

abilities and deficits. This is important for the nurse who may be involved in a home care program or who may be caring for the child in a school or health care setting. The nurse who understands how these children learn can effectively teach them basic skills or prepare them for various health-related procedures.

Children with CI have a marked deficit in their ability to discriminate between two or more stimuli because of difficulty in recognizing the relevance of specific cues. However, these children can learn to discriminate if the cues are presented in an exaggerated, concrete form and if all extraneous stimuli are eliminated. For example, the use of colors to emphasize visual cues or the use of singing or rhymes to stress auditory cues can help them learn. Their deficit in discrimination also implies that concrete ideas are learned much more effectively than abstract ideas. Therefore, demonstration is preferable to verbal explanation, and learning should be directed toward mastering a skill rather than understanding the scientific principles underlying a procedure.

Another cognitive deficit is in short-term memory. Whereas children of average intelligence can remember several words, numbers, or directions at one time, children with CI are less able to do so. Therefore, they need simple, one-step directions. Learning through a step-by-step process requires a **task analysis** in which each task is separated into its necessary components and each step is taught completely before proceeding to the next activity.

One critical area of learning that has had a tremendous impact on education for cognitively impaired individuals is **motivation** or the use of positive reinforcement to encourage the accomplishment of specific tasks or behaviors. Advances in technology have greatly aided in providing reinforcement, especially in children with severe disabilities and who may have physical disabilities that limit their range of capabilities. For example, with the use of specially designed switches, children are given control of some event in the environment, such as turning on the computer (Fig. 18-1). Activation of the computer becomes the reinforcement for pushing the switch. Repetitive use of these switches provides an early, simplistic association with a technical device that may progress to increasingly complex aids.