

Learning “Routinely” Without Vision

By Sandra Lewis, EdD, Associate Professor
Florida State University, Tallahassee, Florida

Vision is thought to be the unifying sense, the modality through which most children create an understanding of their world. Vision organizes the information provided through the other senses and offers a global view of the environment and the activities of people within it. While other sensory systems provide necessary and valuable information, they do not offer the detail or totality of experience that vision does. When one hears an unexpected sound, feels an unusual touch, or smells a strange odor, the first, almost reflexive, action is to look at the source of the sensation to determine its origin. People look because it is through vision that additional, detailed information can be established. Without this ability to visually check the situation, these sensations would have little meaning and would appear to occur inconsistently.

Children who are visually impaired (that is, who are blind or who have low vision) often must rely on the fragmented, inconsistent information that results from using their non-dominant senses. Recognizing this situation, early interventionists and caregivers frequently believe that their role is to emphasize sensory development. The child is provided with opportunities to utilize toys that are specifically designed to create sensory information—toys that vibrate or that talk or make some other noise. There are a great many toys that fit this description, as they are valuable for attracting the attention of children with vision and help young children understand the relationship between what one does and the effect it has on an object, as well as facilitate the development of manipulative play skills.

Children with typical vision tire of these toys once their educational purposes have been achieved, after which they usually choose toys that offer more complex learning experiences. Soon, they are imitating what they see the older children and adults in their lives do and using the many toys that represent adult tools—the toy lawn mower, microwave, telephone, hammer, etc. It isn't enough to make a toy do something, but rather it becomes important to do something with toys. Later, this isolated imitation of adult activity leads to more social symbolic and dramatic play.

For children with visual impairments, who cannot easily know of or imitate the activities of peers and adults, the transition from making an object do something to imitation of adult activity is difficult. First, there is considerable power (and both internal and external reinforcement) in making an object light up, vibrate, or make noise. Although a seemingly small event, for a child who experiences little control in his life, being able to have power over such a toy can be relatively significant. But even more importantly, one cannot imitate what one doesn't know. Children know how to “operate” pretend lawn mowers or “prepare” plastic hamburgers because they have seen the real activities performed, probably hundreds of times. They have learned “incidentally,” without direct

instruction, through vision. While they don't know the exact details required for these tasks, they are learning about the tasks while still toddlers and are imagining themselves in those roles—a strong foundation upon which future learning can be based.

It is the ease with which sighted children learn tasks incidentally through watching others that distinguishes them from children who have visual impairments. Children with visual impairments learn differently. Because none of the other senses have the same capacity to unify sensory information as does vision, some other mechanism needs to be used to create this same effect. The challenge for teachers and caregivers in the lives of children who are blind or who have low vision is to create opportunities for these children to learn “about” the activities of others, and in doing so, about their future role in the world. Although it sounds like an oxymoron, adults need to “create” events through which “incidental” learning can occur.

One mechanism that has been found to be effective in providing the opportunity for children with visual impairments to unify their sensory experiences is to involve even very young children in the routine experiences in which the others around them are engaged. Some examples of routine experiences that occur frequently in most homes include bathing, washing dishes, doing laundry, getting mail from the mailbox, and feeding a pet.

Each of these experiences involves many steps, most of which occur in the same way each time the task is performed. For example, just the act of bathing requires closing the drain, turning on, then off, the water, rubbing the washcloth with soap, massaging the soapy cloth over the body, rinsing, opening the drain, and reaching for a towel. Sighted children participate in this routine by watching it hundreds of times over several years before they insist on doing part of it themselves. At some point, usually without adult encouragement, they reach for their own towel or soap up the washcloth independently.

Children with severe visual impairment, however, may not be aware that all of these steps are part of taking a bath. They may only “know” the part of the activity in which they are directly involved—sitting in the tub—and come to believe that sitting and being manipulated is all that is involved in “taking a bath.” To help a young child with visual impairment know more about this activity, caretakers can involve him in it, by gently encouraging the child to follow the actions of the adult's hands by first “riding” the hands of the adult (placing the child's hands over the adult's), then by having his hands guided (the willing child's hands are moved under the hands of the sensitive adult).

