

*E-Learn Conference Proposal (Research/Technical Showcases: 2-6 pages)*  
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## **Reconsidering Student Support: Student Perception of Support and Learning Outcomes**

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### **Abstract**

Support for student learning is a key element in optimizing student learning experiences in any learning environment and its importance has been widely discussed. The purpose of the study is to examine the relationship between students' perceived support and their learning outcomes in an online course at a large southeastern university. This study looks at student support, particularly in the course context, focusing mainly on guidance provided to students within a course. Three categories of support are identified and used for the purpose of this study: instructional, peer, and technical support. This showcase will present the framework of student support in the classroom and report on findings from the study. The main goal is to get feedback on the framework and study, which will help enhance the study design and methods for further research. Also, the framework can help teachers and instructional designers consider student support as a key element in learning and create a supportive learning environment for their courses.

### **Introduction**

Support for student learning is a key element in optimizing student learning experiences in any learning environment and its importance has been widely discussed. Student support, for example, has been closely related to student motivation and learning. Earwaker (1992) asserts that the aim of support for student learning is "to ensure that they derive maximum benefit from their course" (p. 11). Student support is needed to help students achieve learning goals and objectives successfully (Curley & Strage, 1996).

The quality of student support becomes the primary component to determine the effectiveness of a course (Küçük, Genç-Kumtepe, & Taşçı, 2010). Student support was once regarded as an add-on to pre-designed courses, but it has since been recognized that it should be considered and integrated into course design (Thorpe, 2002). When preparing a course, faculty and instructional designers need to address how to support students in various ways. Creating learning environments where appropriate support for student learning is designed and provided becomes critical, particularly in online courses.

Thorpe (2002) recognized two contexts for learner support: the institutional context and the course context. In the institutional context, students need to have support regarding admission, registration, scholarship, research, and student life issues. In the course context, students look for support for clarification of course materials, assignments, activities, and assessments for the specific course. This study looks at student support, particularly in the course context, focusing mainly on guidance provided to students within a course.

## **Framing Student Support**

Moore and Kearsley (1996) identified three categories of student support: guidance/counseling, administrative assistance, and interaction with participants. Moore and Kearsley discuss the theory of transactional distance (Moore, 1993; Saba & Shearer, 1994) to describe pedagogical distance between a teacher and a learner through communication channels. The transactional distance depends mainly on dialog among participants and course structure. In the transactional distance theory, the number of students and class size impact dialog among participants. The instructor's immediacy, for example, was reported to be associated with affective and cognitive learning in online courses (Baker, 2004). The course structure including learning objectives, activities, and course contents contributes to the transactional distance.

There are significant differences in students' perception of their online learning experiences (Mullen & Berge, 2005). Likewise, students may feel different towards student support which is designed to help them learn. It is assumed that students' perceptions of support are related to the transactional distance, which eventually influences their learning experiences. Indeed, students' perceptions of support are positively related to course satisfaction and perceived learning (Mullen & Tallent-Runnels, 2006). Therefore, learning environments should provide proper support as well as appropriate structure of course materials, activities, and effective ways of communication in order to decrease transactional distance and optimize student learning. Three categories of support are identified and used for the purpose of this study: instructional, peer, and technical support.

### **Instructional support**

Instructional support refers to instructional guidance to learning, which involves answering students' questions, correcting their misunderstandings, providing clear instruction, relevant resources, and constructive feedback on their assignments and performance. Moreover, instructional support includes dialog and course structures to motivate and encourage students to learn and master course materials and achieve learning objectives. Mullen and Tallent-Runnels (2006) recognized academic and affective support and found that both types of support were positively related to course satisfaction and perceived learning outcomes in online courses.

