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Reducing Computer Anxiety in Adult Microcomputer Training

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Reducing Computer Anxiety in Adult Microcomputer Training

Abstract

As the use of microcomputers continues to increase in daily affairs, so does the demand for formal adult microcomputer training. Extension educators who are training adults in the use of computers are being confronted with students exhibiting computer anxiety that directly affects the teaching/learning process. This article discusses computer anxiety and the implications it has on effective microcomputer instruction. It presents research, theories, and methods to help instructors reduce computer anxiety in adults learning to use computers.

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Introduction

Microcomputers play a vital role in society. "In Europe and the United States, computers have been used so widely since World War II that most of us are not aware of just how pervasive they are" (Bigge & Shermis, 1992, p. 306). Operational knowledge of microcomputers may provide adults with increased potential for employment, job satisfaction, and quality of life. As computer usage continues to increase, so does the demand for formal adult microcomputer education.

Extension educators who are training adults are being confronted with students exhibiting computer anxiety that directly affects the teaching/learning process. This article discusses computer anxiety and the implications it has for effective microcomputer instruction. The article presents adult education research, theories, and methods to help instructors reduce computer anxiety in adults learning to use computers.

What Is Computer Anxiety?

Computer anxiety is a common emotional response to computers characterized by the fear that many adults exhibit. Fear and anxiety toward subject matter are "conditions that tend to support negative learner attitudes and repel adult interest" (Wlodkowski, 1993, p. 83). Interaction between humans and computers is complex. Hakkinen (1994) suggests that this interaction may incite a variety of emotional responses, including anxiety. The fear of computers interferes with the communicative nature of human-computer interaction.

Anxiety usually occurs when something new is being learned. This causes resistance to change and has negative effects on cognitive performance. Adults learning to use computers often fear the unpredictability of computers, public exposure of ignorance, and threat of failure. These fears contribute to negative learner attitudes and are detrimental to learning (Wlodkowski, 1993). "Decreasing computer anxiety is a preliminary step in, or our initial goal of computer instruction" (Ayersman & Reed, 1995, p. 148).

Computer Anxiety Research

Age and its relationship to computer anxiety have been the focus of many research studies. "The growth of computers and computer usages in this country is one potential area of intimidation for older adults" (Baack, Brown, & Brown, 1991, p. 422). Some researchers have found that older adults have a less favorable attitude toward computers than do younger adults (Baack et al., 1991). Yet others suggest the opposite; older adults have more interest in learning about

computers, greater confidence, and exhibit less computer anxiety than do younger adults (Klein, Knupfer, & Crooks, 1993; Dyck & Smither, 1994).

A discrepancy is evident between research on age and its relationship to computer anxiety. However, researchers do agree that prior positive computer use, exposure, and experience with computers contribute to lower levels of computer anxiety (Ayersman & Reed, 1995; Dyck & Smither, 1994; Hakkinen, 1994; Maurer & Simonson, 1993). Increased exposure to the subject (computers) minimizes the negative conditions that exist and results in positive attitudes toward the subject matter (Wlodkowski, 1993).

Methods for Reducing Computer Anxiety

Extension educators teaching microcomputers to adults should be aware of computer anxiety and its detrimental effects on the learning process. Computer anxiety is a temporary condition that can be reduced through a comfortable learning environment (Ayersman & Reed, 1995). To create an anxiety reduced learning environment, instructors should:

- Use humor to build rapport,
- Start lessons with basic concepts,
- Use computer lingo only when educationally necessary, and
- Make sure all lessons are hands on.

Use Humor to Build Rapport

Humor is one of the best tools to help reduce computer anxiety. Laughter builds rapport between instructors and learners, which helps alleviate computer anxiety (Clothier, 1996). Malcolm Knowles underscores the importance of laughter when teaching adults by quoting Ruth Merton, "and so I say again that, if we are really wise . . . despite taxes or indigestion, teach merrily" (1990, p. 36).

Start Lessons with Basic Concepts

Instructors should begin with the basics (Adults and Technology, 1996). They should avoid jumping into complicated computer concepts without laying the groundwork for basic computer operation. Although students will have a variety of skill levels, instructors should never assume all students have basic computer skills. If a course requires a certain level of computer proficiency, this should be clearly delineated, and alternatives should be provided for students to gain basic skills.

Use Computer Lingo Only when Educationally Necessary

Learning to use computers is hard enough without the added distraction of listening to an instructor speak in a foreign dialect. Instructors should avoid using computer jargon (Adults and Technology, 1996). For adults, learning computer terminology can be as important as learning to use the computer. However, if instructors feel it is educationally necessary to use computer terminology, then the term should be clearly defined.

Make Sure All Lessons Are Hands-On

Instructors can help reduce computer anxiety by familiarizing students with computers and making them active learners. Instructors should make all computer lessons hands-on (Adults and Technology, 1996). They should help students with problems by providing verbal guidance or by using a demonstration machine, but they should never grab a student's mouse or keyboard and do their work for them. This student hands-on/instructor hands-off method takes extreme patience, but the reward of students completing tasks on their own is worth the effort.

Summary

The increased demand for adult computer training produces many issues and challenges for Extension educators. Computer anxiety is a psychological characteristic of adult learners that computer instructors will continually confront. "It is important to reduce anxiety because it has negative effects on learning" (Hakkinen, 1994, p. 152). Computer anxiety can be significantly reduced if Extension educators create a comfortable learning environment in which students can have positive experiences with computers.

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