

STUDENT AFFAIRS Research C E N T E R

Research Report / March 1999

Campus Climate Survey: December 1998

First-Time Freshmen Computer Skills

In Brief

In December 1998, we performed a Survey of Computer skills on a stratified random sample of 75 CSUF First Time Freshmen (FTF). Four of five FTF have access to a computer at home. Freshmen have the most experience with word processing and Internet use, and least with database and presentation software. Differences in findings between this survey and an earlier survey are discussed.

Purpose

To assess the level of computer skills among First-Time Freshmen at Cal State Fullerton.

History

A similar survey was administered in June and July of 1998 to First-Time Freshmen during New Student Orientation, Part One (NSO). Similar survey items have appeared elsewhere.

Method

The Campus Climate Survey is administered once a year at CSUF. Based on an extraction performed by Admissions and Records, the Social Science Research Center contacted randomly selected students at all class levels, 538 of whom completed telephone interviews. The survey was conducted using Computer Assisted Telephone Interviewing (CATI) software over a period of 6 weeks in late Fall 1998. At least 10 "callbacks" were made before dropping a student from the sample. Response rate was 86%. Underrepresented ethnic groups were oversampled, resulting in a non-proportional stratified random sample which supported accurate comparisons between ethnic categories. Post-stratification population weights were calculated and applied to correct deviations between the distribution of characteristics in our sample and the total

student population for only those comparisons involving ethnic groups. Because these findings were obtained from a random sample of First Time Freshmen ($n = 75$), they may be generalized to all FTF at Cal State Fullerton, with a margin of error of $\pm 8\%$.

Of the 538 students, 92 were freshmen and, 75 were FTF. A FTF is a student who has not taken any college courses, unless the courses were taken during high school.

Thirty-two items were included in the Campus Climate Survey in December 1998. Ten of these dealt with computer skills. Six of the ten were items that asked students to rate their level of proficiency with each item on the following scale: "No" Experience, "Basic" experience, "Intermediate" experience, and "Advanced" experience. One question regarding computer access was a "Yes" or "No" question. The remaining three questions were open-ended items which asked the students to provide an

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Student affairs research is a major priority. This research report reflects the Student Affairs commitment to a continual focus on research relating to student affairs.

The mission of the Student Affairs Research Center is to administer and support research on students, including campus climate assessment.

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- Portrait of the First Time Freshman
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example of three different types of software. This is discussed further in this report. We attempted to improve the wording of some of the NSO survey items reported in SARC Research Report 7 from 1998. We changed "I will have my own computer this fall" to "Do you have access to a computer at home?" to include those students who may access someone else's computer. Those who had computer access, but did not own a computer, may have answered "No" on the prior version of this question. We also added open-ended items following the spreadsheet, database, and presentation questions, asking for an example of each of those types of software: These types, particularly "database," appear to be unclear to many users, perhaps because new software programs are integrated with databases. For example, Microsoft Excel is widely considered to be a spreadsheet software program, but it can also be used as a database software program, especially when merged with a

Microsoft Word file. Additionally, most computer library retrieval systems are referred to as "databases." Therefore, students who use an electronic card catalog to locate a book may consider themselves experienced database users.

Results

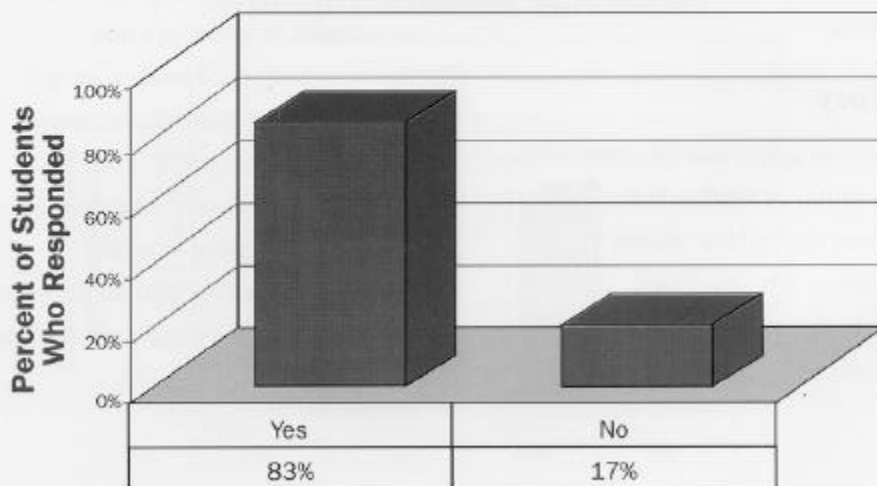
Eighty-three percent of FTF have access to a computer at home, as shown in Figure 1. Figure 2 (on the next page) shows the level of word processing proficiency. Our random sample of FTF shows that not a single one of the 75 FTF had "No" Experience with word processing software. Fully 75% of FTF had "Intermediate" to "Advanced" level of word processing proficiency.

