

The value of eJournals to support ePortfolio development for assessment in teacher education

Susan Crichton

Gail Kopp

AUTHORS

Susan Crichton is an Associate Professor in the Faculty of Education, University of Calgary. Correspondence regarding this article can be sent to: crichtos@ucalgary.ca

Gail Kopp is an Assistant Professor in the Faculty of Education, University of Calgary. She can be reached at gkopp@ucalgary.ca

Abstract: This paper presents findings from a two-year pilot project into the use of ePortfolios as a tool for assessment in a two year, field-oriented, inquiry-based teacher preparation program. Participants consisted of five cohorts of pre-service student teachers and five instructors; interviews, focus groups, artifacts, and project meetings provided the raw data for analysis. The originality of this work rests in the importance of establishing an eJournal to accompany the ePortfolio. Based on our findings in this action research study, we challenge and add to the existing ePortfolio literature around such issues as ePortfolio project design, process vs. product, the use of templates, social software, and documentation.

Résumé : Cet article présente les résultats d'un projet pilote de deux ans portant sur l'utilisation des portfolios électroniques comme outil d'évaluation au sein d'un programme de préparation des enseignants axé sur la recherche et la pratique d'une durée de deux ans. Les participants se composaient de cinq cohortes d'étudiants en enseignement non encore sur le marché du travail ainsi que de cinq instructeurs; les données brutes qui ont été analysées proviennent d'entretiens, de groupes de discussion, d'artefacts et de réunions de projet. L'originalité de ce travail réside dans l'importance attachée à la création d'un journal électronique pour accompagner le portfolio. Sur la base de nos conclusions dans cette étude de recherche appliquée, nous remettons en question la documentation existante tout en y contribuant sur des sujets tels que la conception du projet de portfolio électronique, la comparaison du processus et du produit, l'utilisation de modèles, les logiciels sociaux et la documentation.

Introduction

Our research suggests that eJournals¹ help to make ePortfolios more authentic and relevant to the students' lives. Focusing on reflection and inquiry, the study explored the use of social software as a tool to build and sustain a community of practice, recognizing that teacher education lives in a community well beyond the university experience.

The relevance of this topic rests in the link between journaling and portfolio development as well as the integration of technology for authentic purposes. The students who were

involved in this pilot left our program prepared to work differently, having experienced technology as an enabler of changed teaching and learning.

Research findings presented in this paper challenge some of the notions presented in the literature below and support others. The paper will report on the integration of eJournals within an ePortfolio environment to allow robust formative and summative assessment of pre-service teacher work and to encourage the development of a community of practice among student teachers, partner teachers, and university instructors.

Theoretical Framework

In recent years, the literature (Barrett, 2003, 2005; Fox, Kidd, Painter & Ritchie, 2006; Jafari & Kaufman, 2006) is rife with discussion about the value of portfolios (both paper and electronic) for educational purposes. Of particular interest to this study and, on a larger scale, to our inquiry-based, two-year, after degree, teacher preparation program, were the advantages of authentic assessment afforded by portfolios (<http://www.educ1.ucalgary.ca/dtp/program/index.html>). Darling-Hammond and Snyder (2000) use their framework for assessment to present a convincing argument for the advantages of portfolios, including opportunities:

- to incorporate multiple kinds of evidence over time and across different contexts,
- to “stop motion” in the fast-paced, complex environment of teaching so that critical aspects of these can then be examined shared and used as learning experiences,
- to raise teaching decisions to consciousness, making learning visible for deeper consideration from multiple perspectives, and
- to engage in continuous self-reaction and critical conversations (p. 524).

Darling-Hammond and Snyder also point out that the very act “of engaging in such analysis ultimately enriches their [student] ability to understand the effects of their actions.” Whitford, Ruscoe and Fickel (1999) concur, indicating that it is during

this process of selecting and discussing artifacts of their practice that candidates internalize the standards, examine more deeply what they are doing and what it means, and gain multiple perspectives on the meaning of events, thus enhancing their ability to learn from those events. (p. 202)

Another advantage of portfolios implied in the literature is the opportunity to incorporate digital documentation as evidence for portfolio claims. In describing the importance of documentation for reflective practice, Dahlberg, Moss and Pence (1999) note that it

Enables us to see how we ourselves understand and ‘read’ what is going on in practice; with this as a base, it is easier to see that our own descriptions as pedagogues are constructed descriptions. Hence, they become researchable and open for discussion and change. (p. 147)

Further, it helps students to make their thinking explicit, supporting Eisner’s (1998) notion that there is nothing more slippery than thought.

The documentation process also introduces students to authentic uses of technology to support information gathering and management as well as social networking, collaboration,

and community building. This use of technology, for real and relevant purposes, helps teachers, at various stages of their careers, embrace ICT as an integral tool for enhancing teaching and learning rather than an “over sold and under used” imposition in classrooms (Cuban, 2001). Like many provincial or state jurisdictions, Alberta has a formalized set of ICT knowledge, skills, and attributes (KSAs) that (1) student teachers must know prior to certification and (2) practicing teachers must integrate into ongoing classroom activities. The introduction of ePortfolios was seen as a way of addressing these KSAs in an intentional and programmatic way.

Described by the National Learning Infrastructure Initiative as “a collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time on which the person or organization has reflected, and designed for presentation to one or more audiences for a particular rhetorical purpose” (Barrett, 2005, p. 5), portfolios typically serve the purpose of assessment for learning, narrative of discovery, and tools for reflection – all core components of inquiry-based teaching and learning. Therefore, it was with this understanding, and the awareness of the literature that follows, that we designed our pilot project.

