

DOCUMENT RESUME

ED 372 098

TM 021 771

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 TITLE Results of the Computer Use Survey for School of Education Students.  
 PUB DATE Apr 94  
 NOTE 29p.; Paper presented at the Annual Meeting of the American Education Association (New Orleans, LA, April 4-8, 1994).  
 PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)  
 EDRS PRICE MF01/PC02 Plus Postage.  
 DESCRIPTORS College Students; Computer Anxiety; Computer Attitudes; \*Computer Uses in Education; \*Educational Technology; Education Majors; Higher Education; Large Group Instruction; Small Group Instruction; \*Student Attitudes; Surveys; \*Teacher Education; Teaching Methods; Word Processing

ABSTRACT

To gather information on the importance of current educational-technology innovations for students in the IBM Teacher Preparation Program (an integrated Bachelor's and Master's program) at the University of Connecticut's School of Education, a survey was sent to all students enrolled in the program in April 1993. Responses were received from 115 students, 93 of whom were female. Almost 95% had taken a course that taught them to use computers, with 80.5% of these courses at the college level. Approximately 56% reported that they often used computers. As teachers, 35.4% indicated that they seldom used a computer, while 27.4% used one often, and 22.1% never used one. Nearly 16% used computers often as an instructional tool. A majority (79.6%) used computers for word processing, but almost 57% did not use any computer applications to develop instruction. Subjects had the greatest degree of confidence in computer use for individualized instruction and the least confidence in computer use for large group instruction. Overall, it is evident that students are learning with and about computers. Nine figures present survey findings. An appendix presents the survey itself. (SLD)

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## Results of the Computer Use Survey for School of Education Students

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Paper presented at the 1994 American Educational Research Association conference, New Orleans, LA., April 5, 1994.

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## **Introduction**

In an effort to gather information on the importance of current educational technology innovations for the students in the IBM Teacher Preparation Program (Integrated Bachelor's and Master's Program) at the University of Connecticut's School of Education, a survey was administered to all students enrolled in the program in April 1993. The survey was developed by the UConn Bureau of Educational Research and Service (See Appendix A). The survey was completed anonymously by the students.

## **Demographics**

The survey was sent out to 90 juniors, 80 seniors and 15 5th-year students. Fifty-nine juniors, 46 seniors, six 5th year and 4 other majors' students returned the survey. The return rate was 60%. Among the subjects, 20 are male and 93 are female. Fifty-eight students were in the elementary program, 35 were in secondary, 15 were in special education, and 5 were from the other majors (See Figure 1).

Forty percent of students owned a computer and 78.8% had computer experience before entering the teacher education program. Approximately fifty percent of students used computers for personal productivity, 22.1% used computers for job-related productivity, and 11.5% used computers as an instructional tool (See Figure 2).

Analysis of the responses according to the student level (Junior, Senior, 5th year) failed to indicate a significant pattern of results according to the student level. Therefore, all further analyses were conducted on the total sample.

## Results

### Student Role

Almost 95% indicated that they had taken a course when they were taught to use computers and 80.5% of these courses were at the college level. About 78% used computers in courses other than the computer education course, and 62.8% of these courses were not in the education field.

Seventy-seven percent used computers to complete their class work. Around 56% answered that they used computers often, and 31.9% said they seldom used computers. About 49.6% reported that they seldom use electronic mail, and 37.2% never use E-Mail.

### Teacher Role

As teachers, 35.4% indicated that they seldom used a computer, 27.4% used often, and 22.1% never used a computer. Roughly 35% seldom used computers, 34.5% never used computers, and 15.9% used computers often as an instructional tool.

When using the computer as an instructional tool, 28.3% mostly used for the individualized instruction, and 16.8% used it for CAI (See Figure 3). With respect to the personal productivity, 79.6% used computers for word processing. Almost 57% didn't use any computer application to develop instruction. About 55% never used E-Mail and 23.9% seldom used E-Mail.

When evaluating instructional software, 36.3% considered user-friendliness as the most important issue, 28.3% considered appropriateness and 14.2% considered instructional design. Approximately 58% considered length of program the least important and 19.5% concerned cost the least important.

## Confidence in Technology

When using computers in instructional situations, subjects showed more confidence in the individualized instruction and had least confidence in large group instruction (See Figure 4).

When using computers as a productivity tool, subjects showed the most confidence in word processing and had the least confidence in data base (See Figure 5).

In the area of computer applications and video features, subjects indicated little confidence in using computer applications and felt most confident in using videotapes (See Figure 6).

In the general sense of technology, about 35% showed some confidence in using computers and using computers as instructional tools. Around 38% felt some degree of confidence in evaluating instructional software. Only 33.6% showed some confidence in using the facilities at UCEML (University of Connecticut Educational Microcomputer Laboratory). About 50% had some confidence in CD-ROM searches (See Figure 7).

## Future Needs

According to the current sample, 26.5% felt individualized instruction will use computers the most and distance learning/teaching will use computer the least in the future (See Figure 8). Additionally, 43.4% felt large group instruction will use computers least in the future (See Figure 9).

The majority of the sample (87.6%) would like to have instruction designed to increase their ability to use computers. The fact that the majority of the students want to increase their computer instruction is a very positive findings. Students desiring such

instruction indicates their awareness of the importance of educational technology.

Roughly 57% thought the college instructors did not effectively use computers in their classes. Almost 66% thought the professors at the School of Education often effectively use computers in their classes.

### Summary

It is clear that our students are learning with and about computers in various educational settings and that we must continue to increase our own use of computers in instruction in all appropriate classes and serve as positive role models utilizing various educational technology.

The present results provide initial findings of computers in educational settings and will be represented on a regular basis to provide feedback for curricular changes in current technology-related courses.

