Face-to-face vs. Online Education

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Anthony Coronado

Gustavo A. Lembo

**Abstract**

Education is constantly changing and evolving as individuals continue to change and evolve. Societies have become extremely reliant and dependant on technology causing education systems to move toward more of a technology based instruction format. Along with this element is the tough financial time that most states are dealing with where they are struggling to fund education, especially at the post secondary level. By implementing online courses schools can fulfill more student needs with less teaching staff. Our main question in our research was how do the students truly feel about online education and compare it to traditional face-to-face education. We really wanted to know how they pair up in the minds of students that have taken both types of classes.

From the outset we believed that more students would prefer the online method to instruction for several different reasons; 1) the flexibility, 2) ability to express yourself without having to do so face-to-face with others, and 3) immediate teacher feedback. We, the authors aligned a survey with seven questions that the subject could answer either online education or face-to-face education and put their reasoning for the answer if they choose. This alignment allowed us to assess what the students prefer and their reasons for their preference.

**Introduction**

Education is moving towards a more technology based forum of instruction. Students have grown up using technology and have no fears in learning by the use of technology. As states and schools look to make cuts in programs, online education seems to be an easy way to reach a larger audience as students do not need to live close to the school, nor commute to the school. “Education programs also realize numerous benefits from online education including the ability to enroll students from a wide geographic area.” (Heale, Gorham, & Fournier, 2010)

On the other side what are the students thinking. How do the students feel? If they had a chose, what would they choose? Students are not having a choice; they have to take whatever is offered so that they can complete their program when they plan on completing it. Some students are not really trained in computer programs and rarely use the internet and are locked in to take a class that is 100 percent online class. This gives them difficulty from the start. “Internet experience and skills of the students may not be taken into account during the design and delivery of online education programs, resulting in barriers to learning.” (Heale, Gorham, & Fournier, 2010)

**Review of the Related Literature**

Janet Ferguson and Anne Marie Tryjankowski conducted a study of online versus face-to-face learning. In this study they were looking at and comparing students that were academically successful prior to taking an online course and those that struggled academically prior to taking an online course. They examined the correlation between the two. “Students who have previously been successful academically tended to do as well in statistics with a programmed instruction/distance learning approach as did students in a face-to-face course.” (Ferguson & Tryjankowski, 2009) The thought process was that students that were historically good students they knew how to succeed on their own and didn’t need a teacher directing them in the instructional process. On the other spectrum, students that struggled in traditional classes, they were going to struggle in online courses as well. Online courses are in no way an easier way of education in regards to understanding material covered, but successful students know how to navigate through material and learn things on their own. “Successful online students were also able to identify the gaps in their own knowledge and ways to close those gaps.” (Ferguson & Tryjankowski, 2009)

In their study they used GRE scores of masters’ level graduate students to ensure students knowledge and abilities prior to the online or face-to-face class. What they found was that “face-to-face students scoring significantly higher than the online students.” (Ferguson & Tryjankowski, 2009) Along with this data they conducted a Likert style survey where the students had the ability to evaluate their course. They found that the online students thought their course was extremely flexible and they liked that they could work at their own pace, what they recommended was more interaction and more direction in assignments. Face-to face students had a high degree of satisfaction with the course and the instructor.

“Web-based instruction is emerging as a viable option to traditional classroom instruction for many colleges and universities which offer distance learning.” (Summers, Waigandt, & Whittaker, 2005) Summers, Waigandt, and Whittaker conducted a study where they compared “students’ knowledge of statistics and attitudes toward their statistics class for an online and face-to-face class.” (Summers, Waigandt, & Whittaker, 2005) They felt that most times instructors create the curriculum to fit into whatever technology they currently have instead of the other way around which is the way that it should be. Instructors should be looking for tools to fit their curriculum.