The findings given in Figure 3 show the level of proficiency with e-mail among FTF. Internet proficiency among FTF is shown in Figure 4. Seventy percent of randomly sampled FTF had intermediate or advanced internet proficiency.

FTF level of database proficiency is

Figure 1

"Do you have access to a computer at home?"



presented in Figure 5 (on the back page). Those with "No Experience" numbered 62% and those with "Advanced" experience was 0%.

Figure 6 shows the level of proficiency with presentation software among FTF. Sixty-one percent of FTF reported "No" Experience with presentation software in the random sample.

As shown in Figure 7, the level of proficiency with spreadsheet software among FTF is "Basic" compared to those in the "No" Experience or "Intermediate" category. Only 4% felt they had "Advanced" proficiency with spreadsheet software.

What is a "Database?"

We asked students to give us an example of three categories of software: Spreadsheet, database, and presentation software. FTF who were asked for examples of "database software" gave a wide range of responses which included software used mainly for word processing, spreadsheet, and library information retrieval. Only 9 of the 75 were able to identify a software package used primarily as a database. In contrast, 55% of the FTF were able to identify Excel or Lotus as software programs when asked for an example of Spreadsheet software. When asked for an example of presentation software, 62% of FTF identified PowerPoint.

Defining "Database"

Very few students can name software packages which are used as databases, in contrast to the majority which can

Figure 2

"How do you rate your level of proficiency with word processing software?"

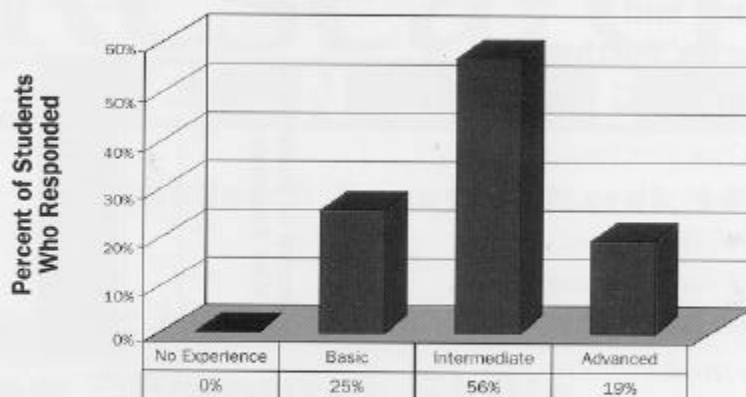


Figure 3

"How do you rate your level of proficiency with E-mail?"

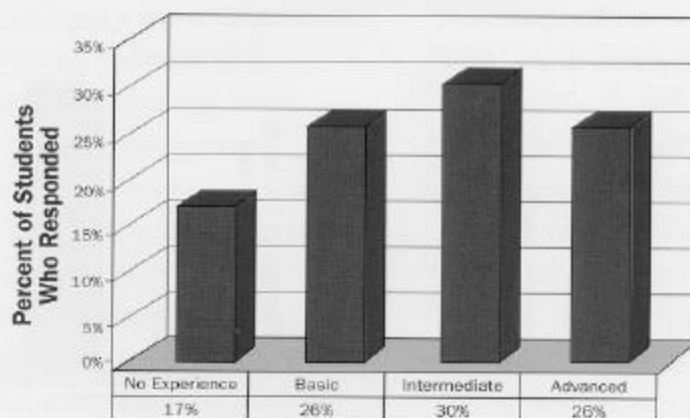
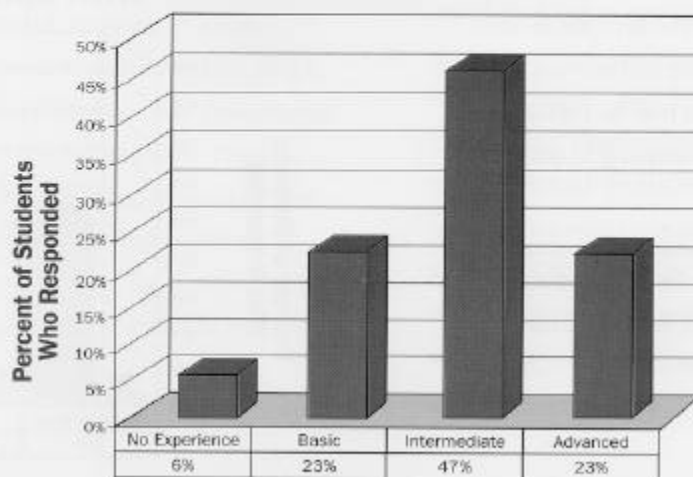