Figure 1  
Educational Program

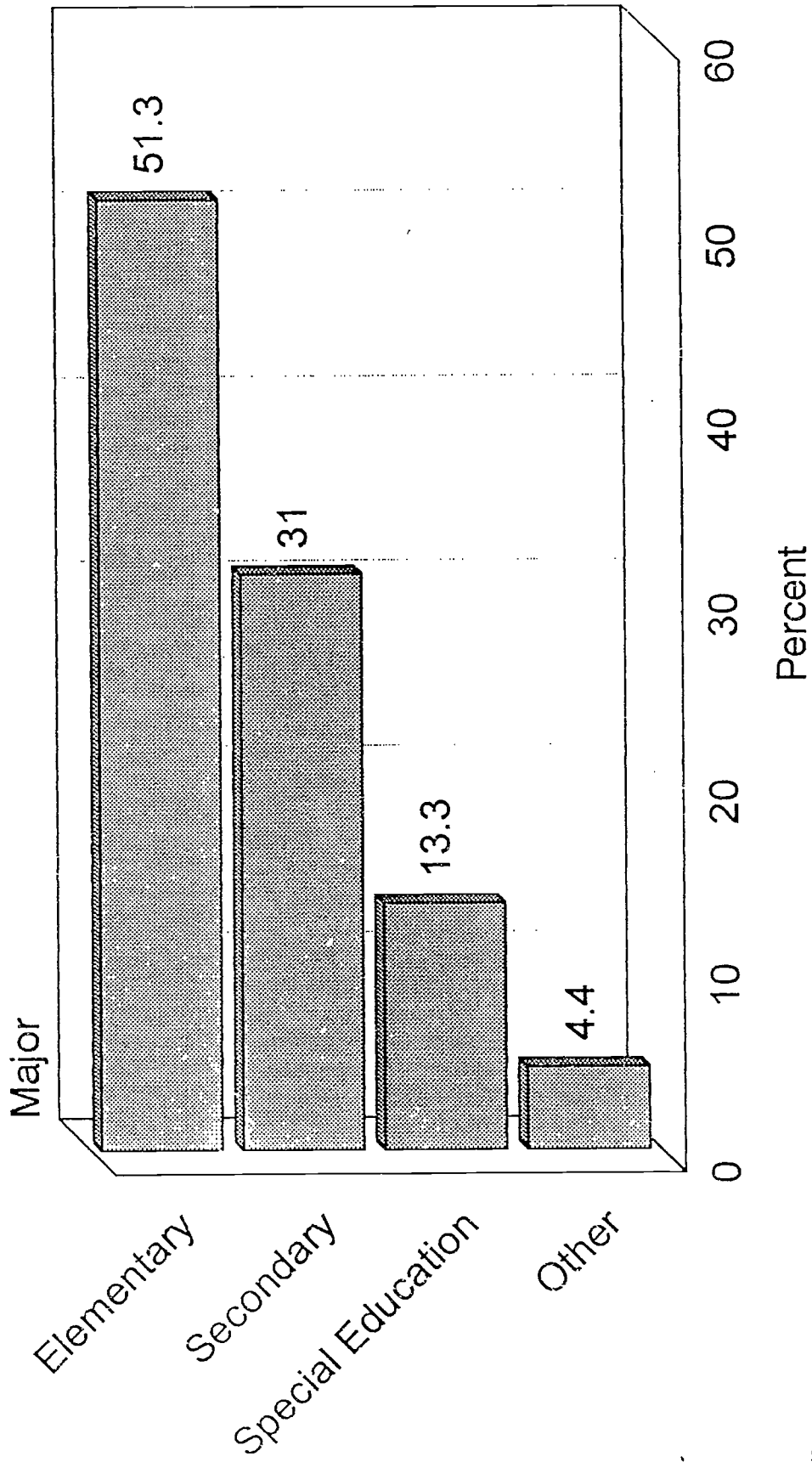


Figure 2  
Areas of Computer Usage

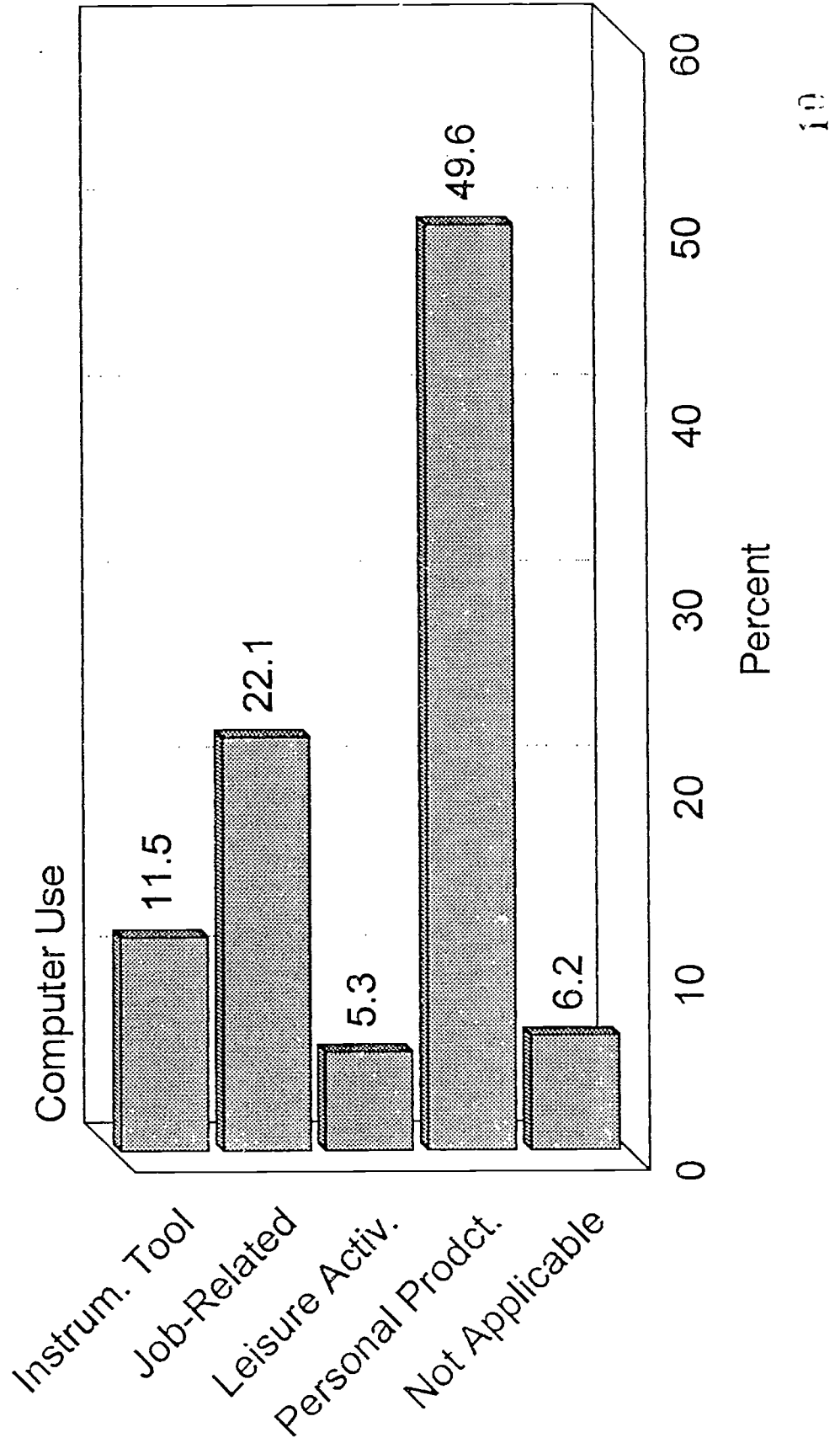




