

Appendix G

Central Washington University PT³

EDF 301 Student Survey Results Fall 2003

The course, EDF 301 Teaching: An orientation, is taken by students early in their preparation program (usually as one of the first courses completed in Curriculum and Supervision). The course orients students to teaching as a career and the roles of schools in our society. During the fall 2003 term some sections of EDF 301 incorporated an electronic portfolio (e-portfolio) element into their course work. The plan is for students to continue gathering artifacts to upload to the e-portfolio as they proceed through the teacher preparation program, and to expand the use of electronic portfolios in the 2004-2005 academic year. Eleven sections of the course were offered during the fall 2003 term; six on campus and five at satellite campuses. Student surveys were administered to seven sections (64%). In two sections, nearly all students worked on an electronic portfolio. In one section some students (59%) completed an e-portfolio, others did not. The remaining four sections did not use e-portfolios. Although students were not randomly assigned, for the most part they had no idea whether or not their section would be using e-portfolios. Therefore, to a large extent the section students were in was a matter of chance.

The survey was a modified version of an instrument that has been used by NWREL for the past five years. The EDF 301 survey included sections on technology use in coursework, e-portfolio work, and purposes for which students used technology. The primary purpose of the survey at this point of early implementation was to gather baseline data, and look for areas where there is room for growth. Subscales of items within a particular section were designed to provide overall information on four different areas.

Subscale means show student use of common digital tools (e.g., word processing, Web browsers, and E-mail) and the purposes for which students used digital tools, were similar across both e-portfolio and non-e-portfolio groups. Interestingly, there were statistically significant differences in groups on use of more advanced digital tools such as graphic design software and tools for working with images. While the differences were small and upon examination of the data appear to be the result of a few stellar students, this is an area where e-portfolio students may make strong gains in the future. Many students responded positively to their work with electronic portfolios, most items had agreement levels of 30 percent or higher. However, many students also withheld judgment on their experience with “neutral” ratings of 20-62%. The following tables report survey results, first by subscale, then by item. Results are disaggregated by students who worked on electronic portfolios and those who did not (as a comparison group).

Comparison of Means for Survey Sub-Scales on Technology Experiences for EDF 301 Students who Worked on an Electronic Portfolio and Non-Electronic Portfolio Group

Subscale ¹ (survey items comprising scale)	E-portfolio N=53 Mean (S.D.)	Non- E-portfolio N=73 Mean (S.D.)	Difference	Significance ²
Use of Common Tools (I1-I5) 5 items (1-5 range)	3.0 (.8)	3.0 (.8)	—	—
Use of Advanced/Multimedia Tools (I6-I13) 8 items (1-5 range)	1.5 (.5)	1.3 (.4)	.2	*
Purposes for Using Digital Tools (J1-J20) 20 items (1-5 range)	2.2 (.5)	2.0 (.6)	.2	—
Work on Electronic Portfolio (P1-P12) 12 items (1-5 range)	3.1 (.8)	—	—	—

¹ Subscale scores were derived from an average of items in the index. A higher rating indicates a more positive response.

² Statistically significant (2-tailed) at $\alpha < .05$ level, using a t-test for independent samples

Technology Use in Coursework (I1-I13 and L14)

Survey Subgroup N= 50 (E-portfolio) N= 72 (Comparison)	This semester (fall 2003) how often did you use the following software or tools in ANY of your classes?	Ratings # (percentage)				
		Never	1-3 Times Each Semester	1-3 Times Each Month	1-3 Times Each Week	Almost Every Day
E-portfolio	(I1) Games or other software for practicing specific skills	33 (67%)	13 (27%)	—	2 (4%)	1 (2%)
Comparison		59 (82%)	9 (13%)	1 (1%)	2 (3%)	1 (1%)
E-portfolio	(I2) Word processing	5 (10%)	1 (2%)	4 (8%)	22 (44%)	18 (36%)
Comparison		8 (11%)	1 (1%)	2 (3%)	26 (36%)	35 (49%)
E-portfolio	(I3) Encyclopedias and other references on CD-ROM	33 (66%)	10 (20%)	3 (6%)	2 (4%)	2 (4%)
Comparison		43 (61%)	10 (14%)	9 (13%)	9 (13%)	—
E-portfolio	(I4) World Wide Web browser	1 (2%)	4 (8%)	4 (8%)	15 (30%)	26 (52%)
Comparison		5 (7%)	8 (11%)	4 (6%)	18 (25%)	36 (51%)
E-portfolio	(I5) Electronic mail	7 (14%)	7 (14%)	4 (8%)	8 (16%)	24 (48%)
Comparison		9 (13%)	7 (10%)	12 (17%)	13 (19%)	29 (41%)
E-portfolio	(I6) Graphic design software for drawing, painting, manipulating photographs, etc.	28 (57%)	10 (20%)	8 (16%)	1 (2%)	2 (4%)
Comparison		45 (63%)	19 (26%)	4 (6%)	4 (6%)	—
E-portfolio	(I7) Digital cameras, scanners, or other tools for working with images	34 (69%)	6 (12%)	4 (8%)	3 (6%)	2 (4%)
Comparison		48 (68%)	15 (21%)	7 (10%)	1 (1%)	—
E-portfolio	(I8) Software for making presentations (e.g., PowerPoint)	16 (32%)	22 (44%)	11 (22%)	1 (2%)	—
Comparison		45 (63%)	17 (24%)	8 (11%)	2 (3%)	—
E-portfolio	(I9) Spreadsheets or database programs (creating files or adding data)	27 (56%)	14 (29%)	5 (10%)	2 (4%)	—
Comparison		41 (57%)	18 (25%)	5 (7%)	4 (6%)	4 (6%)
E-portfolio	(I10) Hyperstudio, HyperCard, or other multimedia authoring environments	44 (88%)	5 (10%)	1 (2%)	—	—
Comparison		70 (99%)	1 (1%)	—	—	—
E-portfolio	(I11) Authoring tools for creating web pages	39 (78%)	4 (8%)	2 (4%)	5 (10%)	—
Comparison		68 (96%)	2 (3%)	—	1 (1%)	—
E-portfolio	(I12) Geographic information systems (GIS: e.g., ArcView, ArcVoyager)	47 (94%)	3 (6%)	—	—	—

