RESEARCHING THE USAGE OF PODCASTS AND BLACKBOARD AT SUFFOLK

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This study aims to analyze the use of electronic learning tools at Suffolk University, in particular, the use of podcasts and Blackboard. Students and teachers were surveyed about how these two educational technologies are used in the classroom. We discovered that Blackboard was widely used, as expected, and that podcasting was not as common. After a presentation to Suffolk University's Educational Technology Committee, we hope that our research has positively influenced the university and that positive changes are to come.

THE IMPORTANCE OF ACADEMIC TECHNOLOGY IN HIGHER EDUCATION

As society moves closer to a becoming a predominantly digital age, the use of academic technology in higher education settings has increased in importance. Academic technologies allow students to participate in coursework in alternative manners. In addition, technology provides teachers with tools through which to handle the administrative details of the classes they teach (Albright and Nworie, 15).

College and university students come from all walks of life. Some are the traditional college students aged from 18 to 24, while others are single parents, or adults being reintroduced into the education system. Traditional methods of in-classroom instruction and participation are no longer adequate to accommodate the diverse population of students in the higher education system (Albright and Nworie, 15).

Having online tools and resources allow students to engage in classroom activities from home and it supplements the learning environment for students who are capable of being in class. These academic technologies that enhance university learning environments are email communication, course websites, online protocols through which students participate in class, and alternative means of providing course materials to students such as posting lectures and notes online.

BLACKBOARD

This study focused on how two specific types of academic technologies, Blackboard and podcasts, are implemented at Suffolk University.
Blackboard is an educational technology widely used among educational institutions as a resource for both students and teachers. It provides an online portal where teachers can publish information for students to access via the Internet anywhere or anytime. It includes features

where a teacher can post the course syllabus, supplemental course documents or materials, assignments, and announcement. It also provides easy access to email communication for all students and teachers in a specific class. In addition, teachers are capable of privately posting students' grades in this online tool (Blackboard, web).

Another interesting aspect of Blackboard is its ability to facilitate instruction in an all-online format. Entire courses or schools can utilize the interface to control all aspects of course management, communication, instruction, and evaluations.

PODCASTS

Podcasts derive from a combination of Apple's iPods and iTunes. Users can subscribe to podcasts and receive updated podcasts instantaneously. These podcasts can be either audio files or video files and can be listened to or viewed either from the computer or from a user's iPod or iPhone. In addition, owners of iPhones and certain iPods can record voice memos or podcasts directly on the hardware and upload them to the web for others to listen to (Apple, web).

A new innovation in learning involves podcasting in the classroom. Professors are recording lectures so that students can listen in at a later date, or visually see problems worked out on the board, in the case of math and some of the sciences.

One of the most interesting aspects about using podcasts in an academic setting is the portability of the technology. Students are able to wear a pair of headphones attached to their smart phone and listen to lectures anywhere - on the bus, while running or exercising, walking, etc.

THE LITERATURE: THE CONCLUSIONS OF RESEARCHERS OF THE PAST

When analyzing the literature on the subject of academic technologies in the classroom at universities, we sought to discover how other schools utilized Blackboard and podcasts in order

to gain some insight into how Suffolk University may be able to improve upon the use of the technology here on campus. As this is all relatively new technology, the literature on the subject is all relatively recent as well, which is great for the purpose of the study.

Podcasting in Academia (2006) sought to discover more about podcasting and why it is growing popularity in classroom environments. It also includes a study from Duke University in 2004 which involved giving all first year Duke Students a new 20GB iPod device equipped with a voice recorder. Uses for the iPod were divided into five groups; being a course content and dissemination tool, a classroom recording tool, a field recording tool, a study support tool, and for file storage and transfer.

Several conclusions were drawn from the Podcasting in Academia study. It was determined that the core of academic podcasting is content management, where material is automatically distributed to subscribed users. It was seen as beneficial that the students could share materials, representing useful knowledge management artifacts where knowledge can be easily distributed, stored, and shared between academic parties. These questions serve as a first step for researchers to investigate the fundamental issues involving new and innovative learning pedagogy such as academic podcasting.

