Chapter XLVI

Psychology ePortfolios Enhance Learning, Assessment, and Career Development

Benjamin R. Stephens
Clemson University, USA

DeWayne Moore
Clemson University, USA

ABSTRACT

The authors evaluated psychology program assessment measurements derived from self-report and electronic portfolios in the psychology undergraduate major. Their new introductory and senior laboratory courses have been specifically created to provide student-centered learning experiences that lead to ePortfolio construction. This chapter describes the initial stage of an evaluation of our assessment strategy, which centers on the new laboratories. In the lab courses, each student’s abilities were evaluated using several measures of achievement derived from national learning outcomes. ePortfolio and non-portfolio-based measures demonstrate promising reliability and validity. ePortfolio laboratories seem to enhance student learning and career planning. These early observations encourage collection of assessment data yearly, from undergraduate majors in each class, to provide longitudinal evaluation of their ePortfolio learning and career planning assessment strategy.

INTRODUCTION

Student portfolios have strong potential as a basis for effective class and program assessment goals (APA, 2003; Panitz, 1998). Assessment strategies should provide a rich source of information concerning student learning and development (Graham, 1998; Allen, Noel, Deegan, Halpern, & Crawford, 2000; Halonen et al., 2002; Shavelson & Huang, 2003). In addition, when integrated into the curriculum, assessment should provide learning experiences that benefit the student as well as improve subsequent teaching methods (Halpern, 1988;
Halonen et al., 2002). Electronic reflective portfolios show promise in meeting these criteria for assessment (Yancy, 2001).

Portfolio-based assessment originated in the arts, architecture, and writing. Their use increased as educators began to emphasize that all students should be able to engage in creative and critical thinking. Open-ended assessment is effective for these skills, and also tends to promote changes in curriculum towards strategies and pedagogy that promote those higher-order skills in students (Gardner, 1992; Herman & Golan, 1993; Resnick & Resnick, 1992).

The potential advantages of portfolio assessment may be best understood by consideration of the construction of the portfolio, particularly a reflective portfolio. Yancy (2001) conceptualizes the formation of the reflective portfolio in terms of three processes: collection, selection, and reflection. These processes are consistent with prevailing cognitive theory and principles, such as an apprenticeship model of cognitive development and assessment (Gardner, 1992), as well as socially mediated cognition that is domain specific (Brown, Campione, Webber, & McGilley, 1992; Vygotsky, 1978). These cognitive viewpoints suggest that a reflective portfolio is fertile ground for development of deeper critical thinking skills.

The scope of the reflective portfolio can vary. Class portfolios ask students to indicate their understanding of course material over the course of the term. A program portfolio, located within a discipline, requires students to reflect on and provide evidence of their competence across the discipline. It often includes a résumé, and so provides an integrating theme between the college curriculum, personal development, and career development (Garcia & Clausen, 2000; Kwiatkowski, 2003; Yancey, 1997).

In addition to these functions, we believe that electronic portfolios may share pedagogical elements common to proven techniques for effective undergraduate science education (Stephens & Weaver, 2005). This attribute enhances the value of the assessment program for the science major, engages their attention, and should produce a more valid set of assessment data. One key element of the scientific curriculum is undergraduate research experiences. Assessment data from our NSF-funded Research Experiences for Undergraduates program is consistent with the notion that ePortfolios can enhance undergraduate research training. Students constructed summer program research ePortfolios, documenting and reflecting on their research training. Consistent student and faculty ratings of student learning may have been enhanced by student ePortfolio construction and faculty review of those portfolios (Klein & Stephens, 2005; Stephens & Weaver, 2005).

The reflective ePortfolio may also be effective for integrative learning. One may conceptualize integrative learning as student-constructed connections within and across domain-specific knowledge systems (Huber & Hutchings, 2004; Shavelson & Huang, 2003). We suspect that ePortfolio construction can promote student construction of such connections over the semester. The students make connections for themselves to support a range of ePortfolio goals. In the Intro lab, a common goal is developmental, where students’ lab ePortfolios communicate a deepening appreciation of fundamental concepts within psychology. A common goal in the senior lab is a “showcase” program ePortfolio, communicating both psychology and non-psychology themes to graduate schools or employers.

The scale and context of a portfolio assessment strategy may be related to its usefulness. Early evaluations of large-scale portfolio assessment reliability were mixed (Koretz, Stecher, Klein, & McCaffery, 1994; LeMahieu, Gitomer, & Eresh, 1995; Gredler, 1995). However, recent efforts to employ portfolio-based