A case study of utilizing online exams

Other courses have converted a portion of their courses to online. These classes are generally referred to as Hybrid classes. Students and instructors meet face-to-face for a portion of the course and complete online assignments for the remainder of the course.

Some other courses have maintained their face-to-face course but have integrated technology into those courses. Instructors have utilized a variety of technologies that include but are not limited to: Live Chats, Threaded Discussions – Forums, Powering Presentations, Email, Videos, Software, Spreadsheets, Word Processors, Online Portals, Electronic Portfolios/

Projects, Online Exams. This is a case study of the implementation of online exams in traditional classroom. Students are given a paper and pencil exam that has been utilized previously in other courses as the midterm. Then an online exam was utilized in the courses.

The case study looks at the success of the exam from the point of view of the students and instructors. Students overwhelmingly indicated that the online exam was superior to the paper exam. Students indicated that the online exams provided an opportunity for students to complete the exam at a time that was best for them.

They were able to pick a time that reduced anxiety. The online exam also provided immediate feedback on how they did. Faculty indicated that although the online exam does have a few glitches and there are concerns about cheating, it was effective and proved useful.

Further studies need to be done regarding the online exam to assure that it is an accurate evaluation of student learning. Keywords: exams, online, internet, professor, portals INTRODUCTION genealogy has opened a wide range of possibilities for the college classroom.

Thus, the classroom has changed in a variety of ways. Some courses have been converted to fully online courses. Students and instructors do not have any face-to-face contact n these courses. Other courses have converted a portion of their courses to online.

These classes are generally retired to as Hybrid classes. Students and instructors meet face-to-face for a portion of the course and complete online assignments for the remainder of the course. Some other courses have maintained their face-to-face course but have integrated technology into those courses.

The Final Exam also consisted of 60 multiple choice questions generated from a textbook testable. The exam was generated randomly by the computer portal Blackboard.

Each student logged into blackboard to access their exam. The exam allowed the students to have 3 hours to complete it once they started it. Each student was given a unique test with random questions from the nine chapters. The questions were not given in any particular order. Students were given a one week window in which they were allowed to omelet the exam but once they started the exam they need had to complete it.

The exam was open note and open book but the students were instructed that they were not allowed to use any other outside assistance with the exam. The exams were electronically scored immediately upon submission by the students and the students instantaneously received their scores. The Final Exam resulted in Figure 2 – Final Online Exam Forty-one percent of the students, which is twenty students, earned the same letter read on the midterm as the final.

For example, if they got an A on the midterm they got an A on the final. Eleven of the students scored one grade lower on the final than the midterm. An additional three students scored two letter grades lower.

Therefore, approximately twenty-nine percent of the students performed worse on the Final Exam when compared to the midterm. Thirty-one percent of the students improved their scores on the final over their scores on the midterm. Nine students improved it by one letter grade. Four students improved it by to letter grades. Two students even Improved their grade by more than two letter grade.

Furthermore, the differences can be studied further by examining the actual percentage difference in grades (See Figure 3). Forty-five percent of the students scored within five percent on their final of their grade on the midterm. For example, if they scored 88% on their midterm they have scored between 83% and 93%. Thirty-one percent of the students had a difference in their scores of 5% to 10%. Ten percent had a difference in score of 10% to 15%.

Eight percent had a difference in score of Six percent of the students had a difference of more than 20% in their scores.

Figure 3 – Differences in Midterm and Final Exams Scores Examining the statistics of the two exams provides more information on the exams See Figure 4). The midterm and Final Exams resulted in a relatively similar maximum score of an A with a 98% on the midterm and a 100% on the final. The minimum is notably different on the midterm from the final. The minimum on the midterm was a F and on the final the minimum was a D. There is not a considerable difference in the mean or the median scores of the midterm or the final.

Midterm and Final Exam Statistics Faculty and Student Feedback This implementation of an online exam is the first time the instructor ever utilized any exam other than a traditional paper and pencil exam taken with a proctor to oversee the students completing the exam. The instructor Indicated the following concerns to the use of an online exam: 0 0 0 0 0 Cheating Reliability of technology Ease of use for instructor Ease of use for students Student satisfaction with online exam 5 Journal of College Teaching & Learning – December 2009 Cheating. The biggest concern for use of an online exam is cheating.