The study concludes that as technology grows and is accessed easier, the use of podcasting will grow exponentially. It goes on to say that podcasting should grow to be relevant in the classroom, as well as in social mediums like government agencies and communities. This section also addresses podcasting in academics directly; stating that "academic podcasting should usher in new learning paradigm through a series of design iteration, innovation, and collaboration among the participants in the academic world" (317).

Principles and Pedagogy: The Two Ps of Podcasting in the Information Technology

Classroom (2006), to be known hereinafter as the IT101 study, concluded with the pros and cons of podcasting in the classroom. In this study, the teacher recorded podcasts for every lecture for the first five weeks of class. It was reported that the podcasts' popularity among students got consistently lower as the class moved along. Students reported that they found the podcasts most helpful in the cases of missing class and reviewing for exams.

A survey associated with this study found the majority of the class would be willing to listen to a 6-10 minute recap of each class lecture. The students agreed to team up to create their own podcasts based on course materials. In this process, students learned how to use software tools, create multimedia presentations, and post information in the form of podcasts.

In addition, an analysis of web server logs was taken. It proved that students were downloading their classmates' podcasts on a regular basis, and the student survey concluded that using podcasts in this fashion contributed positively towards student learning.

The IT 101 study also offered some pros and cons regarding podcasting in an academic environment. Some pros included: the popularity of portable media players amongst students, the ability to record lectures with little class participation, great distance learning, and the usefulness of the podcasts for explanations. Some cons included: students may choose to skip class given the alternative of simply watching the podcast, the inability to search for specific terms, poor video quality for demonstrations, and the lack of willingness to watch a one hour podcast.

The Educational Podcasting Using the Charles Sturt University Flexible Publishing Platform (2006) article, explained that, at Charles Sturt University, professors attempted to use podcasting as a pre-listening class material in order to decrease freshmens' preconceptions and anxiety. They believe that podcasting can be used to enhance classroom learning through encouraging students to engage with the material. The podcasts that were used where not limited

to full lectures, and included videos as short as 3 to 5 minutes in order to prepare students for lectures or offer tips for assignments.

The study included both on and off campus undergraduate students who enrolled in the class entitled User Interface Design and Evaluation; as well as graduate students enrolled in the class entitled Interface Usability. The study totaled 55 students, all of whom were provided with the same podcasts. At the end of the semester, each student was required to fill out a survey regarding the study.

As a result, they received 23 responses out of 55 students. Of these 23 students, 82% watched seven of more podcasts from start to finish. Respondents generally agreed that the podcasts possessed educational value to them, and that they were beneficial to their understanding of the subject content.

Next, we looked at Measuring Student Perceptions of Blackboard Using the Technology Acceptance Models (2006). This study examined the experiences of students who use Blackboard in an academic environment. The study sought to explore student perceptions of the usage, usefulness, and ease of use for technology-assisted learning.

It was concluded that some of the most used features were announcements, course documents, lectures, quizzes, student tools, grades, and the syllabus. Discussion boards, email, external websites, and faculty information were used less widely.

In conclusion, there are many uses of academic technologies in the University system both on and off campus. The use of these technologies is ever-expanding as academia gains new perspective on the subject.

RESEARCH QUESTIONS

This study seeks to answer the following questions in a descriptive and thought-provoking manner that will assist Suffolk University's Educational Technology department in the future.

- What are Blackboard's most/least used features?

- How do students respond to the use or disuse of Blackboard?

- Do Suffolk professors podcast?

- How do students respond to podcasts?

- Would students like to try any other academic technologies?

METHODS

Each student and professor answered one-page surveys that were dispersed to the class. A place for the individual's email address was included in the event of any questions about their answers or if the group desired any further detail.

The timeline for this research from start to finish was just over a month and a half. The first few weeks were spent designing the surveys to be distributed to students and professors while the second half of the time allotted was spent analyzing the results and preparing a PowerPoint presentation to be presented to a group of administrators from Suffolk University's Educational Technology Committee on Thursday, April 15, 2010, as well as an exhibition to present to all students who walk through the Donahue lobby on Wednesday, April 28, 2010.

RESULTS – BY COURSE

Since students were surveyed on a course by course basis, the results are broken down below into results for each individual course.