Figure 3  
**Instructional Tool Situations**

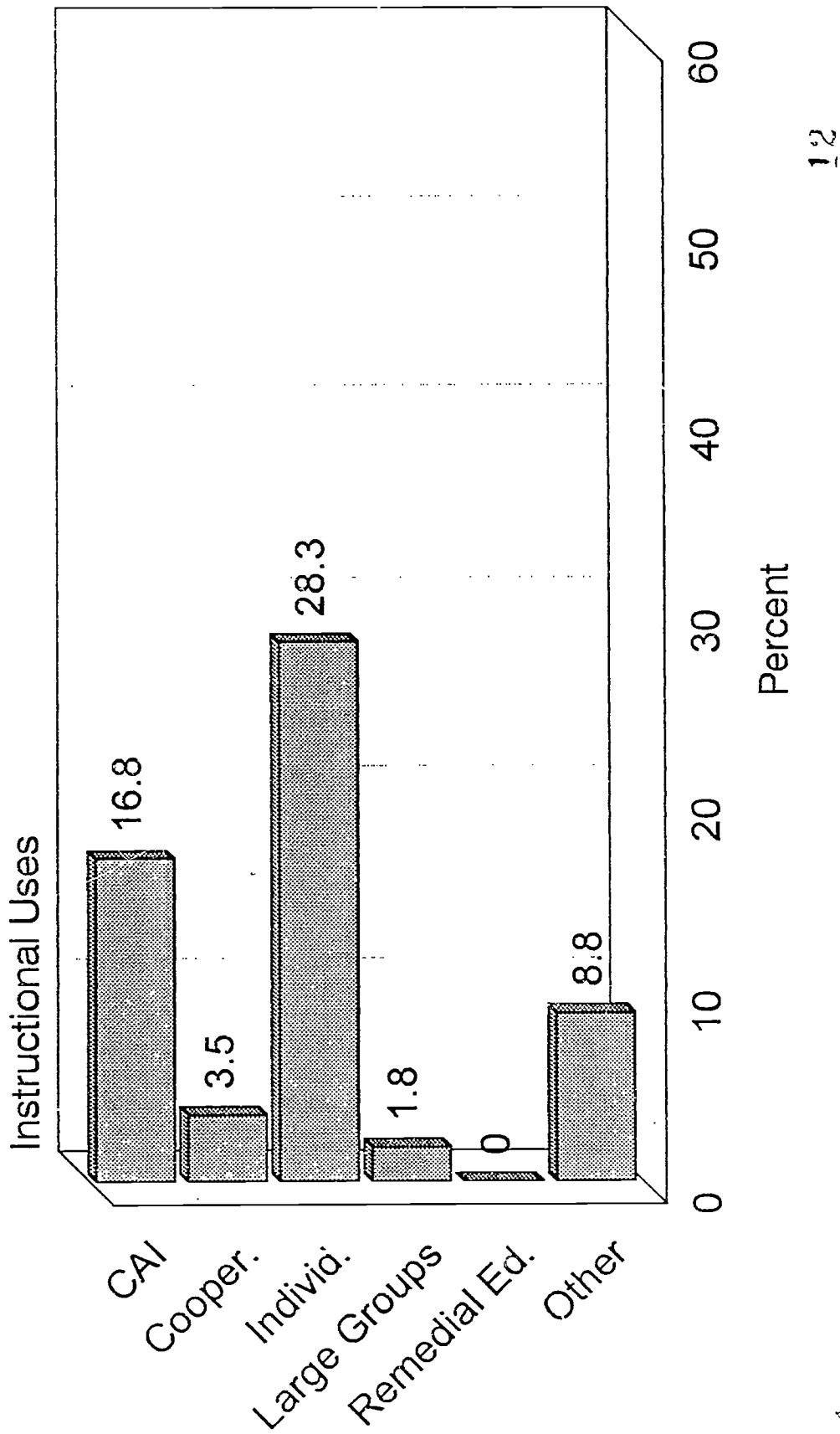


Figure 4  
Confidence in Technology (Instructional Situations)