As is commonly expressed in the literature, portfolios emphasize analysis and reflection by honouring the process not the product (Acosta & Liu, 2006). In a teacher preparation program that values process as well as product, this shift in focus was an important expectation for us in introducing ePortfolios for assessment. However, as Flanigan and Amirian (2006) note, “Documents, projects, and video that student felt represented their best works and abilities were collected as artifacts for the portfolios” (p. 105). This finding appeared to place value on the quality of product over the process.

Historically, the literature suggests that portfolios can help faculty sustain and enhance the quality of pedagogy for pre-service teachers by engaging them in conversation and reflection and assessing those interactions in meaningful, authentic ways. The ability to do this rests in the design of a portfolio experience that encourages risk taking, good questioning and documenting the responses to those questions / experiences in manageable, sustainable, and meaningful ways (Black & Wiliam, 1998). There are a number of ePortfolio project designs in the literature that support on-going reflection and collaboration. Greenberg (2006), for example, describes the Collaboratory ePortfolio, a general-purpose learning ePortfolio designed as a student-centred repository. The “collaborator document architecture” of the repository supports on-going conversations where students organize, share, and discuss work with teachers and peers in a collaborative virtual space. Darling-Hammond and Snyder (2000) describe two teacher preparation schools where teams of stakeholders review student ePortfolios. One of these also includes an ePortfolio team to help students prepare the portfolio. Looking at these examples, we wondered at the workload and the number of people involved, particularly for the teacher / mentor side of the interaction. In the time constraints of a two-year program that is already heavily loaded for students and faculty, the design of the ePortfolio experience could not be time- or personnel-intensive if it was to be “manageable or

sustainable" (Black & William, 1998). Therefore, we felt we needed to design a unique ePortfolio structure to support our instructional philosophy as well as program constraints.

The structure of ePortfolios varies. Throughout the literature, mention is made of a template as "a master or pattern from which similar things can be made" (Flanigan & Amirian, 2006, p. 111). Templates range from specific, commercial portfolio software to program developed style pages in HTML authoring software such as Dreamweaver. In our project, the notion of any content template was rejected as being inconsistent with our inquiry-based philosophy, but ideas around web templates were explored as a way of making the technology transparent and helping students focus on developing the content of the ePortfolio rather than wrestling with learning software applications (Romance, Whitesell, Smith & Loudon, 2006).

The project described in this paper acknowledges and builds on the existing literature, introducing eJournals as rich, personal repositories from which students can draw significant ePortfolio content. As noted by Helen Barrett (2008), a champion of ePortfolios, "The University of Calgary has added an important dimension to the ePortfolio literature, by emphasizing the importance of process (the eJournals or blogs) as much as the product (the ePortfolios)."

Research Design

The purpose of this research was to understand how pre-service teachers might use ePortfolios to document inquiry in practice. In our initial steps, based on the literature, we saw ePortfolios as a way to promote, extend, and assess the development of inquiry based teaching and learning, and as a way to generate concrete evidence that our students are becoming thoughtful, rigorous, and reflective teaching professionals (Dewey, 1904). We believed that ePortfolios could help us to sustain and enhance the quality of pedagogy in a dynamic, triadic community of pre-service teachers, university instructors and practitioners in the field. When given the opportunity to reflect on the ePortfolio project, the former dean remembered back to the early days of our re-designed and highly innovative teacher preparation program. She noted that she and her development team recognized the need

To change the ways that we determined our graduates were ready to teach. The typical courses and grades that appeared on traditional transcripts were abandoned. Assessment processes were revised to be compatible with a program that focused on inquiry-based-learning and professional approaches to working together to resolve educational problems. Professors argued convincingly that students working together, as they later would in educational settings, would be better served if they were allowed to work collaboratively, rather than competitively.

Grades were replaced with a pass/fail assessment that signified the students' readiness to serve in a professional capacity. Our assertion that our graduates met the profession standards required that we provide evidence that this was so. We conducted an extensive review of the program components to increase our understanding of how and where we had embedded the required knowledge, skills, and attributes. Even with the report we generated, it seemed that faculty, students and employers were unclear. I yearned for a way to have all faculty members and partner teachers understand how all the components came together, to have students recognize their learning, and to have other educators, particularly employers understand how well our program prepared future educators. I have for many years studied the work of the Reggio Emilia schools in Italy, and while there are many aspects of their

work that I find significant, the one that fascinates me the most was how they use documentation. Perhaps we will be able to consider documentation as Reggio uses it in more depth as we look at what you have done with the e-DOL. (A LaGrange, Personal Communications, April, 2008)

This direction, to provide evidence of students' growing understanding of what it means to become a teacher, along with an emphasis on documentation, guided the design of our pilot. For a more complete overview of pedagogical and program factors under which this ePortfolio project was placed, see *Deepening Understanding of Inquiry Teaching and Learning with E-Portfolios in a Teacher Preparation Program* (Smits et al., 2005).

With a view to potentially implementing ePortfolio as a means of assessment across the entire teacher preparation program, a two-year pilot study was conducted. The research questions of interest to this paper focused on the following areas:

1. How can ePortfolios help university instructors and practitioners in the field assess the knowledge, skills, and attributes of pre-service teachers who are participating in an inquiry based teacher preparation program?
2. How can ePortfolios help pre-service teachers better understand their growth and development?
3. How can technology support the development of ePortfolios and community?

