Electronic Portfolios: A tale of two institutions' experiences and reflections

Preservice teacher education programs are constantly seeking ways to improve technology infusion efforts in order to prepare preservice teachers with the technological skills needed to enhance teaching and learning. Technology standards for teacher certification range from state adopted standards to an understanding and implementation of the International Society for Technology in Education National Educational Technology Standards (ISTE NETS). One method of implementation has been to transform the traditional preservice teacher portfolio from printed portfolios in bulky three ring binders to more compact and digital, electronic portfolios. To further enhance the portability and diversity of the electronic portfolio, many portfolios are being developed for the online environment.

Development of electronic portfolios for online environments provides educators with the opportunity to further increase students' technology proficiency and development of skills and understanding in their content areas, as well as enhance the process of learning in an online environment. Barrett (2000) found several possible benefits as a result of developing electronic portfolios with teachers and students. For example, creating an electronic portfolio can develop teachers' as well as students' multimedia development skills. Also, teachers who develop electronic teaching portfolios have students who will be more likely to have their own electronic portfolios. The online environment provides the students with immediacy and allows them to integrate text, photos, video, sound, and web-based artifacts into a single place. It also allows the reviewers to have access to this portfolio at anytime, from any Internet connected computer.

While all portfolios are a collection of student work, progress, and achievement (Lankes, 1998), electronic portfolios differ in the way the information is stored (Barrett, 1998). Electronic portfolios allow students to demonstrate problem-solving and critical thinking skills (Campbell, Cignetti, Melenyzer, Nettles, & Wyman, 1997, Meyer, 1992), provide ongoing assessment opportunities (Cole, Ryan, Kick, & Mathies, 2000), and assists in the shift from teacher-centered learning to student-centered learning (Herman & Morrell, 1999). Research suggests that the implementation of an electronic portfolio project requires considerable investment of time and effort on the part of the instructor and the student (Linn & Baker, 1992; Cole, Ryan, Kick, & Mathies, 2000).

This study collected pre and post survey data from preservice teachers at two institutions; one in the Southeast and the other in Midwest. Participants included preservice teachers enrolled in various content methodology courses at both universities. The two schools' preservice teachers enrolled in various content methods courses participated. The southeast university is located in a small urban community; the Midwest university in a rural community. The researchers from both institutions are currently incorporating electronic portfolio requirements and believe that the results from further examination of electronic portfolio development for the online environment and comparison between the two regions might be beneficial to other teacher educators. Additionally, the researchers were interested in what specific themes might emerge regarding the process of electronic portfolio development and how specific students' technology skills and subject area knowledge would improve.

A pre and post survey instrument was developed to assess the preservice teachers' background (technology courses taken and specific technologies understood e.g. discussion boards, digital cameras, imaging software, and so forth), perceptions of technology confidence and use, and basic technology skills). Additionally, data were collected to assess students' confidence levels of developing online portfolios.

This presentation presents preliminary results from this study and will offer recommendations and a framework that may be useful to educators interested in infusing technology skills and technology standards into assignments related to online electronic portfolio development. Researcher reflections are shared and several recommendations are made.

Barrett, H. (October, 1998). Strategic questions: What to consider when planning for electronic portfolios. Learning and Leading with Technology, (26), p. 6 -13.

Barrett, H. (2000). Electronic portfolios=Multimedia Development + Portfolio development: The electronic portfolio development process. Retrieved October 2002 from the World Wide Web: http://electronicportfolios.com/portfolios/EPDevProcess.html

Campbell, Cignetti, Melenyzer, Nettles, & Wyman, (1997). <u>How to develop a professional portfolio: A manual for teachers.</u> Boston: Allyn & Bacon.

Cole, D.J., Ryan, C. W., Kick, F. & Mathies, B.K. (2000). <u>Portfolios across the curriculum and beyond.</u> Thousand Oaks, CA: Corwin Press, Inc.

Lankes, A. M. D. (April, 1998). Portfolios: A new wave in assessment. <u>The Journal, 25</u>, p. 18.

Linn, R, & Baker E. (1992). Portfolios and accountability. CREST. Retrieved May 2000 from the World Wide Web: <u>http://www.cse.ucla.edu/CRESTHome.html</u>

Meyer, C. A. (1992). What's the difference between "authentic" and "performance" assessment? <u>Educational Technology, 33</u>(3), 34- 45.