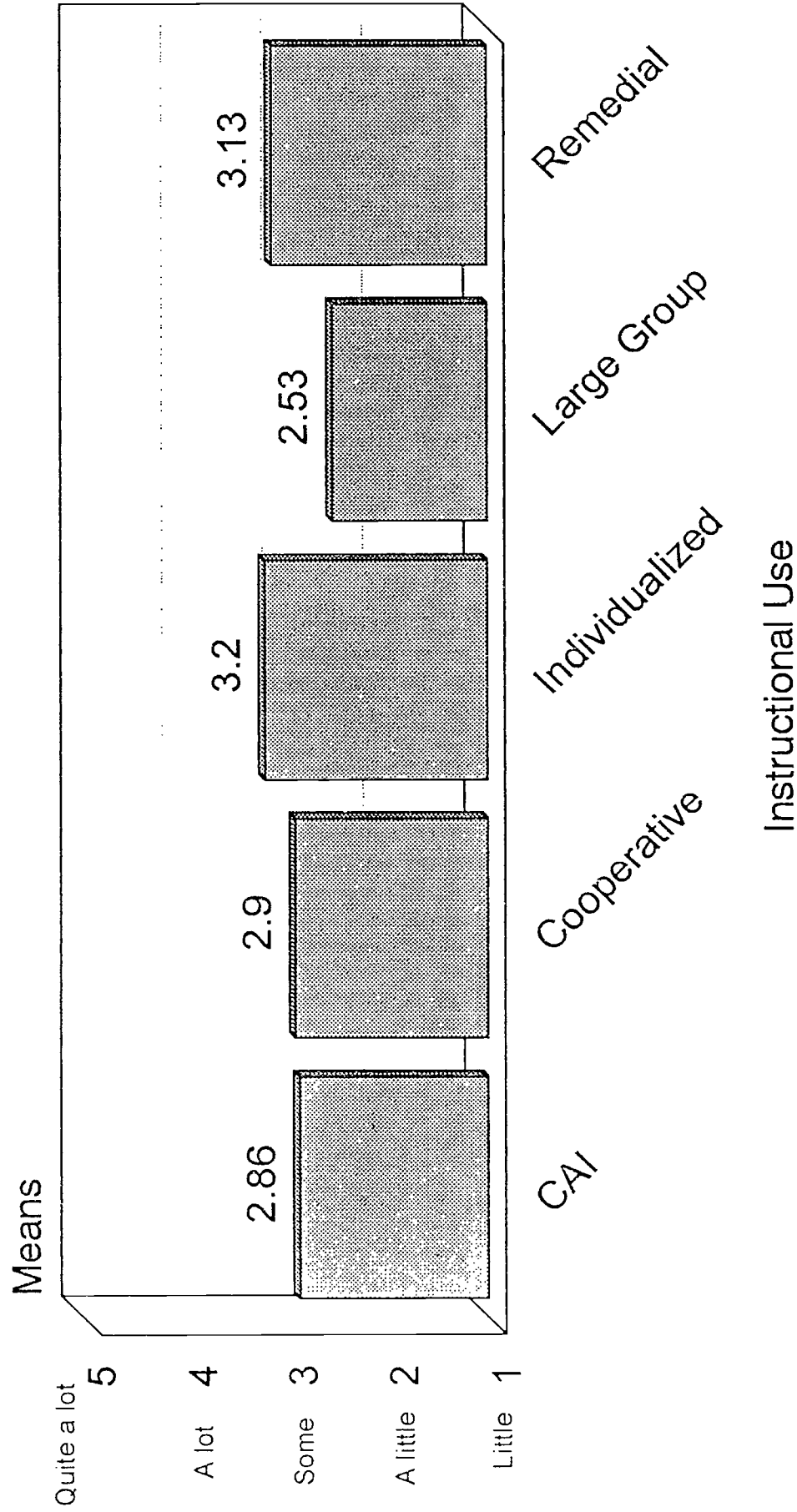


Figure 5  
Confidence in Technology (Productivity Tool)