With a focus on collaboration, recursive reflection, iterative investigation, and systematic problem solving (Argyris, Putnam & Smith, 1985; Stringer, 1999), we adopted an action research methodology (Baskerville, 1999). The study would involve action, analysis, reflection and re-action as we followed a number of instructors and five cadres of students longitudinally across two years, with periodic analyses and reflection to effect any directional changes that seemed appropriate. Data collection and analysis procedures are presented within specific sections included in each of the two years of the pilot presented below.

Pilot: Year One **Setting**

In Year One of the pilot, the ePortfolio project was situated in the first-year field strand of our two-year, after degree, teacher education program. The field strand has two components – a weekly, two-hour, on-campus seminar and two days per week in the field for practicum experiences. Semester one of this yearlong experience focuses on learners and teachers; semester two expands the focus to include context and curriculum. In both semesters, each student is expected to keep a journal (previously paper) that is shared with the field instructor and partner teacher. The field strand was selected as the ePortfolio “home” because theory and practice merge in the field and the experiential and situational richness of the field would support and promote ePortfolio development.

Participants

Collaboration, as required in action research, required representation from the key stakeholder groups. Participants in this study included three field instructors, three cohorts of first year students, and the students' partner teachers in the field. This paper discusses

results of data gathered from the first two stakeholder groups.

The student cohorts were assembled based on positive responses to a recruitment letter that was sent out before classes began. Two of the student cadres consisted of 12 and 14 elementary pre-service teachers; of these, 23 students consented to participate. The third cadre was made up of 12 secondary pre-service teachers; nine of these people consented to participate in the study.

The three field instructors were asked to include the creation of ePortfolios as a mandatory part of their course outlines, but the form and expectations of the ePortfolio assignment were left to their discretion. Two of the instructors were unfamiliar with technology while the third was an educational technology specialist. None of the three had had previous experience with electronic portfolios.

Data Collection and Analysis

In Year One, data collection included the following:

1. Student teacher work (e.g. completed assignments for the field course, reflective journals, ePortfolios)
2. Comments / feedback / semi-structured interviews with student teachers, partner teachers, and instructors)
3. Student focus group feedback
4. Informal and formal interviews with student teachers, partner teachers, and MT instructors

In the transition between Year One and Year Two, initial analyses were thematic, primarily focused on the comments, feedback, focus group, and interviews with the three stakeholder groups.

Results and Discussion

Not surprisingly, results of the Year One analyses clearly indicated that the instructors had used very different approaches to take up the ePortfolio challenge. Two of the instructors concentrated on the role of documentation for reflection but few of their students actually reached the ePortfolio stage. In contrast, the third instructor focused on the ePortfolio and ways in which technology might support documentation for ePortfolio construction (electronic journals through BlackBoard and course assignments). However, this instructor placed no emphasis on the deeper ideas of documentation. With these differences in mind, there were four main findings.

Process vs. Product

A surprising finding was the students' reluctance to include works that were in process or were examples of risk taking or mistakes, in spite of all three instructors' encouragement and support for this. Students in this study tended to view portfolios as a collection of best works or a showcase for quality products. They also did not see their portfolios as something to stimulate conversation or as a vehicle to promote interaction and sharing.

These findings would appear to challenge the work of Acosta and Liu (2006) who indicate that portfolios honour process over product and would seem to support Flanigan and Amirian (2006) who found that students wanted their best work represented.

Missing Process Elements

Preliminary analysis of the Year One portfolios suggested the process of developing them showed promise for making thinking visible (Eisner, 1998; Giudici, Rinaldi & Krechevsky, 2001) and for offering evidence that students were examining more deeply what they were doing and what that meant from multiple perspectives. However, the student reflections tended to be summative; there seemed little or no indication of the continuous self-reaction and on-going critical conversations described by the literature. Also, the process of documentation of learning throughout the year was not reflected. Most artifacts were “new”, created just in time for the submission of the ePortfolio as just an assignment. Again, these results were not surprising considering that most of the students who created ePortfolios were in the cohort where the instructor did not stress or address the importance of documentation for learning.

Further analyses and reflection suggested a possible “course correction” around our conceptualization of the ePortfolio project. One catalyst for changed thinking about ePortfolios emerged from a comment in the transcript of the student focus group:

It was almost like it shouldn't be called an ePortfolio, because you have a preconceived idea in your head already, and people think that you can try to get a job using that. But making it clear that you're documenting your learning process, that's a huge thing.

A second catalyst was the preliminary analysis of the electronic student journals in BlackBoard, which suggested affordances for many of the expected but missing “process” elements. Gradually, in the reflection and re-action stages of the Year One pilot, our notion of ePortfolios shifted to consider eJournals as being support for “process” in the ePortfolio project. It became apparent that the instructors could focus more on the eJournal environment, stressing the value and importance of documentation as a stimulus for reflection and dialogue, without increasing workload for themselves or for the students.

Social Software

Once the decision to expand ePortfolios to include eJournals had been made, it was necessary for the project to shift to a more nimble, collaborative technology. There had been a number of problems with using BlackBoard as a forum for the eJournals in the first year.