Instructional support comes primarily from the course instructor and teaching assistants, but technology can be used to provide the support to individual students' needs and instructional contexts. Scaffolding (Xun Ge & Land, 2003), cognitive tutors (Koedinger & Corbett, 2006), apprenticeship (Collins, Brown, & Newman, 1989), and pedagogical agents (Baylor & Kim, 2005) are designed and implemented to support student learning. Scaffolding, for example, is a type of instructional support that can be characterized as indirect guidance and fading (van Merriënboer, Kirschner, & Kester, 2003). Scaffolding provides guidance toward the completion of a learning task and fades this support gradually until students can perform the task on their own. Question prompts have been frequently used as a scaffolding technique and reported that the prompt strategy facilitates student learning by "directing students' attention to important aspects of the problem, activating their schema, eliciting their explanations, and prompting them for self-monitoring and self-reflection" (X. Ge, Chen, & Davis, 2005, p. 220). Curley and Strage (1996) found that high instructional support, coupled with high instructional demands, are related to more sophisticated study strategies and higher level of performance.

## **Peer support**

Peer support refers to peer-to-peer learning which involves students supporting each other on academic or non-academic issues. As collaborative works and social interaction become an important component of learning, students are more involved in helping other students and feel a sense of learning community. In online learning environments, in particular, peer support gets more important as online students may feel isolated easily due to a lack of social interaction among students (Muilenburg & Berge, 2005). In a factor analysis study, Muilenburg and Berge found that most students perceived the lack of social interaction as the most severe barrier and improving interaction among students would make a course more effective and enjoyable.

Peer support occurs through learner-learner interaction, including group discussion, group projects, peer teaching, peer tutoring, and peer facilitation. Students can also support other students by answering questions, encouraging each other, and forming a study group for the course. In the study of Peer Support, Ashwin (2003) reported that a peer learning strategy was correlated to students' academic performance. Goldschmid and Goldschmid (1976) reviewed peer teaching models in higher education and asserted that the peer teaching strategy might benefit both student teacher and student learner. In addition, they found that the peer teaching model could develop interaction among students and collaboration skills, and thus facilitates active participation.

## **Technical support**

Technical support includes providing assistance for any technical issues that students may face in technology-enhanced learning environments. Students should feel comfortable with online technologies and any technical issues need to be addressed (Muilenburg & Berge, 2005; Song, Singleton, Hill, & Koh, 2004). Song et al (2004) reported that the technical problem was the primary component to create challenges and to determine student satisfaction in online learning environments. Muilenburg and Berge found that students who were comfortable using online learning technologies perceived significantly fewer barriers to online learning than those who were not familiar with the online technologies. Therefore, designing and implementing a technical support system becomes essential to ensure students' successful learning experiences.

## **Research Questions**

It is assumed that student support decreases transactional distance in the course. Some students may perceive the same support differently than other students and this difference may serve to either facilitate or hinder their engagement in learning. Students' perceptions of support may vary depending on many factors, including course formats, structures, communication tools, the number of students, teachers' teaching styles, and students' learning styles. Mullen and Tallent-Runnels (2006), for example, reported differences in students' perceived support and demands between online and traditional classes. The purpose of this study is to examine the relationship between students' perceived support and their learning outcomes in an online course at a large southeastern university. This study addresses the following questions:

- a) Do students' perceived support influence their learning outcomes in an undergraduate online course?
- b) Is students' perceived support related to their overall satisfaction of the course?

## **Method**

### **Data Collection & Analysis**

An introductory undergraduate course in public health at a large southeastern university selected for this study during the spring semester in 2010. This course provides students with an overview of public health and offers two blended sections and three online sections. Among the five sections of the course, three online sections of the course are selected for this study. The online sections provide narrated presentations and lecture notes through Blackboard 9 and require students to use the course management system for their online discussion activities, paper submissions and exams. Students in those sections were asked to participate in a Web-based survey on their perceived support and satisfaction of the course before the final exam. The researchers will also gather students'

final scores to examine the relationship between their perceptions of support and learning outcomes. Analysis of student survey data and final scores will be completed by SPSS in May of 2010 and reported in the showcase.

## During the Showcase

This showcase will present the framework of student support in the classroom and report on a study examining the relationship between students' perception of support and their learning outcomes. The main goal is to get feedback on the framework and study, which will help enhance the study design and methods for further research. Also, the framework can help teachers and instructional designers consider student support as a key element in learning and create a supportive learning environment for their courses.

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