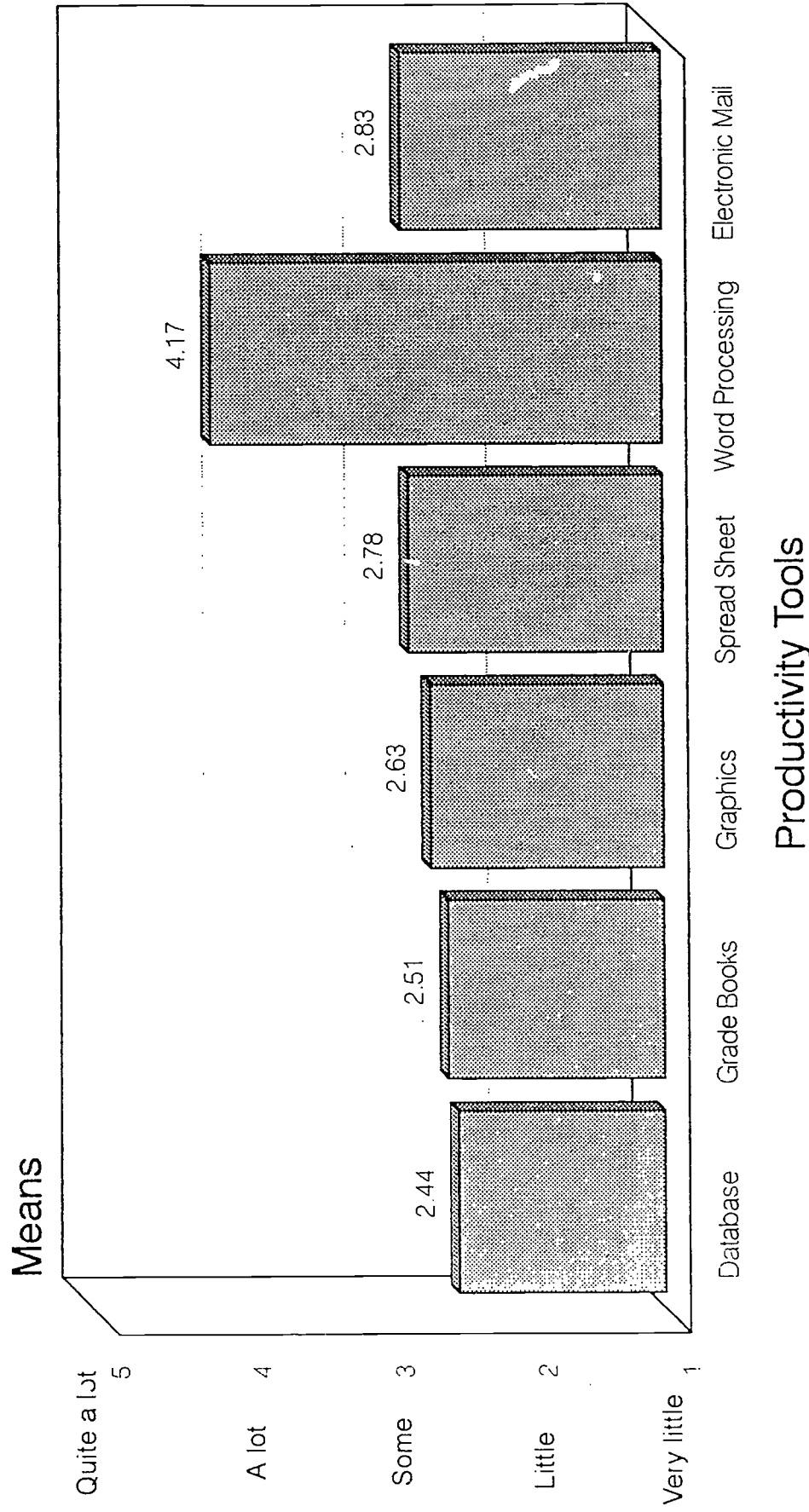


Figure 6  
Confidence in Technology (Complete Applications & Video)