1. There was an issue of privacy. The instructor and students found it impossible to easily transition particular pieces of information from private to semi-private to public access. A need for this is outlined in Greenberg's Collaboratory project (2006).
2. Access to the eJournals was a second obstacle, especially for partner teachers who were outside the university setting. For each and every partner teacher, technical support staff had to be contacted to set up a special account. Lost user IDs and passwords were common, interrupting the pedagogical purpose of the eJournal.
3. Lack of student empowerment was a third problem. Most control within the BlackBoard

environment rests with the instructor. Students cannot create groups, add or remove anyone from their own groups, start discussion forums, etc. This lack of student empowerment put an unreasonable load on the instructor and frustrated the students.

4. Sustainability was an anticipated fourth problem. The groups and discussion forums belonged to the course, not to the participating individuals. When the course ended or when students graduated, the community of stakeholders, the affordances for collaboration, and the repository content would disappear.

A solution for establishing a persistent community of practice for on-going peer support and mentoring was seen as valuable, making a change from the environments designed to promote on-going collaboration described in the literature. Recognizing that, we began to investigate the use of Blogging software

Templates and Mini-Manuals

In exploring the ideas related to making the technology disappear so that students could concentrate on content, web-based templates in Pachyderm were introduced in the second half of Year One as options for ePortfolio development. It was made clear, however, that students were free to develop their web-based portfolios using any tool. Only three students used the templates in Pachyderm. Other students indicated that they did not use these because they felt that the Pachyderm option was introduced too late and because they found the templates limiting. Those who did use the templates remarked that it was difficult to move the finished ePortfolios from the university system; they wanted portable ePortfolios that they could repurpose and publish elsewhere. Reflecting on their reactions to templates in the focus group, students made it clear that the template option was not valued. Further, they wisely wanted to spend their time learning software that would directly translate into powerful tools they could use in their teaching.

This resistance to templates would appear to challenge the assumptions stated by Romance et al., (2006) on the purpose of providing templates. It may well be that the web-authoring tools are becoming simpler so that students do not need templates. However, further reflection also suggested that the problem might well have been the lateness of the tool introduction or limitations of the Pachyderm template tool itself. We decided, for Year Two of the pilot, to introduce and support an open source tool called eXe (<https://eduforge.org/projects/exe/>), designed especially with educators in mind.

In Year One of the pilot, most students created their ePortfolios in applications such as Mozilla Composer, FrontPage, iWeb, and Dreamweaver. Other than the template-based tool (Pachyderm), the instructors provided explicit support only for Mozilla Composer. This support consisted of brief in-class instruction using a mini-manual – i.e., a step-by-step instruction sheet based on minimalist principles (Carroll, 1984). Examples of these mini-manuals can be seen at <http://education.ucalgary.ca/edol/tools>. The mini-manual notion seemed to empower students to move ahead at their own pace, independent of instructor or technical support help. Available through BlackBoard, the mini-manual also served as an any-time-any-place review sheet if students forgot how to do particular operations as time passed. Instructors also found that partner teachers used the mini manuals to introduce software applications to their students and colleagues in the schools, suggesting a

potential transfer to practice beyond the university environment.

Implications of results for the second year of the study

Moving into Year Two of our pilot, we adjusted our project design, based on student feedback (focus group data), instructor concerns, and analysis of the initial journal entries and portfolios. One of the major changes was an effort to shift focus from ePortfolio as product to the importance of documentation for reflective practice. All instructors and researchers felt strongly that the emphasis in Year Two should be on what is worth watching, knowing, seeing, recording and how to recognize and capture these. A second major change was an emphasis on technology to support both process and product. A variety of web-authoring (portfolio) tools were introduced and electronic journals (eJournals) and mini-manuals were added to the project. A new Web 2.0 social software tool was built in the open-source environment Drupal (<http://drupal.org/about>) to support the eJournals and to address the Year One issues around privacy, access, student empowerment, and sustainability.

Pilot: Year Two

In summary, systematic adjustments were made to our ePortfolio process, expectations and software in preparation for the second year. Instructors discussed ways in which emphasis could be placed on the journals and documentation. Development of the portfolio was linked to existing program assignments (see Appendix A). Without this linkage, we feared the portfolio risked becoming "just another thing to do." Adjustments were also made in the selection of software, shifting to blogging software to support the eJournals.

Participants and Data

The three cohorts (now second-year students) continued their participation in the pilot as did two of the original three instructors. Two cohorts of first-year students and three instructors were added.

Data collection and analysis were as described in Year One with the addition of regular collaboration and discussion among instructors working in the pilot. Rather than being solely operational meetings, this time became a rich opportunity to exchange ideas, share, and collaboratively solve problems as they rose. Instructors noted these sessions became significant forms of professional development, networking, and support as each wrestled to embrace the potential afforded within the pilot. Field notes were maintained from those interactions.

Results and Discussion

The modifications made to the project based on Year One findings, had positive outcomes for students and instructors in Year Two of the pilot. There were five main findings.

eJournal as a Repository

A substantial finding was that our emphasis on the journal created a dynamic flexible, sustainable working environment. The student journals became, in essence, a repository from which students drew reflections and evidence to support the development of ePortfolios. The architecture of the open-source Drupal environment allowed graphics, photos, audio and video to be easily attached as illustrated in Figure 1.

Students were empowered to keep their repository content private, make elements public, and / or invite a selected set of individuals into a semi-private virtual space. This was consistent with the notion of a portfolio as an archive as suggested by the National Learning Infrastructure Initiative (Barrett, 2005).

