EPORTFOLIO PRACTICE AND TRANSFER OF LEARNING WITHIN A FIRST-YEAR WRITING PROGRAM

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Research Question

This study examines the connection between (1) transfer of learning and (2) ePortfolio practice in a first-year writing program situated within a large, public, research-based U.S. university setting. To define the concept of transfer of learning within higher education, this study utilizes the foundational work of Salomon and Perkins (1992) who define transfer as "the use of knowledge or skill acquired in one context [and applied] in another" and establish five conditions that facilitate transfer of learning:

  1. thorough and diverse practice;
  2. explicit abstraction;
  3. active self-monitoring;
  4. arousing mindfulness; and
  5. using a metaphor or analogy.

Because the composition of an ePortfolio may invoke several of these conditions, we asked the question, "Does the use of the ePortfolio process in composition classrooms create a condition for the transfer of learning?"

Main Findings

1. The University of Mississippi teaching community has partial, incomplete, and conflicting understandings of both the practice of teaching with ePortfolios and the concept of transfer of learning, and is receptive to learning more about both.

2. ePortfolios in the University of Mississippi first-year writing program serve as a condition for the transfer of learning.

3. Students transfer learning within the University of Mississippi first-year writing program, and to other contexts within the University.

4. The relationship between ePortfolios and transfer of learning in the University of Mississippi first-year writing program, as well as the nature, qualities, and impact of the learning transferred, are emerging, and will be better detailed through our qualitative case studies.

Processes of Inquiry

Review of the Literature

Our process of inquiry began with a study of the scholarly literature regarding the transfer of learning. In addition to employing the work of Salomon and Perkins to establish the framework of conditions promoting transfer of learning generally, for all subjects and disciplines, we also looked for composition scholars who deployed the central concepts of Salomon and Perkins within the practice of teaching writing. We found guidance in the work of compositionist David W. Smit (2004), who indicated the centrality of transfer of learning to all education when he wrote that "the ability to transfer knowledge [from one context to another] is what the term 'learning' actually means." Observations by composition scholars Anne Beaufort and Jeff Sommers were also of particular interest to our study. Beaufort grounds her discussion of transfer of learning in composition classes, makes three recommendations for teaching for transfer of learning: 1. Teach learners to frame specific problems and learning into more abstract principles that can be applied to new situations; 2. Give students numerous opportunities to apply abstract concepts in different social contexts; 3. Teach the practice of mindfulness, or meta-cognition, to facilitate positive transfer of learning. Through the insights of Beaufort, then, we began to conceptualize ePortfolios as a space where teachers could utilize these practices in their work with students, and establish conditions supportive of the transfer of learning.

But as we sought to envision our ePortfolio practice, with its emphasis on reflection, as a space supportive for transfer of learning, we also understood that working with these broad concepts in the composition classroom could be construed differently by different audiences. Critics have often argued that teaching practices based on reflection – specifically those which encourage and reward through academic credit learners' identification and self-expression of transfer of learning – could result in students merely approximating what they believe teachers want to hear. In response to these types of criticisms against the authenticity of reflection and transfer of learning in an academic context, Jeff Sommers argues:

> it does not matter that they might be telling me what they think I want to hear because if they are smart enough to explain the transfer of learning in concrete, specific terms, then whether they have actually done as they say is not really of paramount

importance. What matters, I would argue, is that they have learned what might transfer and how and when - and that explanation itself is, I believe, a meaningful transfer of learning expressed in a reflection-on-action (117).

Research Procedure Overview

In order to identify and examine the connection between ePortfolio practice and transfer of learning within our first-year writing program, we designed a research project with a preliminary phase to establish the direction of our study, followed by three main phases, each with a distinct but sequential purpose:

> (1) Preliminary survey of teachers on our campus to establish their familiarity with ePortfolio practice (and inviting them collaborate in composing questions for study);

> (2) Survey students to understand their awareness of, and existing practices within, transfer of learning;

> (3) Craft a rubric and rate student reflective writing samples to identify and categorize types of transfer of learning within student ePortfolio writing samples;

> (4) develop case studies to follow students for an in-depth, extended, qualitative portrait of transfer of learning.

The preliminary phase of our research was conducted in the fall of 2010. The student surveys were written and distributed in 2011. Our examination of student ePortfolio writing samples to identify and categorize examples of transfer of learning was conducted in the spring of 2012. The fourth and final phase of our project – the development of case studies of transfer of learning borne of the ePortfolio process – began in the fall of 2012 and is ongoing.

