

Can E-learning Replace the Traditional Classroom? A Case Study at A Private High School

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Abstract

E-learning is a form of instruction that uses electronic means, primarily e-mail and the internet. This format precludes direct teacher-to-student interaction as is normally found in the classroom. Learning is completely self motivated. Student must manage their time and complete tasks on their own within the given time frame. Some students are not capable and do not have the required self discipline to learn via the internet. Their learning styles may differ and they may not be able to comprehend information without further explanation from a teacher. The role of teachers in online learning is that of facilitators. They are not there to teach the students, but to simply to act as facilitators. This case study of a private Catholic all-females high school suggests that e-learning may not be able to replace the traditional classroom.

Keywords: E-learning, synchronous e-learning, asynchronous e-learning, gender differences

1. INTRODUCTION

E-learning is a form of training or teaching that takes place over the internet or intranet. It is adapted from the computer based training of the early eighties which utilized CD-ROMs to distribute information to the users of a program. E-learning has become a widely used tool for teaching and training individuals in both academic and corporate settings. It is a convenient and inexpensive way to gain knowledge and information while pursuing higher learning. Companies can realize significant savings from transportation, room, board, and meals while sending employees through training programs. Also, many students are able to complete their educations because they can take courses when they have the time to do so.

There are two e-learning categories, synchronous and asynchronous. Synchronous e-learning is very similar to the traditional classroom in that learners meet at a particular time via audio, video streaming or in a chat

room, taking away the time flexibility which is generally a major advantage of e-learning. Asynchronous e-learning allows learners to work at their own paces as they communicate periodically with the instructor. And, asynchronous e-learning is more frequently used in corporate and college e-learning environment.

There are several advantages, as well as disadvantages to e-learning, these are just a few. E-learning requires large amounts of patience, motivation, self-confidence, dedication and general knowledge of computer use (Meyer 2003). Some individuals become frustrated with using e-learning. Corporate e-learning, wherein the company is supporting and requiring its employees to learn, has an understated premise that if they don't learn they may be fired or have a change in job assignment. Not everyone is accustomed to using a computer or is willing to adapt to change. Individuals who chose to use e-learning must realize that they will only get out what they put into it. Individuals' learning styles and behavior types affect their success or lack of success when using e-learning (Meyer 2003). In addition, it has been found that there are several other factors that alter

the success of e-learning, such as age and gender (Huang 2002).

The teacher in an online course also plays an important role in the success or failure of a course. Teacher must know and understand their roles. They must also be dedicated to seeing that the course is successful. He or she must communicate with the students on a regular basis to help them move forward at a steady pace (Easton 2003). The teacher must take the lead and occasionally initiate a discussion with the students.

There are several factors that may attribute to a teacher's failure to communicate with the students.

These factors include, faculty computer illiteracy, faculty resistance to online education, different philosophical beliefs about the nature of communication online, and heavy faculty workloads (Easton 2003).

In this research, the effects, advantages and disadvantages of e-learning were analyzed. Although this was a limited study, it suggests that e-learning cannot be used to completely eliminate classroom-based learning. In our case study, e-learning does not provide the full knowledge and understanding of a subject matter. This limited study does, however, suggest that many students in high school will not be successful in using e-learning. If classroom learning is completely eliminated, extremely large sectors of the population will be left behind (Easton 2003).

2. STATEMENT OF PROBLEM

E-learning does not include strategies to ensure that the students are really learning the material. In this study, tests and quizzes were not monitored. So therefore, it is unknown if the students used their notes or other resources to complete the tests. There is no definite way of measuring the amount of knowledge that the students gained from e-learning. There would have to have been some human interaction in order to eliminate this problem.

Another problem is the different learning styles of the students. Not all students are self-motivated and self-determined to handle online courses (Meyer 2003). The role of the instructor in e-learning is more that of a facilitator who keeps the course moving and answers questions or handles conflicts (Easton 2003). Students learn independently and from others who share in the discussions. If students are not focused and willing to push themselves to do the work, they will not be able to succeed in an online course. Some students need a teacher to stand in front of them, dictating to them, and monitoring their work. In order to learn, these types of students need the traditional classroom. They will not receive this teacher-presence, however, with e-learning.