Collaboration

Unlike the ePortfolios, the eJournals became a rich forum for collaboration, interaction and community building, allowing for flexibility of time and place beyond the confines of the classroom and school, and the teacher preparation program. Analysis of the eJournals revealed a wealth of good questions, strong examples, evidence of mistakes, risk-taking and critical reflection. Ongoing conversations with the stakeholders transparently reflected process with alternative perspectives, probing questions, challenges and responses to challenge. This is consistent with Barrett's (2005) suggestion that "since one of the main goals of a portfolio is reflection on learning perhaps a blog is a good option, since it can be used as an online reflective journal and an environment that invites collaboration" (p. 23).

Process and Product

The journal captured the ongoing process of becoming a professional over time. The journal created a safe environment for risk-taking, good questioning and documenting the responses and developing ideas around those questions. The portfolio contained products of reflection on that process. The act of reviewing journal entries and selecting evidence and artifacts for the portfolio provided opportunities for richer reflection than either of these activities alone (Crichton, Franks, Hodges & O'Rourke, 2007).



[my groups](#) » [groups](#) » [Kati Bernet's e-journal](#) » Wednesday Jan 10, 2007

[view](#)

[edit](#)

[track](#)

Wednesday Jan 10, 2007

Submitted by [klbernet](#) on January 12, 2007 - 23:06. [Field Notes](#)

There have been quite a number of changes in the children. Most people I have spoken with had told me the children would be different when I went back to Westmount in January. Even so, I was surprised by how drastic changes were. The advances were in academic as well as social areas. One of my child studies has made leaps and bounds socially.

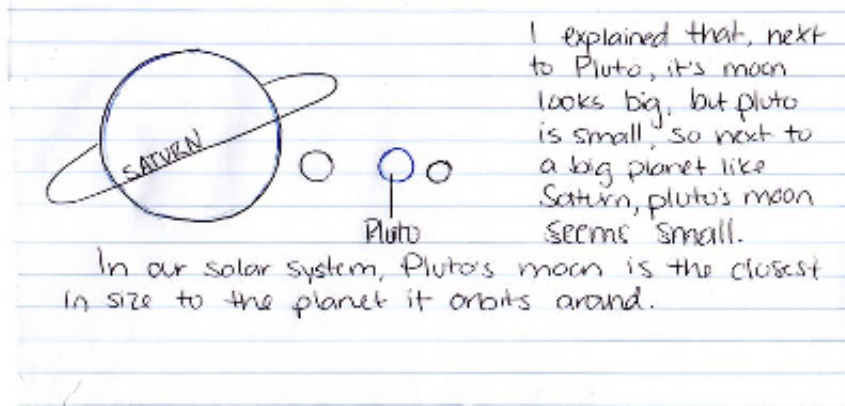
made leaps and bounds socially.

Micheal was one of the first students to talk to me about his break. I was expecting him to be apprehensive of me as he seemed to be at the beginning of the year, but he just blabbered away. He's quite curious. I would say that is one of his most prominent qualities. He's also very detail-oriented. When we were talking about the 100 day party coming up he asked if we could make a sign for the calendar that said "party" instead of "special day" because it wasn't a holiday or anything. During indoor recess he made a plane out of kinnex and explained to me in great detail the reason for the location of the digital cameras, rockets, wings and the balance of the air craft. At the end of the day, during last recess we had a discussion about Pluto because Victoria was playing 'Teacher' with a solar system book. Micheal was distressed about two facts he had read in a book.

1) Pluto is smaller than Earth's moon.

2) Pluto's moon is the biggest moon.

I told him that those two facts didn't seem to make sense to me either. I told him that I would find out what the book meant. He was quite distraught about two facts not matching. Sure enough, what it was, was: Pluto is smaller than the earth's moon and four of Saturn's moons, but the ratio of the size of Pluto's moon to Pluto is the greatest in our solar system. To explain this to him, I drew this diagram:

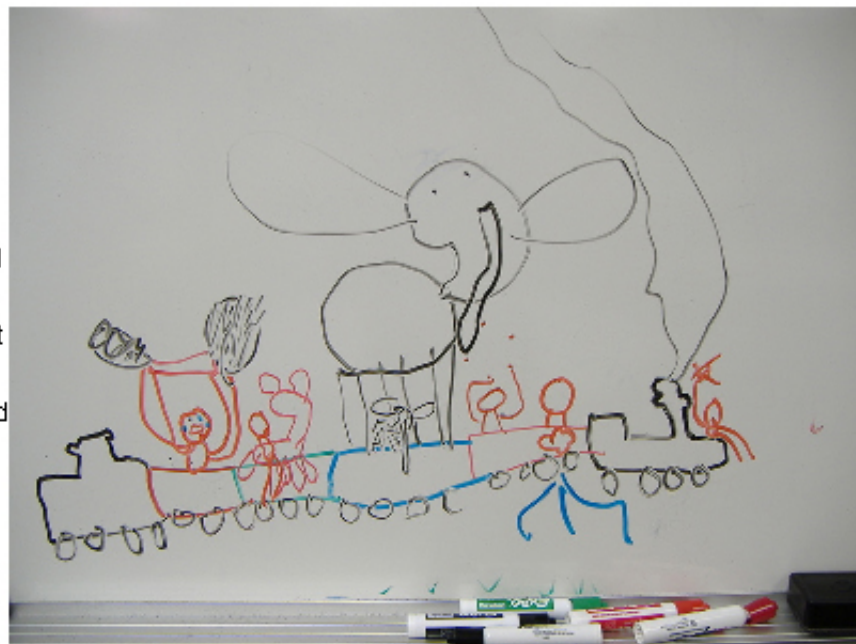


He seemed to understand, and was REALLY happy about the two facts in the book being correct.

