# Final Evaluation of E-portfolios in Psychology 296-495 Sequence of Courses

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### Introduction

As part of a 2015-2016 Teaching & Learning Innovation Grant Partnership, a template was designed for implementation of E-portfolios which would be integrated into the Applied Psychology program. The goal was to enable students in the Applied Psychology Program to create electronic portfolios as a counterpart to their traditional paper-based portfolio, which is an important component of their job search process upon graduation.

Along with the portfolio template, an accompanying Instructional Guide for students was created to document the process and expectations for the Psychology E-portfolio. An assessment plan and accompanying assessment instruments were also designed.

### Project Design

In early spring 2015, psychology faculty met with the TLI Grant project manager, Mary Ann Mengel, to review the paper-based portfolios that had been in use and to explore potential instructional technologies to support the project. The team reviewed the current paper-based portfolios and further defined the audience for E-portfolios to include faculty for assessment purposes, grad schools, and potential employers. The team considered implications for privacy issues and copyright concerns while defining the components that would be required in the E-portfolio. Special consideration was given to including a process to encourage synthesis and reflection.

After identifying WordPress (Sites@PennState) as the technology platform, the team designed a template that students would follow to create their E-portfolios over the course of several semesters. Part of the process included a review of WordPress themes and comparison of their unique benefits for this application. The team also considered, planned, and designed appropriate assessment strategies and instruments for key milestones of student work.

An instructional manual for creating E-portfolios was developed by the team during summer of 2015 to be distributed to all students. At the same time, the instructors were provided individual instruction in Sites@PennState and use of the template. The team engaged assistance from a former Psychology student to test the effectiveness of the instructional guide prior to implementation.

### Implementation

The project was implemented in the Introduction to Internship (PSYCH 296) course in Fall 2015. Through a combination of in-class instruction and a customized instructional guide created for the project, the first cohort of students began their E-portfolios in the WordPress platform known as Sites@PennState.

As designed, the E-portfolio project sequence begins in PSYCH 296 with follow-up and further development as the students progress throughout the sequence of internship courses (PSYCH 495A, B, C, and D) and Senior Capstone.

In PSYCH 296, students are required to create the framework for their online portfolio and include a resume, goal statement and mission statement. Students also create placeholders for future requirements. The class cohort continues to expand upon the E-portfolio as they move through the PSYCH 495 (Internship) and Senior Capstone (PSYCH 496) sequence. In PSYCH 495 and Senior Capstone, students further develop their online portfolios to include internship materials, reflections on learning, research experience, and professional development. A course rubric for evaluating E-portfolios was developed to be used across the PSYCH 296, 495 and 496 courses.

This report provides results of 27 students in the *Introduction to Internship* course (15 students in the Fall 2015 and 12 in the Spring 2016 course). The report also includes 10 students in the Spring 2016 495A *Internship A* course. The 495A cohort includes the original 15 students from the Fall 2015 PSYCH 296 course who further refined their E-portfolios during Spring 2016.

Both courses devoted time during class to talk about the rationale for E-portfolios. Two days each semester were spent in the library with faculty and the Instructional Multimedia Designer to provide guidance and assistance while creating the E-portfolios. For the purpose of this assessment, results from the PSYCH 296 and 495A courses are presented.

### Project Outcomes

In order to gather student perceptions about their experience building portfolios and perceived usefulness, a short survey was created to assess their experience building the online portfolio and their perceptions about the efficacy of having an E-Portfolio. Students were asked to provide a response where *1 = strongly disagree* and *5 = strongly agree*. In addition, a series of open-ended questions were provided designed to assess the benefits of using a public site for an E-portfolio, the drawbacks; the particular aspects of WordPress where students felt additional instruction would be helpful; the most surprising aspect of their learning experience and their plans to use their E-portfolio for internships and hiring after college.

Overall, responses were positive. Tables 1- 5 show that overall, the majority of students (75%) agree or strongly agree that creating an E-portfolio offers a competitive advantage when seeking employment and over 80% felt comfortable publicly sharing their E-portfolio. The majority agree or strongly agree (88%) that the skills they learned using WordPress would be valuable in their career, however over 50% of student were neutral or disagreed that WordPress an extremely user friendly tool. The majority of students rated their familiarity with the tool as comfortable or very comfortable (78%).