In the study there were two groups of students, 17 in one group that elected to take the online version of a nursing course while 21 chose the face-to-face version. Students were given a pre-test to show what they knew prior to the course. There was no significant difference between the two groups prior to the course. There was also a post test to show what they learned and their current knowledge in the subject matter. Once again there were no significant differences between the two groups on their knowledge of the subject matter. Lastly they looked at course satisfaction. They gave the students a 16 question survey about their satisfaction with the course and the instructor. In this survey they found some significant differences. There seemed to be more satisfaction with the traditional face-to-face style of education. There were four questions were they had a higher satisfaction level in face-to-face over online based on the instructor, and three questions that were based on the course. The main concerns for the online students were that they didn’t feel that instructor gave good explanation, wasn’t very open to the students, and didn’t have a good use of time.

Heale, Gorham, and Fournier conducted a study to 1) compare the experiences of nurse practitioner students in face-to-face instruction versus online instruction. The main focus was on the barriers that the students felt there were in regards to the online instruction method. 2) The exploration of all the student experiences with the online component of one of the Nurse Practitioner courses offered. 3) Look at the different things that need to be changed and improved in online education.

The topic of the study is somewhat new. There isn’t a lot of existing research that deals with satisfaction of Nurse Practitioner online learning programs. The existing research does help in understanding some of the parameters in this study. Most of the existing research is on undergraduate studies. There is research showing that online educators often struggle with pedagogy for online teaching. This as a result makes it tougher for students to succeed.

For their study their participants were all of the students that were registered in the targeted nurse practitioner course. The survey was sent to 138 students, 82 of them participated in the survey representing 59% of those registered in the course. The minimum age was 56 and the mean age was 37.7. 6 out of the 82 students were male. 8.8% of the students had never taken an online course before. 28.4% of the students were receiving the online course, and 71.6% were receiving the traditional instruction method.

The study took place online, where a request was sent to the students asking them to participate in the survey. All of the students that were registered in the specific nurse practitioner course targeted were sent the request. Students were emailed a link to give permission to have their grade for the course sent to the researchers to help in the study.

The data was constituted as a questionnaire responses and grade reports. The questions asked were demographic data questions and questions about general opinions of online learning. The investigator looked at the data after it was calculated by the internet site.

SPSS was used to analyze the different responses on demographic data and the general opinions toward online learning using descriptive and frequency techniques. Likert-scale questions were analyzed using comparison of means and barriers listed from most severe to least severe. They were the recorded as two different groups, the “no barrier/weak barrier” group and the “moderate/strong/very strong barrier” group. Chi square analysis was also used to compare onsite instructional students and online instructional students’ responses into two coded groups. Lastly analysis of the students grades were completed to show the significant differences in the outcomes based on how the course was delivered.

The researchers showed the students opinions about online instruction. They mainly focused on the ways to improve online instruction. They show areas where students addressed that there were moderate to very strong barriers in online instruction. The communication element seems to have more and a stronger barrier in the eyes of the students than other elements, included in that is the accessibility of the instructor that adds to the communication barrier. The results however for most of the questions asked, came back with approximately 50% of the students that answered with the no/weak barrier and approximately 50% answered with moderate/strong/very strong barriers.

Karen Riley and Barbara Slater Stern conducted a study looking into the student engagement with an online learning element included in the regular instructional method. The authors believe that instruction can be transformed with the addition of the web based instruction method, or web supported method.

They looked mainly at studies that were based on good teaching. They used references of teaching methods or practices that called for active learning, prompt response and feedback to student work, as well as collaboration among the students. All are elements of web based instruction. They also looked at and referenced an article where web based instruction was presented as being more effective because when a student misses a sentence of an instructors lecture it is gone, but in a web based instructional class, nothing is lost, as well as there is no set time of class, students can access the class or instructor at any time. “Electronic classrooms or even Web-supported classrooms are not only equivalent in terms of effectiveness, but can also have the potential to transform the way in which learners understand the course material, and provide a social component that is often missed in the traditional classroom-the willingness of shy or introverted students to participate in classroom discussions.” (Riley & Stern, 2004)

One author is a professor at James Madison University and the other is a professor at Auburn University at Montgomery. Both teach Social Studies methods classes at their respective university. They did a case study including both of their universities. One class from each university in the subject of Social Studies Methods was studied.