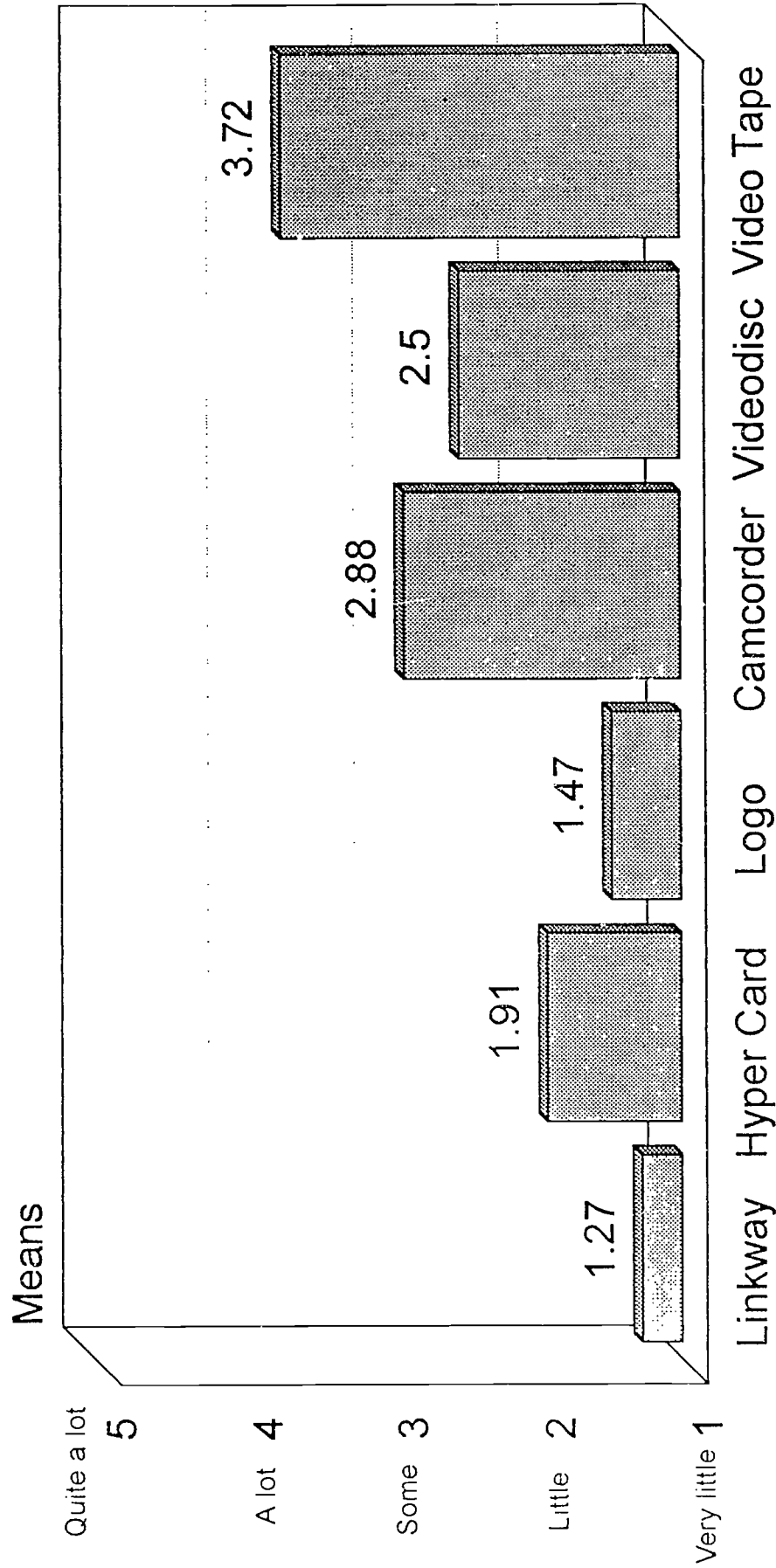


Figure 7

# Confidence in Technology

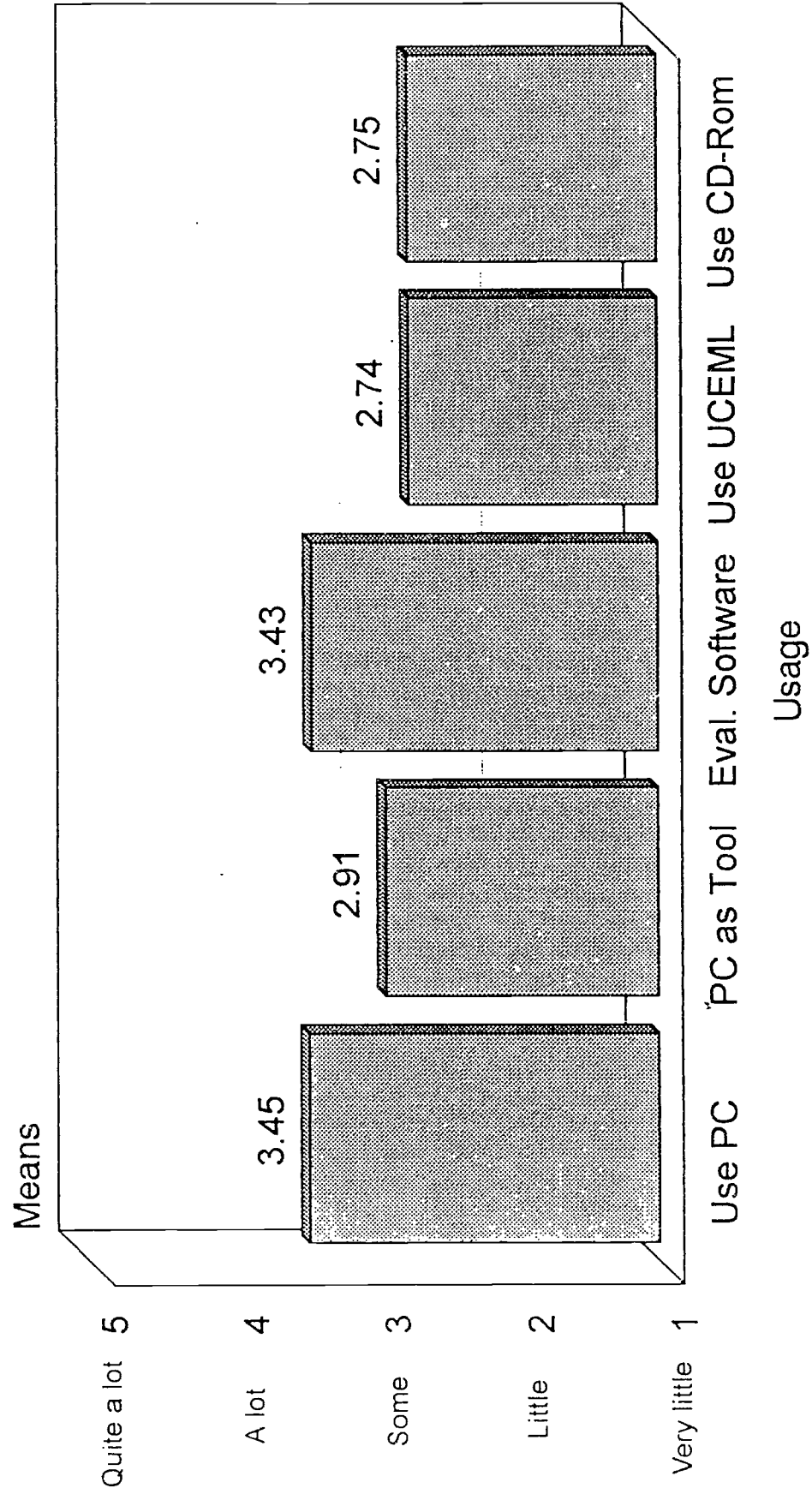




Figure 8

# Future Needs

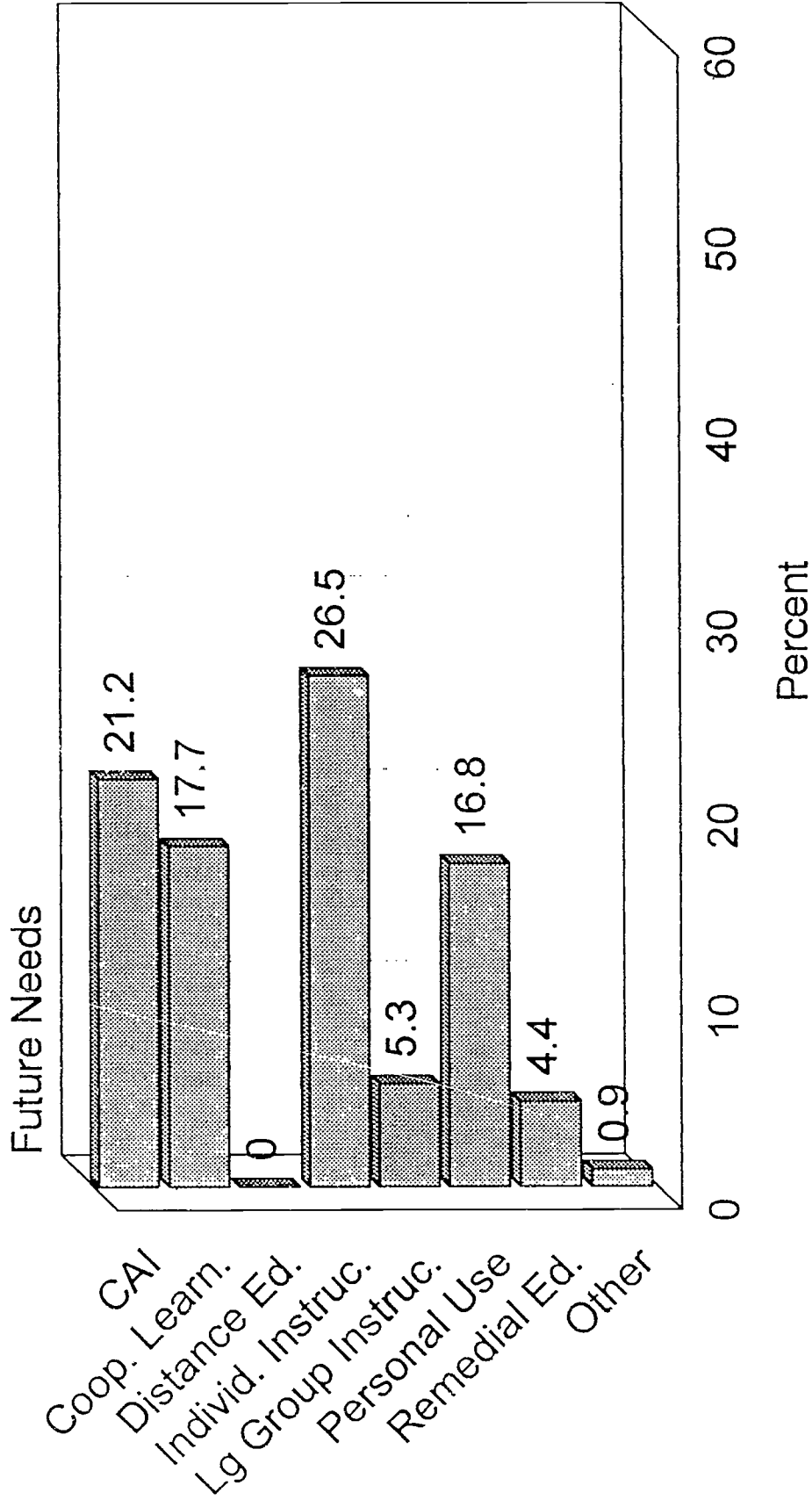
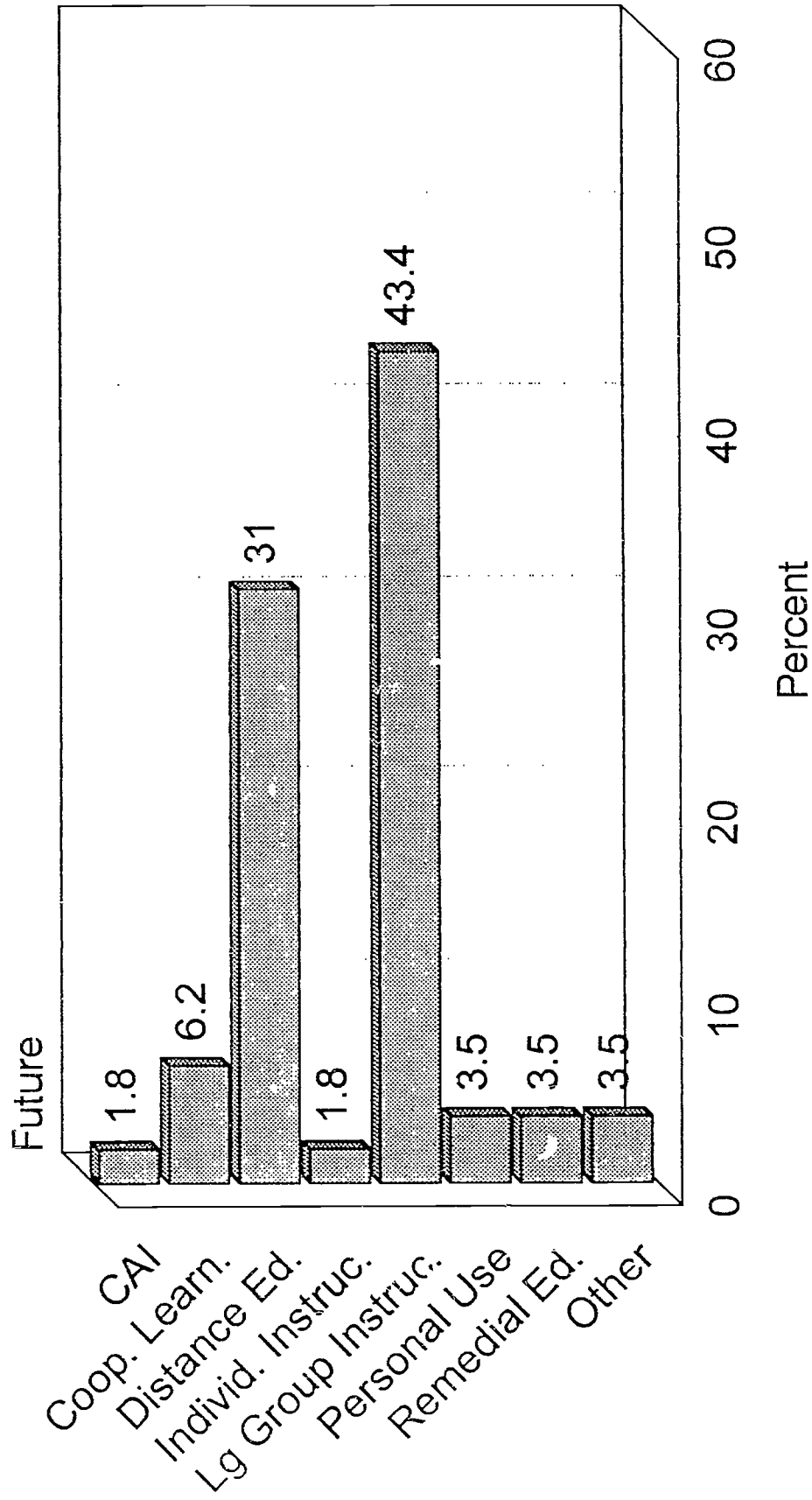


Figure 9

# Future Needs (Used Least in the Future)



## Appendix A

### Survey of Computer Use in Teacher Preparation Programs



1	2	1
(0)	(0)	(0)
(1)	(1)	(1)
(2)	(2)	(2)
(3)	(3)	(3)
(4)	(4)	(4)
(5)	(5)	(5)
(6)	(6)	(6)
(7)	(7)	(7)
(8)	(8)	(8)
(9)	(9)	(9)

THE UNIVERSITY OF CONNECTICUT SURVEY OF COMPUTER USE IN TEACHER PREPARATION PROGRAMS

Directions: Mark answers on these sheets in the space provided. Use a #2 pencil only. Mark in the ovals completely and erase any stray marks.

