

The Process of Implementing a Paperless Classroom in Teacher Education Using an Electronic Portfolio System

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Abstract

This is the story of one teacher education instructor's journey towards a paperless classroom for her secondary methods course. Because of a then new teacher education requirement implementing an electronic portfolio system, this teacher chose to make use of the system by requiring all assignments for the class to be turned in and graded through the system, along with having her syllabus in the e-portfolio system and incorporating the message board into her coursework.

This is the story of one teacher education instructor's experience in growing the administration and instruction of a paperless course. I am not technology proficient, but I am not a technophobe either. Because of the situations at my university, I fell into having a paperless classroom. The change was gradual, and it continues to be so. Here begins the story of the evolution of my paperless classroom in my Secondary Teacher Education Methods course.

Hello, my name is Barb. I am a teacher education instructor, and I have a confession to make. I have a paperless classroom. I don't think what I do is a lot different than what other faculty do, but in a university or college of education that is technology deficient as far as integration is concerned, this is a novel idea. I didn't make a big deal out of going paperless, but once one person in an administrative position found I was doing this, everyone found out. This was not an occurrence that took place overnight, rather it evolved over three years and continues to evolve to make my life as a professor easier, and also to make the lives of my students easier.

My current paperless classroom is evident at many levels. There are three portfolios for the class: one portfolio consists of the syllabus, including a written explanation of assignments, due dates, and a tentative schedule. Various readings for class can also be accessed in the syllabus packet in the electronic portfolio. When assignments are due, students submit their documents through another portfolio that includes all of their written work. I grade them online, and they receive their grades and my comments through the e-portfolio system. When needed, my students and I use another portfolio as a message board available in the e-portfolio system as a communication tool between classmates, and also to communicate with me in place of e-mail.

Paperless classrooms are not the same as distance learning. Unlike distance learning courses, I still meet with my students twice a week for 1 hour and 15 minutes. Distance learning is defined as learning in which the instructor and student are separated by either time or distance (<http://cops.uwf.edu/tutorials/technolo/distance/distance.htm> Retrieved March 2006). In teacher education courses, some teacher-student contact may be required to teach methodology or show examples. In distance learning, all communication is online and students and faculty rarely meet. There may be a blended classroom where a teacher may meet with the students half the time or less, and then meet electronically either synchronously or asynchronously, and this can work with some teacher education

courses as well. With my paperless classroom, the classroom still meets and discussions are still held live, with all people in the classroom, but papers and grading are all done electronically. In addition, a paperless classroom does not necessarily have to be in a computer lab. The classroom in which I teach has one computer connected to the internet with a projection screen, but the students are still sitting with their notebooks and folders, and they use technology outside of class time.

In reviewing my experiences of growing my own paperless classroom, various steps have become evident in my growing process: Exploration, Papers In / Papers Out, One-Way Communication and Interactive Communication. In this paper, I will explain each of the steps, and also attempt to explain why I think my paperless classroom happened as it did, what obstacles I encountered, and perceived student reactions.

Step One:

Exploring the Possibilities

In the Fall semester of year one, the Council for Teacher Education, which is the governing body of all thirty-seven teacher education programs across the university, announced the future requirement of an electronic portfolio system where all teacher education candidates would be required to complete specific performance based assignments and they would be embedded in specific courses, to be assessed through the e-portfolio system by the instructor of that course. The cost of the e-portfolio system would be covered through the students purchasing a four-year membership to use the program, and the university would only be responsible for administrative and training costs. These assignments to be placed in the portfolio would not be implemented fully until the following school year, however, faculty were expected to require something from their class in the e-portfolio so that students could learn how to utilize the system. I chose to test the system out with just the framework for the future required assignments. I went through faculty training and implemented some of the requirements into my courses. I learned about the requirements that would be embedded in the coursework, particularly those for which I would be responsible.

As I learned about the e-portfolio system and incorporated the assignments in my classes, the reactions from the students were not as positive as I would have liked. The purpose of the e-portfolio system was not explained in enough detail to students in their training sessions, and students were not

happy about the added expense. For those students who would only be utilizing the system for one or two semesters before graduation, they complained because it was not being used enough for the amount of money they had spent on it.

