

Assessing the Integration of Technology Into the Curriculum

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Abstract: An online, self-assessment is being used to measure the amount and type of technology integration by the faculty of the Troy State University College of Education. Usage of this instrument has created baseline data to track individual and group levels of technology integration. Measures of presentation, administration, collaboration and research are gathered for both faculty and students. Technologies such as Internet, e-mail, discussion boards, chat, PowerPoint, word processing, spread sheet, database, digital camera, video camera, and video tapes are measured. Analysis of the first academic year's data is presented in this article. This project was funded in part by a PT3 grant and is designed to gather data congruent with NCATE and ISTE standards for technology integration.

As I look into my crystal ball I can see that your school has invested thousands of dollars and hours into the purchasing of technology for your campus. I can also see that you have also well invested in the training of your faculty and staff to use the equipment and software. Something else is also coming into view ... You have also assessed your faculty's technical competencies and designed training to meet their needs. But is the technology actually being integrated into your curriculum? To what degree are your faculty members really using it in their teaching? Oh, I wish I could tell you, but that information is very gray and fuzzy. All that I can see is that most faculty members are saying that "sometimes" they are using it. I'm sorry I wish I could give you a more specific answer.

Do you feel like the assessment of the integration of technology into your curriculum is gray and fuzzy? Do you wish that you could gaze into a crystal ball and get specific answers?

As Director of Instructional Design and Technology for the College of Education at Troy State University I felt the same way. We have invested well in the infrastructure, implementation, and training of our faculty to use technology. But when asked if it was really being used in the classroom, the best I could say was, "I think so." But as you know, budget requests based on "I think so" do not continue to be funded. I needed authentic, quantifiable data to document our usage of technology.

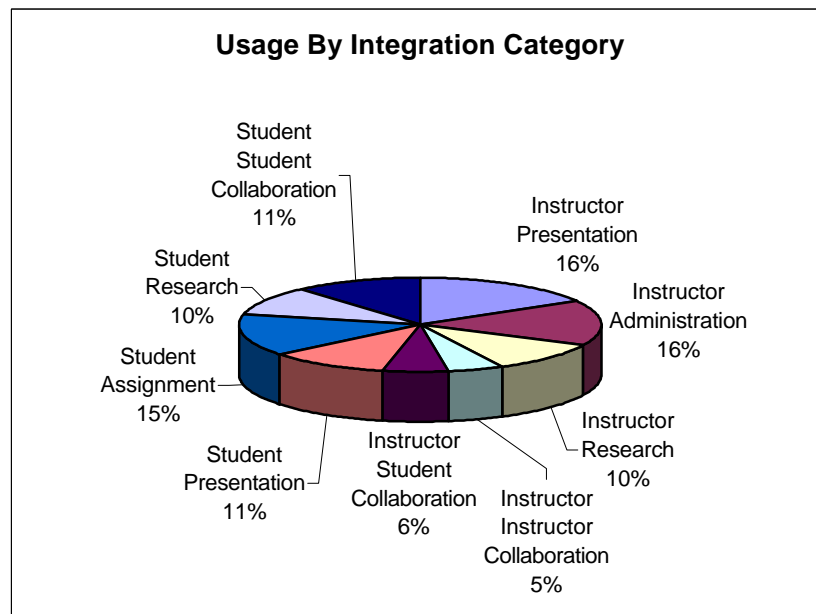
So I developed the Technology Integration Assessment. This online, self-assessment allows faculty members to quickly and conveniently report the integration of various technologies into each of their courses. The instrument not only measures what technology items are being used, but also how they are being used. The real data resulting from this authentic assessment has guided our data-driven decision process for future technology purchases and training.

Several similar assessments currently exist which measure an individual's current technology competency levels. Assessments also exist which measure faculty and student perceptions of the impact which technology is making. But instruments designed to measure precisely which pieces of technology are being and how they are being used were lacking. This void led to the development of the Technology Integration Assessment.

The online instrument is located at <http://spectrum.troyst.edu/~coe/departments/technology/integration.htm>. Each faculty member is asked to complete the instrument for each course they are teaching. The instrument is administered near the beginning of each semester. Through the use of checkboxes arranged in a grid, the faculty members can quickly identify which technologies are being used in what ways. This format allows the instrument to be quickly completed thus resulting in higher response rates. The average time to complete the assessment is less than five minutes per course.

The information submitted by faculty members is automatically sent to a database. After the submissions have been received, the Technology Integration Report is prepared for that semester. A sample of the data can be seen above. The complete report is available at http://spectrum.troyst.edu/~coe/departments/technology/TIR_5-11-00.doc. This report allows information in the following categories to be reported: Usage By Technology Item, Usage By Integration Category, Technology Integration Index By Faculty By Term, Technology Integration Index By Faculty, and Technology Integration Index By Faculty.

We identified the following twelve technology items for which we wanted to track integration: Internet, e-mail, discussion boards, chat, PowerPoint, word processing, spread sheet, database, digital camera, video camera, and video tape. We also identified the following nine integration categories: instructor presentation, instructor administration, instructor research, instructor-instructor collaboration, instructor-student collaboration, student-student collaboration, student presentation, student administration, student research. **Figure 1:** Usage by integration category.



The assessment also allows us to establish baseline data in the form of a faculty integration index. This quantifiable information allows us measure increases in integration for each faculty member over a period of time. This serves as an authentic assessment of the results of our faculty technology training program. Some of the conclusions drawn from the data include:

- Internet usage has almost equaled word processing usage for course preparation.
- Technology usage categories of presentation, administration, research and collaboration are roughly equivalent for faculty and students.
- The technology integration index for faculty members ranged from 5 to 38.33. The average was 19.58.
- Email usage surpassed Internet usage. This indicates that faculty members are using their network connections largely for communication and collaboration.

This instrument was developed specifically for the Troy State University College of Education but it can be tailored to measure specific technologies being used by any school. In the presentation I will provide the history of the development of the assessment, demonstrate the use of the assessment, show the resulting report from the assessment, and report how this data has been used in the decision making process of the College.