DEMOGRAPHICS

GENDER:  Male  Female

YEAR:  Junior  Senior  5th Year  Other

EDUCATIONAL PROGRAM:  Elementary  
 Secondary  
 Special Education  
 Sports  
 Other

DO YOU OWN A COMPUTER?  Yes  No

HAVE YOU EVER USED A MICROCOMPUTER BEFORE ENTERING THE TEACHER EDUCATION PROGRAM?  Yes  No

IN WHICH AREA DO YOU USE THE COMPUTER MOST? CHECK ONLY ONE:  Instructional Tool  
 Job-Related Productivity  
 Leisure Activities  
 Personal Productivity  
 Not Applicable

STUDENT ROLE

1. Have you ever taken a course where you were taught to use computers?  Yes  No

2. If you were taught to use a computer, which was the highest level at which instruction occurred?  
 Elementary  Junior High  Senior High  College

3. As a student at UCONN, have you ever used a computer in any course other than the computer education course?  Yes  No

4. If you have used a computer other than in the computer education course, was it a course in Education?  Yes  No

5. Do you currently use a computer to complete your class work at UCONN?  Yes  No

6. As a student, how often did you use a computer?  Always  Often  Seldom  Never

7. How often do you use electronic mail?  Always  Often  Seldom  Never

Filename: COMPUTER.DAT

1	2	1
(0)	(0)	(0)
(1)	(1)	(1)
(2)	(2)	(2)
(3)	(3)	(3)
(4)	(4)	(4)
(5)	(5)	(5)
(6)	(6)	(6)
(7)	(7)	(7)
(8)	(8)	(8)
(9)	(9)	(9)

## TEACHER ROLE SECTION A

8. As a teacher, how often do you currently use a computer?  Always  Often  Seldom  Never
9. As a teacher, how often do you use a computer as an instructional tool?  Always  Often  Seldom  Never
10. When using the computer as an instructional tool, in which one of the following situations do you use it most? Check only one.  Computer-Assisted Instruction  Cooperative Learning  Individualized Instruction  Large Group Instruction  Remedial Instruction  Other
11. With respect to your personal productivity, in which area do you use the computer most?  Data Base  Grade Books  Graphics  Spreadsheets  Word Processing  Other
12. In developing instruction, which computer application do you use most?  Linkway  Hypercard  Logo  Other  None of the above
13. As a teacher, how often do you use electronic mail?  Always  Often  Seldom  Never
14. When evaluating instructional software, which one of the following areas would you consider MOST important?  Adaptability  Appropriateness  Cost  Instructional Design  Length of Program  User-Friendliness
15. When evaluating instructional software, which one of the following areas would you consider LEAST important?  Adaptability  Appropriateness  Cost  Instructional Design  Length of Program  User-Friendliness
16. How often do you make use of the facilities available at UCEML?  Always  Often  Seldom  Never
17. Do you know what facilities are available at UCEML?  Yes  No
18. Have you ever used the CD-ROM for literature searches at the library?  Yes  No

Filename: COMP2.DAT

1	2	1
0	1	0
1	2	1
2	3	2
3	4	3
4	5	4
5	6	5
6	7	6
7	8	7
8	9	8
9	0	9

Quite a Lot

A Lot

Some

Little

Very Little

TEACHER ROLE SECTION B

USING THE SCALE SHOWN, RATE HOW MUCH CONFIDENCE YOU HAVE IN DOING THE FOLLOWING

19. Using a computer.	1	2	3	4	5
20. Using a computer as an instructional tool.	1	2	3	4	5
21. Using a computer instructionally with respect to the following situations.	1	2	3	4	5
Computer-Assisted Instruction	1	2	3	4	5
Cooperative Learning	1	2	3	4	5
Individualized Instruction	1	2	3	4	5
Large Group Instruction	1	2	3	4	5
Remedial Instruction	1	2	3	4	5
22. Using a computer as a productivity tool in each of the following areas.	1	2	3	4	5
Data Base	1	2	3	4	5
Grade Books	1	2	3	4	5
Graphics	1	2	3	4	5
Spreadsheets	1	2	3	4	5
Word Processing	1	2	3	4	5
Electronic Mail	1	2	3	4	5
23. Using each of the following computer applications.	1	2	3	4	5
Linkway	1	2	3	4	5
Hypercard	1	2	3	4	5
Logo	1	2	3	4	5
24. Using the following video features.	1	2	3	4	5
Camcorder	1	2	3	4	5
Videodisc	1	2	3	4	5
Videotape	1	2	3	4	5
25. Evaluating instructional software.	1	2	3	4	5
26. Using the facilities available at UCCEML.	1	2	3	4	5
27. Using a CD-ROM for literature searches.	1	2	3	4	5

Filename: COMP3.DAT

1	2	1
(0)	(0)	(0)
(1)	(1)	(1)
(2)	(2)	(2)
(3)	(3)	(3)
(4)	(4)	(4)
(5)	(5)	(5)
(6)	(6)	(6)
(7)	(7)	(7)
(8)	(8)	(8)
(9)	(9)	(9)

FUTURE NEEDS

28. As a teacher, in which situation do you think you will use the computer MOST in the future?

- Check only one.
- Computer-Assisted Instruction
  - Cooperative Learning
  - Distance Learning/Teaching
  - Individualized Instruction
  - Large Group Instruction
  - Personal Productivity
  - Remedial Instruction
  - Other

29. As a teacher, in which situation do you think you will use the computer LEAST in the future?

- Check only one.
- Computer-Assisted Instruction
  - Cooperative Learning
  - Distance Learning/Teaching
  - Individualized Instruction
  - Large Group Instruction
  - Personal Productivity
  - Remedial Instruction
  - Other

30. Would you like to have instruction designed to increase your ability to use computers more effectively?  Yes  No

31. Do your college instructors (other than School of Education Professors) effectively use computers in their classes. Always  Sometimes  Seldom  Never

32. Do your School of Education Professors effectively use computers in their classes.  Always  Sometimes  Seldom  Never