Step Two:

Papers In / Papers Out

In the fall semester of year two-teacher education assignments and rubrics were required of all Pre-service teachers. Assignments, templates and assessments were all in place in the e-portfolio system. Because I would have at least two assignments mandated by teacher education that had to be placed in the e-portfolio by my students, I had made a decision that having some items turned into me electronically and other items turned in to me as a paper copy during class time was not in my best interest, and I chose to make one of my classes paperless by requiring all assignments to be turned in through the e-portfolio. After all, the purpose of technology and computers should be to provide improved support of classroom instruction (McLean, D, 1996), and I had believed that utilizing the e-portfolio system for all papers coming in to me and being returned would do just that. This would benefit the students because they were taking my class one semester or two semesters prior to student teaching, and they would need to know how to use the e-portfolio on their own when the student taught away from the university. The best way to know how is to practice. In addition, students pay just under \$80 for the e-portfolio membership and they might as well get their money's worth out of it. In regards to time management, passing back papers during a short class time can be time consuming with short class meetings, and with the e-portfolios, they get their feedback and their assessment back as soon as I finish grading.

Students' thoughts on the use of the e-portfolio system changed with a little bit of time and communication. Once a complete explanation of the e-portfolio system was given to the students (teacher education requirements as part of the accreditation process), and the reason behind why I chose to use it to a fuller extent (they spend the money on it, they might as well use it to get their money's worth), students understood and did not complain quite as much.

At this level of implementation, the obstacles that took place had to do with lack of student training. Some students did not know how to use the e-portfolio system, as they had not been given

proper instructions on creating and sharing documents, and viewing feedback. In addition, students preferred to make attachments in their e-portfolios, and sometimes I did not have the same software they did to open the documents. I had to require them to copy and paste their word documents and any other documents directly into the e-portfolio system.

In the spring semester of year two, I made a template for my students to submit all assignments via the e-portfolio system in one portfolio that could be sent back and forth from student to instructor and back again instead of in separate or individual projects. Prior to making this template, students were making individual projects and submitting them separately. This was time consuming for the students and lacked organization for both the students and me as their instructor. At first, this was a problem with students as they continued to create more than one portfolio, which did not ease up the time required for submitting assignments as it should have. In addition, students did not know how to re-share their portfolio with the instructor because this was not something that was required in other classes.

At first, I did not call my classroom paperless. Students still purchased a paper syllabus from the copy shop on campus. This included the syllabus, explanation of every assignment, and supplemental readings outside of the textbook. Students solely turned in all assignments through the e-portfolio system. The items were entered into the system and shared with me to review/assess and submit back to the student. Technically, the only item that changed from prior years to this year was the method of how students turned in papers and how I returned papers to them. I then added an online grade book used through another system so that students could track their grades.

During this same semester, administration and other faculty heard about the method of using the e-portfolio system, and soon thereafter I was asked to coordinate the e-portfolio system for all teacher education at the university: 5000 students, 400 full and part time faculty within 37 different teacher education programs. I still had teaching responsibilities, but with my new title, I was compelled to test the system and see how much it could do for faculty and students.

In the fall semester of the third year, student teachers had requirements completed in the e-portfolio system. The teacher education requirements were now fully implemented. In my classroom, I continued with a portfolio template for assignment submissions and feedback.

Step Three:

Exploring the possibilities: One way communication / Information

In the summer before the fourth year, I began to work with a group of faculty from various teacher education programs across campus to improve communication and understanding of the e-portfolio system. Some of these liaisons took it upon themselves to learn how to place their complete syllabus into the e-portfolio system. They also showed me how they kept meeting notes, vitae, annual reports and promotion and tenure information in the system. I then used what I learned from them so that now my paperless classroom includes a syllabus. Because of this group, I am not the only one who is trying to use the mandated e-portfolio system as part of a paperless classroom.

In the fall of the fourth year, the Curriculum and Instruction Department where I teach chose to omit copying of syllabi for classes. All syllabi were purchased by students through a packet at copy services, or they were to get the syllabi online. At first, people are not happy about this, but when paper is the biggest expense in the department outside of salaries, there has to be some way to cut corners. Since the e-portfolio platform is already a requirement for teacher education students and faculty, placing syllabi and assignments in the same platform is an easy solution, and faculty do not have to know how to manage a web page. Utilizing the e-portfolio system is just a one-way method, but under the circumstances it works well for teacher education candidates and the faculty who teach them. For the fall semester, I had the syllabus in the e-portfolio system, but I also required the syllabus packet to be purchased from copy services, as I was not yet comfortable with the syllabus packet being completely online. However, by spring of the fourth year, all students obtained their syllabus packets through the e-portfolio system.

