

**Qualitative Review of Technology Use
Northwest College
Title III**

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(Final draft)

Much research in higher education over the past few years has focused on the impact of technology on teaching and learning. Although this research is still in its very early stages, no definitive conclusions have come from the research even though educators report that they are seeing differences in learning.

Over the past four years Northwest College has instituted a number of new technologies with the assistance of a Strengthening Institutions Program Title III grant. Quantitative results of the impact of these new teaching tools are reported separately. To assist faculty and administrators to more fully understand the impact on learning these new technologies are having, interviews with five Northwest College faculty and staff were conducted. Questions asked in the individual interviews are attached to this report.

Discussions focused on faculty use of technology, which technologies were being used and observations about the impact on teaching and learning.

Interviews

Fred Ebert Communication and Mass Media

Courses taught

- Public Speaking
- Interpersonal Communication
- Acting
- Plays

Technologies used

- SMART Boards
- Vodcasting
- Blackboard
- Exploring the use of Second Life, an online virtual world
- Exploring the use of cell phones as learning tools

Fred expects students to use the SMART Board, vodcasting, and Blackboard. At the beginning of the semester he has a discussion with the class to see where they are in understanding and using technology. He invites the NWC Instructional Technology Coordinator, Scott Horton, to visit each class to orient students to vodcast use. He noted that students expect technology use by faculty.

When asked about his training in technology use Fred replied that he had some experience in former positions, was self-taught and had received training from Scott at NWC. The impact of technology on motivation Fred sees as a double-edged sword. Students get excited about using the technology, but vodcast availability of viewing lectures outside of class sometimes makes students less apt to attend in person. Fred can monitor the number of times students are viewing the videos of class so he knows they are watching them, but it is by personal observation that he sees the impact of technology on motivation.

The same personal observation informs him of the impact on learning that the technology has. He believes that it has impacted learning, maybe not more, but different learning. While the type of technology used may impact the learning, he believes that it depends on how the instructor uses it. For some traditional faculty the technology may seem like “play” and it takes a while to learn it is all right to play because learning is still going on.

When asked what NWC could do to improve faculty training in technology use Fred remarked that the week long workshops with Scott were very helpful and that NWC is very supportive of faculty training in technology. He suggested that the College might consider bringing in some technology experts to share ideas and inspire faculty to use technology more in their teaching. As far as student training, Fred thinks students should be required to use the new technologies and that using them within the context of the class makes them more meaningful. He also observes that students seem to be more engaged in classes because of the technology. Again, he uses no formal measurement tools, but rather relies on his observations.

In conclusion Fred said he would like to see NWC be more aggressive in pursuing the newest technologies. Ease of use and not price, should guide the selection of technologies. More equipment for fewer dollars is not always the best choice.

Don Anderson Mathematics

Courses taught

- Algebra beginning and intermediate
- College Algebra
- Business Calculus
- Theory of Arithmetic
- Math seminar

Technologies used

- PowerPoint
- SMART Board
- Vodcasting
- Blackboard
- Skype

Hawkes Learning System (online)
Aleks to be piloted this fall
Graphing calculator

Don does require students to use technology in his classes. He does not do a formal assessment of students' abilities to use the technologies but discussions and activities early in the semester let him know what kind and how much training he needs to provide in class. He commented that students are demanding technology use and knowledge from faculty. He is working on plans to include the use of cell phones for individual response in class.

As far as his own training in technology, Don is self-taught, has learned from attending conferences, been through NWC training sessions and has had technology experience in former teaching positions. He has been a trainer and continues to work with peers to learn new things.

According to Don student motivation has definitely been impacted by technology. He has worked with the interactive clicker technology in his math classes. He believes this is true because of his observations, data recorded from the clickers, a survey he has done with students and the fact that students mention the clickers in their course evaluations. Don stated that the clicker technology has increased attendance, engaged students and perhaps made them feel more personal responsibility for their class participation.

Don also says the technology has impacted student learning. He notices especially student motivation to participate and can track student work improvement. He is able to see better learning results through testing and questioning and student performance. The feedback from the technology lets him know if students understand the material. He gets more student feedback through the technology.

Northwest College has provided good technology training for faculty and support for outside training at conferences and meetings. The biggest issue, he believes, is time. With heavy teaching schedules and other duties, faculty need more time for training and working with the technology.

As for student training in technology, Don would like to see students who are better trained in Blackboard before they come to class. Perhaps more technology orientation for students would help. They need to be able to access class notes. Since he uses email to post questions for class he wishes student would be more vigilant in checking their campus email.

One of Don's concerns is that there is still some faculty resistance to using the new technology. More work needs to be done to train and encourage all faculty to use technology.

Dennis Davis Journalism

Courses taught

- Webcasting practicum
- TV Production
- Media Photography
- Photography Technology
- Movie Production

Technology used

- Audio and video editing equipment
- View cameras
- Digital cameras
- Vodcasting equipment

All courses Dennis teaches are technology based so every class uses technology all the time. On the first day of class Dennis asks questions to determine what level of technology use the students have. He can tell by their questions and how they use the equipment what they know and what they need to know. No formal assessment is used.

Northwest College has provided very good training in technology use. The equipment Dennis uses is very specific to his program and individual training is often necessary. He has attended workshops, off campus meetings and done self-teaching for some of the new equipment. He feels NWC provides support for training, but again, time is the issue. More professional development funds might help also.

