

## ABSTRACT

Students in the Teacher Education Program at the University of Missouri-St. Louis have to complete their professional E-portfolios to be certified for the program. An E-portfolio demonstrates a future teacher's knowledge, skills, and abilities acquired through teaching and learning.

Five qualitative case studies were investigated to understand how E-portfolios impact preservice teachers' self-directed learning readiness (SDLR) and computer technology skills (CTS). Data were gathered from the preservice teachers' pre- and post-questionnaires, interviews, observations, and their completed E-portfolios.

Two internship students and three student teachers were observed creating their E-portfolios during a 16-week semester. During the period, some sought assistance from the E. Desmond Lee Technology and Learning Center Staff while others worked independently. Using the Self-Directed Learning Readiness Scale (Guglielmino, 1977), all the participants increased their SDLR scores. However, although each of their scores increased, they remained in their initial level. For example, if a person had an initial "above average" score (227-251), he or she stayed in the same level after creating an E-portfolio. Based on a CTS

Questionnaire, which examined the preservice teachers' Internet, PowerPoint, Excel, and E-portfolio skills, just to name a few, each preservice teacher increased his or her computer technology skills. Thus, it appears that creating an E-portfolio can serve as a useful tool in helping preservice teachers enhance their self-direction and computer technology literacy.

Teachers should carefully consider how computer technology should be used to further their goals of professional development. The knowledge gained from this study may assist adult educators in motivating student teacher candidates to use E-portfolios. Knowledge about the self-directed learning process would contribute to both theory and practice of self-directed learning in the digital age. In addition, this study may provide the foundation for further research into E-portfolio curriculum design and how to use E-portfolios as an assessment tool for effective professional development.

Developing E-portfolios may help students in all programs improve their computer technology skills and trigger their self-direction and desire to learn. In addition, E-portfolios may provide faculty with an effective, alternative assessment tool (Barrett, 2000).

Future research could examine more students in other teacher education programs.

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In Memory of

Huang, WenTzu (黃文智) & Huang-Tzuang, ChiongHui (曾瓊惠)

Dedicated to

Jack J. Liu, my husband,  
for his support and encouragement during all my  
accomplishments,

YuShuan Huang and LingYu Liang for their belief in me

and  
all my families and friends in Taiwan  
and the United States.

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