Some of the obstacles in getting the syllabus completely into the e-portfolio system included time for organization and finding on-line readings or readings to place into an electronic format that I originally had in their printed syllabus packets. Technical challenges of students were handled prior to them being enrolled in the class because the e-portfolio system was a requirement for teacher education, and any problems they might have had along the way were alleviated prior to beginning the methods course.

Step Four:

Interactive Communication: Message Boards

In the fall semester of the fourth year, my paperless classroom tested out the message board feature in the e-portfolio. At that time, I did not require participation of the class and made it completely voluntary so that numbers would be fewer in the testing phase. For spring semester of the same year, I did require two message boards. For the beginning of the semester, I asked students to submit and reply by message board. Of the thirty students then enrolled in the class, twenty-seven students were impressed with the message board feature and would have liked to use it again. Three students said it was not useful as they were able to speak to their peers in class and did not think they needed that added level of communication.

Step Five: All-in-One: Syllabus, Message Boards, Papers In-Papers Out

In the fall semester of the fourth year, students were invited to bring laptops to class. At the beginning of the semester, two or three students did bring laptops in the beginning, but they stopped bringing them mid-semester, probably due to the fact that in class assignments and in class discussions did not warrant the use of the laptops.

However, in the spring semester of this same year four, the classroom can be considered completely paperless. The syllabus and readings are in the e-portfolio system and no materials are purchased through print services. Two assignments were required via the message board, and all graded work is turned in through the e-portfolio.

Twenty-six of twenty-eight students state they prefer the syllabus to be electronic through the e-portfolio system as compared to a purchased packet as it saves them money and it is always available for them online. In addition they had a version of the syllabus that included any updates the instructor might make for assignments or due dates. Most students appreciated the organization of handing in and receiving grades for assignments online. At the beginning of spring semester of year four, three of twenty-nine students felt uncomfortable with the use of the electronic portfolio system. However, my midterm of the same semester, only one student had concerns and dislike of the e-portfolio system.

One of the reasons I chose to have a paperless classroom (at any of the various levels) was to improve classroom organization and time management. These are both areas that teachers need to continue to improve upon so that more time can be spent on instruction. (Veenman, 1984; Freking, 2006)

Because the e-portfolio system was the required system of teacher education, many of the challenges in technology were taken care of before students enrolled in this methods course, which was taken one or two semesters prior to student teaching.

Student and Instructor Thoughts

Most students appreciate the organization of handing in and receiving grades for assignments. At the beginning of spring semester of the fourth year, only 3 of 29 felt uncomfortable with the e-portfolio system, and by midterm only one student had concerns and dislike of the e-portfolio system. The paperless classroom helped students be more organized, they didn't lose work as easily, and they liked the immediate feedback on items graded. In addition, students liked the fact that they could submit their work to be graded on their own time and they did not have to wait for class time to do so.

One of the advantages to having a paperless classroom is the fact that one creates a permanent electronic trail, which helps to work towards being a more effective teacher and being more efficient in evaluations and comments to students. (Davis, D. December 2002). I believe that in teacher education in many universities, and especially in the teacher preparation programs, technology is not used for teaching and learning as much as it could be. Many faculty members are still using overheads, a paper syllabus, and one of those green grade books instead of using an excel program or an online grade book program.

Teacher education programs lag behind public schools in planning for and integrating technology (Rath, V, 2002). If we as teacher education faculty are supposed to be modeling what we want our students to be doing in the classroom, then perhaps we need to be more of the leader than the follower in incorporating technology into our own classrooms.

No research is available on the history of the paperless classroom, or the history of technology integration into the classroom unless one discusses whole teacher ed programs incorporating technology or teaching integration of technology, which does not necessarily signify that modeling takes place.

Departmental culture often impedes integration of technology into teacher education courses (Finley, L September 2004). I did not make a big deal over what I was doing; I was just trying to make my job easier as a professor. After all, that should be the purpose of integrating technology into one's profession. Technology in teacher education has been off to a slow start at our university, especially when compared to other programs or departments.

As I begin to reflect on changes I would like to make for the next semester of teaching this course, I want to make sure that I only use technology and the e-portfolio system to make teaching and learning easier for this class. As I attempt to implement more hands-on activities and lesson plan implementation, my students will most likely meet more in small groups for practice teaching, and communicate with me and with their groups through more use of the message board. In addition, I will have my students stream the segments of their teaching videos into the e-portfolio system. Since I will not be teaching in a technology lab, most likely I will still require my students to sign an attendance sheet. However, it is very possible that the next semester will only include that one item in hard copy, paper format. Whichever way I choose to go, this will be a learning experience for my students and me.

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