I had honestly expected today, that I would be met with 18 staring eyes sizing me up all over again, but that was not the case. They were excited to see me and remembered me more than I had thought they would.

The drawing on the right was done by one of the students in the class. To me this ability to depart from the

iconographic images (flowers and hearts) and use the mind's eye to recreate a thought shows incredible growth. This picture displays the understanding of proportions, (the mama elephant, the baby elephant and the strongman)



the strengthening.

I noticed today the integration of social studies into the Stone Soup lesson. They were forming a community as a classroom and decided how it would be fair to divide up the parts in the play. Decision making, fairness, choice and consensus were coming into play. At the beginning of the year, this discussion would not have been the same. The children are now very interested in voting. Other suggestions they came up with were: choosing second choices and drawing names out of a hat. This is quite the contrast to the parallel play I was seeing at Heartland.

[klbnet's blog](#) | [add new comment](#) | 17 reads

[Watchfulness, Deep listening](#)

Submitted by [hodges](#) on January 13, 2007 - 10:28.

Kati already you are providing evidence of your child watching skills and your related ability to respond to children. Deep listening and watchfulness is at the heart of practical judgement. The graphics you scanned in certainly *illuminated* your understandings! (I hope to see more of this as you continue.) It seems that your community workplace assignment was a strong catalyst in developing your your understandings of child watching - and of child development.

You are noticing how subjects can be integrated. (In the natural world of children subjects are of course, not separated.) Stories, Decision making, fairness, choice and consensus all extend children's ownership in learning. Keep these in mind as you begin to plan lessons.

Kati do you have a memory stick? Could you put your Jan 10 entry onto your memory stick and bring to class next time?

Yvonne

[delete](#) | [edit](#) | [reply](#)

[Yes, I can bring it next](#)

Submitted by [klbnet](#) on January 13, 2007 - 19:10.

Yes, I can bring it next tuesday to class for sure.

[delete](#) | [edit](#) | [reply](#)

MT e-Journal - a collaborative environment for reflection and inquiry

Figure 1. One page of a first year student's eJournal entry showing an interaction between the student and her university instructor. The student's entry is illustrated with a photo of student work and classroom whiteboard.

Documentation

Documentation for reflective practice was a focus for the Year Two pilot. All instructors addressed the "watching, knowing, seeing, recording" explicitly in their classes or hosted a guest speaker to discuss this. Critical incidents were fairly well documented in narrative text in both Year One and Year Two of the project but more meaningful multimedia began to appear in the eJournal and, ultimately, in the ePortfolios.

A number of problems with documentation were raised by both students and instructors. One was the problem of Freedom of Information and Protection of Privacy (FOIP), especially as implemented in Canadian public schools. Open permissions for the taking of photos, graphics and sound clips for the documentation process varied amongst the school field placements, ranging from none to “only if no faces show”; many schools took the latter route. In an English as a Second Language classroom for young adult foreign students, there was much laughter and bewilderment around why, in Canada, pre-service teachers only wanted pictures of their students’ backs. A number of students did persist through the process of collecting consent from students, parents, and school in order to include student faces and student work, but the amount of time, effort and red tape were points of discussion.

A second problem raised was the inexperience of the pre-service teachers to recognize the signature of an emerging critical incident in order to document it and, even if the critical moment was identified, to have the camera or recorder within reach and ready to capture it. After consideration of these problems and realizing that she was there to watch for the critical incidents anyway, one field instructor used a camera to capture these herself and to use this documentation of the students’ work as points of on-going discussion. Although it was not the students doing the actual capture, many of the instructor’s pictures found their way into the student repositories and ePortfolios. This suggests that digital capture might well be an interesting role for field advisors to consider as support for the reflective process and as prompts for on-going conversations. Therefore, the purchase of digital cameras for instructors was made in the next year’s budget.

Assessment

Combined, the eJournal and portfolio provided opportunities for formative assessment and cumulative summative assessment. Entries in the eJournals tended to concentrate on the day-to-day concerns and incidents. The number and detail of eJournal entries not only revealed process in the on-going examination, conversations, and follow-up, they also made student thinking visible at a far more granular level than the more generalized “bigger picture” themes that appeared in the ePortfolios. Figure 2 below incorporates an example of both.

Figure 2 shows how a first year student has stepped back at the end of her first year, to see the bigger picture of diversity. Embedded within the webpage as evidence, is one excerpt from an ongoing eJournal conversation about a day-to-day critical incident that happened within the first month of her pre-service teacher program.

learning disabled.



I had more crazy acts today in case they see me. That same place but a different time setting room. The nice lady who give it to me told me the name and I asked her how do you spell it so I can put it down rite in my progri report. THEMATIC APPERCEPTION TEST. I dont know the first 2 words but I know what her means. You get to face it or you get bad marks.

This test lookd say because I could see the picture. Only this time the dist want me to tell what I saw in the picture. That mind me up. I told her yesterday Bart said I should tell what I saw in the ink. She said that dont make a difence because this test is something else. Now you get to make up story about the picture in the picture.

I said how can I tell story about paper I dont know. She said make believe but I told her that lie. I never tell lie any more because when I saw a kid I made lie and I always get hit.

