

Chapter 22

An Empirical Study of the Factors that Influence In-Class Digital Distraction among University Students: A U.S. – Namibia Cross-Cultural Study

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ABSTRACT

Classroom access to computers, smart phones, and the Internet may be indispensable for teaching and learning both for the student and instructor, yet these technologies can also be an impediment to learning as students tend to use them to engage in activities unrelated to the classwork. Using survey data collected from 187 US and 204 Namibian university students, this paper examines the factors that influence students' in-class digital distraction from a cross-cultural perspective. The findings suggest that Internet addiction, learning style preference, contextual and individual student factors significantly influence the intensity of student in-class digital distraction. The paper concludes with a discussion of the pedagogical and classroom management implications of the findings and provides recommendations for researchers as well as educators.

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INTRODUCTION

The dual nature of information technology has been widely acknowledged in the corporate environment. In the higher education context, numerous studies have emphasized the benefits of laptops, tablets, mobile devices, and the Internet in the classroom (Maki, et al., 2000; Saunders & Klemming, 2003; Wen et al., 2004). These studies focus on information technologies' abilities to engage students, facilitate faculty-student and student-student interactions, and create active learning opportunities (e.g. Driver, 2002; Fitch, 2004). On the other hand, critics argue that much of this research evaluates success via student perceptions (e.g. satisfaction) rather than using objective measures of learning. They assert that the technology is likely to cause cognitive overload and attention distraction in the classroom. Several studies have found that the use of digital technologies (e.g., computers, mobile phones, Internet) in the classroom is negatively associated with course performance and self-reported understanding of course material. For example, Martin (2011) reports that holding business statistics classes in a computer equipped classroom had a negative effect on student performance. Further, research studies by Wood et al. (2012) found that students not using any digital technologies in the classroom outperformed students with technology use.

There is mounting evidence that students are often using laptops, mobile phones, Internet, and other digital technologies during classroom lectures for activities that are irrelevant to the class. These distractions take the form of playing computer games, texting, e-mailing, interacting in social networks, surfing the web, or shopping online. University lecturers and professors claim that they are finding it increasingly difficult to compete with the colorful and entertaining contents on the Internet. As the result, many universities are reacting to this troubling phenomenon by restricting computer, mobile phone, and Internet access in the classrooms (Adams, 2006; Melerdiercks, 2005). However, simply blocking access to technologies without carefully studying the root causes of technology-led distraction in the classroom seems irresponsible and inconsistent with the push of many educational institutions to embrace information technologies in teaching, research and learning, especially in light of research findings that suggest effective use of information technologies has proven useful and engaging for university students (Proserpio & Gioia, 2007).

The primary objective of this research study is to identify factors that contribute to this distractive behavior. The study hypothesizes that the intensity of in-class digital distraction is impacted by Internet addiction, learning styles preferences, and various contextual (i.e. classroom management issues and instructor/subject characteristics) and individual factors (i.e. gender, age and multi-tasking effectiveness). The understanding of in-class digital distraction in various cultural environments is highly relevant considering the increasing diffusion of information technology in education globally. Therefore, a secondary objective of this study is to contrast in-class digital distraction between students in the United States and Namibia, two countries that differ substantially in terms of culture, economy, and technology infrastructure. Motivated by prior studies that have found that individual behaviors in the context of information technology adoption and use do not universally hold across cultures (e.g. Leidner et al., 1999; Srite & Karahanna, 2006), this study intends to lend insights into cross-cultural differences in the levels of in-class digital distraction, factors influencing digital distraction, and suggestions to reduce such distraction. Furthermore, the comparison will help examine the cross-cultural robustness of the proposed research model of technology-enabled distraction.

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