The technology is the motivation for this program. If students were not interested and motivated by the technology, they probably would not be in the program. The technology is the learning and Dennis says the program could not exist without the new technologies and equipment.

As far as what new training is needed for students, Dennis reported that the new curriculum in the department addresses this. New classes and new degrees are being developed and offered to students. For example a new radio program will be available as a result of the Title III funds.

Constant and rapid change makes adding new technology essential to a program such as this. Without new hardware and software, this program could not exist.

Jeannie Hunt Communication and Mass Media

Courses taught

- Public Speaking
- Interpersonal Communication
- Argumentation
- Introduction to Persuasion

Technologies used

- SMART Board
- Skype
- Web - Online resources
- Vodcasting
- Blackboard

Jeannie asks students to use Blackboard as a requirement for her courses as they must be able to access the media library and must be able to go online for research. A new class she is preparing will include cell phones to teach communication in today's world.

To assess student technology use levels, Jeannie gives a beginning of the semester quiz on the syllabus and asks questions. She uses observation to determine levels also. She provides access to help individually if needed.

Her own technology training experience includes NWC workshops, outside workshops and conferences and her graduate program was delivered through technology which she believes gives her a unique perspective.

The technology has motivated students by allowing flexibility and self-direction with turning in assignments and even scheduling test taking times. She can monitor student use online so she knows when and how students use the class technology. By observing she believes that the technology has impacted student learning. Students have a much broader opportunity for activities, cultures and diversity through the use of the technologies.

She says the type of technology probably does impact the learning. She tries to use technologies the students already use in their lives. They can use the Vodcasting to record and review speeches. They even use their iPod or MP3 players or their computers to view class notes or lectures or their own speeches. She hopes to do more with helping students be better

consumers of the research they do online to better understand what information is reliable and documented and what is not.

Jeannie believes NWC provides good support for her own technology training. She would like to see more levels of training offered. More advanced and new technology training would be helpful. Once again she stated that time was the major issue.

Non-traditional or older students especially need more training in the new technologies. Maybe at the beginning of the semester a workshop or training session could be offered on how to use technologies available at NWC and what is expected of the students as far as technology use.

Student engagement, motivation and learning are improving with technology use in Jeannie's classes. She monitors student use and discussions and believes they interact more online. They are required to respond three times in online discussions and most respond more than that. She also noted that test scores are up over the past two years. She says it is up to faculty to know about and use the technology that is used by the students and introduce them to new and better ways to use all of them.

Scott Horton Instructional Technology Coordinator

Courses taught

Scott teaches a class online and does all the technology training for faculty

Technology used

Scott uses all the technology available at NWC and teaches its use

Scott has been in this position since 2000. Training has been only part of his job description and he has not had time to devote as much to faculty training as he needed. Beginning next year he will have another full-time person in his department. For the first time he will have more time available to devote to training. He has seen a steady increase in the number of faculty deciding to use technology in their classes. He reports that students are demanding it. They expect faculty to use technology and avoid classes where it is not used. Students want assignment and resources posted on BlackBoard and want notes from the SMART Board in class to be available to them.

Vodcasting is becoming more in demand as students become familiar with it. There are now three classrooms equipped with Vodcasting

technologies, one specifically for nursing and two for general use. The students love the ability to download to their iPod or MP3 or their computers. They can listen to class while they are driving or working out.

Scott wants to work on training for awareness on new online tools such as Web 2.0 and tie in training for using cell phones as learning tools. Thirty new touch screen iPods have been purchased for a pilot program. They are being tested in agriculture and photography classes for use in the field to collect data and use mobile interactive tools for learning.

Technology has expanded summer offerings with online classes. Students and faculty are requesting more training for online use. Faculty then use what they have learned in on campus courses to provide notes for review, lectures, math help, etc. Even older faculty are less resistant to learning and using the technologies as the students expect it to be used. Non-traditional students still need more help with learning to use the technology more comfortably. Scott reports there are now 41 SMART Boards on campus and some 60 plus classrooms equipped with projection systems.

Conclusions

Based on comments from these interviews some common concerns and thoughts have emerged.

- More faculty and students at NWC are embracing the technology.
- Students expect and even demand technology use in courses.
- Technology will continue to change and grow rapidly and training for faculty and students will continue to be a major need.
- Providing time for faculty to learn and use the technologies is needed.
- The technology has impacted student motivation and participation and probably learning.
- How we approach teaching and learning will continue to change and in order to reach students, Northwest College must keep up with the demands.

Suggestions for Continuation:

- Continue to strengthen assessment of technologies' impact on student learning. This would include strengthening the use of quantitative assessment in selected classrooms.
- Continue to explore options to promote faculty abilities to learn and use technologies in the classroom.

- Continue to provide the high quality training currently available. In addition, offer a more varied array of technology training as made possible by increased training time allotted to the Instructional Technology Coordinator position.

Questions for Interviews

Name

Courses you teach

Specific technologies used in each course

Do you ask students to use technology? What and how

How do you assess student technology levels or do you?

What training were you given in technology use in teaching?

Has your use of technology impacted student motivation?

How?

How do you know? How do you measure?

Has your use of technology impacted student learning?

How do you measure?

Does the type of technology impact the learning?

How could NWC improve faculty training in technology to help you improve student learning?

What technologies or training in technologies for students would improve student learning?

Has your use of technology improved student engagement in class? How so you know? (How do you measure engagement?)