Chapter 16

The Effect of Individual Differences on Computer Attitudes: An Empirical Study

Claudia Orr, David Allen and Sandra Poindexter
Northern Michigan University, USA

Computer competency is no longer a skill to be learned only by students majoring in technology-related fields. All individuals in our society must acquire basic computer literacy to function successfully. Despite the widespread influx of technology in all segments of our society, the literature often report high levels of anxiety and negative attitudes about using computers. Monitoring the computer attitudes and developing an understanding of the variables that affect computer attitudes will assist educators and adult trainers in providing appropriate learning experiences in which learners can succeed. This study examined the relationship between computer attitude and experience, demographic/education variables, personality type and learning style of 214 students enrolled in a university computer literacy course.

INTRODUCTION

It has become apparent that computer competency is necessary not only for citizens to function efficiently on a personal level in our society, but to develop, advance and succeed in their professional lives. End-user computing has emerged as a significant issue affecting organizations. As Torkzadeh and Angulo (1992) caution, “the success of this end-user computing is dependent on the user’s acceptance and commitment” (p. 99).

Unfortunately, despite the increasing use of computers in schools, homes, and workplaces across the United States, research continues to report high levels of anxiety, resistance and poor attitudes toward computers among...
students in higher education who are preparing for professional careers as well as those employees already well established in the workplace. In 1993 researchers Rosen and Weil estimated that technophobia afflicted as many as one-third of the 14 million college students in the country (DeLoughry, 1993). A study supported by Dell Computers concluded that 55% of Americans suffer from some degree of technophobia (Williams, 1994). Ostrowski, Gardner, and Motawá (1986) conducted a study to determine the extent of end-user attitude problems; more than 50% of the respondents indicated observing computer attitude problems, with anxiety occurring most often. A meta-analysis of computerphobia research led Rosen and Maguire (1990) to conclude that one fourth to one third of all people – college students, businesspeople, and the general public – may be classified as “computerphobic.” They also indicate that an additional segment of the population is uncomfortable with computers and will avoid them whenever possible.

A variety of terms are used in the literature to describe the negative attitudes associated with computers - computer anxiety, cyberphobia, computerphobia, or technophobia are a few most often used. Jay (1981), one of the first to use the term “computerphobia,” provided the following definition: “(a) resistance to talking about computers or even thinking about computers, (b) fear or anxiety toward computers, and (c) hostile or aggressive thoughts about computers” (p. 47).

Although research has established that stress and anxiety reduce an individual’s ability to perform effectively (Elder, Gardner, and Ruth, 1987; Torkzadeh and Angulo, 1992), and computer anxiety, in particular, has been found to be predictive of whether technology is used and how technology is used (Scott and Rockwell, 1997), Rosen and Weil (DeLoughry, 1993) report, “few in higher education and elsewhere in society treat technophobia as a problem worthy of their attention” (p. A25). They say that too many people are under the illusion that computer anxiety will disappear if the world is flooded with technology. Also, Torkzadeh and Angulo (1992) emphasize “computer anxiety is not a transitory problem that will disappear as the current generation of students, who are gaining computer exposure at an early age, move in to the workforce. The computer training and exposure that young people receive in most high schools and colleges is inadequate since the current proliferation of computers will demand more – not less – computer literacy. The increasing demand for strategic use of computer applications will require even more comprehensive and continuous training programmes” (p. 104).
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