

Chapter VII

Perceptions of Laptop Initiatives: Examining Determinant Factors of University Students for Successful Implementation

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ABSTRACT

Parallel to advancements in information technology usage, there are increasing demands for basic computer skills at minimum from today's college graduates. As a consequence, many colleges and universities have chosen to stimulate campus laptop initiatives as a way to provide their students opportunities to grow their computer skills and experiences. However, the success of laptop programs is very much dependent on the degree in which students and faculty are accepting a laptop environment and are willing to implement such programs. Defining which conception factors are necessary is essential for successful implementation. This study examines such factors by focusing on university student perceptions of required laptop programs in order to distinguish which factors they perceive as important. In understanding what factors encourage student support of laptop initiatives, such programs can be made more useful to students as well as more beneficial to universities.

INTRODUCTION

No longer are basic education supplies comprised simply of books, papers, and writing utensils. At an increasing number of universities, laptop computers have become one of the requisite technologies for incoming students. Many such laptop initiatives have sprung up in higher education institutions as they see a growing demand for technology awareness and skills in their students', society's, and many companies' expectations. The demand for technology-enhanced learning environments no doubt will continue to grow substantially as society, academic communities, and students continue to expect the educational process to employ technology comparable to that found in the real world (Brown & Petitto, 2003; Hall & Elliott, 2003; Weiser, 1998). In the real world, more and more, companies are requiring familiarity with technology as part of job requirements and daily work life. The need for technology know-how also extends to basic daily activities, such as familiarity with Internet functions, to view important personal information. Being able to adapt to an evolved model of communication, as well as the other capabilities available with technology, has broadened the scope of what individuals are required to be knowledgeable about in order to function in an increasingly high-tech society. Institutions of higher education have followed suit by offering services and creating programs centered on life's technology factor in order to adapt to and prepare students for these situations (Brown, 2003; Brown & Petitto, 2003; Weiser, 1998).

On campuses where all students are expected to have and use computers, laptops appear to be the popular choice. Laptop computers provide unsurpassed flexibility and convenience for students in the modern academic environment (Bazillion & Braun, 2001; Vaughan & Burnes, 2002). Compared to their desktop counterparts, the portability of laptops allows students to have easy and ready access to necessary technology

and information with them in classes, libraries, and on trips. It has been argued that the laptop's flexibility and consequential ubiquity also bring benefits to colleges and universities by making it possible for the institutions to offer computer-enhanced classroom instruction, decrease the need for labs, and consequently lower the institution's computer budget (Badamas, 2001; Brown, Burg, & Dominick, 1998).

For higher education, providing experiences with computer tools tends to be one of the prerequisites to professional success as employers value extensive experiences with information technology in today's modern workforce (Brown et al., 1998; Rola, 2002; Tomek & Muldner, 1999). It has been found that prior exposure to and experiences with technology can have a significant impact on adapting to newer forms of technology, which can be vital in workplace success (Agarwal & Prasad, 1999). Previous researchers have shown that besides providing the ready convenience of technology access, integrating laptop computers into the classroom can lead to positive educational outcomes (Barak, Lipson, & Lerman, 2006; Finn & Inman, 2004; Fouts & Stuen, 1997; Gottfried & McFeely, 1998; Varvel & Thurston, 2002) which provides another incentive for universities to examine adopting their own laptop program.

New learning environments are being developed related to pioneering laptop programs. The studio environment, a careful blend of mini-lectures, recitations and hands-on laboratory experiences, mutually reinforce one another in large lecture hall settings (Dori et al., 2003). Major advantages to such learning environments include the facilitation of (1) procedural understanding through hands-on problem solving; (2) immediate feedback and appropriate responses in real-time interactions; (3) concrete learning of abstract concepts through visualization and simulation applications; and (4) collaborative work among learners and instructors through shared understandings (Barak et al., 2006).

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