Distance Education at the Graduate Level: A Viable Alternative?

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Abstract. A prior comparative study examining learning outcomes between traditional classroom and web-based education at the graduate level provided little evidence of differences in success measures between delivery methods [3]. This research explores underlying factors that may explain why little difference was found.

Keywords: distance education, on-line learning, computer based learning, education

1 Introduction

Distance education is an alternative educational model to the traditional classroom. Distance education is continually evolving. Because geographical and temporal separation is no longer considered an obstacle to course delivery thanks to the Internet and other information technologies, an increasing number of individuals are now able to partake in this new educational opportunity.

This study is a follow-up to previous research conducted on the differences in learning outcomes between traditional and web-based course delivery for a required MIS course at the graduate level [3]. The original longitudinal research concluded that there were no significant differences in learning outcomes as measured by exam grades and final course grades of graduate students exposed to traditional and web-based educational settings. This paper extends the previous work by identifying student characteristics that may explain why no statistically significant results were noted and hence make web-based education a viable and useful alternative to traditional course delivery for certain student populations.

2 Prior Research

There has been an increase in online education programs with the introduction of the Internet and the abundance of educational applications [5]. Online learning

management systems enable students to control when and where they learn [4]. Distance education is often considered a more convenient alternative especially for non-traditional students given its ability to provide 'anytime', 'anywhere' education. Although not all types of students find online education attractive or suitable, often noted benefits include time and location flexibility [1] [2] [7], and having a sense of control over the learning environment [6].

3   Proposed Research

The results of the original research study [3] which compared and contrasted traditional on-campus learning and web-based education were different than anticipated. Because of this, the current study attempts to determine the underlying factors explaining the unexpected results of the initial study.

   In the original research study, learning outcomes (final exam grade and final course grade) were measured for an introductory MIS graduate course that was delivered through a traditional method of on-campus classroom lecture and discussion and a web-based learning environment using iLearn and WebCt technologies. Except for the delivery mode, the courses were identical: the same faculty member taught, administered and oversaw all classes whether on-campus or provided through the web-based program, using the same lecture notes, tools, assignments, and tests. In the web-based course, lectures were recorded using voice with MS Powerpoint presentations for some modules and actual video-taped segments for others. Both classes included a participation requirement and both were encouraged to develop discussion topics and to foster them using the tools available through iLearn and WebCT. No significant differences in learning outcomes were reported.

   At the time of the data collection for the initial study, data was also collected on other variables such as employment status, number of children that reside in the house, family commitments, age and gender and computer efficacy in a naturally-occurring educational environment. This additional data will provide the needed insight into how these student characteristics affect the viability of web-based education.

4   Summary and Conclusion

These results will be beneficial to both instructors and students. Students will be able to make better informed decisions as to whether they are suitable candidates for web-based education. Instructors will be able to evaluate whether web-based education can deliver a similar learning experience as a traditional on-campus environment.

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