Inter/National Coalition of Electronic Portfolio Research Cohort V Final Report – University of Oregon

Authors: Lori Hager, Ron Bramhall, and Nancy Cheng, with contributions from Claire Alyea, February, 2011

Cohort V Final Report and Meeting

1. Research Question

Our project examines the broad question: "What eportfolio processes and systems can best address student-centered assessment, diverse curricular requirements, and participatory learning?" We work with three academic units to develop student learning outcomes informed through the eportfolio process, focusing on shared learning outcomes, such as teamwork, and communication.

2. Findings

Our research examines the implementation of eportfolio learning in a Wordpress blog environment in three professional programs at the University of Oregon: Arts Administration (AAD), Lundquist College of Business (LCB), and Architecture (ARCH). Our students have been posting regularly to their individual learning blogs and the posts are aggregated into a course website with additional instructor-generated resources. We examined how the eportfolios could support experiential learning by deepening the reflective process and providing collaborative synergy. We found specific changes in learning and pedagogy occur as a result of participation in eportfolios in an open blogbased platform.

Research Question

We started with a broad-based implementation lens by asking: "What eportfolio process and system can best address student-centered assessment, diverse curricular requirements, and participatory learning?" From our broad research question, we moved towards a focus on experiential learning and related pedagogy rather than assessment. We were interested in knowing, "Could learning eportfolios could encourage students to have deeper, more reflective learning, and stimulate more significant connections across learning experiences?" We believed that eportfolios would help in development of professional career skills, such as communication and collaboration. We were also interested how the process would change how faculty teach: whether it would encourage more appropriate formative assessment methods.

While we were all interested in reflective learning and development of 21st century skills, research sub-questions emerging in response to the unique learning environment and objectives of each program. The nature of the curriculum, learning theories, and

approaches to learning and pedagogy shaped each implementation and resulting engagement.

Three disciplinary contexts

In **Arts and Administration** (AAD), learning eportfolios transitioned from course-based showcase eportfolios, to two-year program level graduate learning eportfolios, which included instructional blogs, project blogpages, and an aggregated hub that provides a point of entry to program-level information, course information, faculty and student information, tutorials and eportfolio guidance, and a program-level blog. Factors in student engagement in learning eportfolios, instructional blogs, and the aggregating hub, were tracked over a two-year period.

Since fall 2009, all entering Arts and Administration graduate students now create learning eportfolios in the wordpress system, in addition to showcase eportfolios in html. On their learning eportfolios students post their learning objectives and two-year academic plan, and for each class, they post learning objectives that connect the course to their larger academic and career goals. Periodically through the term, and at the end of the term, students post artifacts and reflections that provide a narrative and evidence for their learning and how it connects with their overall objectives. During their summer professional Internship placements, students create "field blogs" that connect to their learning eportfolios, allowing them to demonstrate how they are connecting theory to practice, how their thinking is changing, and how their research is connected. As an eportfolio system in a blogging environment, students also have the option to aggregate multiple web 2.0 tools that enhance their learning experience, and if they choose, to maintain an active blog through posting assignments, reflections, and professional development and research activities. These learning eportfolios assist students to build a body of evidence for the development of critical 21st century skills.

In the **Business** school, (LCB), eportfolios transitioned from one course to five undergraduate courses, faculty blog portals, and program web blogs. Indicators that were examined included how eportfolios support deep reflection in core professional development skills across the curriculum. Accreditation requirements include analytical problem-solving, communication, collaboration and ethics.

LCB is committed to experiential learning as a model to help students develop professional skills, with experiential learning defined by Kolb (1984) as, "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41), by moving through the Kolb Experiential Learning cycle of 1) Abstract Conceptualization, 2) Active Experimentation, 3) Concrete Experience, and 4) Reflective Observation

Every undergraduate Business major at the University of Oregon takes a course entitled BA352 – Business Leadership and Communication. In that course, students engage in project-based learning where they work with a team over 10 weeks to complete a significant project. The project itself serves as the "vehicle", or concrete experience, for the development of leadership, collaboration and communication skills. Reflection has always been an integral part of the course but in the past, reflection was done via semi-regular (2-3 times per term) reflection papers. In the summer of 2009, the courses were included as part of the Ufolio pilot, utilizing learning eportfolios in a blogging environment as the vehicle for reflection.

