Assisting Students with Disabilities in Distance Education: An Exploratory Study into Their Experiences

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ABSTRACT
The escalation in DE presents both opportunities and challenges to students with disabilities. For students with disabilities, DE technology can help them read when they cannot see and learn when they have the desire to study. However, when the proper care is not taken in the development of these technological resources and tools, DE courses can be inaccessible to these students. The current study seeks to investigate how to assist students with disabilities in DE environments, and ultimately, to improve the role that technology plays in the distance education of students with disabilities in the higher education arena.

Categories and Subject Descriptors
K3.1 [Computers and Education]: Computer Uses in Education – Distance Learning

General Terms
Human Factors

Keywords
Distance Education, Accessibility, People with Disabilities, Higher Education

1. SIGNIFICANCE AND RELEVANCE
Distance Education (DE) is proliferating with no signs of slowing down, especially in the higher education arena. The number of students taking at least one online course in the fall of 2011 has surpassed 6.1 million; online enrollment accounted for nearly one-third of the total enrollment in higher education [4]. The escalation in DE presents both opportunities and challenges to students with disabilities. The percentage distribution of students with disabilities enrolled in postsecondary institutions during the 2007–2008 year was 10.8% at the undergraduate level and 7.6% at the graduate level [2]. According to Roberts et al. [3], of the respondents who indicated that they had participated in an online course, 46% stated that their disability did have a negative impact on their ability to succeed in an online setting.

The purpose of this study is to investigate how to assist students with disabilities in distance learning environments. The study is significant because it places emphasis on two research areas; namely, distance education and accessibility, which are often disconnected in the literature. This disconnect puts the entire academic community at a disadvantage as instructors lack the knowledge of how to meet the needs of all of their students. Insight gained and improvements made as a result of this study will not just aid the disabled, but also contribute to the universal design of DE and learning management systems and instructional tools that can be used by all; including those students who have disabilities, are learning in a second language or simply have unique learning styles.

2. CONTENT
This poster session outlines a study that aims to gain insight into the current status of students with disabilities who have taken or plan to take DE courses at a four-year university and their online educational experiences. To guide the study, the following research questions are pursued:

1) How many students with one or more documented disabilities have taken or plan to take DE courses at their current university?
2) What have been their overall experiences in taking DE courses and using DE tools?
3) What specific implications can be generated to direct the implementation of accessibility features and enhancements in DE courses?

The study consists of two phases:

1) In Phase 1, a comprehensive literature search for publications on DE and disabilities released in the last five years (from 2007 onwards) is conducted, as a continuation to Kinash and Crichton[1]’s efforts of a classification of relevant literature between 2000 and 2006. Based on these publications, a literature review of previous research investigating disabled students’ needs and experiences with DE is performed.

2) In Phase 2, a university-wide survey is conducted to gain insight into the current status of students with disabilities who have taken or plan to take DE courses at a four-year university and their online educational experiences. A web-based survey is developed and distributed to students who have identified themselves as having one or more...
documented disabilities with the Office of Disability Services. The data collected through the survey is analyzed using statistical software.

The outcomes of this study are three-fold. Firstly, a classification of more than 50 publications on DE and disabilities released in the last five years is constructed based on four categories; namely didactic, description, opinion, and research. Secondly, the results generated from the survey can answer the important research questions outlined previously and will be beneficial to our understanding of how to assist students with disabilities in DE environments. The data collected from the survey is also expected to provide useful information needed by other university entities, such as the Office of Disability Services, the Office of Distance Education, the Assistive Technology Initiative (ATI) Office, etc. Thirdly, the specific implications and techniques learned as a result of the study will be used by the authors and guide their implementation of accessibility features and enhancements in an existing DE course. This study will establish a basis for further investigation.

Advancing accessibility in DE can improve the learning experience of students with a wide variety of barriers, such as: knowing English as a second language or with physical or mental limitations. It is hoped that the results from this study will decrease the number of barriers in technology based educational resources for the disabled while increasing the overall accessibility of distance education programs to the student body.

3. REFERENCES