RESEARCH METHODS IN GOVERNMENT (GVT 120)

In Government 120 – Research Methods, ten students were surveyed. Of these students,

four were freshmen, four were sophomores, one was a junior, and one was a senior. All students were Government majors, except for one American History major. It is important to note that Government 120 is a required introductory course for all Government majors.

PODCASTS

In response to whether or not students' professors podcast, six students said yes and four students said no. The negative responses came as a surprise since the course's professor Rachel Cobb specifically podcasts in all of her classes. One students also listed that his or her English 213 – English Literature I professor podcasted as well.

Of the six students who answered yes, four reported that they did not utilize the podcasts at all while two students chose to download them if they were absent. In regard to problems with podcasts, three students did not know how to use them, one reported that the professor did not explain how to use them, one reported that he or she could not find the podcasts, and three students reported no problems at all.

BLACKBOARD

In response to whether or not students' professors use Blackboard, eight students said yes while two said no. Of the students whose professors utilized Blackboard, students reported the most used features to be: access to the course syllabus, email, and posted assignments. The least used features were online exams and the digital dropbox.

In regard to problems with Blackboard, one student reported that the teacher did not explain how to use it, one student complained of malfunctioning features, three reported too much clicking, and three students reported no problems whatsoever.

THE PROFESSOR

When Professor Rachel Cobb was surveyed, she noted that she makes use of podcasts in each of her classes: GVT 120, GVT 110, GVT 224, and GVT 223. She does not use Blackboard because, "it's clunky and takes too long. [She] use[s] a blog instead." She gave Suffolk's Media Services and Academic Technology departments, top marks in reference to podcast and Blackboard training and even added that, "Michelle Bolser is incredibly supportive [and] helpful. Everyone in Academic Technology is." Her only reported issue with podcasts is that her iPod sometimes resets. Ultimately, she feels podcasts improve student performance.

SCIENCE AND LIFE IN THE 21ST CENTURY (SCI 183)

In the SCI 183 class, there are six sophomores, two juniors, and three seniors. Of these eleven students, two listed themselves as Communication majors and two others listed themselves as sociology majors. Other than that, there were not any matching majors. There was one individual each in the areas of: Applied Legal Studies, International Affairs, Film, Paralegal, Electrical Engineering, Electronic English, and Psychology.

PODCASTS

When asked about podcasts, ten of the eleven students said that his or her professors podcast. When asked how the students used podcasts, eight students answered that they do not use them at all, one answered that they download podcasts when they are absent, and one answered that podcasts help them understand homework assignments.

Students were asked what they thought the problems were with podcasts, and the result contained an array of answers. Eight students did not know how to use podcasts, three said that their teacher did not explain them, two could not find the podcasts, and one student claimed that the professor failed to adjust the camera on podcasts.

BLACKBOARD

All students in the SCI 183 class reported that their professors used Blackboard. The most used features included the syllabus, assignments, digital dropbox, and grade book. The least used features were listed as the discussion board, email, and online exams. When asked about problems with Blackboard, ten of the eleven students reported long download times and the inability to open documents from Blackboard.

All additional comments suggested more syllabi and more explanation pertaining to Blackboard. Clickers for polling, blogs, and mathematics software were listed as other technologies used in classrooms.

THE PROFESSOR

The professor of this course belongs to the Electrical and Computer Engineering department. She uses podcasts weekly for three ECE courses. In addition, she also uses Blackboard on a regular basis. She makes use of most of the features except for the discussion board and wikis.

In her opinion, Suffolk gives adequate training in the use of podcasts and Blackboard, and more importantly, the Educational Technology department offers everything professors need and more. Moreover, both Blackboard and podcasts can facilitate students' performance. With Blackboard, students can obtain assignments and communicate with each other more easily. In regard to using podcasts, students can review the lectures, use them for doing homework, and prepare for exams. However, this professor encountered problems when attempting to save the podcasts to make them available to students.

THE ATLANTIC TRIANGE (GVT 313)

In Government 313 – The Atlantic Triangle, nine students were surveyed. The class consisted of four seniors, four juniors, and one freshman. Six of the students were business

majors, two were history majors, and one was a government major. It is clear when one analyzes the data that the majority of the students do not utilize podcasts, but all use blackboard.

