University of Washington
National Coalition for Electronic Portfolio Research
Research Findings, October 2006

PROJECT SUMMARY

The Expository Writing Program (EWP) currently uses a well-developed paper portfolio system to assess student learning in several beginning composition classes (ENGL 131, 121 and 111). In 2005-06, EWP partnered with Catalyst Research & Development to study the effects of transitioning from a paper portfolio to an electronic portfolio (ePortfolio). Six TAs for ENGL 131 agreed to pilot ePortfolios in their courses. Students in these sections used Catalyst's *Portfolio* software to assemble and publish their writing for the course. The purpose of the pilot study was to understand the effect of this transition on teaching and learning in ENGL 131. Specifically, we were interested in answering the following questions:

- What value, if any, is added by using electronic portfolios for the required portfolio assignment?
- How does the use of ePortfolios influence TAs' teaching practices or the ways TAs think about their teaching for the course?
- How does the use of ePortfolios affect student learning or experience of the course, if at all?
- Do students' uses of ePortfolios in the program affect the way program administrators view potential learning in the course?

In this report, we share preliminary findings related to the first two questions, based on our analysis of data gathered from TAs.

STUDY DESIGN

Participants

Six TAs volunteered to participate in the study. While all TAs expressed interest in implementing ePortfolios in their classes, they ranged widely in their knowledge of and comfort with educational technology. Two administrators from EWP also participated in the project, as did students from the selected sections of 131.

Study Procedures

Before the pilot began, Catalyst researchers created a sample Portfolio project template to guide students through the creation of their ePortfolios. The design closely matched the traditional paper portfolio, distributing portions of a "cover letter" over several web pages and asking students to demonstrate achievement of the course outcomes. In the original template, we organized pages by outcome; we later created a second template organized by students' selected papers, since some students and TAs preferred this organization. We also made two sample ePortfolios using these templates; materials for these portfolios came from students who had taken 131 in the fall. At the start of winter quarter, we used the sample templates and ePortfolios as training materials for participating TAs. We encouraged TAs to modify the templates as they saw fit and to share the ePortfolio models with their students. They were also encouraged to make a model portfolio of their own, if possible.

To control for effects of simply teaching the course a second time, three TAs taught with paper portfolios during winter quarter and three taught with ePortfolios; all six used ePortfolios in spring. At the beginning of spring quarter, all six TAs met to discuss their experiences.

Data

Data collected for this study include the following:

- From TAs:
  - Short written questionnaires completed at the start of winter quarter.

- Transcripts of interviews conducted at the end of winter & spring quarter. During interviews, TAs shared three sample portfolios that represented a range of student responses to their assignment.
- Copies of the portfolio assignment and any support materials TAs distributed to their students.
- From students:
  - Responses to surveys sent to all students in participating sections of 131.
- From Administrators:
  - Transcripts of interviews conducted during winter quarter; post-pilot interviews have not been completed.

The TA questionnaire and interviews focused on participants' experiences using paper portfolios/ePortfolios and what they anticipated/discovered (positive & negative) in transitioning to an ePortfolio format. Surveys asked students about their overall experience completing the paper portfolio (three sections in Winter) or ePortfolio (three sections Winter, six in Spring).

PRELIMINARY FINDINGS

Opportunities

- TA responses to the initial questionnaire identified opportunities in three areas:

  1. The public nature of ePortfolios
     - The existence of an audience beyond the teacher
     - ePortfolios can facilitate sharing between students
     - Long-term record of student work, for TAs and students
  2. Improved process
     - Less paper
     - ePortfolios may be easier for students to organize
     - Format allows students to pair specific outcomes to specific papers
     - More opportunities for students to be creative
     - Students can learn technology skills
  3. More efficient grading
     - Ability to comment more efficiently
     - Easier to develop schema for evaluating papers

- At the end of spring quarter, TAs reported that the majority of these opportunities had been realized. Of the opportunities listed above, some TAs found that the extent to which the ePortfolios were public depended on factors beyond the electronic format, such as options for students to share their work during the quarter. Additionally, while TAs reported that the ePortfolio format made grading more efficient, the primary reason given for the change was different than those listed above: TAs found the organization and contents of the ePortfolios allowed them to easily ascertain whether or not students had fulfilled the course outcomes.

- By the end of the project, TAs identified several new opportunities:

  1. ePortfolios allow students to incorporate a wide variety of evidence, from their own papers and other sources
  2. ePortfolios make it possible for students to easily include media (images, video, etc…)
  3. ePortfolios provide an authentic audience and an authentic genre—students learn to write for the Web
  4. The format may facilitate interdisciplinary connections
  5. Teaching with ePortfolios can help some TAs increase their comfort with technology

Challenges

- TA responses to the initial questionnaire indicated three primary areas of concern:

  1. Training needs of TAs and students
     - Some TAs' lack of familiarity with technology
     - Limited class time for training students, given other needs
  2. Concerns over student response to the new format
     - Students may be uncomfortable or resentful
     - ePortfolios may decrease options for individual expression
     - Students may see ePortfolios as less substantial than paper portfolios.
  3. Evaluation challenges of the new format
     - Too much time staring at a screen
     - Uncertainty of how to grade custom elements (colors, visuals, etc…)
     - ePortfolios may get "lost" due to technical problems

- At the end of spring quarter, TAs reported the majority of these challenges either did not materialize or were not significant problems. Of the challenges listed above, some TAs did find student resentment to be a problem, because the assignment was different than what students were doing in other classes. TAs who had taught with ePortfolios for two quarters, rather than one, found this to be less of a challenge. Some TAs also struggled with how best to evaluate the design elements of the ePortfolios—some chose to ignore those elements completely while grading and others considered them part of the academic presentation of a student's work.

- By the end of the project, TAs identified several new challenges:

  1. Timing the introduction of the ePortfolio during the quarter
  2. Balancing directions with options for students (how much freedom to give students)
  3. Developing systems to help students name and organize materials in their ePortfolios
  4. Concerns that the public nature of the ePortfolio may increase opportunities for plagiarism

Comparison with Paper Portfolios

- TAs observed that students wrote more overall for the ePortfolio than they did for the paper portfolio cover letter. TAs speculated, however, that writing reflections in the ePortfolio was easier for students than writing a cover letter, because the template broke the writing down into smaller sections and provided scaffolding for each section.

- TAs reported that the strongest ePortfolios submitted by students were equal to or better than the strongest paper portfolios that they had received during the previous autumn and/or winter quarter. TAs speculated that students with low- to mid-range writing skills tended to have a higher degree of success with the ePortfolio than similar students did with the paper portfolio; TAs observed more success in this group of students in providing evidence for the course outcomes and highlighting the strengths of their work.

- In spring, TAs reported that students who began their portfolios close to the due date had more technical problems and struggles with creating a portfolio than those who began the assignment earlier. TAs also reported that their weakest ePortfolios did not differ greatly from the weakest paper portfolios they had received in earlier quarters.

- Teaching with ePortfolios caused some TAs to reflect on the original paper portfolio assignment. These TAs reported dissatisfaction with the cover letter, reasoning that it restricted the audience to one person (the TA) and did not follow the form of a traditional portfolio in which the reflections are located near or attached to artifacts. Other TAs reported that the ePortfolio was easier to grade because they did not have to flip back and forth between the cover letter and artifacts.

- As with the paper portfolio, TAs agreed that having models of ePortfolios to share and discuss with students is essential to success with the assignment.