In addition, many instructors are not properly trained to facilitate online learning. They lack many of the necessary skills such as the technical knowledge and

ability to move traditional content and time (Laird 2003). E-learning is extremely time-consuming for both the teacher and the student. It takes a lot of time to give individual feedback to each student. In this study, the students were given more work to complete for online courses. It's as though the teachers were giving extra work to make sure that the students always have something to do. They did not realize however, that they would have more work to check in the end. As noted, there are many problems with online learning and many reasons for not being able to completely eliminate the traditional classroom.

3. STATEMENT OF THE OBJECTIVES

This study analyzed the effects that e-learning had on various students. It gave statistical information on students who had experienced one class from the traditional classroom view point, and one from the e-learning view point. The success of the class using e-learning has various factors which will be discussed in detail. The many advantages and disadvantages will be discussed, including the factors that help determine each. In addition, a detailed comparison between e-learning and the traditional classroom will be discussed, showing how one is more preferable over the other. E-learning has many pros that may outweigh the traditional classroom. This paper suggests that e-learning may not completely replace the traditional classroom on the high school level.

4. METHODOLOGY

The targeted population of this study was high school students. The research was conducted at St. Mary's Academy, New Orleans, Louisiana, which is a private, predominantly black, all girls' high school. The students who attend St. Mary's Academy come from various social classes and backgrounds. However, everyone must take a test in order to be placed in the proper academic track. All of the freshmen and seniors who were enrolled in a Computer Science course at the time of this study were surveyed. This group was chosen for several reasons: it has been noted by Meyer (2003) that females are more empathetic, polite and agreeable, and females do not post as many discussions as males. It has also been stated that more students are entering college more prepared to use an online environment. Therefore, the sample of students from St. Mary's Academy covered the areas noted above.

The students were placed in an online environment for three weeks while learning Microsoft Word. They received a book to supplement their learning. They also used online resources to gather more information to help gain a better understanding of the product. In addition, CTM testing was used to allow students to test their knowledge. They were given assignments from the book to complete. At the end of the third week, they

were given a test using CTM. Then, they were switched to the traditional classroom setting. Once again, the students were given assignments to complete and a test at the end of the three weeks. During these weeks, the teacher explained several concepts to them and walked them through a couple of exercises. At the end of the experiment, the students were given a survey to record their thoughts and opinions about the course. The students did not know that this was an experiment. This method would yield better results because students would not alter their behavior for the survey.

5. FINDINGS

A survey was given to the six classes who took the course. Three of the classes were seniors and the other three were freshmen. The six classes totaled one hundred and thirty five students, of which one hundred and seven students completed the survey. The results reflect the seventy nine percent who responded to the survey. In addition to the survey, comments reported by individual students on a daily basis are also reflected in the findings.

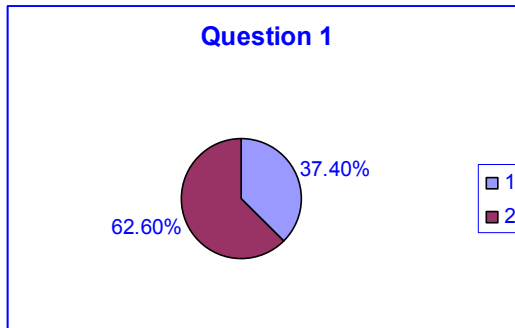
Female students comprise the entire population of this survey. The choice to use only one gender is supported by a study done by Mae Mc Sporrán and Stuart Young (2003) which showed that woman are more successful than men in online environments and also that more woman prefer an online environment than men do. In the study, approximately 39% of women preferred online courses, whereas only 10 - 28% of men preferred the online courses. Therefore, since women seemed to be more acceptable of online learning, the authors in the current study elected to concentrate only on females.