So bath time for a child with a visual impairment wouldn't be much different for this child than for his sighted siblings or peers, except that he would help turn on and off

the faucet, help with reaching for the soap and washcloth, help with rubbing the soap on the cloth, then with the rubbing of the cloth on his body, help with rinsing himself, help with opening the drain, and help with reaching for the towel. By engaging in each of these steps over a period of time, the child would be learning about the totality of the activity, as well as beginning to learn how to manage each of the steps. While there would be no explicit expectation that he would immediately learn the task (as when sighted children learn what they are observing incidentally), it would be expected that over time, the “tactually observing” child with visual impairment would be familiar enough with the task to anticipate and become capable of performing those steps, first with assistance, and then, as the caregiver senses competence, more independently.

At what age can a child with visual impairment begin to “help” with the steps in a bath? In taking the clothes from the dryer? In getting a bowl of ice cream after dinner? In putting cans on a shelf after shopping? Even very young children can be encouraged to ride or be guided by a sensitive adult’s hands. The more that these experiences are a part of the child’s day, the more likely that the child will be able to predict that they will occur, and the more likely that the child will involve herself at some level in the required motor activities. It seems reasonable that by the time a child is able to grasp and release an object, such “tactical observation,” and the incidental learning that results from it, should be occurring.

Involvement in the typical activities that occur in households has benefits across a variety of domains. Children with visual impairments who are “helping” their caregivers throughout the day are hearing valuable language, using important gross and fine motor skills, developing critical abilities in personal management, and are socializing with others. They are acquiring key positional, quantitative, and temporal concepts within a variety of functional activities. They are constructing meaning through their direct involvement in activities and that direct involvement is reducing the possibility that they will be developing learned helplessness—a common characteristic of children with visual impairments who spend their early years having others do for them, instead of learning to do for themselves.

Some early interventionists argue that involving children with visual impairments in these kinds of experiences is not age appropriate. After all, typically developing young children spend most of their time engaged in play with objects and with peers, not being encouraged to help their caregivers put soap in a washing machine, wash carrots for snack, or clean a sink. It must be remembered, however, that children with vision are observing their caretakers engage in these activities, and are learning about them and their component steps incidentally. So, while it may not be appropriate for a two and a half year old to be setting the table, it is age appropriate for a two and a half year old to be learning about setting the table. And the way

that children with visual impairments learn about this and other skills is by having their hands involved in the tasks—tactually observing the activities of the people around them.

Using this approach provides a mechanism for parents and early intervention providers to measure progress in the development of children’s skills. After working with family members to identify those experiences in which they are willing to try to involve their children regularly, the early interventionist can observe the family engaging in the targeted experiences and task analyze the steps that are part of the family’s “routine.” At regular intervals, the child’s level of involvement in each step of the experience can be assessed, using a prompting hierarchy as a measurement. Over time, it would be expected that the child would initiate more of the steps and that more intrusive prompts would become less frequent. If these positive changes are not observed, then it may be necessary to re-examine the frequency and level of the child’s involvement, the consistency of the routine, the appropriateness of the targeted activity, or the need for more direct instruction in the component tasks. Just as is true for children with vision, some children with visual impairments may need more specific direction than that provided by the incidental observations through the tactual sense that this approach advocates.

Caretakers of young children who are blind or who have low vision often feel inadequate when it comes to teaching their children. They tend to believe that, like braille, the techniques that teachers and early interventionists use are mysterious and beyond their capability. They experience success when their children respond positively to toys designed to facilitate manipulative play skills and an understanding of cause and effect, and frequently continue to present their children with these kinds of toys long beyond the period that they provide educational benefit. These caretakers can be helped to understand that one key to the mystery of teaching their children is involving them in as many of the activities that surround them as possible. Such an approach requires little more than an appreciation that children with visual impairments learn through repeated hands-on experiences and a sensitivity to the willingness or reluctance of the child to participate in any part of a task. This approach capitalizes on naturally occurring events within natural environments, requires no special materials, and focuses on the child-caretaker interaction. It empowers caretakers to empower their children with the gift of active involvement, which has long lasting language, cognitive, motor, self-help, and social benefits.

Sandy Lewis started her career 25 years ago as a home based interventionist, working with children and adults with visual impairments and their families to learn to manage household tasks. She now coordinates the Programs in Visual Impairment at Florida State University, where her primary responsibility is to prepare teachers of children who are blind or who have low vision to meet both the functional and academic needs of their students.