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Developing Contextualized Faculty Training: Faculty development to support university-wide digital portfolio initiatives.

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Abstract

The necessity of faculty members to hold specific skills and abilities with regard to technology has reached our institutions of higher education. Locally, a digital portfolio initiative recently implemented by our institution in teacher education has produced an unprecedented expectation for faculty technology skill, as well as conceptual understanding of the digital portfolio model. This article strives to further our understanding of how contextualized technology training, focused on local initiatives, contributes to successful faculty development. In addition, suggestions for providing meaningful faculty development are presented.

Developing Contextualized Faculty Training: Faculty development to support university-wide digital portfolio initiatives

The use of digital portfolios as a formative assessment by teacher education institutions has brought the new challenge of providing technology training for faculty to colleges and universities throughout the United States (Ehrmann, 1999). This form of technology training often has two critical facets, (1) skill development, and (2) integration approaches (Guernsey & Young, 1997; Zehr, 1997). The challenge in providing training is magnified when faculty, working within the context of a digital portfolio initiative work in various areas of licensure, are housed in a variety of colleges throughout a university (Britten & Mullen, 2003). The following article provides an overview of faculty training designed to embed skills instruction into the greater goals of student created digital portfolio integration and implementation. Faculty feedback provides insight into the lessons learned, plans for technology integration, and changes in faculty thinking concerning technology as an instruction tool.

Understanding the Context

Throughout the United States, three conditions guide how institutions of teacher education approach the integration of technology into teacher education programs. (1) university faculty and students need the tools, environments, and on-going professional development to integrate technology into teacher education curriculum. (2) New national accreditation standards are requiring schools of education to prepare new teachers and administrators who can integrate technology into their curricula. (3) Licensure and certification are now requiring proficiency in technology integration for new teachers and administrators (Britten & Mullen, 2003). Our institutional response to these conditions has been embedded within a

newly required web-based digital portfolio for all preservice teachers.

At a state level, the Professional Standards Board mandated that beginning in Fall 2002 our university have a performance-based Unit Assessment Plan (UAS). In order to meet this expectation, the Teacher Education Performance Assessment Steering Committee (TEPASC) collaboratively created procedures to support a UAS. Specific to knowledge, dispositions, and performances expected of teaching majors, TEPASC recommended to Teacher Education faculty that individual colleges provide multiple opportunities for students to demonstrate their abilities in meeting developmental and content standards as well as professional standards outlined by the state. Using the digital portfolio for performance assessment allows students to progressively and in a multimodal fashion demonstrate what they have learned in their course work (Bullock & Hawk, 2001; Shepard, 2000).

The locally created digital portfolio model (See Graphic A) is mindful of the extant literature on the benefits of portfolios for teaching and learning and includes a major focus on student reflection and the creation of performance-based artifacts (Britten & Mullen, 2003; Cambridge, Kahn, &Yancey, 2001; Shulman, 1998; Wiggins & Tighe, 1998).

Graphic A: BSU Teacher Education Portfolio Model

This model was shaped and refined by teacher education faculty from various colleges across campus, with funding and other support offered from the Ball State University Preparing Tomorrow's Teachers to use Technology (PT3) grant (Stuve & Mullen, 2000). The model is built around the Interstate New Teacher Assessment and Support Consortium (INTASC) principles, state developmental standards, specific content area curriculum standards, and the National Educational Technology Standards (NETS). As preservice teachers progress through the teacher education program, all courses working with any of these principles or standards would provide a contributing artifact to individual digital portfolios. Thus, all faculty working to support the teacher education program are responsible for not only understanding the model and the conceptual framework which guides it, but also the technology by which the digital portfolio model is structured. The technology skills embedded into the digital portfolio include web-site development, digital media, file structures, and file transferring, among other components.

Assessing Local Needs and Identifying Training Goals

In the fall of 2002, Teacher Education faculty participating with the Introductory Course (where the digital portfolios are introduced and first constructed) were asked to provide feedback regarding their access to, use, and integration of technology into their instruction. This feedback guided the implementation team in understanding the faculty-training infrastructure that needed to be in place for the successful integration of the digital portfolio initiative into the teacher education program. From the onset, faculty training was approached

with the mindset that technology skill cannot be randomly integrated; true integration necessitates a meaningful connection to a larger, embedded, and mandated initiative (Mullen & Stuve, 2003). Data from faculty demonstrated a need for additional training with regard to the technology skills required to successfully implement the digital portfolio model. In addition, initial data suggested that faculty concerns went beyond themselves as Introductory Course instructors and into the training of their peers who would be responsible for "carrying the torch" with the digital portfolios after they were initiated at the onset of a student's involvement with the Teacher Education program. Given these findings, along with other supporting data, it was established that faculty were in need of training that allowed them to interact with the portfolio model in the context of their own instructional development. In addition, it was decided that faculty training would take place in cohorts in order to provide peer-to-peer support and provide a foundation for continued independent growth.