The following are the questions contained in the survey:

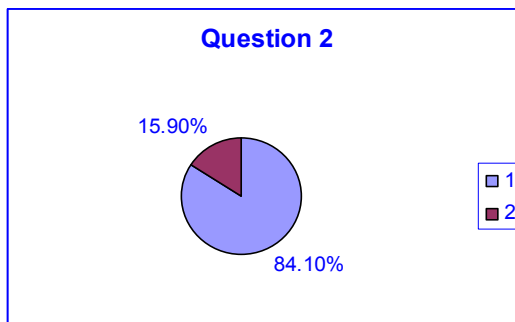
1. Did you like your overall experience with the online course?
2. Was it harder to learn online compared to the traditional class with a teacher?
3. Do you think you would have received a better grade in the traditional classroom setting?
4. Were you able to keep up with the assignments and tests?
5. Would you recommend this form of the course to other students?
6. Would you take another online course?
7. Did you like your overall experience with the traditional setting compared to the online setting?
8. Do you feel you learned more with the traditional classroom?
9. Was it easier to study for the tests after having the guidance of a teacher?
10. Was it easier to complete assignments on time with a teacher constantly reminding you of the due dates?
11. Would you recommend the traditional form of learning over online learning?

1 – Yes (column 1) 2 – No (column 2)

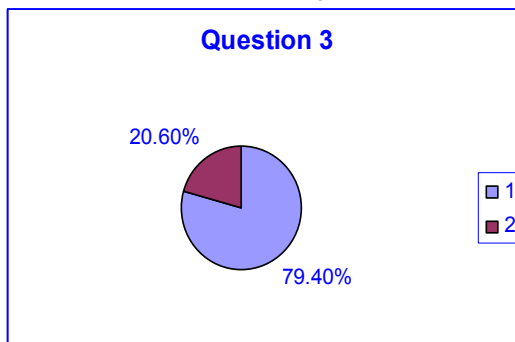
1. Did you like your overall experience with the online course? 40 67



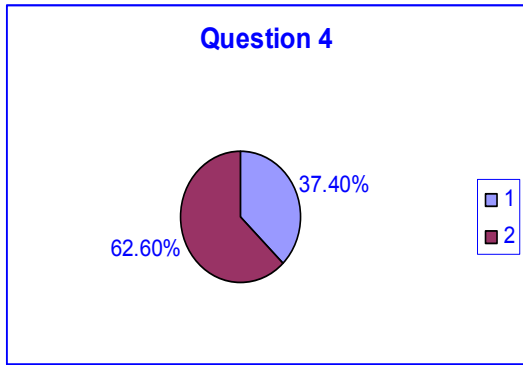
2. Was it harder to learn online compared to the traditional class with a teacher? 90 17



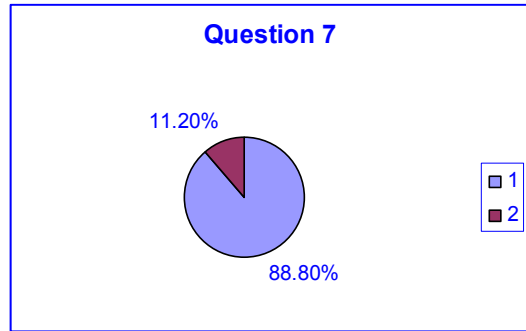
3. Do you think you would have received a better grade in the traditional classroom setting? 85 22



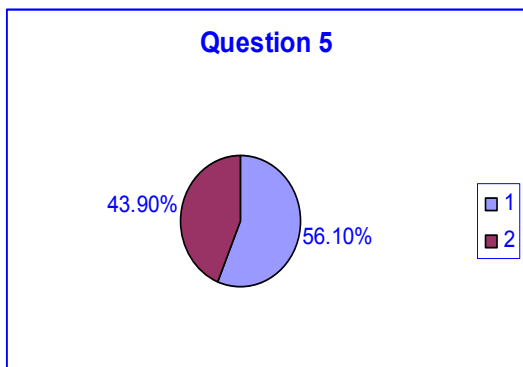
4. Were you able to keep up with the assignments and tests? 40 67