With the paper ND pencil exam, students are constantly monitored to assure that each student is taking the exam without the assistance of other individuals. By putting the exam online and allowing the students to take the exam at their leisure creates an opportunity for students to get assistance on the exam.

The instructor addressed this concern by using a random exam so that each student has a completely different exam so students cannot share answers. The instructor does acknowledge that the random exam does not completely address the issue and the instructor must use the honor system to hope that students do not cheat.

Reliability of technology. The professors indicated that they did have a fear of the reliability of the technology. In order for the students to complete the exam online the students must have access to the internet and log into blackboard.

The implementation of the online exam using blackboard allowed to professor the option of using a randomized test so that every student got a unique test. From the professor's perspective the technology proved to be very reliable although three students had problems they were not due to the technology being unreliable.

Ease of use for instructor. The textbook used by the referees provided a testable that was compatible with blackboard. This allowed the testable to be quickly and easily uploaded. The exam can then be created in blackboard with a variety of options.

The instructor was able to use the following options on the test: 0 Forced completion (students had to complete in one sitting) Scheduled availability for the exam Number of questions from each chapter Total number of questions on the exam Time limit for the exam Random questions for each student Immediate scoring reported to students. He instructor reported that these options were very easy to incorporate into the exam. The instructor

also had the ability to reset an exam and receive statistics including amount of time each student took to take the exam and their scores on the exam throughout the exam as well as at the end of the exam time period. Ease of use for students. Students are becoming more and more proficient in the use of technology as Jobs are now requiring these skills to meet the demands of their everyday Job. Three students reported technological problems during the exam.

One Indicated that when en submitted the exam en received a message stating that not all questions had answers and did he want to review before submitting but when he viewed the exam all questions had answers so he submitted anyway. He notified the instructor and the instructor verified that all questions did indeed have answers. En surveying the students after the exam, several students had the same problem. The exam is designed so that a student can save after every question or Anita until the end of the exam and save.

Several students started saving after each question but when this proved to be extremely time consuming stopped and opted to lust save at the end.

These are the students that received the missing answer message. The students that saved after each and every question or only at the end id not receive the message. One student reported that the exam stopped timing her session in the middle of the exam. She therefore indicated that she used the honor system and timed herself to assure she did not go over the three hour time limit.

Although, the instructor was not able to determine what caused the student to feel that the timer had stopped, the instructor verified that the timer did in fact work. The final student had an actual problem taking the exam.

While taking the exam the student navigated away from the exam thus preventing her ability to finish the exam. Using the computer for anything else while in the middle of the exam ends the exam session. This aspect although unexpected provides extra reassurance to the instructor that students have fewer opportunities to cheat by access the internet during the exam.

With this new knowledge, students can be warned so that they know not to navigate away from the site during the exam. In this case, the instructor Nas not able to give the student access to the exam she had in progress but was able to reset the 6 Journal of College Teaching & Learning – December 2009 exam and the student was able to retake the exam from the beginning. Student Satisfaction.

Students were surveyed after completion of both the midterm and Final Exam.

Of the fortifying students, an overwhelming forty-one, eighty-four percent, indicated that not only would they like to take an exam online again they stated they would actually prefer it. The other eight students indicated they prefer the traditional paper and pencil exam in a monitored preprocessed setting (see Figure 5 Figure 5 – Student format preference Students that preferred the online exam shared that the exam reduced some of their stress generally associated and expected when taking an exam.

The traditional paper and pen exam required students to take the exam during class time which generally in the evening after a long day of work. Students are tired and distracted from their Nor day. The online exam allowed students to choose the time and place they took the exam.

Many of students particularly like the fact that they could get up on Saturday morning when they were fresh and relaxed and take the exam. In addition, the students really liked the fact that they received their scores instantaneously and did not have to wait a week to get their scores.

The online exam was easy to use and any of the students actually felt that the online exam was easier to use. The students indicated that in the traditional paper and pencil exam students have accidentally marked an answer on the wrong line on the answer sheet thus messing up all of their answers and even some times greatly affecting their grade on the exam. Rhea format of the online exam prevents this from happening.

The few technological problems caused some students to prefer the paper and pencil exam. In addition, a few of the students stated they Just prefer things in written form rather than reading everything on a computer screen.