(1) Preliminary Research: Faculty Surveys

We created a survey to understand the state of knowledge in our teaching community around the concept of transfer of learning and the practice of teaching with ePortfolios. The survey consisted of nine questions; four questions asked teachers about their familiarity with transfer of learning, whether or not they sought to measure it in their teaching practices, and their levels of satisfaction with any attempts to measure transfer of learning. Four questions asked about teachers' understanding of ePortfolios, and either their level of satisfaction with ePortfolio practice and/or their level of receptiveness to learning more about teaching ePortfolios. These first eight questions were a combination of multiple choice and open-ended

responses. A ninth question was open-ended and solicited any additional comments from respondents. The survey was sent to 875 faculty of all rank (tenure stream and non-tenure stream, full-time and part-time, online and face-to-face teaching environments, and in all disciplines) on our main campus and 118 responded at least partially, yielding a response rate of 13.48%.

We found that about one third of faculty were familiar with transfer of learning and sought to measure its presence in their classrooms. Many respondents were interested in learning more about transfer of learning, but, due to a design flaw in the questionnaire, it is difficult to assign an accurate percentage to this group.

We found that just over half of our faculty were unfamiliar with ePortfolios while another a third had at least "read about" ePortfolios. The remaining respondents had either used ePortfolios in the past or were hoping to teach with them in the future.

In sum, we found that there was a great degree of variance within our teaching community about both the concept of transfer of learning and the practice of teaching with ePortfolios. Neither topic was new, and many responses were defined and fueled by disciplinary epistemologies. Although we did not ask specifically about the connection between ePortfolio practice and transfer of learning, the general interest and partial investment of the community in both concepts pointed our study in the direction of examining whether the practices were mutually reinforcing.

(2) Student Surveys

In April of 2011, we administered a survey to students in our second semester first-year writing classes. The purpose of the survey was to record students' general perceptions, outside of the ePortfolio project, about whether they consciously applied skills they learned in their first-year composition courses to other writing situations. The results provided us with a general sense that many of our students thought they were transferring learning. However, our insights were limited to students' impressions about their experiences with transfer of learning, lacked a comprehensive sense of what skills were transferred, where those skills originated, and where they were applied. But the surveys did provide our first real evidence of transfer in the context of our program. A secondary goal of the surveys was to solicit names and email addresses of students who would be willing to share more about their experiences, and serve as potential interview subjects.

(3) Rating of Student Writing Samples

In Spring 2012, the University of Mississippi Center for Writing and Rhetoric (CWR) rated a random, multi-section sample of compulsory student ePortfolio reflective introductions to assess the presence and degree to which students discussed transfer of learning. Compensated raters were selected on a first-come, first-chosen basis from the CWR instructional staff, and a purpose-specific rubric was designed. After the successful completion of training with the new rubric and initial calibration exercises, the raters were arbitrarily paired up and the two-person teams then rated papers together in a norming exercise before being reassigned to new pairings for further readings. Over the two four-hour rating sessions, all raters were paired together at least once, and all rating pairs were required to achieve consensus on the ratings they assigned together.

We read and assessed a total of 146 student reflective essays (with one additional essay record found to be incomplete and therefore discarded *post facto*). Within each reflective introduction, raters looked for specific discussion of transfer of learning, and when such examples were found, categorized the experience according to where the learning originated: *high school*, *a CWR course*, *a non-CWR University of Mississippi course*, or some *other* setting. Each identified example was assigned one and only one origin source from among the four possible. Furthermore, each example of transfer of learning was examined for the particulars it might contain, and these were categorized in terms of *origin*, *destination*, *details*, and *evaluation*. These particular components were not to be considered mutually exclusive, and most examples were found to contain two or more of them. In addition to completing a rubric for each paper, raters were encouraged to mark the reading copies to identify the examples identified on the completed rubric. These marked-up texts were retained along with the rubrics for possible follow-up analysis.

Rating Results

In almost 55% of the 146 papers (147 minus 1 incomplete record), we found evidence of at least one instance of the discussion of the transfer of learning:

Instances

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	66	44.9	45.2	45.2
	1	63	42.9	43.2	88.4
	2	13	8.8	8.9	97.3
	3	3	2.0	2.1	99.3
	4	1	.7	.7	100.0
	Total	146	99.3	100.0	
Missing	System	1	.7		
Total		147	100.0		

We note that although a single example per paper was the most common positive result, multiple instances did occur, and one outlier even reached four distinct examples of transfer of learning within the same essay.