PODCASTS

Of the three students whose professors use podcasts, two said they listen to them before a test to help them study. One claimed he or she downloads them if he or she is absent. One student does not use them at all. Though only two students use podcasts, four answered that that they have problems with them. Two simply do not use them. One answered that the teacher did not explain how to use them. And one said he or she could not find the podcasts.

BLACKBOARD

In contrast, all nine students use Blackboard. Of the features offered on Blackboard, the ones that were used by all the students were the syllabus, course documents and assignments. Next in popularity are email and the grade book. The digital dropbox, discussion board and online exams were listed as least frequently used. Some of the students in the class claim to have problems with Blackboard. Three said they are unable to open some documents and the other three said there is too much clicking required to navigate Blackboard.

THE PROFESSOR

The professor of the course belongs to the government department. Though he uses podcasts every day he does not use them for class. He does, however, use Blackboard for class. He makes use of the syllabus and email features. He utilizes Suffolk University's Media Services and is aware that Media Services rents out podcasting software and cameras.

In this professor's opinion, the school gives adequate training in the use of podcasts and Blackboard. He believes that Blackboard facilitates students' performances by making

assignments more accessible. He does not know how to create podcasts, but strongly believes that podcasts improve student performance.

SOLID STATE ELECTRONIC DEVICE 1 (ECE 206)

In ECE 206, Solid State Electronic Device 1, there are total seven students, and everyone is an Electrical and Computer Engineering major. Among the seven students, one is a sophomore, one is a senior, and the remaining five are juniors.

PODCASTS

All students in this class said their professors have used podcasts. When they were asked how podcasts were used, six of the seven students said they listen/study before a test. Among these six students, four students said they also downloaded the podcasts if they were absent. One student did not use them at all.

When they were asked if they have any problems with podcasts, one student answered that he did not know how to use it, two students said they cannot find the podcasts, and two students said they do not have iTunes or iPods. Moreover, two students chose other and commented in a similar way. They said that sometimes they could not see what is written on the board due to both handwriting and camera angle.

BLACKBOARD

For Blackboard, five students said their professors used Blackboard, and the other two said no. The most utilized features were access to the syllabus, assignments, and course documents. Only a couple said their professors have used the grade book before. When they were asked if they were having problems with Blackboard, five out of seven students said they had no problems, while two answered that there was too much clicking and frames.

THE PROFESSOR

The Professor for ECE 206 marked on the survey that he did not podcast, however, he does in fact post his class podcasts on Blackboard. This instance is an example of one of the surveying discrepancies our group had. In terms of problems podcasting, he stated that he needed to sort through the course materials and constantly adjust the camera's angle and focus. He does not use Blackboard at all because of his lack of familiarity with the technology. He suggests having an informal workshop about how to use both Blackboard and podcasts so that he can become more familiar with it.

METHODOLOGY ISSUES

In regard to the methodology that we chose to use for this study, surveying, there were several problems that were encountered. To begin, we chose to survey whole classes on certain days. Not included in our results are the students who were absent on the days we surveyed. These students were not pursued so the classes were not complete in the results. Absent students were not pursued because it would have been an extreme hassle because of the time restraints on the project.

In addition, students gave multiple responses to several questions and some students did not answer some questions at all. The multiple responses proved to be effective because they provided additional insight into how the technologies were used. In most cases, students did not give answers to suggestions about how the technology can be approved. As researchers, we feel as though students were apathetic and did not care to answer these surveys in entirety because they were not required for a grade. Some of the responses were misleading because students may not have known if we were asking questions about the specific course that they were surveyed in or about all of the classes they are currently taking at Suffolk University.

Lastly, it must be stated that the results are not a representative sample of the Suffolk University community. The courses surveyed did not cover an adequate amount of majors in order to be representative.

