

## **SHEDDING LIGHT ON E-PORTFOLIOS: REFLECTION, REFRACTION AND DIFFUSION**

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The initial slides of our PowerPoint presentation show examples of our students' e-Portfolios from each year in the program. We like to present such slides to show how much can be learned about a student from viewing even brief examples from their portfolios. We have found the e-Portfolios to be an effective medium for our students to learn about themselves and for us (and others) to learn about them.

We are very excited about our four-year curricular e-Portfolio process. Take 30 seconds and meet some of our students (slides 2-15). Do you have a feeling for each personality? Do you know their interests? How about musicianship? In 30 seconds you may know more about each one than you could have learned in 30 seconds with them in person.

The e-Portfolio initiative at Penn State has become a significant source of ideas and support for our music education program. As seen in Slide 23, there is a useful model at the University level that describes the roles of electronic portfolios. Of the three institutional processes described in the model, Assessment for Learning, Program Evaluation, and Accreditation, we have focused most on Assessment for Learning within our music education curriculum.

Portfolios have had a long-standing place within the educational community, with varying philosophies for their use and implementation. We have firmly held to a constructivist philosophy, as described by Paulson and Paulson (1994), "The portfolio is a learning environment in which the learner constructs meaning . . . It assumes meaning varies across individuals, over time and with purpose." (p. 36) Paulson and Paulson also describe a positivist approach to portfolios in which the portfolios are used more as "receptacles" and are used purely to assess student outcomes (p. 36). We have maintained an emphasis on the constructivist perspective, allowing our students to build portfolios that are meaningful to them, and can demonstrate their evolutions as students, musicians, and teachers during their time at Penn State.

In addition, since our students are musicians and therefore artists, we feel it is valuable for them to have the e-Portfolios used as a means for self-expression. Other areas within our university use template designs for their portfolios, as seen on slide 25 for the architectural engineering degree. These types of portfolios are attractive and personal, but do not allow for the kind of originality of thinking and expression encouraged in our own. We do give the students requirements and guidelines, but they are able to address the requirements in their own way. The downside of our approach, of course, is when we have accreditation visits from NCATE and similar entities, we have to do more work to demonstrate where and how students are meeting all competencies. We have an advantage that our program is small enough to make this sacrifice realistic. [Note: Following this presentation, a discussion with a colleague resulted in the idea of creating a "table of contents" page for the portfolio, similar to what would be used in a hard-copy portfolio, in which the students would provide links to the evidence of the standards. We plan to pursue this idea for demonstrating how students meet various standards.]

### *Reflection*

As stated, the electronic portfolio implementation into the music education curriculum has become a continuous evolution of process and purpose. The *process* is constantly being revised as technology changes. Our greatest leap in *purpose* has come in the area of reflection. Adhering to the philosophy that all teacher candidates need to be lifelong “reflective practitioners” (slide 16), an emphasis on adding reflection to each example of teaching has been a requirement at every level since the inception of the e-Portfolio process. However, from the beginning the weakest part of the students’ e-Portfolios has been the substance of their reflections. Though reflection was there, it lacked depth and usually contained mostly description, with very little analysis.

While searching for ways to help students improve their reflective thought process we discovered a study by Wong, Kember, Chung & Yan (2005) on reflective practice in nursing education. This study divided reflection into three levels: non-reflector, reflector and critical reflector. Each level is described in slides 21-23. Using those definitions we targeted one of our student teachers whose weekly journals contained exceptionally brief, descriptive passages. For several weeks her Supervisor and the Coordinator of the program responded to her journals, asking her to elaborate, to think about what the experience had taught her, etc. This produced no changes of merit (slides 24-25).

Finally, her Supervisor began sending back the journals, rewritten with statements describing what she might think about or what she might draw on from her experiences. She also gave her the descriptions of the three levels of reflection. The next week there was some improvement (slide 25), and by week 12 the journals had become much more inclusive and reflective (slides 26-27). Her Supervisor continued to prod her by asking how she could present a different perspective, or what she had learned from her thoughts. A definite improvement in her level of reflection occurred over the semester, and we feel it was because she was given examples of HOW to reflect, along with descriptive examples, which moved her forward.

This evidence of growth in *one* student’s reflection prompted us to target our sophomore Introduction to Music Education class. They had just completed their first peer teaching, had watched it on video, and had submitted their reflection. No discussion on how to reflect had occurred previously. The majority of the class would have been classified “non-reflectors”. We then introduced them to the levels of reflection, based on the Wong et al. (2005) study, and discussed examples of each level with them. They were asked to watch their video example again and to revise their reflection, digging deeper into what they observed and thinking about what they had learned from the process. They were to refer to the descriptors given while revising their reflection.