Over the course of the term for each class, students were asked to complete at least one blog post per week. Students were expected to follow these guidelines independently and little, if any, further instruction or feedback was given during the term. The idea was to provide enough structure so that students' posts were focused in relevant ways but not so much structure that students did not feel free to explore ideas in their posts. Previous experience by faculty revealed that when guidelines were to prescriptive, students limited their posts to only what they were told to write.

In **Architecture**, the use of eportfolios shifted from final presentation summaries to developmental process blogs. The scope has grown from one faculty member's courses to include introductory training for 90% of entering students, reinforced in five additional courses per year. The courses ranged from a few students blogging about the departmental lecture series to an introductory computer graphics class. Not surprisingly, the perceived success of this implementation depended highly on the learning context.

In a field that is greatly dependent on graphic and spatial communication, the eportfolios revealed how writing could support the development of spatial design ideas. Expressing design concepts in words helped students focus intentions and plan next steps, they generally felt burdened by being asked to write as well as to draw and model.

At the campus-level, participation in I/NCEPR provided a support mechanism to engage in examining the efficacy of eportfolio learning across the curriculum. We piloted blog-based eportfolios in Spring 2009 after our participation in I/NCEPR began; UO is now implementing blog-based eportfolio learning throughout the campus. This provides a fruitful area of inquiry, and suggests a longitudinal study in how faculty and students engage in blog-based eportfolio learning.

Research Measures

From the first year in the cohort (2008) to our third year (2010), we have administered research measures to track program improvement and assess student and faculty engagement. We were challenged to find measures that satisfy both the course-based eportfolio use, as well as program-level eportfolio use, and to assess changes in learning and teaching across three academic programs. Measures included:

- Open-ended informal focus groups with faculty and students
- Interviews with participating faculty in AAD, ARCH, LCB
- Surveys:
 - Cross-disciplinary survey of students in ARCH, LCB, and AAD
 - Pre surveys and post-surveys of graduate students in AAD who maintain program-level learning eportfolios examining factors of engagement and usage.
- Analyses of student and class eportfolios
 - Rating reflection according to the Kolb Learning Cycle
 - Rating Architecture eportfolios for engagement (# & duration of posts), cross-pollination (comments given/received), contextual connections observed, writing quality, and project development continuity.

Summary of Findings

The theory behind the project suggests that eportfolio learning leads to student centered learning and pedagogical change: applying technology changes the ways that student and faculty engage in learning. Preliminary assessments from our implementation suggests that eportfolios in a Wordpress Multi-User (WPMU) environment supports multi-modal learning, and lead to significant changes in pedagogy for the participating faculty.

Though another sifting of the data is needed, preliminary findings from surveys, questionnaires, and analysis of eportfolios indicate that eportfolio learning in the Wordpress (blog) platform supports unique student learning and pedagogical changes in the following areas:

- Peer to peer engagement increases
- Critical reflection increases as a result of the unique digital environment.
- Student self-assessment of change and development over time increases
- Student ability to demonstrate and articulate growth over time improves
- Students make curricular and co-curricular learning connections
- *Skills learned in the eportfolio environment are transferable*

Aggregated Findings

Did changes in learning occur?

In terms of changes in student learning, students who engaged in eportfolio learning showed improvements in reflective learning, and iterative learning, students reported that the benefit of participating including: sharing and viewing each other's work led to increased student-centered learning; aggregating and archiving their own work led to greater self-reporting of growth over time; and the unique value of the public and visible nature of system provided unique opportunities for peer to peer learning and self-efficacy.

Student self reports suggests that the following areas of eportfolio learning have significant implications for changes in learning: *Applications of technology, archiving, deep reflection, and iterative learning.*

Technology- digital context & comfort level

Students demonstrate a degree of discomfort when asked to transfer skills and tools employed in informal learning to formal learning contexts- these are domains that they have traditionally kept separate, and affects how they assert their digital selves and identities in different contexts. We found that students who self-assess their ability with social media (i.e. Facebook & Flickr) at high levels in pre-measures may end rating themselves much lower when being asked to engage with similar web 2.0 technologies in formal learning contexts. Frequent voluntary participation makes technology seem easy, compulsory participation can be uncomfortable.