Survey Subgroup N= 50 (E-portfolio) N= 72 (Comparison)	This semester (fall 2003) how often did you use the following software or tools in ANY of your classes?	Ratings # (percentage)				
		Never	1-3 Times Each Semester	1-3 Times Each Month	1-3 Times Each Week	Almost Every Day
Comparison		70 (99%)	1 (1%)	—	—	—
E-portfolio	(I13) Simulations or exploratory environments	43 (86%)	5 (10%)	1 (2%)	1 (2%)	—
Comparison		66 (94%)	3 (4%)	1 (1%)	—	—
E-portfolio	(L14) Electronic portfolios	4 (8%)	42 (84%)	3 (6%)	1 (2%)	—
Comparison		66 (93%)	3 (4%)	2 (3%)	—	—

Experience with Electronic Portfolios (P1-P12)

Survey Subgroup N= 50 (E-portfolio) N= 72 (Comparison)	Activity	Ratings # (percentage)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
E-portfolio	(P1) I was able to successfully complete my artifacts for the e-portfolio.	6 (12%)	8 (16%)	10 (20%)	22 (44%)	4 (8%)
E-portfolio	(P2) I understood what I needed to do to complete an artifact.	5 (10%)	7 (14%)	14 (28%)	21 (42%)	3 (6%)
E-portfolio	(P3) Uploading components into the e-portfolio was easy.	7 (14%)	5 (10%)	16 (33%)	17 (35%)	4 (8%)
E-portfolio	(P4) The amount of time I spent creating my artifacts was not excessive.	3 (6%)	7 (14%)	17 (34%)	20 (40%)	3 (6%)
E-portfolio	(P5) The online help was useful.	4 (8%)	6 (12%)	31 (62%)	8 (16%)	1 (2%)
E-portfolio	(P6) The overall process went smoothly.	3 (6%)	12 (24%)	15 (30%)	19 (38%)	1 (2%)
E-portfolio	(P7) My e-portfolio will help document my growth and developments.	4 (8%)	9 (18%)	16 (33%)	18 (37%)	2 (4%)
E-portfolio	(P8)) My e-portfolio links my artifacts to standards.	6 (12%)	6 (12%)	24 (48%)	13 (26%)	1 (2%)
E-portfolio	(P9)) My e-portfolio is readily accessible.	5 (10%)	5 (10%)	14 (28%)	24 (48%)	2 (4%)
E-portfolio	(P10) Creating an e-portfolio increased my technology skills.	10 (20%)	12 (24%)	15 (30%)	10 (20%)	3 (6%)
E-portfolio	(P11) Creating an e-portfolio helped me reflect on my work.	7 (14%)	11 (22%)	15 (30%)	14 (28%)	3 (6%)
E-portfolio	(P12) I know how to store a range of media in my e-portfolio.	6 (12%)	10 (20%)	20 (40%)	12 (24%)	2 (4%)

Purposes for Using Digital Tools (J1-J20)

