Assistive Technologies: Usage Patterns and Contributions to Students with and without Learning Disabilities at The Open University (Poster)

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Abstract

Introduction: Research has shown that integrating computer technologies in education is uniquely beneficial to students both on the academic as well as the socio-emotional levels (Raskind, Margalit & Higgins, 2006). Technological developments in the past decades have highlighted the potential of computerized technologies for special needs populations (Fichten, Asuncion, Barile, Fossey, Robillard & Wolforth, 2001). Computerized technology provides to students with LD adaptive ways to compensate for their academic deficiencies as well as social interactions barriers (Dole & McMahan, 2005). This study examined the usage patterns of assistive computer technologies, with particular focus on courses website, amongst students with and without LD studying at the OUI. We investigated the question of whether the use of such assistive computerized technologies, particularly course websites, contributes to the students' academic as well as socio-emotional satisfaction.

Method: The sample included 964 students: 363 students with LD and 601 students without LD.UI. Four questionnaires were used 1. *Students Perception of Online usage* (Wu & Hiltz, 2003); 2. *Accessibility Scale (*Fossey, Asuncion, Fichten et al., 2005); 3.*Satisfaction Scale* (Snyder,1995; Feldman & Snyder, 2005); 4. *Subjective Well-being* (Diener, 1985).

Preliminary Results: Students with LD reported that they felt more comfortable using the technologies and utilized more multi-task online learning strategies than the control group. In a one-way ANOVA analysis between the two groups, significant differences emerge in the use of assistive technology between the two groups, as students with LD are more familiar with assistive technology and use it more than the control group, $F_{(2,909)} = 37.08$, $p<0.001$. Significant differences emerge for the *Satisfaction Scale:* Students with LD reported higher hope scores than the control group, $F_{(2,909)} = 9.75$, $p<0.001$. Students with LD log more often into the course-sites, visit the forums, leave messages more frequently than student from the control group, and reported that the use of online courses had encouraged them to ask questions. Students with LD made less use of materials provided by the course websites. It was generally found that websites course contribute to a greater extent to students with LD regarding their sense of academic satisfaction than their socio-emotional satisfaction.

Implications: The findings of a study underscore the need to encourage students with LD to utilize online learning technologies effectively. In addition it raises the awareness of both the planning and pedagogical design team and the academic personnel, to be sensitive to the needs of learners with LD, as they develop and implement online learning and design course website that meet these students' needs.

Keywords: Assistive Technologies, websites course, students with learning disabilities.

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