The initial reflection was to remain, with additions or changes **bolded** in the statement. As slides 28 & 29 demonstrate there were some clear improvements. More thought was given to what might be changed, what would help the teacher, how a situation could be modified. They spoke about drawing on resources and they examined the situation and self. The class level of reflection rose and every individual reflection rose at least one level. This again excited us, and now *how* to reflect is being incorporated into our music education courses.

### *Refraction*

Just as light changes direction as it enters another medium, we have found our program has changed due to entering into this medium. The faculty members, as teachers, have changed our thoughts on student documentation of evidence and have considered new ways to approach our coursework. And because we have changed, we are able to better help our students change and grow as teachers.

The changes in two classes will be highlighted here. The first is in our Freshman Seminar class, which meets once per week the first semester of freshman year. The directive from the University is for the freshman seminar class to address transition to college life and for students to develop relationships with faculty members (something that does not always occur across campus at a large institution). We had the freshmen begin their electronic portfolios to teach them some necessary technology skills (something we are finding less and less necessary), and to document their transition to PSU. More recently, we have begun to integrate their coursework to be part of the portfolio, and designed assignments that examine themselves as a prospective teacher. Thus, the freshman portfolio still documents their transition to PSU in a variety of ways, but also is integrated into the coursework and serves as a starting point for thinking like a teacher (see slides 38-40).

Another impacted class is the instrumental methods course. In this course, we have the students design Unit Plans for a piece of music, which become part of their e-Portfolios. By moving the somewhat traditional Unit Plan to a web-based medium, students are able to add links to related recordings and links for additional historical information, composer backgrounds, and musical enrichment. Further, the students are able to document an entire teaching cycle from lesson plan, to teaching evidence (video) to reflection in an integrated environment (see slides 41-44).

One of the changes we have seen in our students as this project has evolved over five years has been in attitude about electronic portfolios. The first year or so, the students did not find the project fun. They often complained bitterly and many were not proud of their work. This quote from Barrett (2005) sounded familiar, "After high school graduation, the seniors built a bonfire and threw in their portfolios." (p. 19) Our current students seem to feel more pride in their portfolios. Some of this evolution, we believe, is due to our ever-increasing ability to assist, describe, and assess the portfolio process. Realistically, however, some change in attitude can be attributed to MySpace and similar webspaces that make a project such as this less foreign to students.

### *Diffusion*

Probably the most remarkable result of this process has been the expected and unexpected diffusion. What began as a product created to display musical knowledge and skills and show evidence of technology skills to prospective employers has now become a four year plan with only one of the benefits being the creation of a professional electronic job search tool. The students now have a much larger community of learners to share with; the connections in curriculum within music education have become more obvious to both students and faculty; we can send student links to the entire School of Music for them to view their students in a different venue. We send their e-Portfolios to prospective cooperating teachers prior to student teaching

(as slide 42 demonstrates, our cooperating teachers are enjoying the opportunity to learn more about their student teacher than paper applications can show). Further, our Master's students will soon be creating their own e-Portfolios.

We were surprised and pleased to hear that one of our students' Unit Plans (as described above regarding instrumental methods) was linked by a composer from her website (see slide 52). In addition, after telling later students about this interesting connection, another student contacted a composer to purposefully share his Unit Plan. We believe these types of connections would not be possible without the medium of the e-Portfolio.

Further, our e-Portfolios have been recognized by The Pennsylvania State University Board of Trustees as a model assessment system, which gave our program positive attention at a high level of the University. We also have been contacted by an instructor in Earth and Mineral Sciences about participating in a research study on electronic learning environments.

#### *Into the Future*

As we have engaged in, and reflected on, our e-Portfolio process, we are continually asking more questions. We would like to investigate if our students are truly seeing the connections among their materials, or are they just showing them? We are in the process of transitioning to a new undergraduate curriculum and a new Master's curriculum, and we will need to determine the role of the e-Portfolios in those programs. As new technologies emerge, we are able to constantly change and enhance the possibilities of the portfolios. It is a continual challenge for us to stay aware and integrate new ideas.

We are committed to maintaining the essential elements of our e-Portfolios. The individuality, the role of reflection, and the diffusion of our students' work will always be important to the process. We have found, and will continue to find, the entire process enlightening.

References

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