Survey Subgroup N= 50 (E-portfolio) N= 72 (Comparison)	This semester (fall2003) how often did you use digital tools for the following activities?	Ratings # (percentage)				
		Never	1-3 Times Each Semester	1-3 Times Each Month	1-3 Times Each Week	Almost Every Day
E-portfolio	(J1) Improving technology skills	27 (56%)	13 (27%)	4 (8%)	2 (4%)	2 (4%)
Comparison		42 (61%)	14 (20%)	4 (6%)	4 (6%)	5 (7%)
E-portfolio	(J2) Practicing and mastering skills just taught	22 (46%)	18 (38%)	6 (13%)	—	2 (4%)
Comparison		49 (70%)	12 (17%)	4 (6%)	1 (1%)	4 (6%)
E-portfolio	(J3) Remediation of skills not learned well	24 (50%)	16 (33%)	6 (13%)	1 (2%)	1 (2%)
Comparison		49 (70%)	13 (19%)	6 (9%)	—	2 (3%)
E-portfolio	(J4) Expressing themselves in writing	7 (15%)	6 (13%)	13 (28%)	15 (32%)	6 (13%)
Comparison		7 (10%)	5 (7%)	4 (6%)	27 (39%)	26 (38%)
E-portfolio	(J5) Communicating electronically (email, mailing lists, discussion forums, producing Web pages)	3 (6%)	4 (8%)	5 (10%)	14 (29%)	22 (46%)
Comparison		5 (7%)	8 (12%)	8 (12%)	18 (26%)	30 (44%)
E-portfolio	(J6) Finding information through library research	5 (10%)	6 (13%)	18 (38%)	16 (33%)	3 (6%)
Comparison		13 (18%)	17 (24%)	23 (32%)	11 (16%)	7 (10%)
E-portfolio	(J7) Finding information through Internet research	3 (6%)	3 (6%)	11 (23%)	16 (33%)	15 (31%)
Comparison		4 (6%)	6 (8%)	16 (23%)	25 (36%)	18 (26%)
E-portfolio	(J8) Finding information through other media such as CD-ROMS and databases	17 (35%)	14 (29%)	7 (15%)	10 (21%)	—
Comparison		39 (56%)	15 (21%)	10 (14%)	4 (6%)	2 (3%)
E-portfolio	(J9) Using electronic tools to collect data	9 (19%)	10 (21%)	11 (23%)	14 (29%)	4 (8%)
Comparison		29 (41%)	12 (17%)	13 (18%)	10 (14%)	7 (10%)
E-portfolio	(J10) Analyzing information or data to find patterns or meaning	26 (54%)	11 (23%)	9 (19%)	2 (4%)	—
Comparison		49 (71%)	9 (13%)	7 (10%)	4 (6%)	—
E-portfolio	(J11) Producing graphic representations of information or data	26 (55%)	12 (26%)	7 (15%)	1 (2%)	1 (2%)

Survey Subgroup N= 50 (E-portfolio) N= 72 (Comparison)	This semester (fall2003) how often did you use digital tools for the following activities?	Ratings # (percentage)				
		Never	1-3 Times Each Semester	1-3 Times Each Month	1-3 Times Each Week	Almost Every Day
Comparison		45 (65%)	17 (25%)	6 (8%)	1 (1%)	—
E-portfolio	(J12) Working with digital still photography	35 (73%)	5 (10%)	3 (6%)	4 (8%)	1 (2%)
Comparison		58 (83%)	8 (11%)	2 (3%)	2 (3%)	—
E-portfolio	(J13) Working with video photography	40 (83%)	5 (10%)	2 (4%)	1 (2%)	—
Comparison		64 (91%)	5 (71%)	—	1 (1%)	—
E-portfolio	(J14) Creating or manipulating digitally produced graphic images or art	35 (73%)	8 (17%)	2 (4%)	2 (4%)	1 (2%)
Comparison		53 (76%)	12 (17%)	3 (4%)	2 (3%)	—
E-portfolio	(J15) Working with digital sound recordings	40 (85%)	4 (9%)	2 (4%)	—	1 (2%)
Comparison		59 (86%)	4 (6%)	3 (4%)	3 (4%)	—
E-portfolio	(J16) Presenting information to a live audience	18 (38%)	18 (38%)	10 (21%)	2 (4%)	—
Comparison		31 (46%)	19 (28%)	15 (22%)	1 (2%)	1 (2%)
E-portfolio	(J17) Presenting information in a multimedia electronic presentation or web site	27 (57%)	12 (26%)	7 (15%)	1 (2%)	—
Comparison		55 (80%)	12 (17%)	—	2 (3%)	—
E-portfolio	(J18) Learning to work more collaboratively with other people	18 (38%)	15 (31%)	7 (15%)	8 (17%)	—
Comparison		34 (49%)	14 (20%)	6 (9%)	4 (6%)	12 (17%)
E-portfolio	(J19) Learning to work more independently, with less need for constant adult supervision	18 (38%)	13 (27%)	11 (23%)	2 (4%)	4 (8%)
Comparison		42 (60%)	7 (10%)	7 (10%)	6 (9%)	8 (11%)
E-portfolio	(J20) Accommodating students with special needs	33 (69%)	9 (19%)	6 (13%)	—	—
Comparison		62 (89%)	3 (4%)	2 (3%)	1 (1%)	2 (3%)