Lesson 13: COMPUTER LABS

PURPOSE

The purpose of this lesson is to increase your awareness of the use of adaptive technology in accommodations for students with disabilities.

By reflecting on your own course while reading the Lesson Content, you will be guided to consider possible modifications to your course specifically related to the accommodations for using computer labs. By considering design features to include when setting up a new lab that will be accessible to all students, you will become more aware of the possibilities of adaptive resources.

Question to REFLECT upon while reading the CONTENT

What challenges might students with disabilities face when using computer labs? What accommodations might they require?

CONTENT

This lesson presents issues and suggestions of accommodations related to the use of computer labs, and computers and adaptive technology.

Access to computers for students with disabilities involves two major issues: access to the computers themselves and access to electronic resources such as word processors, spreadsheets, and the internet.

COMPUTERS

Adaptive technology accessories and software for computers are essential tools in all academic studies. They can enhance the independence, productivity, and capabilities of people with disabilities. Computers can benefit people with low vision, blindness, speech and hearing impairments, learning disabilities, and mobility and health impairments. Each of these impairments poses challenges to accessing and using a standard computer and electronic resources. For example, a student who is blind is unable to read a computer screen display or standard printouts. A student with a spinal cord injury may not have the motor control and finger dexterity required to use a standard mouse and keyboard.
COMPUTER LABS

As increasing numbers of people with disabilities pursue educational opportunities that require computer use, the accessibility of computing facilities becomes even more critical. To put it simply, computer labs need to be accessible to all users. Students with disabilities need equal access to:

- Buildings/facilities
- Lab staff
- Physical space and printed materials
- Computers and software
- Electronic resources

Learn where ADA workstations are located on campus.

Questions to ask in regards to computer labs:

Are users able to?

- Get to the facility and maneuver within it?
- Access materials and electronic resources?
- Make use of the equipment and software?

Although you as a faculty member are not necessarily responsible for these facilities, your awareness of what facilities exist and their accessibility at your institution will enable you to consider appropriate accommodations for your students.

The following are basic recommendations toward implementing universal design and increasing accessibility for all users in the computer lab. Are these recommendations implemented in the computer lab(s) on your campus?

- Place printed resources so that a wheelchair user can reach them.
- Provide at least one adjustable workstation.
- Provide key guards and wrist rests.
- Have a trackball, joystick, or other mouse alternative available.
- Have lab signs with high contrast and large print.
- Have key documents available in large print or Braille formats for those with visual impairments.
- Have screen reading software and a speech output system available.
- Have Braille conversion software and a Braille printer to provide output for patrons who are blind.
- Have large-print key top labels, screen enlargement software, and a large monitor at least 19 inches available.
- Make a statement in key documents about your commitment to access and procedures for requesting disability accommodations.
- Have staff that are familiar with the adaptive technology and trained in disability issues.
ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)

This document contains scoping and technical requirements for accessibility to buildings and facilities by individuals with disabilities under the Americans with Disabilities Act (ADA) of 1990. These scoping and technical requirements are to be applied during the design, construction, and alteration of buildings and facilities covered by titles II and III of the ADA to the extent required by regulations issued by Federal agencies, including the Department of Justice and the Department of Transportation, under the ADA.

Examples:

**Wheelchair Passage Width:** The minimum clear width for single wheelchair passage shall be 32 in (815 mm) at a point and 36 in (915 mm) continuously.

**Wheelchair Turning Space:** The space required for a wheelchair to make a 180-degree turn is a clear space of 60 in (1525 mm) diameter (see Fig. 3(a)) or a T-shaped space (see Fig. 3(b)).

**Appendix Note**

**Seating:** If seating spaces for people in wheelchairs are provided at fixed tables or counters, clear floor space should be at least 30 in by 48 in (760 mm by 1220 mm). Such clear floor space shall not overlap knee space by more than 19 in (485 mm) (see Fig. 45).

**SUMMARY**

It is unlikely that you as a faculty member are directly responsible for setting up computer labs or creating adaptive technology accommodations. However, it is possible that your class is located in a computer lab environment or your students will utilize a computer lab for homework/studying/researching purposes. In order to help your students, it is important for you to be aware of the many computer access issues facing students with disabilities and the hardware and the software solutions for providing access to computers and electronic resources.

The examples of issues and accommodations presented can serve as a reference to help you recognize options when you encounter a student with a disability in your existing courses, and to assist you in the planning and design stages of creating a new course. Incorporating universal design principles into the course from the beginning reduces the need for accommodations later.

**POSSIBLE DISCUSSION**

What are some specific design features your department might employ when setting up a new computer lab or using an existing computer lab to make it accessible to all students?

**FURTHER INFORMATION**
• Learn more about the Assistive Computer Technology on UCO’s Campus
• Read information about Working Together: Computers and People with Learning Disabilities
• Read information about Working Together: Computers and People with Mobility Impairments
• Read information about Working Together: Computers and People with Sensory Impairments

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