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UNDERSTANDING LEARNERS' SOCIAL AND PSYCHOLOGICAL NEEDS IN A MOBILE LEARNING ENVIRONMENT

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EXTENDED ABSTRACT:

New technologies and digital media have significantly impacted learning (Gee, 2009). The advancements of mobile technologies have blurred the notion of traditional learning environment, since students can interact with their course materials on-the-go, which makes it possible to learn anywhere and anytime (Traxler, 2010). Due to its impact on leveraging the cognitive engagement to enhance learning, the use of new mobile technology in education and training has contributed to its added value for innovative learning (Ellis and Barrs, 2008). Previous studies defined mobile learning as being "just-in-time" situated learning, which is mediated through digital technology in response to the needs of the user (Traxler, 2010; Laurillard, 2007). However, what makes mobile learning different from other forms of technology-supported learning is the way it can mediate and facilitate the learning experience (Peters, 2009). More recently, with the launch of new mobile technologies (e.g., iPad, iPhone, Android Phone etc.), schools and training sectors have started to adopt these technologies for education. Therefore, it is important to understand how recent mobile technologies can effectively support learning in order to engage today's tech-savvy learners.

Needs are considered as one important aspect of personal psychology that shapes new media behavior. Uses and gratifications (U & G) theory to media use assumes that audiences are aware of their social and psychological needs and actively seek the media to fulfill them (Palmgreen, 1984). Scholars have started to recognize the importance of applying the U & G theory to new media and digital technologies (Ruggiero, 2000) and recent Internet-related research (Ko et al., 2005; LaRose and Eastin, 2004; Chen, 2010). Ruggiero argues that "as new technologies present people with more and more media choices, motivation and satisfaction become even more crucial components of audiences analysis" (p. 14). The U & G is beneficial in exploring these questions because its principle elements include people's psychological and social needs as well as how media can gratify needs and motives to communicate (Rubin and Bantz, 1987). The U & G holds that multiple media compete for users' attention, and audience members select the medium that meets their needs, such as a desire for information, emotional connection, and status (Tan, 1986).

The purpose of this research is to utilize the U & G theory to explain the impact of learners' social and psychological needs on learning through today's cutting-edge mobile technologies. The U & G theory can be said to be a user-centered approach. According to the U & G theory (Marston, 2010), users' gratification needs can be broken down into five categories: (1) *cognitive needs*, which reflect a need to

structure relevant situations in meaningful and integrated ways; (2) *affective needs*, which include all kinds of emotions, such as pleasure and other moods; (3) *personal integrative needs*, which belong to the self-esteem need as to their status and gain credibility, stability and status; (4) *social integrative needs*, which indicate the need to socialize with others in society; (5) *tension-free needs*, which refer to the need to escape and relieve tension.

In this research, based on the U & G theory, we will propose an in-depth conceptual research framework that integrates learners' gratification needs in a mobile learning environment in order to effectively engage students for innovative learning. In general, we assume that learners' cognitive, affective, personal and social integrative, and tension-free needs will have a positive relationship with their learning outcomes obtained in a mobile learning environment. We plan to conduct a field study with college students in an iPad-equipped university campus. A pre- and post-questionnaire will be designed based on the proposed research model. The pre-questionnaire will be sent to students before their mobile learning starts, and the post-questionnaire will be filled out at the end of mobile learning period (which is one semester). We will also conduct field observations on site. Since abundant campus resources and time are required to set up its mobile infrastructure and to conduct faculty and staff training at the targeted university in Fall 2012, the initial data collection is expected to take place in Spring 2013. Once data are collected, we will use a structural equation modeling (SEM) approach to analyze data and to examine the overall research model. We expect that the study findings will provide useful guidelines for higher education sectors to adopt today's cutting-edge mobile technologies into classrooms and other campus facilities. Moreover, from a pedagogical point of view, this study will offer practical hints to educators for designing and implementing interfaces and multimedia course contents in mobile devices to actively involve students for achieving higher-order learning outcomes.

Currently this study is still in a very preliminary stage. By the time to present at SIGED meeting in December, we should have a solid study plan ready to discuss with the meeting participants.

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