A June 2010 survey of students using UfoliO, found that 37% of students reported using social networking websites, and 83% reported using Web 2.0 applications such as blogs, wikis and participatory websites for sharing ideas, photos or videos. 83% of students stated their level of comfort in engaging with online technology as minimally "comfortable," while 33% of students felt "adept" or "advanced."

The technological facility of the blog system is one of the most crucial factors for fostering positive results. 66% of students rated interacting with their blogs at least "somewhat easy" while 16% describe it as "easy." Even with these responses, 37% of students reported technical problems as their main source of frustration with the blog system. When asked which type of tech support they would prefer, students overwhelmingly chose hands-on workshops (73%) and online guides (70.3%). A smaller amount of students chose peer forums (40.5%) and printed guides (37.8%), with a little interest in phone support (16.2%).

Aggregating and Archiving

"One-stop access to my work, my community and feedback from anywhere" was the second-highest ranked reason to blog in a June 2010 survey of architecture students at the University of Oregon. In a survey from June 2010, students ranked "being able to see other students' work and comment on it" as the top reason to blog. One student reflected, "I liked being able to see other students sites - to see different interpretations and get ideas. I actually looked quite a lot. It raises the level of the work and you see who has the skills. You also know if you need more help and you can go to a help session

With instructional blogs, students practice *collaborative learning and contributing to a knowledge bank*. Describing the utility of eportfolios in a computer modeling class, an Architecture student noted, "it's great because you can see how they did something, or read what they wrote about it, if they are having the same problems." Resources are contributed communally throughout and beyond a course, permitting new opportunities

to share precedents, research, or information. As readily searchable interconnected documents, learning eportfolios, and aggregate instructional blogs further this ideal.

Students in each program self-reported that it was valuable to be able to aggregate and view their work over time. End of year surveys in AAD administered in June 2010, which examined factors in engagement and usage of the learning eportfolios found that students self-reported value for a multitude of uses: aggregating all their academic work, posting course assignments, information sharing, keeping track of resources. Students reported that "It keeps all of my most important school work in one place, and it is something to show to potential employers," "it is simple and provides an accessible hub for collecting work and sharing it with my colleagues in school."

Architecture students reported that, as a chronological record, a learning eportfolio helped to understand the process and progress of their learning in a way that may not be visible without archiving. Students connect what they did with what they want to do, as a past, present and future time-marker. It can be a way that appropriately represents one's ideas, proficiencies, and experience. Students are able to reflect upon past assignments and how to adjust their projects given the opportunity to redo them.

Student design eportfolios reveal individual development processes, providing a platform for evaluating quality and understanding improvement. One student reflected, "I like posting work from my process. I like showing what I did, how I achieved it: sometimes you don't see that in the final." When asked what the best use of their blog has been, 70% of students mentioned themes of presentation, including recording process, and critical reflection.

When asked if there was value in archiving work, one student observed, "Yes, I think there is, because it shows more of the process. You have the opportunity to show others more of your work. You end up archiving more of your process work too, otherwise trace just gets thrown away." Responses also reflected a broader view: "When you look back on your beginning work you see how far you've come and what you've learned."

One student observed, "...it is a nice way to organize things...it was really good for precedents, I don't think I've ever had everything together in one place - all the precedents and references, that was helpful." A majority of students polled (54%) agreed that their blog helped them "better organize information, resources, tools and coursework." As students accumulate their background research, an inter-connected eportfolio system can help provide easier, faster dissemination of this information to students with similar interests, especially when organized with the appropriate tags or categories.

Lifelong learning- Co-curricular and professional development

One of the most immediate and unexpected results of the implementation has been the widespread adoption of the blog platform across the widest array of applications. In just

AAD, students are applying what they are learning from utilizing their learning eportfolios in the wordpress environment, and creating project blogs to demonstrate co-curricular work, using it to collaborate and represent projects in class, to keep field journals when they are away on their internships, to post reflections and keep in touch with what each is doing and experiencing. Implications for lifelong learning are also suggested in such student self-reporting as perception of the value of engaging in learning eportfolios in a wordpress environment: importance of its use as a marketing tool and branding, personal expression, information collection, communication and distribution of work, and for job advancement. Said one student "I blog for other organizations already, and the entries can serve as writing samples for potential jobs. I use a variety of social media for research and making professional connections."