Table 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **By creating an e-portfolio that tracks my academic progress I will have a competitive advantage when seeking employment** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | disagree | 2 | 5.4 | 5.4 | 5.4 |
| neutral | 7 | 18.9 | 18.9 | 24.3 |
| agree | 18 | 48.6 | 48.6 | 73.0 |
| strongly agree | 10 | 27.0 | 27.0 | 100.0 |
| Total | 37 | 100.0 | 100.0 |  |

Table 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **I feel comfortable publicly sharing an e-Portfolio** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | disagree | 2 | 5.4 | 5.4 | 5.4 |
| neutral | 5 | 13.5 | 13.5 | 18.9 |
| agree | 15 | 40.5 | 40.5 | 59.5 |
| strongly agree | 15 | 40.5 | 40.5 | 100.0 |
| Total | 37 | 100.0 | 100.0 |  |

Table 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **I found using Word Press was extremely user friendly** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | strongly disagree | 1 | 2.7 | 2.7 | 2.7 |
| disagree | 8 | 21.6 | 21.6 | 24.3 |
| neutral | 11 | 29.7 | 29.7 | 54.1 |
| agree | 12 | 32.4 | 32.4 | 86.5 |
| strongly agree | 5 | 13.5 | 13.5 | 100.0 |
| Total | 37 | 100.0 | 100.0 |  |

Table 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **I believe that building my own website is a useful skill in today's working world** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | disagree | 1 | 2.7 | 2.7 | 2.7 |
| neutral | 2 | 5.4 | 5.4 | 8.1 |
| agree | 18 | 48.6 | 48.6 | 56.8 |
| strongly agree | 15 | 40.5 | 40.5 | 97.3 |
| 6.00 | 1 | 2.7 | 2.7 | 100.0 |
| Total | 37 | 100.0 | 100.0 |  |

Table 5

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Now that you've become familiar with Wordpress, how would you rate degree of comfort with technological process** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Not at all  Slightly comfort | 3 | 8.1 | 8.1 | 8.1 |
| Neither | 5 | 13.5 | 13.5 | 21.6 |
| Comfortable | 26 | 70.3 | 70.3 | 91.9 |
| Very comfortable | 3 | 8.1 | 8.1 | 100.0 |
| Total | 37 | 100.0 | 100.0 |  |

We examined the same cohort of PSYCH 296 and 495A students on the same survey questions to determine if scores would change over time. Table 6 below shows some differences among scores from Fall to Spring semester. For example, students’ belief that creating an E-portfolio would provide a competitive edge when seeking employment and comfort level sharing public information decreased. However, their familiarity with the tool led them to believe it was more user friendly by the second semester. There were slight decreases in the belief that the tool was use in today’s working world and degree of comfort but these differences were small.

Table 6

Assessment Question Mean Score (Standard Deviation)

Same Class Cohort (Fall 15 PSYCH 296) (Spr 16 PSYCH 495A)

|  |  |  |
| --- | --- | --- |
| By creating an eportfolio that tracks my academic progress I will have a competitive advantage when seeking employment | (N = 15)  4.06 (.88) | (N = 10)  3.70 (.94) |
| I feel comfortable publicly sharing an ePortfolio | 4.26 (.88) | 3.90 (.87) |
| The wordpress skills I'm learning as I build the ePortfolio will be valuable in my future career | 3.66 (.81) | 3.70 (.82) |
| I found using Word Press was extremely user friendly | 2.93 (.96) | 3.50 (1.17) |
| I believe that building my own website is a useful skill in today's working world | 4.40 (.91) | 4.10 (.73) |
| Now that you've become familiar with wordpress, how would you rate degree of comfort with technological process | 3.86 (.74) | 3.70 (.82) |

Table 7 below shows the mean responses of the new PSYCH 296 students during the Spring 2016 semester. It is interesting to note the scores are very similar to scores of the Fall 2015 PSYCH 296 Course for questions 1, 2, and 5 and 6. However, this class was more likely to believe WordPress skills would be more valuable in their future career compared to the previous PSYCH 296 class and found WordPress more user friendly than the previous class.

Table 7

New PSYCH 296 Cohort Spring 2016 (N = 12)

|  |  |
| --- | --- |
| By creating an eportfolio that tracks my academic progress I will have a competitive advantage when seeking employment | 4.07 (.78) |
| I feel comfortable publicly sharing an ePortfolio | 4.25 (.86) |
| The wordpress skills I'm learning as I build the ePortfolio will be valuable in my future career | 3.92 (.82) |
| I found using Word Press was extremely user friendly | 3.25 (1.02) |
| I believe that building my own website is a useful skill in today's working world | 4.44 (.75) |
| Now that you've become familiar with wordpress, how would you rate degree of comfort with technological process | 3.81 (.68) |

#### Student Open-Ended Responses

Results from the open-ended questions were placed into thematic responses. Overall, perceived benefits mentioned from the experience included 70.3% (n = 26) of student stated creating the E-portfolio gave them a competitive edge in employment, 5 students (13.5%) said it made them feel modern and up to date, 1 (2.7%) stated it helped them stay organized and 5 (13.5%) said it helped them track their personal progress.

When asked about the drawbacks to the E-portfolios, the majority of students had reservations about making their personal information public or apprehensions about having mistakes or typos in their professional websites that would be made public (n = 23, 64.6%); 2 students (5.7%) mentioned that it would expire after graduation; 5 (14.3%) reported WordPress was difficult to use; and 3 (8.6%) mentioned it was not useful or missing important aspects.

With regard to instructions, particular aspects that students felt should have additional instruction appeared to center around instructions for aesthetics, spacing, copying and pasting documents into WordPress and adapting to MAC formats. Organization and formatting constituted the majority of statements (n = 12, 34%) and adding visuals or knowing how to upload documents and doing blogs were also common comments (n = 10, 28.6%).