When stakeholders within our university set out to provide training for faculty, the focus was on skill development in the context of integrating and implementing the digital portfolio model across courses. In order to provide a comprehensive approach to organizing, planning, and communicating about the faculty training comma a diverse group of experts was formed to create the facilitation group. The facilitation group included a University Computing Services coordinator, University Computing Services trainers, an elementary education faculty member, a secondary education faculty member, a digital portfolio expert, and an educational technology expert. This diversity established a sense of cross-program ownership and involvement. In addition, the inclusion of multiple stakeholders on the facilitation team allowed for trainings to connect to the specific needs and goals of each program under the larger initiative of digital portfolios.

Due in part to the programmatic expectation that teacher education faculty would interact with teacher education majors developing and contributing to their digital portfolios, training goals included the development of a sample artifact which faculty could utilize in current courses.

Pre-Training Faculty Assessment to Support Longitudinal Planning and Goals

As a result of the observations and experiences of multiple stakeholders, all Teacher Education faculty were invited by their department chairpersons or respective deans to participate in what was being referred to as the Teacher Education Faculty Summer Technology Workshops. The final group of committed faculty included 62 individuals representing five of the seven colleges on our campus. Faculty were informed of workshop goals and provided a stipend upon the completion of pre-identified deliverables.

As faculty members began the five-week training workshop they were assessed as per their frequency and type of technology use specific to instruction, their plans for further technology integration and their individual goal(s) for the workshops. Roughly 46% of faculty

responded to the assessment. Culminating data showed that, on average, 30% of faculty use technology on a daily basis to support their instructional goals and 63% of faculty use technology less than ten times per semester to support instruction. In addition, pre-assessments showed that faculty where overwhelmingly using technology that included Internet and PowerPoint in their instruction. This data supported the findings of Dias and Atkinson (2001), which suggest that, with regard to instruction, teachers often limit use of technology to presentation and planning alone. Participating faculty overwhelmingly saw the workshops as opportunities to become more effective in their instruction and support teacher education students in the meaningful development of artifacts for their digital portfolios. Faculty provided clear plans for using their new knowledge of technology, as approximately 50% stated that their primary goal for participating in the workshops was the improvement of their own technology skills related to their teaching. This was positive in that faculty were aware of their own deficits, and eagerly seeking to improve.

The participating faculty members were instantly supportive of the organization of the workshops, which included afternoon sessions, choice as to what sessions to attend, and additional lab time for extra assistance among other critical components. The initial feedback of faculty after an estimated five hours of training included:

1. Organization of facilitators is key, location, technology, and other essentials must be decided upon prior to the workshop.
2. Technology working appropriately, while haphazard in nature, is critical. Faculty participants saw trainers as modeling teaching as well as delivering skill-focused instruction.
3. Having access to a knowledgeable faculty member in their own program area was helpful in answering questions and gaining feedback.
4. The opportunity to see what other faculty (both in and out of the faculty member's program area) were creating was helpful and added a sense of understanding as to the large-scale focus of the digital portfolio initiative.

The pre-training assessment could have been used as a skills assessment. However we chose to focus the pre-assessment on more large-scale goal oriented factors. Overall, 42% of respondents to the pre-survey felt that it was too difficult for them to progress in skill level when there were individuals who were at a level far below, and far above themselves with regard to technology skill. Observations showed that faculty knowledge was very diverse, however this environment of multiple skill levels was "true-to-life" in the sense that most classrooms provide this same technology challenge. As workshop facilitators were not directly assessed, it is unknown as to their awareness of how their facilitation was deemed as "modeling".

Upon completion of the five-week workshop sequence the faculty participants were once again surveyed with regard to their involvement and attainment of goals within the faculty development opportunity.

Post-Training Faculty Participant Assessment

Post-training assessment was completed in two forms, survey and interview. During post-assessment, a collaborating graduate student conducted interviews with both participants and facilitators. The summary of these post-training assessments follows.

Facilitators focused on web page and artifact development skills during all faculty development workshops. While each workshop was facilitated in a different manner (due to specific trainer style and instructional goals), it was apparent upon the completion of the workshops that some workshop facilitators simply demonstrated how certain software or other technologies worked while others provided opportunities for participants to work with software or other technologies, find difficulties, and address problems. Participating faculty (through interviews and survey data) supported the reports of Gussow (2002), which stated that seeing something with regard to technology does not achieve the same outcome as being able to work with that technology and learn through experience.

