

Investigation of Support and Barriers that Influence Interaction between Students and Educational Websites

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Abstract: This paper aimed to investigate support and barriers in relation to the interaction between students and educational websites in an online learning context. The results of the study showed that students reported that all the identified support helped them achieve more productive usage of educational websites and communicate with teachers and other students. Websites designers and online teachers may find these results useful in enhancing the effectiveness of online teaching as well as designing and using instructional programs.

Keywords: educational website, online interaction, online learning

1. Introduction

The websites which emphasise personal expression and exploration, with opportunities for students to pursue their own approaches to learning can be called constructivist educational websites (Preece, Rogers & Sharp, 2003). The relationship between students and website designers is an indirect static link; anything the designers wish to provide has to be implicit in the design as normally designers will not have the opportunity to interact directly with students. Irele (1999) states that designers may have laudable and innovative ideas, but unless the website is accessible and easy to use by students, the designers' ideas will have little impact on students. However, it is also possible to consider the ways in which students use websites in a general functional way. Website designers can provide different support for both general and typical students. When online learning activities are designed and used, concern needs to be taken of the particular needs of different students.

A key concept in describing student interaction with websites is filtering (Ryder & Hughes, 1997). When filtering the information of websites, students are required to have an objective in mind, to examine various information, to select information relevant to the objective, to discard or gloss over information not relevant to the objective, to synthesise information that assists in accomplishing the objective, and then reacting or responding to the objective (Moore, 1989; Northrup, 2001; Northrup, Lee & Burgess, 2002). To interact with educational websites requires online students to have necessary technological competencies as well (Irele, 1999; Reid, 1997; Wehmeyer, 1997). Researchers (e.g., Arbaugh & Duray, 2002; Guinee, Ealgeton & Hall, 2003) point out that the more experienced students use context clues more frequently and effectively than the less experienced students. Leung and Ivy (2003) emphasise that less experienced students require more complete instructions to interact with the educational websites. They need to know how, where, and when to use the learning strategies and the support provided by educational websites. There is a need to investigate further to what extent the support may help students to achieve successful online interactions and improve their online learning results. Meanwhile, the barriers that may influence the online interaction need to be investigated as well. In an attempt to build upon the previous research, the present study aimed to investigate the support and barriers from educational websites that may influence the interaction between students and the websites.

One hundred and fifty-two English language-major full-time students, age range from 19 to 25 years old, in Changzhou University, China, participated in the questionnaire survey. The students' demographic background and their self reports about their liking of traditional classroom learning and online learning and their success in traditional classroom learning and online learning were investigated firstly. The students' reports on the usefulness of support and barriers from educational websites were investigated. The identified factors in the support and barriers were obtained from a pilot study. A 4-point scale was used to investigate the support.

2. Result and conclusion

The findings showed that all the identified support provided by educational websites was rated above "somewhat useful" to students' online interactions. This aspect of results is consistent with other research on the support. For example, Ayersman (1995), Fung (2004), McGuire (1996); Miller and Miller (2000), and Ryder and Wilson (1996) stated that the usefulness of support helped the students to undertake the online learning effectively. Moreover, clear evidence was found that the students described the barriers as the ones that might hinder interactions. In each case, the modal rating made was "sizeable barrier". These results mirror Alessi and Trollip's (2001) opinions that the factors such as cultural differences, different time zones and living habits may hinder the online interactions. The findings also imply that these factors emphasise the importance of considering online learning experiences as the ones which are influenced by the cultures and familiarity of technologies (e.g., Almeda, 1999; Hara & Kling, 1999; Kennedy, 2000).

Further research is needed to investigate teachers' understanding about student's motivational factors and attitude towards the factors which may influence their online interactions and success in online learning, so that students can be involved actively in the online interactions. Investigating the support and barriers from educational websites can be undertaken in future research to assist online teachers and students in enhancing the effectiveness of online scaffolding and online learning.

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