The most frequent surprising aspects of learning included the ease of making their own website (n = 20, 69%), the satisfaction of putting it together and seeing their goals organized and looking professional (n = 4, 13.8%). Lastly, when asked if they planned to use the E-portfolio for their internships and hiring after college, 22 students said yes (60%), 8 (21.6%) said possibly, and 7 (18.9%) said no. It is important to note that those least likely to plan to use the E-portfolio in the future were the students who had the most difficulty with WordPress, or who were not Applied Psychology majors, or who were non-traditional students (n = 4).

#### Advisory Council Assessment

Lastly, we asked members of our Advisory Council to participate in a short survey. Seven Advisory Council professionals involved in the hiring process of interns and workers were informed about the use of the E-portfolios in combination with the hard-copy portfolios this past April, 2016. They were asked to provide their opinions on a short survey that assessed:

* their preference in looking at a hard copy or website portfolio
* likelihood they would actually look at a job (or internship) candidate’s portfolio website
* the extent to which having both a portfolio and/or website would influence their hiring decision
* their belief in the usefulness of maintaining a professional portfolio, maintaining a professional website
* whether an electronic, physical or both electronic and physical portfolio would be preferential in the hiring decision

Questions were rated either dichotomously (no preference/preference) (electronic portfolio; physical portfolio; neither); or rated on a 1 – 5 Likert type scale where *1 = not at all* and *5 = absolutely* or a 1- 7 Likert type scale where *1 = Not important* to *7 = Very important*.

Tables 8-13 show that all 7 council members felt it was best to have both the hard copy and e-portfolio, however only 43% (n = 3) stated they would actually look at the website (see Table 9) and only 28.6% (n = 2) felt it was absolutely influential to have both in the hiring decision (see Table 10). All felt it was useful to maintain a professional hard copy portfolio (see Table 11) but there was greater variability for the belief in the usefulness of maintaining a professional website (see Table 12) and when asked if an electronic or hard-copy portfolio was more useful, the majority stated the physical was more useful (see Table 13).

Table 8

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Preference of hard copy or website portfolio** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Both Hard and Website Portfolio | 7 | 100.0 | 100.0 | 100.0 |

Table 9

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Likelihood to look at candidates portfolio website** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 3.00 | 2 | 28.6 | 28.6 | 28.6 |
| 4.00 | 2 | 28.6 | 28.6 | 57.1 |
| Absolutely | 3 | 42.9 | 42.9 | 100.0 |
| Total | 7 | 100.0 | 100.0 |  |

Table 10

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Having both portfolios influence hiring decision** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 2.00 | 1 | 14.3 | 14.3 | 14.3 |
| 3.00 | 1 | 14.3 | 14.3 | 28.6 |
| 4.00 | 3 | 42.9 | 42.9 | 71.4 |
| Absolutely | 2 | 28.6 | 28.6 | 100.0 |
| Total | 7 | 100.0 | 100.0 |  |

Table 11

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **How useful is it for students to maintain a professional hard copy portfolio** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 6.00 | 2 | 28.6 | 28.6 | 28.6 |
| 7.00 | 5 | 71.4 | 71.4 | 100.0 |
| Total | 7 | 100.0 | 100.0 |  |

Table 12

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **How useful is it or students to maintain professional website** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 4.00 | 1 | 14.3 | 14.3 | 14.3 |
| Extremely Important | 2 | 28.6 | 28.6 | 42.9 |
| 6.00 | 1 | 14.3 | 14.3 | 57.1 |
| 7.00 | 3 | 42.9 | 42.9 | 100.0 |
| Total | 7 | 100.0 | 100.0 |  |

Table 13

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Electronic or physical portfolio more useful** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Electronic | 1 | 14.3 | 14.3 | 14.3 |
| Physical | 5 | 71.4 | 71.4 | 85.7 |
| Neither | 1 | 14.3 | 14.3 | 100.0 |
| Total | 7 | 100.0 | 100.0 |  |

### Conclusion

Results from the E-portfolio assessment are very promising. The majority of students appear to enjoy the project and believe that it provides them with a competitive edge in the working world. Students appear to achieve a great sense of accomplishment when they complete their portfolios and we believe this will continue as they progress through the internship sequence of classes and develop the portfolios further.

Some student apprehensions such as the fear of hacking or making sites public or having mistakes within the portfolio can be addressed in class to the extent that can hopefully raise student confidence. It would be useful to add information into the documentation pertaining to formatting and uploading of documents, particularly as students move through the process and continue to develop their portfolios and wish to upload and utilize various forms of media. Furthermore, some students have reservations about the E-portfolio because access will expire six months after graduation. Perhaps an appendix can be added to the instructions to include possibilities for students to transfer their websites onto other formats. This has been a learning experience for faculty as well as for students. Faculty will continue to learn about new ways to develop the online portfolios and use the tools to accommodate student needs as well as learning ways to evaluate student work.