- *Diary for Silvana - David Kiper*

The concept of "ability versus disability" is something that was a recurring theme, both in my Community Workplace Placement at Christine Meikle School as well as in integrated classrooms. Recognizing students as individuals with unique needs means that there are always disabilities to consider, always areas where students need extra attention or care.

From my journal entry dated Wednesday, October 4, 2006

...it is extremely easy to look at students based on what they can't do. Especially at CME, where it seems like there are so many things that students are unable to accomplish (relative to an able-bodied class). It can be a quick trap and makes one prone to judgment and bias. When you start labeling someone as unable to do something, it leaves them in. For example, at lunch today one of the students appeared to be confused by how to eat a whole apple. They were turning it around in their hands and not really making an effort to eat it. Right away, a supervisor came to their assistance and offered to cut the apple. However, another able said that she had spoken with this child's mother and apparently the child quite regularly ate whole apples independently at home. Sure enough, when left alone for a few minutes, the child was eating without problem, and although it took longer than "average", they were still successful. But just because the time context is different, does not mean that it is not just as valid a triumph... even though a showing might be "wrong" because it doesn't actually have labels or pictures that correspond to reality, just the fact that a child can grasp that something stands for something else is a huge accomplishment. I am trying, as recognize the seemingly small steps as part of a bigger picture, I would like to help the students to celebrate their own successes, even if they are on a different scale than most other (i.e., able-bodied) children.

In terms of educating disabled youth (regardless of the disability), it is important to realize that there are concrete methods and goals that can be achieved, no matter what the obstacles. At Christine Meikle School, I was told that although a portion of effort is put into determining what will occupy/engage the students, that there are broad over-riding goals as well. For example, SmartBoard activities can show the concept "cause and effect". With such broad outcome-based learning objectives, I think it is easier for me to grasp how education for disabled youth is both concrete in terms of goals while also not over-complicating the process and necessarily requiring a rigid curriculum.

I think that the teacher's goal should be to work, together in partnership with education allies (including parents, education assistants, administration, school nurses and other staff, psychologists and doctors, etc.) to determine what a particular student's current capabilities are, what are desired goals, and what is feasible to accomplish in a given amount of time. In only the month that I was at Christine Meikle School, observing students and referring to their individualized behavior management and progress plans, I was able to see truly differentiated instruction and real, tangible successes.



Figure 2. One page of a first year student's ePortfolio showing micro (eJournal) and macro (ePortfolio) views of important issues in teaching and learning.

The two strategies, together, offered a way to operationalize the criteria within the framework for authentic assessment presented earlier (Darling-Hammond & Snyder, 2000). The eJournals allowed "stop motion" in the blurred field experience, helping instructors to better determine students' growing understanding of inquiry-based teaching and learning and how that informs professional practice for formative assessment. The ePortfolio provided the vehicle for summative assessment, supported by multiple kinds of evidence over time and across different contexts.

Discussion

We see lessons learned from this pilot project as a way of creating and sustaining community beyond the teacher preparation program and into the first years of our students' teaching. Careful selection of tools can promote collaboration and empower triad members within the community. By maintaining access to the journal, and through other social software (e.g. Facebook and Web 2.0), our students will have opportunities for sustained, authentic interaction and reflection after graduation. Having experienced and learned the value of a rich community of practice, it is anticipated that students will remain connected and use similar strategies to extend their networks beyond the university

experience as they start their careers. To foster this we have worked with the university's Information Technology support department to continue access to the eJournal environment after graduation.

Our findings also suggest that members of the triadic community, at all stages in the life cycle of their careers, found value in the experience. Sustainability of this project rests in the potential for our student teachers to become our future partner teachers. This is essential if innovative practices, begun at the university, are to be sustained in the field. The pre-service teachers today will become the partner teachers of tomorrow. The portfolios, themselves, invite new students into this life cycle as well. "Collectively, the portfolio tells a detailed story of personal achievement" (Sherman, 2006, p. 13), as well as "leaving behind stories and examples that can be used to support instruction for future learners."

We know that we have a richer understanding of who our students are – both personally and professionally. The use of eJournals and ePortfolios has provided us with valuable sources of evidence for assessment. The artifacts that we could review and the discussions we have had allowed us (1) to make more authentic and careful assessment of our students and (2) to promote a deeper awareness of inquiry-based teaching and learning.

These findings serve us well as we prepare to implement the project with an incoming student body of 400 Year 1 students and an eventual student population of 800 students, their partner teachers and university instructors. Further, our findings support the value of ePortfolios for reflection, professional and personal development, and enhanced understanding of what it means to begin the journey of becoming a teacher. Based on student feedback and our growing understanding of the potential of this work to improve practice, we have changed the name of the project from The ePortfolio Project to eDOL – Electronic Documentation of Learning. The name change recognizes the significance of digital evidence as support for reflection and growth.

The significance of our study primarily rests in three areas. First, without the development of rich eJournal, portfolios tend to privilege product over process, reducing their potential value. Second, eJournals can become rich personal learning object repositories. While some researchers (Barrett, 2005, for example) are beginning to suggest that blogs might be added to ePortfolios, our findings suggest that blogs are essential for the development of rich, authentic ePortfolios to support personal and professional development. Third, there is great value in not using commercial ePortfolio template driven software. By creating their own web pages, (supported by mini manuals, periodic workshops and tech desk support) and learning to make critical choices about what constitutes evidence of ongoing understanding, our students learn and adopt critical ICT skills that they can carry into their classrooms as they begin to create the 21st century learning environments that are crucial for empowering students.