Figure 4

"How do you rate your level of proficiency with internet use?"



name software packages used primarily for presentation or spreadsheet work.

Conclusions and Questions for Further Discussion

Four of five First Time Freshmen have access to a computer at home, and more than four of five FTF have basic or better proficiency with word processing, e-mail, and with internet use.

There was a greater proficiency with internet use and word-processing among the randomly sampled FTF, versus the NSO group discussed earlier. However, NSO students were less proficient with database and presentation software use than those in the random sample. What accounts for the differences between the SSRC Campus Climate random sample, and the NSO convenience sample? Could NSO participants who answered the survey have been both more motivated and more skilled in computer use? Further, could FTF in the campus climate sample have had more exposure to computers because they had been on campus for a semester longer than the Freshmen in the NSO sample? This additional semester of college does not, however, explain the decrease in skills observed across the two surveys. The difference in skills may be explained by the convenience sampling of students attending NSO.

We wish to thank Dr. Greg Robinson, The Social Science Research Center, and The Office of Admissions and Records.

Figure 5

“How do you rate your level of proficiency with database software?”

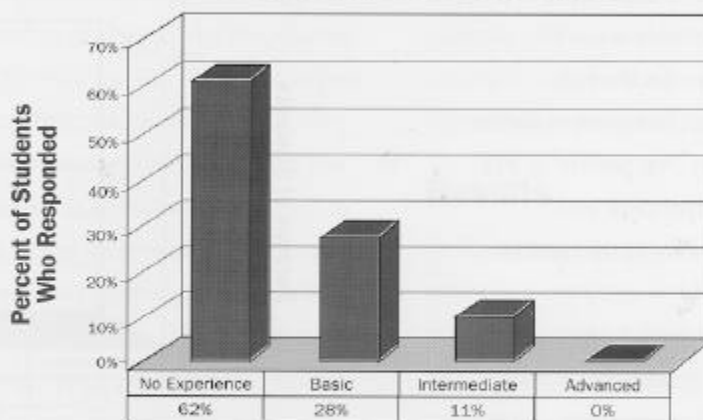


Figure 6

“How do you rate your level of proficiency with presentation software?”

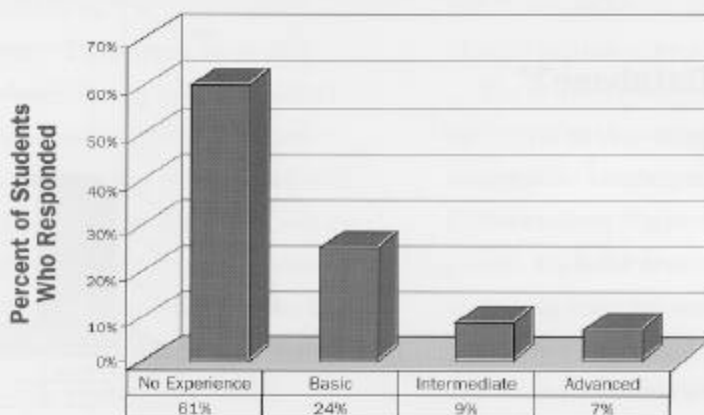


Figure 7

“How do you rate your level of proficiency with spreadsheet software?”