Workshop facilitators continually reported that participants expressed enthusiasm and excitement about the skills learned and opportunities presented. Participating faculty, overall, reported being very satisfied with the workshops presented. Each responding participant acknowledged that new information about how to make and publish web pages and artifacts was attained. Each responding participant sited at least two skills or techniques learned while participating in the workshops. During the culminating program, where participants shared their new artifacts, each participant was enthusiastic about using new knowledge in their teaching. Participants voiced an expectation that student behavior with regard to technology and the digital portfolio initiative would change in fall courses (2003) because as faculty, they were (as a result of the faculty development workshops) better able to model technology use specific to the digital portfolio initiative and its adjoining artifacts. The only recommendation by participating faculty expressed during interviews was that facilitators should take more time in planning of workshops in the future. Two participants stated that it was sometimes difficult to plan with the schedule fluctuating from day to day.

Unfortunately, only twenty-three participants responded to the post workshop survey. Of these twenty-three people, twenty stated that the primary goal for these workshops included faculty learning technology skills and development of exemplar digital portfolios and artifacts. Over half of the respondents agreed that the workshops provided needed training and support for faculty with regard to the digital portfolio initiative and were enthusiastic in their comments to the open-ended questions. The participants expressed enthusiastic attitudes about the individual assistance available and about the training presentations, both of which were cited as the most successful aspects of the program. Again, the greatest weakness cited was the lack of planning on the part of facilitators. Specifically, workshop participants wanted to see greater continuity in workshops. Often the connection between topics seemed apparent to facilitators, but due to novice participants that connection was not always

understood.

Data from post-workshop surveys demonstrated the following:

1. 34.8% reported using some form of technology on a daily basis, 13% reported using technology several times per week, and 8.6% reported using technology only occasionally during course instruction.
2. 43.3% of participants reported that their future course instruction would change to meet the needs of students developing digital portfolios as a result of the faculty workshops. However, 13% of responding faculty disagreed with the premise that the faculty development workshops influenced any changes in their teaching.
3. Roughly 80% of participants reporting, stated that they possessed the necessary skills to teach web page creation as a result of the workshops.
4. 86.6% of faculty indicated that, as an outcome of their participation, they would now be able to present lessons as opportunities to create artifacts and assist students in the creation of those artifacts.
5. With regard to the type of computer platform used by faculty participants, 74.1% stated they currently used the Windows operating system, 18.5% used the Macintosh system, and 14.8% indicated that they used both a PC and Macintosh for work related activities.
6. The pre and post-workshop data demonstrated an approximately 12% increase in the number of faculty using the Macintosh platform indicating that the workshops could have resulted in an increase in comfort level with the Macintosh operating system.

Conclusions and Suggestions for Contextualizing Faculty Technology Training

Overall the faculty workshops accomplished the goals of assisting faculty in understanding the digital portfolio model, and more specifically understanding how to embed artifact development opportunities into their instruction. The participants expressed an appreciation for the opportunity, and more specifically the timeliness of the workshops (being offered during the summer) and the adjoining stipend which financially freed faculty from course responsibilities.

Meeting the needs of faculty members is a difficult task, as suggested by Sprague, Kopfman, and Dorsey (1998), often times preconceived notions negate trainer goals. However, we were very fortunate in that faculty had personal goals and programmatic investment in the training. Having optional participation and a focus on a shared, and institutionally supported initiative, undoubtedly made experiences in facilitating faculty technology workshops more positive. Given this experience, the following suggestions for developing cross-campus faulty training to support technology skill development and technology integration to support instruction are provided.

1. Faculty trainings should be voluntary, but communicated

through department chairs or coordinators in order to target specific faculty for whom the training would be meaningful. In essence, constant communications that are irrelevant may predispose faculty to ignoring opportunities. Personal and contextualized communication, connecting to faculty needs benefits the overall "feel" to the training opportunity.

2. Facilitation teams should include both technology and content experts in order to establish a user-friendly training environment that naturally includes peers who are able to discuss various aspects of technology integration (i.e., How does technology affect my curriculum planning?; How do I access technology?; How do I create a web-page in order to collect student comments or assignments?).
3. Training opportunities should connect to greater goals, beyond the individual, and be embedded within larger initiatives that are not solely technology based, but technology integrated.
4. Faculty trainings should embed opportunities for faculty to create, develop, and improve their own work through the extended use of technology in efforts to further explore benefits and possibilities.
5. Faculty should not be punished monetarily for the participation in faculty workshops. If course buy-out or stipends are available to support faculty participation this conveys a sense of importance, acceptance, and support by the administration.

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