As our faculty continues to embrace this project as a core program element, we will continue our action research, recognizing the importance of continually modifying and

embracing the best of emerging technologies to support rich learning opportunities for our pre-service students, university instructors and partner teachers.

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Appendix

Placement of ePortfolio Components within Program Elements

The following is a description of how the various aspects of e-DOL² components fit into the four semesters of the MT program. E-DOL is situated in the field seminar / experience in Semesters 1-3 and Pro Semester 4.

Following the e-DOL Components by Semester is the suggested Professional Development plan required to support implementation of e-DOL across the program over two years, beginning with Year One – Fall 2007.

e-DOL Components by Semester	
<p>SEM1 – Field Learners & Learning / Teachers & Teaching</p> <p>INTENTIONS:</p> <ul style="list-style-type: none"> • To create meaning & understanding from significant field experiences • To begin to understand how theory & practice are linked • To begin to understand how learning & teaching are linked • To begin to see that teaching is more than technique <p>SKILLS:</p> <ul style="list-style-type: none"> • Ability to read the field as a living text – collecting artifacts & reflections • Ability to recognize and collect critical incidents and reflect on them <p>ACTIVITIES (EJOURNAL):</p> <ul style="list-style-type: none"> • Create and maintain eJournal & participate in online discussion w/ partner teacher and field advisor • Draw from program elements to support eJournal entries • Begin child studies • Begin to document the classroom environment and the types of relationships that are emerging • Draw from discussion / literature / case / lectures, etc. to inform eJournal entries in all aspects of the program • Pick an issue from the eJournal and put it out into the larger group for discussion / elaboration 	<p>SEM2 – Field Curriculum Content & Contexts</p> <p>INTENTIONS:</p> <ul style="list-style-type: none"> • To deepen understandings of significant field experiences • To deepen understandings of how theory and practice are linked • To provide evidence of knowledge of key concepts and theories of curriculum and how they link to classroom practice • To begin to define one's own emerging approach to teaching <p>SKILLS:</p> <ul style="list-style-type: none"> • Ability to draw on theory and practice – documenting classroom experiences & collecting related artifacts that illuminate core concepts • Ability to begin to analyze journal entries and documentation for emerging questions, issues & themes • Deepen ability to recognize & collect critical incidents & reflect on them <p>ACTIVITIES (EJOURNAL & Initial Portfolio):</p> <ul style="list-style-type: none"> • Maintain eJournal and participate in online discussion w/ partner teacher and field advisor • Draw from program elements to support eJournal entries • Continuing child studies • Draw on eJournal data to inform Curriculum Inquiry Case A & B • Draw from all sources of data from Sem 1 and 2 to develop a

<p>SEM3 – Field & Case PRAXIS</p> <p>INTENTIONS:</p> <ul style="list-style-type: none"> • To build the experience of becoming a teacher through thoughtful practice & reflection on that practice • To theorize about the experience & what it means to become a teacher • To understand the relationship & resulting tensions & contexts of the interactions of teacher / student / curriculum • To provide a platform of that work that informs inquiry for Sem 4's work on inclusive practices • To bring significant experiences into the case tutorial as living cases <p>SKILLS: By the end of the semester, provide evidence of the ability to take on the responsibilities of a beginning teacher – continuing to document classroom experiences, collect related artifacts that illuminate core concepts, & construct a portfolio that illustrates the evidence.</p> <p>ACTIVITIES (EJOURNAL & PRAXIS ePortfolio):</p> <ul style="list-style-type: none"> • Maintain eJournal and participate in online discussion w/ partner teacher and field advisor • Draw from program elements to support eJournal entries • Draw from eJournals to support living cases • Draw from eJournals and other sources for Themes of Teaching which form the intermediate ePortfolio 	<p>summative reflection which is the initial ePortfolio</p> <p>Pro SEM 4 – Identity, Diversity and Inclusion</p> <p>INTENTIONS:</p> <ul style="list-style-type: none"> • To understand the importance of ambiguity and uncertainty and how it supports life-long learning across one's career • To understand how previous experiences inform the ongoing inquiry into the complexity of learning and teaching • To deepen reflection and enhance practice and consider the possibility of diversity in inclusive practice • To develop capacity for cultural responsive teaching <p>SKILLS: By the end of the semester, provide evidence of the ability to begin to teach – continuing to document & collect related artifacts that illustrate and construct a portfolio that supports one's start in the profession.</p> <p>ACTIVITIES (EJOURNAL & Exit ePortfolio):</p> <ul style="list-style-type: none"> • Draw from the eJournal to demonstrate emerging professionalism • Draw from eJournals and ePortfolio for exit presentation • Draw from eJournal / discussion / literature / case / lectures, etc. to inform writing in all aspects of the program • Draw from program elements to support eJournal entries • Submit exit ePortfolio
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1. eJournals in this project refer to student BLOGS maintained across the four semesters of our teacher preparation program. The BLOGS are read and commented on by the students' university instructors and partner teachers.
2. The name has been changed based on student feedback and the need to distinguish this project from other ePortfolios. Students and instructors found that the term portfolio privileged product over process. E-DOL is composed of an eJournal and 3 ePortfolios (Initial Portfolio,

Praxis Portfolio, and Exit Portfolio).