

## RESEARCH-IN-PROGRESS PRESENTATION

### Supporting online learning for all distance students especially students with disabilities

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#### Abstract

Open access in South Africa has implications for teaching and learning processes; for instance, addressing the diverse learning experiences and abilities, as well as disabilities of a diverse university student population. The implementation of learner-centred approaches that enhance learning is, therefore, critical to ensure student success.

This paper is based on a research project that was conducted at one of South Africa's major universities. The purpose of the study was to investigate e-learning related characteristics and needs of students with disabilities. Data were collected from the students with disabilities by means of a questionnaire and follow-up focus group discussions. Results indicate that some computer laboratories at the university are not accessible to visually and physically impaired students. In addition, some online learning materials and activities posted on the learning management system are not accessible to hearing impaired students, while others are not accessible to visually impaired students.

Recommendations include the design of online learning spaces and learning materials that are accessible to all students and support strategies aimed at ensuring student access, as well as student engagement in all learning activities. Hence, the use of universal online course designs is also proposed.

**Keywords:** online learning, support, universal design, access, students, disabilities

#### BACKGROUND

During the last two decades South Africa has experienced a widening of access to university study programmes for groups of students who previously could not enrol due to, among other things, discrimination according to race, gender, physical disability and ethnic grouping. Open access has thus resulted in a diverse student population. This diversity has implications for teaching and learning processes; for instance, addressing the diverse learning experiences and abilities, as well as disabilities in this new generation of students.

Among some of the important adjustments that need to be made are the design and implementation of e-learning spaces and learning materials that are accessible to all students, including those with sensory or physical and/or learning disabilities. Online support is also necessary for effective learning, especially for distance students. It is particularly critical for distance students with disabilities. However, these adjustments need careful planning and execution in the open and distance context where, very often, online facilitators are not aware of the characteristics and learning needs of their online students.

Although online learning has been seen to benefit everyone, students with disabilities still experience web barriers that prevent them from benefiting from online learning. These students often struggle with some aspects of online learning, because most online learning courses are not accessible to students with disabilities. They are not necessarily designed with accessibility in mind (CANnect 2012A:3; Salmon 2008:1). Courses that are designed to be accessible to all potential students, including those with disabilities, offer opportunities to level the playing fields for people with disabilities (Burgstahler, Corrigan & McCarter 2004:234). Moreover, engaging in accessible course design has been proven to be a proactive approach in which online courses are created, taking into consideration the needs of diverse learners (in age, gender, backgrounds, learning styles, abilities and disabilities) from the initial stages of development to course completion (CANnect 2012B:1).

As part of a research project on “students with disabilities and e-learning success”, a study was conducted in 2010 at a major South African university with the aim of investigating e-learning related characteristics and needs of students with disabilities.

## **METHODS**

The study was conducted in two stages.

**Stage 1:** During the first stage, an online survey questionnaire was published on SurveyMonkey (survey management website). The questionnaire could be accessed by means of a link that was made available via SMS to all the students who were registered with the Unit for Students with Disability (USD). The link was also available on all the computers used by students at the USD. Out of 110 students registered with USD, 27 responded to the survey.

Survey data were downloaded from the web server, imported and processed.

**Stage 2:** During the second stage, focus group discussions were held with twelve students who volunteered to participate in the discussions. The students were divided into three groups based on their disabilities; these were

1. visually impaired participants (3);

2. hearing impaired participants (4); and
3. wheelchair users and students with learning disabilities (5).

The discussions were audio-recorded. The records were transcribed and a qualitative analysis was done.

This presentation focuses solely on the findings of the focus group discussions, and particularly on the implications for online support of all students.

## **IMPLICATIONS FOR ONLINE SUPPORT**

Based on the data from the focus group discussions, the following conclusions could be drawn for online support:

1. Online learning should be made user-friendly to people with disabilities by thoroughly investigating their e-learning needs and fulfilling them as much as possible.
2. Lecturers/facilitators should use universal online course design principles to ensure that their courses are accessible to all students, including those with disabilities (CANnect 2012B:1).
3. Lecturers should use the “Announcements” tool in their Learning Management System (LMS) to provide easy access to information for all students, instead of using only corridor notice boards or snail mail (in the case of distance students).
4. Lecturers should notify students when critical information has been posted on the LMS. They may use the bulk-SMS facility, Instant Mail or e-mail, whichever is best suitable for their students.
5. Test and assignment feedback should be made available at the “Grade Centre” within the LMS to alleviate stress for students who have to wait for feedback sent via snail mail, which may not be reliable in some geographic areas. This would also alleviate stress for students with disabilities who have to hunt for helpers around notice boards where marks are usually posted at some conventional universities.
6. Visually impaired students should be given more time to complete online tests and quizzes to compensate for the time they take in using Assistive Technology, e.g. JAWS, which is used to navigate the test web pages.
7. All audio files must be accompanied by a transcript and video files by captions (CANnect 2012B:1).
8. Videos posted on the LMS or sent via e-mail should be reduced in size to facilitate downloading by students.
9. Lecturers/Facilitators should post on the LMS their video-recorded lectures/tutorials with subtitles and sign language interpretation (where

possible) as this would be very useful when studying. This multimedia use serves the diversity in learning styles, language problems, physical and learning disabilities.

10. Lecturers should ensure that course learning materials are ready and loaded on the LMS before the start of each semester to avoid delays as well as not to disadvantage slow learners and student with disabilities.
11. Copies of previous tests and examination question papers and other relevant course materials, such as tutorial notes, should be posted on Blackboard to help students prepare for assessment.

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