The study took place at two separate universities (James Madison University located in Virginia, and Auburn University at Montgomery located in Alabama). Both southern schools but not near each other. Auburn is a commuter school, as James Madison is the opposite with students coming from all over the east coast.

Field notes constituted data. The authors kept track of how their students were responding and working with the web based instructional tools. The role of the investigator was to write the notes as they were happening and keep track of the findings. No computer program was used. The investigators analyzed the data by comparing the way students responded to different elements of the online learning method. They also looked at the different responses on the posts the students made as well as their abilities to collaborate with students from other schools, and states.

The authors found that students had to be somewhat pushed to collaborate as there wasn’t a lot of desire on the students’ part to follow directions or the ability to remember directions. Communication between the two classes needed instructor intervention to pair up students from the two different classes as the students were struggling to get this done. Also some students were reluctant to work with someone in a virtual format. There were students that were not happy about having to work with someone and collaborate with someone from another site. They found it to be more of burden then a help.

The authors felt that what they did will have to be refined, as the students should not have felt like they had a harder workload with having to work with someone else. The workload should have been easier. The events that contribute to this is the students lack of interest in working with someone in a virtual format. Students felt that it was a burden to have to make time to collaborate, as their schedules might not have matched up as the schools schedules didn’t match up. The classes were also at the mercy of the server.

***Research Questions***

We believe that the students at California State University are going to prefer online education over face-to-face education because it allows for a more flexible schedule as well as the ability to get immediate feedback from the instructor on assignments and online posts.

**Significance of the Proposed Study**

With cuts to education happening every year schools are forced to become extremely creative in ways to meet the demands of their students and still be able to maintain their budget. The newer generation is helping them with this by having the tools to learn from an online course. This allows schools to meet time demands of more students as traditional classes have set time and day that the class meets that may conflict with schedules and make it difficult to take a class.

How do students at California State University – San Bernardino respond to these classes? Do they prefer them or would they rather have limited face-to-face classes that they have to struggle to fit into their schedules? What do the students want?

**Design and Methodology**

**Survey**

We created a seven question survey asking general questions about student preferences and comparing online education to traditional face-to-face education. We wanted to find out the reasons for their preference in education. We also included some lines for the students to explain why they selected one form of education over the other for each question, and lines at the very end of the survey for the subjects to add any additional comments they wanted to.

**Subject**

The sample group was made up of 30 Education students at California State University that had previously or was currently in enrolled in both an online class and traditional face-to-face style of class. The students were asked prior to taking the survey if they had taken both an online class and a face-to-face class at the university. Several students were turned away as they were not current students at the university.

**Data Collection**

Surveys were handed out inside and outside of the school of education building at California State University – San Bernardino. There was a research symposium being held at the facility the night we received the majority of data. Students were filtered out of the study if they were not college students at the university, and they hadn’t taken both online and face-to-face classes at the university. It was important that all of the subjects attended Cal State San Bernardino, as we didn’t want to skew the data with outside elements.

**Data Treatment Procedures**

To assist us in the student thought process we looked at three key questions in the survey. Most of the students responded with a reason for choosing one over the other. Here is a list of the reasons:

