio work should be an integral part of what students are already doing.
- Sufficient time has been allocated to this inquiry.
- The time and activities allocated to portfolio work have been purposefully and broadly structured to support and guide this inquiry.
- Both students and faculty are intellectually ready and committed to engage in this endeavor.
- There is evidence that portfolios contribute to developing important and new understandings.

Anything short of this will result in either a mechanical compilation of documents that will remain unanalyzed or aimless discussions about what to include. Students will feel that they are just meeting a requirement, faculty will feel overburdened by what they perceive as an add-on activity, and the time for these activities will be robbed from other courses and seminars that have otherwise their own purposes. Granted, the ideal situation we describe does not necessarily require portfolios. Case studies and problem-based inquiries, for example, are other means by which learning about teaching can be documented and evaluated (Darling-Hammond & Snyder, 2000). But portfolios, which can also include case studies and other forms of inquiry, may have a particular value because they create that space into which one can return over time.

Almost twenty years ago, in a study of reflection among student teachers, Richert (1990) observed that the use of portfolios seemed to result in more reflection focused on content and pedagogy than when they were not used because they helped students remember classroom events and experiences. So portfolios can be seen as an ethnographer's database, containing not only the raw data and artifacts collected over time, but the notes, commentaries, and preliminary reflections and interpretations that can be revisited time and time again to gain perspectives on one's learning and to explore particular aspects of teaching further. Just imagine what it would be like to try writing an ethnography without being able to refer to this corpus of work. In constructing this kind of portfolio, students socially engage with others in dialogue and deliberations about their work and in so doing develop the intellectual tools and habits of mind to reason and make decisions from evidence, question their beliefs and assumptions, gather and analyze data, formulate explanations and interpretations, and develop points of view while realizing that others are possible.

We realize that this conception of a portfolio is grounded in a particular inquiry view of learning and teaching, a view in which learning arises from people's experiences and their reconstruction of those experiences through conversations and dialogue with knowing others to develop new understandings and construct practical knowledge of teaching (Mansvelder-Longayroux et al., 2007). It is an open view of learning and teaching, not a closed-ended view where what is to be learned is already known—one that does not encourage searching for new understandings. Working on their own questions in the context of their own experience is presumably what gives students ownership of their own learning, an issue that has been highlighted as important in the portfolio literature (Barton & Collins, 1993; Wolf & Dietz, 1998; Mansvelder-Longayroux et al., ). Another way to think about this is in terms of appropriation of the portfolio concept. Working from James Wertsch's concept of mastery and appropriation, Habib and Wittek (2007) distinguish between students who master the portfolio assessment techniques during their studies because it is required, but they say, "If they fail to appropriate the concept of the portfolio, it is unlikely that portfolio thinking will become a part of their working culture after graduation" (p. 275). This is an important distinction and one that is particularly relevant to the distinction that has been made between the assessment and the learning portfolio. It seems to us that an assessment portfolio that emphasizes summative ratings of a product may lead students to successfully master the tasks at hand, whatever they may be, but that lasting appropriation of the portfolio concepts, the inquiry process, could occur only in the context of a learning portfolio where the primary emphasis is on learning to inquire about teaching.

We made the point previously that if portfolios are to be used within teacher education programs, learning portfolios are the most appropriate for working with student teachers. This does not rule out the possibility of constructing assessment or accountability portfolios, but we believe that in preservice teacher education programs, assessment portfolios could be constructed only from learning portfolios that precede them. Once students begin to think in terms of external criteria for the assessment of a product, they no longer think about teaching and learning in ways different from what these criteria imply. Their understandings become mechanical and basically prevent their continued learning.

We can imagine an assessment or accountability portfolio composed of selected pieces from the learning portfolio to represent one's best performance, reflection, explanation, and so on, as Snyder et al. (1998) proposed in the context of a study where it became apparent that external assessment purposes and internal needs to support learning and development could not be met simultaneously. But we are hard pressed at this point to imagine an assessment portfolio that would be beneficial—one that would not impose particular experiences on students and a particular structure on a program—without the understandings developed during the construction of a learning portfolio. This, however, remains an open question since such cases have not been documented and carefully studied. Another open question is whether portfolios endure beyond graduation. The outcome will greatly depend on the culture and organization of the schools, which we know have not been conducive to this kind of endeavor. The intellectual tools, concepts, and understandings developed in the process of developing a learning portfolio might endure, but that also is an open question.

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