The overall average was .70 instances per paper, which was above our initial, conservative, and informal estimate of .60:

Statistics

Instances

N	Valid	146
	Missing	1
Mean		.70
Std. Error of Mean		.064
Median		1.00
Mode		0
Std. Deviation		.773
Variance		.598
Range		4
Minimum		0
Maximum		4
Sum		102

We found the majority of transfer examples described learning that originated from within our own CWR curriculum:

Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a CWR course	88	88.0	88.0	88.0
	high school	3	3.0	3.0	91.0
	non-CWR UM course	2	2.0	2.0	93.0
	Other	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

We were pleased to find that more than half of the reflective essays in our representational sample contained discussion of transfer of learning, especially from our CWR curriculum. These rating sessions served as our starting point in identifying potential interview subjects, based on the richness of the responses.

(4) Preliminary Work for Case Studies

Recognizing that the writing samples were fairly superficial and might represent students just telling their instructors what they thought instructors wanted to hear, we contacted 15 students for interviews. Three students, who are currently sophomores and juniors, agreed to take part in the interviews. In addition, at a later time, six students, who are currently second semester first-year students, agreed to participate in small focus groups. Students in both the interviews and small focus groups were asked the same questions.

Preliminary Case Study Inferences

1. At the conclusion of the focus groups and interviews, it became clear to us that sophomores and juniors were able to make deeper connections between the skills they had acquired in their first-year writing classes and other writing situations than the second semester first-year students whom we interviewed, who provided responses that revealed their relative

inexperience as college writers. Though these students made suggestions of larger applications, the suggestions were superficial. They didn't provide concrete examples that would suggest transfer of learning.

2. Sophomores and juniors discussed transfer of learning in relationship to three CWR program outcomes and in relationship to the ePortfolio emphasis on reflection.

- Audiences and Purposes Outcome: Students discussed consideration of audiences and purposes in their first-year writing classes as distinctly different from their high school writing experiences. They went on to identify specific writing situations in their sophomore and junior years in which they considered the audience and purpose of the assignment and made rhetorical choices in response.

- Conventions and Mechanics Outcome: One art major spoke about the genre of Artist Statements and how she often saw poor wording and mechanical errors that damaged the ethos of the statement.   She noted that her own work in her first-year writing classes in building ethos through conventions and mechanics transferred into her composition of her Artist Statements.

- Writing Process Outcome: Students discussed viewing the writing process as a skill they took with them to other writing situations. One student, in particular, noted that his understanding of the recursive nature of the writing process transferred not just to other writing situations but also to his approach to academics in general. Specifically, this student mentioned that he uses the structure of the writing process to prepare for each work of each course during the semester.

- Reflection: All three of the students discussed reflection within the ePortfolio as a skill that transferred into other aspects of their lives, academically and beyond. They described the process of examining their own learning as valuable.

The value of our research for our ePortfolio practice

Our research into the connection between ePortfolio use in the Center for Writing and Rhetoric – chiefly first-year writing – and transfer of learning has great value for not only learners in our program, but across the campus as well.

Our program began using ePortfolios only in 2009 as part of a five-year campus-wide quality enhancement plan focused on writing. Our writing program was created by the plan, and more importantly, out of a community agreement on the need to improve undergraduate writing skills in our state, research-driven university campus. As we chose to employ ePortfolios as a best practice in the teaching and learning of writing, our broader campus teaching community was situated to watch our "experiment" as one of the few programs to teach with ePorts in a

comprehensive and programmatic way. Thus, while we were confident about the adoption of ePortfolios for use in a writing program, we were also in a spotlight: the rest of our campus was watching to see how our ePortfolios improved teaching and learning. The general attitude expressed toward our work with ePortfolios was reasoned skepticism: most teachers and administrators supported our adoption of ePortfolios to improve first-year writing, but also waited to find proof of our success before considering the adoption of ePortfolios themselves. If that presumed success was specific to our program only, then other faculty might decline to consider ePortfolio adoption in their classes; our students' investment in ePortfolios employed within only one program would return less dividends than a campus-wide ePortfolio adoption.

Our ePortfolio "promotion plan," then, was based around exploring and better articulating our own commitment to the use of ePortfolios, but also explaining the perceived improvements for the larger teaching and learning environment on our campus. We saw two main appeals for our colleagues to consider for the adoption of ePortfolios: (1) the promotion of reflection as an academic value and a tool for lifelong learning, and (2) the promotion of transfer of learning throughout the undergraduate curriculum. Further, we knew that our colleagues would demand not only qualitative evidence, but quantitative assurances of ePortfolio success as well. When we reviewed ePortfolio literature on the topics of reflection and transfer of learning, we generally found that there was much less content addressing transfer of learning. Therefore, in order to better understand our choice of ePortfolios for our composition program and their potential collateral benefit for students who progressed to our colleagues' classrooms, we chose to focus our study on the relationship between ePortfolios and transfer of learning.

