

A “Distance Scholarship” Model for Teaching and Learning About Technology Supported Assessments

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This paper advances the notion of “scholarship” as a primary goal of distance education. It describes an online course taught in Blackboard™ that attempted to be accountable not only to the learning of individual students in the class, but to learning of various stakeholder groups including developers of new assessments for learning.

With the rapid pace of development in educational technology it is unacceptable to focus on producing individual knowledge among users with no sense accountability to the broader educational technology community (Shulman, 1999). It is important for pioneering technology-using educators to make clear to others where well-worn paths are leading and where new possibilities for teaching and learning are emerging. It is also important to improve communication between educators and developers about what types of tools and services are most valuable in the classroom. Online courses offer unique opportunities to support the advancement of scholarship within the educational technology community.

Technology Supported Assessment (TSA) lasted 6 weeks and ran twice, in the spring and summer of 2001, as part of a U.S. Department of Education PT3 Catalyst Grant involving the Concord Consortium in Concord, MA and the University of Virginia.^[1] Students in the course included instructional technologists and educators; many had responsibility for advancing technology use at their institutions.

The conceptual foundation of the course rested on two points: 1) It is the *formative* assessment of learners – providing helpful feedback to learners about how to improve - that allows students to become self-correcting and to learn^[2]; and, 2) Technology-supported tools offer exciting opportunities for improving formative assessment for teaching and learning.

Technology-supported assessments that were reviewed by the class via the Internet included IMMEX (Underdahl, Palacio-Cayetano, & Stevens, 2001), Intelligent Essay Assessor (Foltz, Laham, & Landauer, 1999), CRESST’s Knowledge Mapper (Baker, 1998), and the Analysis Toolkit for Knowledge Forum (Lamon, Reeve, & Scardamalia, 2001). In each case, there is reason to believe that technology can be used to support teachers and learners in obtaining better formative assessments of their learning.

Goals for the course included the following:

1. making it possible for educators to learn about and try different research-based tools with their colleagues and students;
2. sparking discussions to better understand the availability of assessment tools and their applicability to teaching in different contexts;
3. supporting reuse of the assessments, course materials and activities, in local settings; and,
4. informing tool developers and researchers about the results of the activity

Designing the Course

The course was structured around weekly Readings, Activities and Discussions (RAD) that were initiated by the instructor.^[3] Each week of the course the class read about and made use of one of these research-based tools and discussed their applicability to their own work.

The activities and discussion prompts used methods described by Collison et al. (1999). The understanding was that in online settings teacher-focused discussions will be severely overwhelming the teacher and severely underwhelming for the student. As a result, it is imperative to get the students involved in the discussion by “moving out of the middle” as an instructor.^[4] It is also important to give time for reflection on major readings, activities and discussions. The course followed what Collison et al. call a “structured asynchronous” format that gives students a week to complete the assignments at their convenience.

Working with Developers

Tool developers took an active interest in the progress of the class participants. Several of the tools did not yet have complete user-documentation and training systems in place for online users. For this reason, the developers were

particularly keen to see how someone else could teach others to use their tool via the Internet, or how someone would use existing documentation.

For each tool that was selected, the author contacted the developers in order to:

1. secure passwords and login access to the tools when necessary;
2. secure technical support during the week scheduled for use;
3. obtain or create instructions for using the tool^[5]; and,
4. provide perspective on available readings and research

Generally, there were one or two people from each research and development group who could free themselves to undertake this effort. Sometimes the instructor had access to a high level researcher, a technical support person, and a professional development person who could help organize the week's readings, activity and discussions. The class then also had a chance to interact with these individuals.

Developers were also pleased to be invited to participate in discussions, as "guest experts" concerning use of their tool. This provided a unique opportunity to interact with educators who were using their tools. Developers rarely get a chance to interact with their users in a meaningful way, particularly at a distance. With little additional effort on their part, developers could participate in conversations with a fresh set of users over the course of a week or two.^[6] This is far preferable to their having to track the progress of random Internet users who use their online tool. Certainly, this does not serve as a substitute to developing their own user communities, but use of online students can supplement the costly and time consuming process of developing their own pilot sites. The fact that students were engaged in a pedagogically-oriented and structured inquiry adds to the value of their contributions. In this small way, the course supported efforts to improve delivery of online tools by developers.

Lessons Learned

Several students in the course were able to re-use the tools as part of their own in-service offerings in their own institutions. On reflection, mechanisms for tracking and discussing this use needed more work. Most of the students used the tools themselves and with a few colleagues, but use with groups of learners in local institutions is potentially more interesting to study. This was problematic because the course activities were set up in advance (before we knew which tools would be used where). The course also had to be responsive to the group as a whole and did not have resources in place to follow up on the few cases where there was re-use of the tools in local settings (besides by the students in the class themselves). More work is needed to determine the interest of the researcher and developers to support and study these distant implementations.

In addition, re-use was not as easy as expected. At the time of the course, copying of Blackboard modules for use by others was somewhat laborious due to having to conform to archaic rules of html code. Additional development was required to make the modules reusable. Nonetheless, these processes will become easier and any additional effort to promote reuse is worth undertaking. There growing interest in re-use of instructional materials in order to contribute to scholarship in educational technology (Bransford, 2001; Wiley, et al., 2001).

Conclusion

For some time I have been troubled by the sense that there is too much activity in educational technology research and development, and not enough knowledge being generated from this activity (Ravitz & Serim, 1997) Educators require help identifying tools and resources for student assessment and they trust the experiences of other educators. Developers appreciated help obtaining feedback about the experiences educators had when trying their tools. Prior work on the Site Evaluation Form (Ravitz, 1995) also indicated that educators could share reviews of online resources and that developers wanted to see these and to respond to the perceptions of educators.

In conclusion, courses in educational technology have the potential to generate a wellspring of knowledge about teaching and learning with technology – not just among individual learners, but across the field of study. It is plausible that use of tools by online educators could provide substantial data for developers to improve their products and their research. This would help meet the requirement for a decade of rigorous scholarship described by Haertel & Means (2000). One can imagine communities of educators developing knowledge around uses of different online technologies by promoting trials of new tools in a series of online courses that link practice to research.

Instead of only being accountable to the learning of individuals and their classes, online learners, educators and instructional designers can also contribute important knowledge to the field of educational technology research. They can provide data, test cases, and reviews for researchers and educators who want to hear how tools are used in different settings.

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^[1] The author developed and taught this course as part of his postdoctoral work with the Center for Innovative Learning Technologies (CILT). <http://www.cilt.org>

^[2] Black & Wiliam (1998); Bransford (2001), and Stiggins (1997) discuss the importance and centrality of formative assessment for instruction.

^[3] The syllabus with a list of readings and activities is available online: <http://www.bie.org/Ravitz/syllabus.html>

^[4] “Moving out of the middle” is the title of an online course at Concord Consortium taken by the author. It teaches methods developed at Metacourse.com and was taught by Sarah Haavind.

^[5] Often special developments had to occur to support the class, such as creating a new entry web page, a set of usernames, and so on. It was helpful to be able to offer assistance to the developers in these areas.

^[6] Assignments were posted one or two weeks in advance, and sometimes people would take a week to catch up. Developers were present in Blackboard during their assigned week and notified of any additional discussion via email. They sometimes wrote back to me and I would post a summary of their response, or they returned to Blackboard and responded to students themselves.