In a 2009 poll of students from various majors, most liked the idea of writing in blogs (18 votes) more than other mediums: journals (14), essays (11), or tweets (6). Working online gives significance to the personal design process, particularly at the undergraduate level before affirmations of work have been solidified through more extensive office and studio experience.

Changes in student learning – Reflection, iteration, growth We used the Experiential Learning Cycle (Kolb, 1984) as a lens for understanding our students' progress. Levels 2,3 and 4 all indicate reflection, the higher levels indicate deeper learning.

- 1. Concrete experience Student actively engages in an experience that is relevant to course and/or personal learning objectives
- 2. Reflective Observation Student distills the experience into observations and reflections to better understand what happened during the experience. The goal is to gather data and observations on the experience rather than to evaluate the experience.
- 3. Abstract Conceptualization Student applies relevant concepts, theories and information to the experience with the intention of forming generalizations or hypotheses.
- 4. Active Experimentation Student applies and tests what has been learned from the experience in new situations
- --- (Adapted from Frontczak, 1998)

LCB learning eportfolios were analyzed as to how the entries corresponded to these stages:

1 = the student blog entry merely reported the facts of an <u>experience</u>

"On Tuesday in class we were given this packet that was kind of a guide to get us started thinking about the presentation. We struggled practically the whole class time to try and come up with a core idea. We decided to step back from that, and see if we could come up with something the next time we met."

2 = the entry included <u>reflection</u> that indicated the student thought about what the experience meant or revealed to them

"The exercise showed me the progress we have made as a team. Instead of agreeing on almost everything like we did earlier in the term, we are now arguing for multiple points which will ultimately help us come to a better conclusion because we have more effectively explored all options. I believe that this growth can be seen in our changes from our first draft of our proposal to what it looks like now."

3 = the entry <u>generalized</u> from the experience being written about to other, similar experiences. They showed some cognitive understanding of concepts that could be applied in different ways.

"From the group presentation, I learned how people can create synergy when they work in a group. Everyone had different ways to approach to situations and problems. By sharing our own thoughts in meetings, we could create great presentation slides. Now I understand why our professor divided us into groups according to our characteristics. My team was consisted of doer, challenger, thinker, and supporter. By having different types of people in one team, we could bring better works in meetings."

4 = the entry commented specifically on how the student <u>applied</u> what was learned in one experience in a subsequent experience or how they had plans to do so.

"I learned a lot about myself in this class, because of the situations we were put in. Not every situation I was in with my group was 100% comfortable for me because I am normally used to working by myself on everything in my life. I mentioned before that I am an only child, so I have always relied on my own skills to get my by. I am really glad that I took this class because I got to work with 4 other people that were completely different than me. I am really happy I got to experience this and I feel that I have really grown a lot. I didn't think that a class could actually teach me something that would shift my paradigm on thinking for my life but it actually has, and I'm honestly not just saying that. It's really weird how it worked out but I think differently now about working with groups and interacting with people."

Of 63 reviewed posts, 15 (24%) were at the concrete level, 33 (52%) were at the reflective level, 12 (19%) were at the conceptualization level and 3 (5%) were at the application level. By our rough measure, 76% of the posts engaged in some level of reflective thought. Given the limited guidance and instruction on reflection in the course, this was an extremely positive result. In other words, there is great potential for growth here with more focus on teaching students how to effectively reflect.

Students across the other programs self-report that their learning has changed as a result, as well. For example student in AAD reported that"

"I am forced to look back on my work and reflect on how it informed my understanding of the course topics. I am also more organized in my documentation of work."

"Classes that utilize the eportfolio typically ask for pre and post reflections on the class, so it helps to identify how I learn and grow throughout the course."

"Having a centralized place for all of my work and thoughts (learning goals/reflections) has helped me track my overall learning and draw conclusions/see themes over the quarters."

A Business student noted, "At first I simply viewed these posts as another assignment to complete each week; however, as the term went on I realized that these posts were the perfect opportunity to organize my thoughts and experiences from class time and group meetings. I began to use them how they were intended and ended up getting a lot more from them then I ever thought I would."

Reflective learning in a blog-based eportfolio

In LCB, a focus group was conducted with 5 faculty who used both paper-based as well as digital reflections, and surveys of student experience were collected. Results suggested that digital tools, specifically a blogging platform (Wordpress Multiuser in our case), can increase reflective learning over analog-based reflection (i.e. journals, papers) if coupled with effective pedagogy. In short, digital tools have unique properties that contribute to reflective learning when reflective learning is well-integrated into the course.