CONCLUSION

In conclusion, our hypothesis was confirmed such that Blackboard is widely used at Suffolk University while the use of podcasts are still on the rise. Most interesting is the notion that students listed email as one of the least used features on Blackboard. From our research group's prospective, we thought email would be one of the most used features because it allows students to connect with their classmates as well as to email the professor without having to use Suffolk's separate student email accounts, which can sometimes be difficult to access via the school's website.
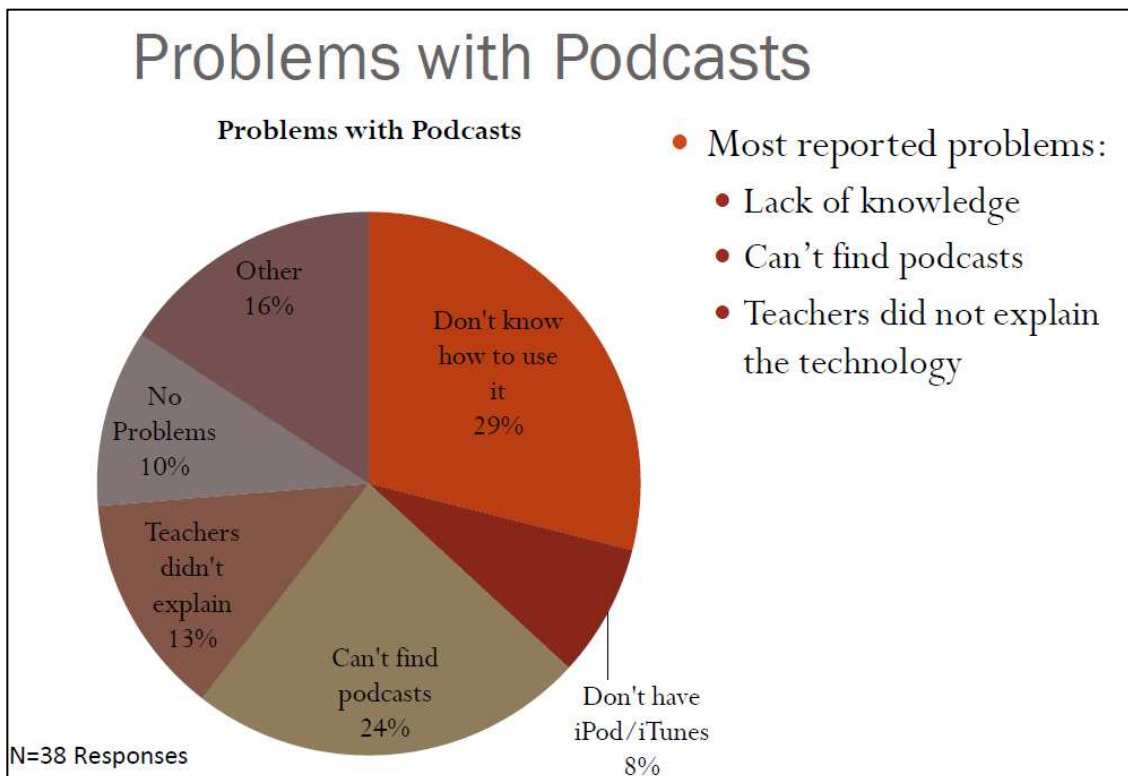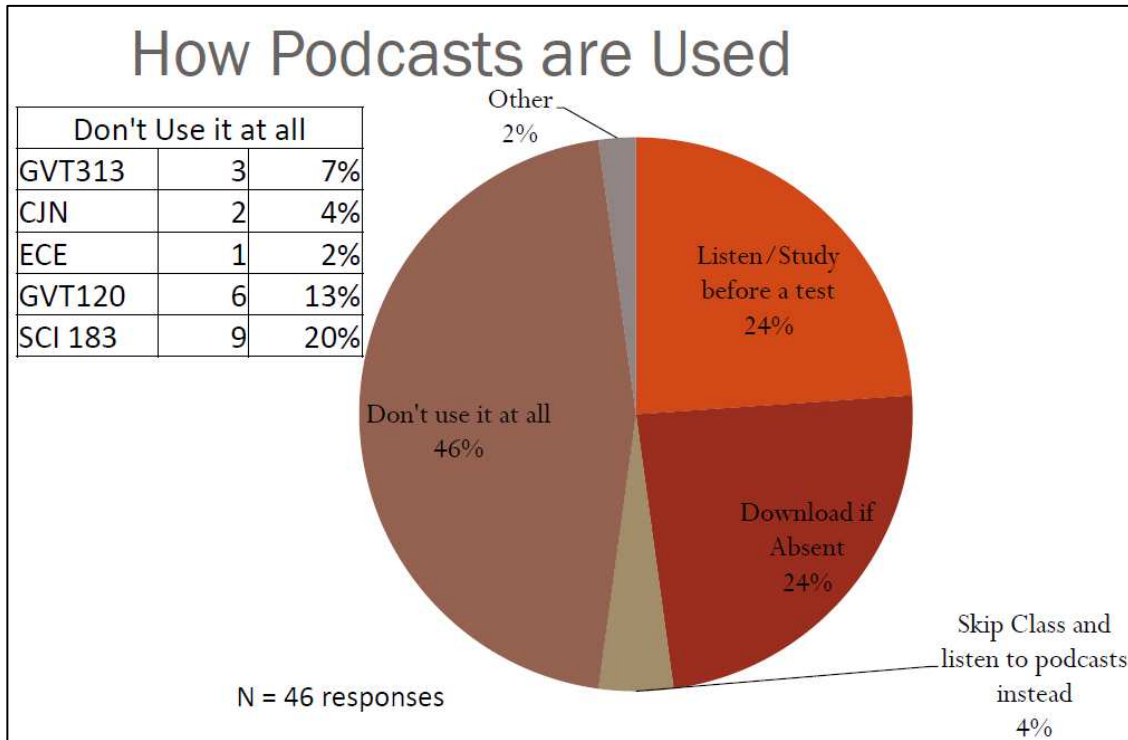
Our research concludes with a few suggestions for the Educational Technology Committee to increase the effectiveness of academic technology on campus. First, awareness about the technology should be raised so that students and faculty alike a wholly familiar with the software and options that are available. Students should be given a full tutorial on the technology at both freshman and transfer orientations in addition to a course session of SU 101 that will be dedicated entirely to familiarizing new students with the technology. Next, there should be a direct link to Blackboard from the Suffolk University website instead of having it as only accessible after students sign into the MySuffolk platform. Students and faculty should be regularly surveyed about use of such technology through formal email surveys sent out to students with rewarding incentives for filling out the surveys. Lastly, professors should be encouraged to take advantage of other prominent forms of academic technologies such as peer-edited wikis and blogs.