As such our findings add value to our ePortfolio practice because it provides value not only to our writing program, but to our local campus context. Because we structured the study from the outset around both our program and our university's concerns, we have been assured that our work will inform both our program practice as well as the campus as a whole. As we work to share the results on our campus with students, teachers, and administrators, we have already created a ripple effect: other programs have adopted ePortfolios, and now our General Education Committee is also examining ePortfolios as a vehicle for a more coherent undergraduate experience.

The value of our participation in the Coalition for our research and/or practice

Similarly, working with the Coalition has added tremendous value to our program. The Coalition prompts us to create a research project focused on our teaching and learning practices, extending both our culture of research-based decision making and collective ownership of program decisions. Other aspects of our program, such as Fast Track (a learning cohort for at-

risk students), have also created similar studies. But the chief benefit of participation in the Coalition must be how the interaction with other teams and cohorts drives our processes. Colleagues in other institutions, different student bodies, academic training, and research agendas, have both pushed and pulled at our development in important ways to shape a richer and more comprehensive project. And equal to the input of our colleagues has been the guidance of the Coalition's leadership. In short, their queries sustained our project throughout, convincing us of the value of our work and its impact on student learning. Both the leaders and the researchers of the Coalition have not given us the most significant payback of the project, however. That distinction belongs to our students. By structuring a project which focuses on both student writing products and face-to-face interviews, on quantitative research and qualitative case studies, and on classrooms of writers as well as writers in the classroom, this project has developed within our culture an even stronger intellectual connection based on a deeper understanding of the power of how teaching with ePortfolios can develop a lasting impact for students.

Plans for dissemination and/or application of findings

We plan to disseminate our findings to multiple audiences – local and national. The first step is to report to our colleagues within the Center for Writing and Rhetoric. We will distribute our findings to the WRIT 100/101/102 and LIBA 102 curriculum committees in order to revise writing prompts and instruction as well as to scaffold more reflective writing during the two-semester sequence. In addition, we will hold workshops and other events during orientation for our first-year writing instructors in order to improve the teaching of e-portfolios and reflective writing. We would also like these findings to inform our upper-level writing class, WRIT 250, where the e-portfolio students established in the first-year courses will carry over into this class thus reinforcing transfer of learning.

Because of our interest in increasing e-portfolio usage campus-wide, we will be taking a number of initiatives. We will hold a workshop through the Center for Excellence of Teaching and Learning to support faculty members who would like to use e-portfolios in their classrooms. Our Writing Enriched Curriculum Core Instructor will be working with departments throughout the university to bring more writing opportunities for students in upper-level courses. Our findings on the transfer of learning, we think will be a compelling argument for the continued use of e-portfolios in the classroom. The WEC Core Instructor will work with graduate teaching assistants and faculty in developing writing prompts for their majors. In this, we hope that the e-portfolio will continue to support the transfer of learning not only from our writing courses but also for strengthening the learning done in various disciplines.

Finally, we plan to disseminate our findings to a larger audience, outside of our university. We will be presenting at the "Critical Transitions: Writing and the Question of Transfer Conference" at Elon University in North Carolina, June 25-26, 2013. Here, we hope to not only share our work on transfer to but also to continue the conversation about transfer. We believe this will be an enriching opportunity for us.

As we continue to work on our question, we plan to publish our findings in a peer-reviewed format.

Next questions emerging from our inquiry

As indicated, our case studies are ongoing. We will follow those students we have interviewed to see how they have transferred learning from the first-year writing courses into different contexts. Because transfer can be both "near" and "far," we believe a longitudinal study will yield even more results. We may yet identify more candidates for possible case studies as we continue using e-portfolios in our first-year writing classes and in other contexts. As the usage of e-portfolios grows within our university, we might be able to interview and talk with those students who are still engaging with the collect, select, and reflect activities of an e-portfolio as well as those who have are not using e-portfolios in their classes. This may yield even further evidence of the value of e-portfolios to our departments.

References

Beaufort, A. (2007). *College Writing and Beyond: A New Framework for University Writing Instruction*. Logan: Utah State University Press.

Perkins, D.N., & Salomon, G. (1992). Transfer of Learning. In *International Encyclopedia of Education*. Retrieved from *learnweb.harvard.edu/alps/thinking/docs/traencyn.htm*

Smit, D. W. (2004). *The End of Composition Studies*. Carbondale: Southern Illinois University Press.

Sommers, J. (2011). Reflection Revised: The Class Collage. *Journal of Basic Writing, 30(1),* 99-129.