While there was not have a control group for this study, some assertions can be made about the unique qualities of a digital tool for reflection that provide significant benefits over paper-based reflection, and the unique qualities of an open-source blog tool.

In Architecture, the focus on creative design and iterative learning was supported by the use of learning eportfolios. The use of learning eportfolios and instructional blogs focus on the action, feedback and reflection that create valuable process and compelling communication, while de-emphasizing product as the sole objective. For the beginning designer, verbal and multimedia skills can supplement nascent graphic skills. An easily formatted instrument, blogs combine visual information, written thought, external resource links, and a forum component, in an environment where it is possible to quickly create cogent arguments. When definitive shapes and forms can stifle consideration of design variation, the written word can liberate and sharpen the way one conceptualizes design.

As one student explained, "Experiential narratives can really help you get your idea across, like a walkthrough. You write exactly what you want to happen and then you design it." Striving for professional quality work, reflective assignments are tools for students to develop strong arguments for their designs, while perfecting grammar and communication skills. As the final product of any studio is the formal presentation of design proposals, the learning eportfolio provides an opportunity for iteration. When asked if there is value in reflective or descriptive writing, one student commented, "It's beneficial because it makes you think about what you did. You think about your process and how you got there. If you like it, you can do it again, and if you didn't you can modify your process."

Peer to Peer Collaboration

In addition, many students in the sample group made spontaneous comments as to the benefits of utilizing eportfolio reflection feature:

"The weekly blogging has been extremely beneficial for me to grow as a person and a member of the team. Blogging my weekly feelings on this class/group/assignments etc. has made me realize that I need to be more open and easy with my first impressions."

"The weekly blog allowed me to reflecting on my progress and areas in need of improvement. This allowed me to adjust my behavior to suit my team's needs."

"The weekly blogs served as mini-assessments of me, my group, and our project."

"While posting these blog entries, it provided me with an opportunity to measure my success, because I was able to go back on the activities within the past week and identify key areas where I made good decisions as a leader, and areas for improvement."

Changes in pedagogy

In AAD, eportfolios are administered by a faculty team, and since it is tied to the graduate curriculum, goes through a faculty and department approval process. As the department has moved from showcase eportfolios to learning eportfolios, students demonstrate a greater degree of resistance. As well, not all faculty perceive the benefits of participation, viewing the risks as greater than the benefits. The learning curve for faculty participation in eportfolios can be difficult, and unless the institution supports participations through incentives or rewards, then faculty engagement can be a challenge.

Results from the AAD student post survey administered in Fall, 2010 shows that students do not use the hub as a portal to connect with other students, courses, and the department – and in fact, do not use it all. Preliminary evidence shows that it is perhaps more useful to prospective students, allowing them to find extensive information on classes, curriculum, students and student experience, faculty and student work. However, in

informal interviews, faculty have reported on how participation is leading to innovation in pedagogy, and curriculum and assessment. For example, faculty report on how the "real time" nature of being able to aggregate social media tools into an instructional blog and where are students are contributors to the learning environment, has radically decentered the instructors from the learning process, and fostered a more dynamic participatory environment.

Research has suggested that participation in learning eportfolios can lead to changes in learning and pedagogy, as courses and curriculum become more student centered. Though we need to examine more in this area, the preliminary findings, based on informal interviews, suggests that participation does lead to changes in student learning and pedagogy. One of the factors has to be with how faculty are engaging with it in their courses; another factor is the general climate for managing risk and innovation. Both faculty and students acknowledged that utilizing it for innovation and change was high risk – from the publicly visible profile of the project and the implications for their academic, professional identity; and for faculty who experiment and varying degrees of success. Until the administration provides a reward structure for faculty who innovate in eportfolio learning - critical for pre-tenure faculty - then, faculty engagement and innovation will continue to be a challenge

In Architecture, ePortfolios give professors a more robust idea of student abilities, giving ongoing insight into the student experience of the course, particularly with shy or international students. Aggregate instructional blogs allow professors to tailor their teaching by monitoring and documenting overall progress through a living syllabus. A robust instructional blog that reveals multiple perspectives and invites comments can facilitate cross-exposure to new ideas, stimulating collaborative thinking. As a public mechanism, the blog format allows for external discourse, opening the door to professional networks and the broader academic community.