Lastly, academic technology is very important in the university setting. It allows students to engage with other students and professors alike and to participate in coursework outside of the classroom. In a changing world with an extremely sensitive economy, students pursuing academia beyond the completion of high school are being forced to take a more outside of the classroom approach to their academics than ever before. Students should be able to take advantage of any academic opportunities possible in whichever way is most beneficial to the student.
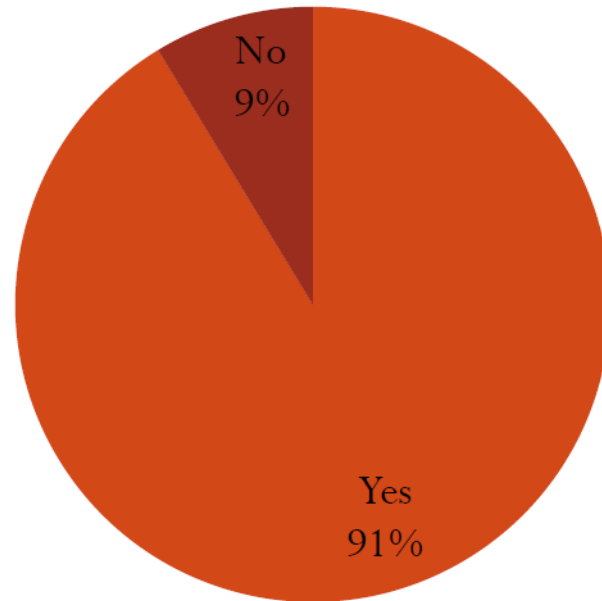
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APPENDIX

