

## **DIGITAL PORTFOLIOS - POWERFUL TOOLS FOR DEMONSTRATING TEACHERS' PROFESSIONAL DEVELOPMENT**

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### **ABSTRACT**

*As the demand for authentic, standards-based assessment of teacher performance continues to grow, teachers will need to develop new strategies for recording and presenting evidence of successful teaching. While the notion of using portfolios as an assessment tool in professional education programs is not new, in Romania teachers are just beginning to explore the advantages of digital formats for these assessment tools.*

*This article explores the use of the digital portfolio to promote reflection by practitioners and suggests strategies that can be employed by teachers to maximize the benefits of these constructivist tools for learning, reflection, and assessment.*

*Appropriately used, a digital portfolio is far more than an electronic collection of course projects, assignments, and teaching memorabilia. A thoughtfully developed portfolio provides organized, standards-driven documentation of professional development and competency in teaching. When anchored in professional teaching standards, the digital teaching portfolio becomes a highly meaningful and effective way to demonstrate to others the knowledge, skills, and dispositions gained in mastering the complex art and science of teaching.*

**KEYWORDS:** assessment tool, digital portfolio, professional development, successful teaching

### **1. INTRODUCTION**

Three powerful trends anchored in the educational reform movement are rapidly converging in ways that directly impact the evolution of the digital teaching portfolio and the preparation of teachers for the 21st century. The first of these trends, the movement of teacher preparation programs toward the adoption of professional teaching standards, drives the other two: the need for performance-based teacher assessment and an accompanying need for new technological tools to record and organize evidence of successful teaching [1].

Research on teacher effectiveness suggests that outstanding teachers learn from their experiences and constantly seek to refine their own professional practice. They remain current in the literature of their disciplines and continue to grow professionally. Master teachers continually try out new strategies and

techniques in their classrooms, reflect on their successes and failures, and then adjust their professional practices accordingly. They often keep reflective journals and carry out formal action research projects to assist them in this process. Yet, most teachers would find it difficult to demonstrate how these varied experiences fit into the total framework of their professional development.

Because the acquisition of complex knowledge, skills, and dispositions is a critical indicator of growing professional competency, it is important that teacher candidates who are preparing to enter the profession be able to articulate these competencies to themselves and others.

When employed as a tool for reflective practice, a digital teaching portfolio can enable both novice and accomplished teachers to make sense out of a myriad of professional experiences and bring into focus a clear picture of themselves as growing, changing professionals. Properly used, the digital portfolio can also be a meaningful and highly effective way to demonstrate to others the knowledge, skills, and dispositions teachers have gained in the complex process of teaching.

## **2. DIGITAL PORTFOLIOS - TOOLS FOR SELF-ASSESSMENT**

“An electronic portfolio uses electronic technologies, allowing the portfolio developer to collect and organize portfolio artifacts in many media types (text, video, audio, and graphics). A standards-based portfolio uses a database or hypertext links to clearly show the relationship between the standards or goals, artifacts, and reflections. The learner’s reflections are the rationale that specific artifacts are evidence of achieving the stated standards or goals” [2].

While the notion of using portfolios as tools for assessment and reflective practice is not new, teacher educators are just beginning to explore the advantages of storing those portfolios in a digital format. As schools and colleges of teacher education have expanded their access to technology, an increasing number of options have become available for developing electronic teaching portfolios. Technological innovations, including Hypermedia programs, Webpage editors, PDF distillers, and commercial proprietary software such as Chalk and Wire’s e-Portfolio have made the process of creating and storing electronic portfolios relatively easy, enabling teacher educators to take advantage of a number of advantages the digital format provides over traditional, paper-based portfolios [3].

Barrett supported the use of portfolios for authentic assessment of teachers and proposed that professional standards provide the basis for portfolio organization. She maintained, “An electronic portfolio without clear links to standards is just a multimedia presentation or a fancy electronic resume or

digital scrapbook. Without standards as the organizing basis for a portfolio, the collection becomes just that . . . a collection, haphazard and without structure; the purpose is lost in the noise, glitz and hype. High technology disconnected from a focus on curriculum standards will only exacerbate the lack of meaningful integration of technology to improve teaching and learning” [4].

