Deaf-Blind Perspectives

Computers in Our Classrooms

Wendy L. Buckley, M.Ed.
Computer Teacher/Specialist
Perkins School for the Blind
Deafblind Program

Emphasis on technology in schools has made computers available to children in educational programs throughout the country. Books are brought to life on the screen, and children explore the world from their desktops via the World Wide Web. With modifications of hardware and software, teachers of children who are deafblind can take advantage of this exciting technology to enhance communication development, educational activities, and leisure time.

A child's physical, sensory, and cognitive abilities play important roles in determining appropriate computer activities. Although all three areas overlap, computer input and output methods are primarily determined by physical and sensory abilities; selection of educational software programs is determined by a child's cognitive abilities and educational objectives.

This article presents an overview of computer modifications, adaptive equipment, and selected software programs used with children in the Deafblind Program at Perkins School for the Blind. Many other modifications and software programs are available that are appropriate for deafblind children. The examples and ideas presented here can be applied to a variety of other types of computer equipment and programs. For additional information, see the resources listed at the end of the article.

Input Methods

Most computer systems use a keyboard and/or mouse for input to the computer. These devices present a barrier for many deafblind children because of visual or physical limitations. The following suggestions address how to work with a standard keyboard or mouse as well as alternatives to these devices.

Using a Mouse or Mouse Replacement

The use of a standard mouse requires good visual and motor skills. Children who are deafblind may be able to use a standard mouse with some modifications or they may need an alternative device.

Promoting mouse skill development. If it is physically possible for the child to use a mouse, design activities that encourage development of this skill. A drawing program, for example, may provide an enjoyable and rewarding activity that a child can use to learn control of the mouse. Popular drawing programs such as Kid Pix (Broderbund) and Kid Works Deluxe (Knowledge Adventure) add an auditory component to the drawing activity and provide a wide array of colors and drawing features.

Mouse placement. Placing the mouse on something such as a box brings it closer to the screen and makes it easier for the child to see the direct relationship between the movement of the mouse and the movement of the pointer on the screen. Placing the mouse on a slanted surface such as an empty three-ring binder helps reinforce the concept that pushing the mouse up or down moves the screen pointer up or down.