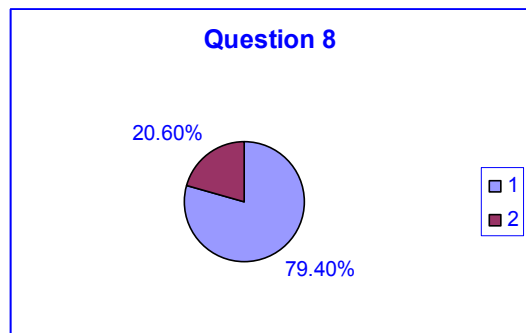
7. Did you like your overall experience with the traditional setting compared to the online setting? 95 12



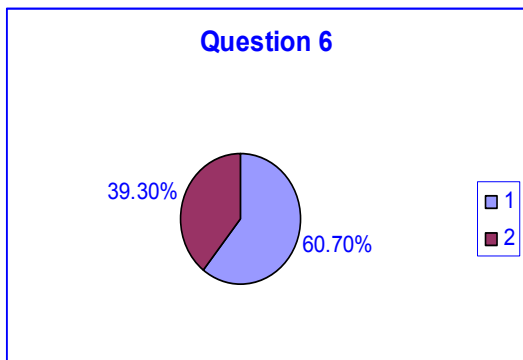
5. Would you recommend this form of the course to other students? 60 47



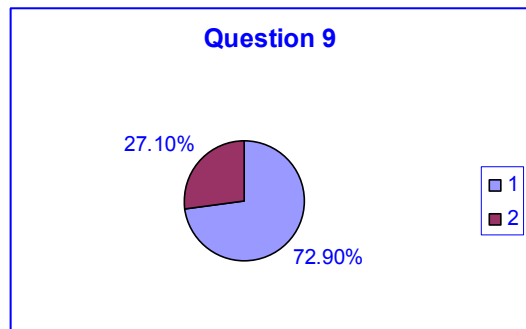
8. Do you feel you learned more with the traditional classroom? 85 22



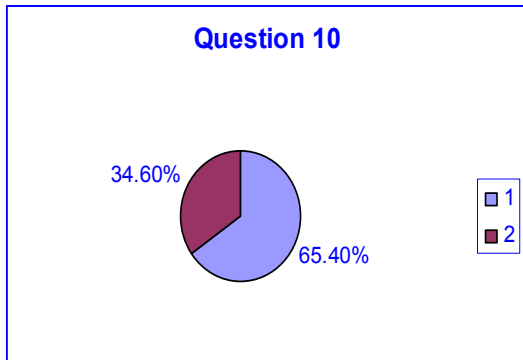
6. Would you take another online course? 65 42



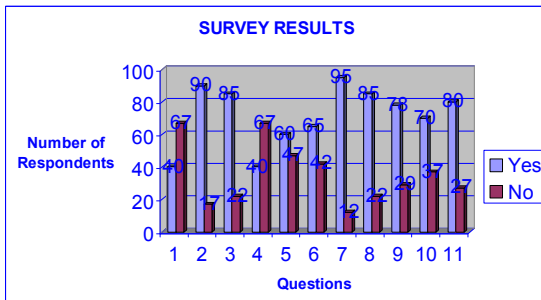
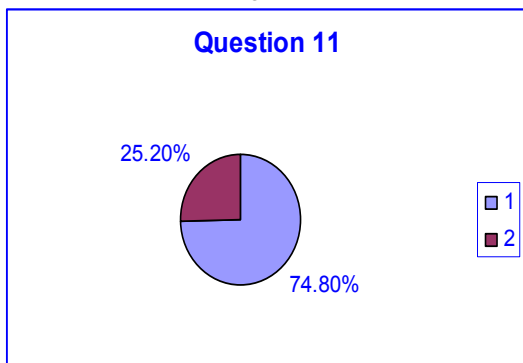
9. Was it easier to study for the tests after having the guidance of a teacher? 78 29