### 3. DIGITAL PORTFOLIOS - TOOLS FOR REFLECTION

While the use of teaching portfolios has moved from individual classrooms and teacher education programs to state departments of education the electronic teaching portfolio is still very much in its infancy [5].

While much research concerning the educational benefits of electronic portfolios remains to be undertaken, a survey of the literature linking reflective practice to the use of traditional portfolios provides promising glimpses of the powerful role these portfolios can play in producing a new generation of reflective practitioners [6].

The 1998 winter issue of *Teacher Education Quarterly* featured a number of studies on the use of portfolios in teacher education programs. Jones, in the editor’s preface, asserted that “portfolios have assumed a significant role in teacher education” [7] Writing in the same issue, guest editors Bartell, Kaye, and Morin noted that portfolios were valuable to students for promoting reflection and self-directed growth, building good teaching habits, encouraging collaborative dialogue and enriched discussions, documenting growth over time, and “integrating the diversity of their teacher preparation experiences” [8].

Anderson and DeMeulle surveyed 127 teacher educators throughout the United States to examine the use of portfolios in teacher preparation programs. Teacher educators reported using portfolios for a variety of purposes, including promoting student development, encouraging student self-assessment and reflection, providing evidence for assessment and accountability, and documenting professional growth [9].

Wolf described a teaching portfolio as a “collection of information about a teacher’s practice” [10]. He emphasized that the portfolio should be more than a scrapbook of miscellaneous artifacts and lists of professional activities.

According to Wolf, the introduction should include a statement of the student’s teaching philosophy and goals but the heart of the portfolio should be a combination of teaching artifacts and written reflections. He emphasized that artifacts should be framed with clear identifications, contextual explanations, and reflective commentaries that examine the teaching documented in the portfolio. He also proposed that students include an informal self-assessment.

Stone explored the importance of providing guidance and support when implementing teaching portfolios and the efficacy of introducing them early in the professional education program [11].

Borko, Michalec, Timmons, and Siddle utilized an action research cycle to examine student teachers who completed teaching portfolios as part of a seminar program at the University of Colorado, Denver [12]. Interviews of the 21 student teachers participating in the study explored the benefits of using the portfolio as a tool for reflection. Portfolios were viewed as beneficial in making connections between theory and practice by most participants.

By the 1990s, the ability to engage in reflective practice was recognized as an important skill for both beginning and experienced teachers. With this renewed emphasis on reflective practice came new modes of teacher assessment, including the use of professional portfolios and other performance assessments suggested by the work of Lee Shulman [13]. Reflective practice involves classifying and reflecting upon the assumptions underlying classroom practice as well as upon the consequences of various strategies employed by the teacher.

Researchers generally agree on three modes or levels of reflective thinking: *technical*, *contextual*, and *dialectical* [14].

*Technical level*, the first level of reflection, deals with methodological problems and theory development to achieve objectives. At this level, practitioners reflect on short-term measures such as getting through lessons and using instructional management approaches only in terms of meeting outcomes.

For the practitioners at this level the acquisition of skills, methodological awareness, and technical knowledge are important. Practitioners at this level benefit from making observations and processing information to validate pedagogical decisions. Knowledge of student characteristics will also assist the technical practitioner in reflecting on problems experienced in actual classroom settings.

*The contextual level*, a second level of reflective practice, involves classifying and reflecting upon the assumptions underlying classroom practice as well as upon the consequences of various strategies employed by the teacher. Contextual practitioners critically examine pedagogical matters relative to the relationship between theory and practice. Understanding concepts, contexts, and theoretical bases for classroom practices and defending those practices in light of their relevance to student growth are appropriate goals for practitioners functioning at the contextual level.

Reflecting on assumptions and biases that impact practice helps contextual practitioners recognize the implications and consequences of their professional actions and beliefs. Understanding how their own personal characteristics interact with environmental and contextual factors of teaching and learning is especially important at this level.