**Student Reasoning**

|  |  |  |  |
| --- | --- | --- | --- |
| **Style of Instruction** | **Most flexible** | **Most Work** | **Most Satisfying** |
| **Online** | “Access anywhere and anytime” | “To provide evidence of work” |  |
| **Face-to-face** |  |  | “more memorable and longer lasting” |
| **Online** |  |  |  |
| **Face-to-face** |  |  | “Enjoy human interaction in person” |
| **Online** | “I can complete assignments at home” |  |  |
| **Face-to-face** |  |  | “immediate feedback” |
| **Online** | “I can do work when children are elsewhere (or asleep)” | “I took two online courses – lots of work” | “I enjoyed the blackboard conversations” |
| **Face-to-face** |  |  |  |
| **Online** |  |  |  |
| **Face-to-face** | “you can be more personal with the teacher” |  | “you get to know the teacher and peers” |
| **Online** | “you can work when time permits” |  |  |
| **Face-to-face** |  |  |  |
| **Online** |  | “online course give more work to make sure students are learning” |  |
| **Face-to-face** |  |  | “I feel I can learn more in a face-to-face class” |
| **Online** | “Everything is available online” | “there is no lecture” | “do not have to drive back and forth” |
| **Face-to-face** |  |  |  |
| **Online** | “Save time from traveling” | “because there is no discussions” | “encouragement from teacher face-to-face” |
| **Face-to-face** |  |  |  |

**Presentation of Findings**

The data shows that for the majority of the questions that we asked students had a preference for face-to-face instruction. When asked if they had a chose which one would they choose we got 83.33% that chose face-to-face. Key questions that we asked were “most flexible”, “more work”, “more satisfying to take”. As we had hypothesized, the majority (83%) of the sample expressed online education as being more flexible than face-to-face as it allowed the students to work around their schedules including kids of their own. On the negative side Online was also the majority (76.6%) choice for more work being assigned. The main reasoning as they all understand it as the teacher needs to ensure that the students are learning and it makes up for missing lecture and instructional minutes. Lastly for the category of most satisfying, 86.7% of the sample chose face-to-face style of education. Some felt that it was more memorable and liked the face-to-face interaction with the teachers and their peers; as well encouragement from the teacher seems more sincere when it is happening face-to-face.

**Limitations and Recommendations for Future Research**

When interpreting this data there are certain limitations that should be considered. The sample included 30 random students that were taking Education Courses at California State University San Bernardino. This limits the data to education students rather than all students at the University. This also limits to a specific geographic area. Most students at the university are commuter students. This might skew the information.

Future research may look at other areas of studies such as business, Math or English. Research should then show if there is a correlation across all curriculums in the interest in instructional methods. This study should also be performed at other state and private university as well as junior colleges. It would also be beneficial to track actual learning, and retention in both instructional methods. We recommend looking at a minimum of one course that is taught both in online and face-to-face method. Give both groups a pre test to see what they knew coming in and a post test to see what they learned. This will allow us to see where there is more learning, and progression in the area.

**Conclusion**

California State University needs to continue to grow and offer more and more online courses in order to meet the demands of its growing technology savvy students along with the students that are working students (work full time). It allows flexibility for students that are trying to cram a lot of things into a short day. One of the concerns of forming CSUSB students has been to struggle to fit all the classes they need into their schedule as classes either are not offered every term or the ones needed are offered at the same time as others needed. (Collins, 2011) Having online courses allows the students to take several classes and they don’t ever interfere with one another.

From this study several things were made very clear by the subjects; 1) students felt that online education was more flexible then face-to-face education, 2) Online education gives more work that face-to-face education, 3) Face-to-face education has more feedback, 4) Face-to-face education was more satisfying. In order to meet the demands of the flexibility and their budget CSUSB needs to have online courses so that one course might be all that needs to be offered and more students can fit it into their schedule than if it was a traditional face-to-face class that met at a specified time and day. However the current online format does not seem to be the format of choice by the students. By their responses those that preferred it were those that just wanted to get the class over with, but were not necessarily satisfied. The university should find ways to close the gap and I believe they are, but make the online course more like the face-to-face. This might enhance the experience for the students. Go further than traditional online courses. Times in education are changing and the use of technology is growing. If there is going to be online courses, we need to make sure that we are implementing all of the technology at our hands to enhance the experience and make it a memorable experience similar to something we would see in a lecture hall.

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