3. Inquiry Process

Broad project development goals included:

- · For students: encourage deeper, more reflective learning, more significant connections across learning experiences, and professional career development.
- · For faculty: encourage new, more appropriate formative assessment and portfolio learning, approaches to teaching, and evaluative learning.
- For administrators: support assessment goals and accreditation interests. We explored the efficacy of including the eportfolio process in shared learning objectives that support students to demonstrate and reflect on learning and present their accomplishments, for faculty to archive and showcase instruction and student work, and for academic units to collect information on student progress and achievements.

Research guides the eportfolio practice. Data collection strategies were included at each stage of the development process: we have utilized various research

methodologies such as focus groups, surveys, questionnaires, informal interviews, portfolio reviews, self-reporting, and reflexive practice. We are managing continuous program improvement based on program evaluations, and practice is reflective of the ongoing development of the field as we continue to strive for a research-driven project that supports innovation.

4. Value of participation in the coalition

We all agree that the participation in the Cohort has been invaluable to our project in several ways. First, the simple fact of being accountable to advance our research and produce has driven us forward over the three years. Without that, we would not have made close to the progress we have. Second, the feedback and interaction with the other members of the Cohort and the Cohort leaders has shaped our thinking and research in significant ways. Our research questions and approach were improved over time as a direct result of those interactions. Finally, we have also benefited from the work of other Cohorts. Several reports from earlier cohorts shaped our research. In addition, at our first meeting, we heard the Final reports of Cohort IV which spurred our choice of an open-source tool (Wordpress) over an off-the-shelf eportfolio product. Overall, the organization of the Cohort structure with its 3-year biennial commitment and the interactive workshops were exemplary models for fostering effective collaboration.

- Research-based practices
- Contextualizing in terms of research and practice in the field
- Accessing a community of experts and consultants to assist us in the development of our project, advances in the field
- In terms of research, generation of new knowledge, contextualizing research through extending or confirming prior research.
- Sharing strategies with colleagues/community of learners and knowledge producers

5. Application to practice and or dissemination of your research, present and future

We still have significant work to do both in the advancing of our practice and dissemination of our research.

For AAD, our commons has not resulted in what we hoped it would - that is a living, vibrant, digital learning community. However, innovative pedagogies are resulting, for which engaged faculty are now publishing. Innovation and ongoing development, and how research is applied, has become a department-level conversation, and so has slowed

down as we struggle to accommodate to different political pressures. Research will continue to be disseminated through a review of existing data, program evaluation materials, and eportfolios, in single authored and co-authored publications. Ufolio anticipates generating a co-authored paper based on the current findings, and to continue to collaborate across programs.

On the practice front, we have been operating in "pilot" mode for several years with little administrative support. While we could continue advancing our practice in small ways within our own domains (classes, programs), we have higher aspirations to spread eportfolio practices more broadly across the University. Several upcoming and ongoing university initiatives may give us an opportunity to do just that. Presently, there are efforts across the university around assessment of learning, general education reform, and co-curricular student engagement. Each of these areas provides ample opportunity for us to engage a broader audience on the value of eportfolio thinking and learning. Our findings from this research can help us make a more compelling case to that broader audience. Our challenges are to find ways to communicate the value of eportfolios and to translate our practices and tools into workable solutions for a variety of contexts and applications.

On the research front, we have an array of rich data sources to still mine. We will be looking into places to publish on general eportfolio practices and on eportfolio practices specific to certain disciplines (i.e. Journal of Education for Business; Academy of Management Journal of Learning and Education).

Questions that will continue to guide the practice and research include:

- 1. What pedagogies and practices can continue to drive reflective and project-based learning across a curriculum when it is not longer directly connected to a grade? How do we continue to engage students in the practice at a deep level and not just go through the motions because it is "required" by the program?
- 2. Can those cross-curricular practices drive deeper learning of professional skills? In what ways?
- 3. How can eportfolios serve as assurances of learning outcomes for accreditation bodies?
- 4. How can those practices be implemented with the entire student body of the Business School and not just a small Honors cohort?
- 5. What are the factors for faculty participation in adopting innovative pedagogies related to learning eportfolios?