*Dialectical or critical reflectivity*, third and highest level of reflectivity, involves questioning moral and ethical issues related to a teacher's professional practice. At this level, such principles as equality, caring, and justice are taken into consideration, and practitioners contemplate ethical and political contexts when planning and implementing instruction. Critically reflective practitioners recognize and attempt to compensate for personal biases and are concerned with the value of knowledge and social circumstances useful to students.

Portfolio goals for practitioners functioning at the dialectical or critical reflectivity level should focus upon identifying and analyzing knowledge systems and theories in context, discovering relationships between them and relating them to their own daily professional practice. Equally important is reflecting on the moral and ethical issues involved in day-to-day planning, teaching, and assessing.

The reflective thinking level at which a practitioner functions impacts both the meaning of experiences documented in the digital portfolio and what is learned from reflecting on those experiences.

#### **4. SHARING DIGITAL PORTFOLIOS WITH OTHER TEACHERS**

Portfolio conversations refer to structured discussions about professional teaching practice between the portfolio author and other group members, including peers and teacher educators. These conferences focus on standards and the documented evidence of teaching collected and included in the portfolio as artifacts.

A strength of the digital portfolio is the ease with which evidence can be presented to others in the group. Since the documents included in the portfolio are digital, they can easily be distributed and displayed for discussion.

Shulman pointed out that teaching portfolios do not achieve their full value if they sit in a box (or an unopened computer file). They become valuable only when they become a point of departure for "substantive conversations" about the quality of a teacher's work [13].

Wolf, Whinery, and Hagerty suggested that the goal of a portfolio conversation should be to help the portfolio author and other members of the group improve their professional practice. To accomplish this goal, several conditions must be met: (a) the conversation must focus on standards and their relation to the teaching artifacts being presented, (b) clear guidelines for the session must be established to ensure effective interpersonal communication, (c) the discussion group must be carefully organized to maximize both the quality and quantity of input and feedback, and (d) the presentation of portfolio artifacts must relate to a specific set of standards and reflect an authentic teaching enterprise [15].

A common problem in portfolio conversations occurs when the discussion group loses sight of the primary purpose of the conversation: to guide the portfolio author in improving his or her teaching practice. This situation can often be averted by asking the portfolio author to present a particular artifact and request specific types of feedback from other group members. In this way, the author assumes the responsibility for directing the conversation about his or her work. Once the author's initial set of questions has been addressed, the group should raise additional questions about the artifact that the author may not have considered. The session should close with the portfolio author summarizing what was learned and what action he or she will take as a result [16].

Mentoring is an effective way to initiate and facilitate academic growth for teachers just entering professional education programs [1]. Mentors can provide valuable assistance through sharing their own professional portfolios with newcomers and discussing the standards that provide a framework for the collection of artifacts the portfolios contain. The role of the mentor includes emphasizing the importance of professional standards and encouraging initiates to collect important documentation that can be used as evidence of growth toward meeting those standards.

## 5. CONCLUSION

As the demand for authentic, standards-based assessment of teacher performance continues to grow, teacher educators will need to develop new strategies for recording and presenting evidence of successful teaching. While the notion of using portfolios as an assessment tool in professional education programs is not new, teacher educators are just beginning to explore the advantages of digital formats for these assessment tools.

A critical goal of the professional teaching portfolio, whether presented in digital or traditional form, should be to facilitate the development of reflective practice. When this goal is addressed, a digital teaching portfolio can enable professional education candidates to assume responsibility for their own learning, make sense out of a myriad of teacher preparation experiences, and bring into focus a clear picture of themselves as growing, changing professionals. Properly used, the digital portfolio can also be a meaningful and highly effective way to demonstrate to others the knowledge, skills, and dispositions teachers have gained in the complex process of teaching.

Through a process of reflecting upon professional teaching standards and experiences encapsulated in portfolio artifacts, practitioners can scaffold their own ethical and professional development. The insights of self-reflection enable practitioners to examine ways that their own beliefs and actions impact students and how they could improve their own practice.

Teachers can learn to be reflective practitioners by monitoring their own performance through repeated self-assessment utilizing professional standards and a uniform and constant set of performance criteria. Professional portfolios provide opportunities for practitioners to chart evidence of their success over time and to assume control of and responsibility for their own professional growth and success.

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