How Podcasts are Used

Don't Use it at all		
GVT313	3	7%
CJN	2	4%
ECE	1	2%
GVT120	6	13%
SCI 183	9	20%

Other
2%

Listen/Study before a test
24%

Don't use it at all
46%

Download if Absent
24%

Skip Class and listen to podcasts instead
4%

N = 46 responses

Problems with Podcasts

Problems with Podcasts

Other
16%

No Problems
10%

Teachers didn't explain
13%

Don't know how to use it
29%

Can't find podcasts
24%

Don't have iPod/iTunes
8%

N=38 Responses

- Most reported problems:
  - Lack of knowledge
  - Can't find podcasts
  - Teachers did not explain the technology

Do Suffolk Professors Use Blackboard?

- Yes: 42 students
- No: 4 students

No
9%

Yes
91%

N = 46 students

Problems with Blackboard

- 43 responses
  - 49% - too much clicking/too many frames
  - 19% - unable to open uploaded course documents
  - 16% - features malfunction
  - 9% - teacher never explained how to use Bb
  - 5% - long download times
  - 2% - other issues

TEACHER SURVEY

1. What is your name? _____

2. To which department do you belong? _____

3. Do you use podcasts?   ___ Yes   ___ No

4. If yes, how often? _____

5. For which classes? _____

6. Do you use Blackboard?   ___ Yes   ___ No

7. If not, why? _____

8. What features do you use the most on Blackboard?

____ Syllabus   ___ Course Documents   ___ Digital Dropbox   ___ Email   ___ Discussion Boards   ____Assignments   ____ Exams
___ Gradebook

____ Other – List _____

9. Do you utilize the school's Media Services?   ____ Yes   ____ No

10. Are you aware that Media Services has podcasting software/cameras available for rent? ____ Yes   ____ No

11. Do you feel Suffolk gives adequate training in the use of Blackboard?

(very)   5   4   3   2   1   (not at all)

Explain _____

12. Do you feel Suffolk gives adequate training in the use of Podcasts?

(very)   5   4   3   2   1   (not at all)

Explain _____

13. How do you feel Blackboard has facilitated students' performances?
(a) Students can more easily obtain assignments
(b) Students can communicate easier with their classmates
(c) Students can turn in assignments online
(d) Students have online access to the course syllabus
(e) Other – List _____

14. What problems do you encounter in making podcasts
(a) Problems in saving podcast
(b) Difficult to do
(c) Don't know how to use
(d) Was never trained in its use
(e) Other – List _____

15. Do you think podcasts improve student performance

(yes, very much)   5   4   3   2   1   (not at all)

Explain _____

16. Any suggestions for other academic technologies that might help your teaching?

STUDENT SURVEY

1.What is your name? _____

2.Email address (optional – further questions/interviews): _____

3. What year are you in?   ___ Freshman   ___ Sophomore   ___ Junior   ___Senior

4. What is your major? _____

5. Do your professors podcast?   ____ Yes   ____ No

6. If yes, how many? What classes?   _____

7. How do you use podcasts? (only answer if teachers use)
(a) Listen/study before a test
(b) Download if absent
(c) Skip class and listen to podcasts instead
(d) Do not use at all
(e) Other – List _____

8. What problems do you have with podcasts? (only answer if teachers use)
(a) Don't know how to use it
(b) Teacher did not explain
(c) Can't find podcasts
(d) Don't have iPod/iTunes
(e) Other – List _____

9. Do your professors use Blackboard?   ___ Yes   ___ No

10. What features do your professors use on Blackboard?
___ Syllabus   ____ Assignments   ____ Digital Dropbox   ___ Email   ___ Course   ___ Discussion Board   ___ Exams ___ Gradebook
___ Course Documents
___ Other – List _____

11. What problems do you have with Blackboard?
(a) Teacher never explained how to use it
(b) Long download times
(c) Features malfunction
(d) Unable to open documents
(e) Too much clicking, frames
(f) Other – list _____

12. Any suggestions for other academic technologies to assist your learning?
_____

13. Have you ever used any other academic technologies in class at Suffolk or at any other schools?
_____

14. If yes, which ones, where, and how? How does Suffolk's technology compare?

_____