10. Was it easier to complete assignments on time with a teacher constantly reminding you of the due dates? 70 37



11. Would you recommend the traditional form of learning over online learning? 80 27



		Yes	No
	Did you like your overall experience with the online course?	37.4%	62.6%
Learning Styles:	Was it harder to learn online compared to the traditional class with a teacher?	84.1%	15.9%
Study Skills:	Do you think you would have received a better grade in the traditional classroom setting?	79.4%	20.6%
Time Management:	Were you able to keep up with the assignments and tests?	37.4%	62.6%
Recommendations:	Would you recommend this form of the course to other students?	56.1%	43.9%
	Would you take another online course?	60.7%	39.3%
	Did you like your overall experience with the traditional setting compared to the online setting?	88.8%	11.2%
Learning Styles:	Do you feel you learned more with the traditional classroom?	79.4%	20.6%
Study Skills:	Was it easier to study for the tests after having the guidance of a teacher?	72.9%	27.1%
Time Management:	Was it easier to complete assignments on time with a teacher constantly reminding you of the due dates?	65.4%	34.6%
Recommendations:	Would you recommend the traditional form of learning over online learning?	74.8%	25.2%

As shown in the data above, 62.6% of the students did not feel comfortable with the online course. They did not like the class and did not wish to take it. However, 56.1% would recommend the course to other students. In essence, just because they did not like the course, does not mean that other students would feel the same way. In addition, 60.7% would take another online course; they may have a better experience with another course. 84.1% of the females surveyed believed the course to be harder than it was in the traditional setting. Only 37.4% were able to keep up with the assignments and tests and managed their time well. Also, 79.4% believed they would receive a better grade with the traditional environment. The test results show that 75% of the students failed the test that was given at the end of the first three weeks; 10% received a low D; 10% received a C; 4% received a B; and only 1% received an A.

The majority of the students preferred the traditional environment that they were used to learning in. 88.8% said that their experience in the traditional setting was better than that in the online setting. 79.4% felt they learned more from a teacher explaining the concepts they needed to know to them. 65.4% felt the assignments were easier to complete and keep up with. 72.9% felt they were better prepared for their tests. The test results showed that 77% of the students passed the test with a B or better; 15% made a C; 6% made a D; and only 2% failed the test at the end of the second three weeks. 74.8% of the students said that they would recommend the course in the traditional classroom setting to other students.

The comments received by the students were mostly the same. Each comment was a complaint. They could not understand why the teacher was not teaching them and was leaving them to learn on their own. They did not like the online environment and felt it was not helping them learn what was needed for the test. They were not able to grasp a clear understanding of the topics and they did not do very well on the assignments or the tests. Approximately 30 students reported on an individual basis, of their own will, complaints about the course. After the three weeks were completed, and they were switched back to the traditional classroom setting, the students began to express their gratitude for the switch being made. They felt that in the traditional class they were learning more and understanding what was expected of them. Therefore, as stated in the hypothesis, e-learning will not be able to completely replace the traditional classroom setting. Too many students still rely on the guidance of a teacher and are not able to learn independently or to manage their own time.

6. LIMITATIONS

The results of this study are limited to only black female high school students in a private school in an inner city. Some students in this study may not like their teacher or

her instructional methods. The students' attitudes towards their teacher may have altered their comments and opinions. Also, their negative attitudes may not have allowed them to have open minds regarding the two styles of learning. In addition, some students may not have actually read the survey and been honest about their responses. All of these things must be considered in evaluating the results.

The targeted population in this study was freshman and seniors in high school. The seniors might have been more mature than the freshmen and might have done better in e-learning. The current study does not distinguish its findings between freshmen and seniors. The result might be different if further study is conducted in the future.

7. CONCLUSION

In this limited study, students did not seem to gain the same amount of knowledge while using an online course as they would if they used the traditional classroom method. The majority of the respondents in this study was uncomfortable in the online setting and preferred a teacher in the classroom teaching. This could either be due to their lack of understanding of the material or their changed study habits. It may be that after failing the first test, they chose to study harder for the next. All of these reasons are in support of different learning styles, behavioral types, and age and gender differences. These students learned differently and did not feel comfortable with learning online. Thus, our limited study suggests that the online courses are not suitable for all the students and will not be able to replace the traditional classroom.

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