PERSONAL COMPUTER USE AMONG COLLEGE BUSINESS STUDENTS:
A LONGITUDINAL STUDY

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ABSTRACT

A longitudinal research design was used to investigate business students' progress in their use, ownership, and competence levels with personal computers. Data was also collected on personal computer (PC) learning methods and utilization in the classroom. The baseline study was conducted in 1987. Four years later the same measures were used to determine the changes in these variables. Although most of the expected changes were verified, neither the frequency of PC use nor the reported competence levels have increased. The unauthorized copying of software was also investigated. Students report relatively high levels of copying of software owned by others in 1987. By 1991 they had somewhat decreased their level of software piracy.

BACKGROUND

Since the first personal computers were introduced in the early 1980's there has been an explosion of increased computing power and availability of software applications. With speed and storage capacity rising and prices dropping each year the personal computer has almost become a commodity item and has achieved widespread diffusion in the business community. An estimated 50 million personal computers were in the office place in 1989, up from 700,000 in 1981. In the 1990s a personal computer is expected to be on every professional's desk.

Prior research indicates the business students believe that knowledge of PCs is essential to their future success and therefore want more courses to require microcomputers. Business educators realize that to meet the needs of the business community, training college business students in the practical application of microcomputers and software is an important task. They are aware that they can increase the product value of their graduates for potential employers by providing training in the use of personal computers

and they have responded by making the personal computer an essential pedagogical tool.

In our study we explore how the students' desire for greater knowledge of PCs and business educators' effort to produce graduates with PC acumen has actually manifested. We focus on business students' computer ownership, usage and software competencies. To investigate their progress over a four year period, our research was done in two stages. Using the same research design and questionnaire we collected baseline data in the winter of 1987 and the follow up data in the winter of 1991.

CONCLUSIONS

The general trend was an increase in the variables associated with PC use. The 1991 students have been using computers longer, have increased computer ownership, and have shown more use of computer applications than the student respondents of 1987. But the self-reported levels of competence with various types of software did not show an increase. We believe the level of competency really did rise, but the students evaluated themselves in relation to their peers, so the data does not reflect the added proficiency that the 1991 respondents had acquired over their 1987 counterparts. Students are learning how to use the computer at an earlier age. The number of students who were taught computer skills in high school doubled between 1987 and 1991.

Respondents estimated in 1987 that 42% of student software acquisition was unauthorized copies; in 1991 this estimate was down to 36%. Students may be more attuned to the meaning of intellectual property rights and appear to have cut back on software piracy.

We expect to continue to replicate this survey on our own campus and hope to add other universities in the future.