

Incidental Learning for Children with Deafblindness

L. Kathleen Sheriff, EdD

**Assistant Professor in Special Education
Undergraduate Coordinator for Special Education**

Department of Human Services
James I. Perkins College of Education
Stephen F. Austin State University
Nacogdoches, TX

Tracy L. Hallak, MEd

Instructor in the Program for Visually Impaired

Department of Human Services
James I. Perkins College of Education
Stephen F. Austin State University
Nacogdoches, TX

Abstract

Children with deafblindness have significant trouble accessing environmental information incidentally through the primary sensory channels of vision and hearing. Potential for learning delays for these children can be supported by current peer reviewed literature. Deliberate learning suggestions parents of children with deafblindness may utilize to aid their children in learning communication functions and social cues are discussed.

Incidental learning is learning that takes place naturally and frequently in regular daily living activities (Van Asselen, Fritschy, & Postma, 2006). Children with deafblindness have concomitant disabilities in the primary sensory modalities of vision and hearing. Vision allows typical children with sight to observe “the world through a whole-to-parts approach” while those with deafblindness must observe their world from a “parts-to-whole approach” (Bruce, 2005b, p. 241) due to inopportunity to observe objects, movements, and individuals with their eyes. Incidental learning for children with deafblindness is further hampered by the lack of auditory information processing from sounds and vocalizations naturally occurring in their worlds. Lastly, the combined impairments in both vision and hearing channels together in tandem may require more energy to access information by children with deafblindness than typical children for learning incidentally and naturally. How can parents help their children with deafblindness access the information that typically developing children access incidentally without intervention?

Chen (2004) states that by age six months, typical infants with vision perform the following visual skills: locating or searching for an object, fixating their eyes on a person or object, scanning over more than three objects at one time, looking and gazing back and forth between faces and objects, and reaching for an object they have located with their eyes. Chen

(2004) goes on to state that children with deafblindness may turn away from objects, tilt their heads to view objects or faces, ignore people and objects in a room, bring something close to the eyes to attempt to look at it, show sensitivity to certain light, bump into things, or reach over or beside objects when attempting to grasp them.

Correa-Torres (2008, p. 274) states that children with deafblindness do not have the opportunity in daily life to observe “facial expressions and body language” of others which cue children to respond, imitate, and behave in socially appropriate ways. She further states that the lack of viewing and learning incidentally from peers showing how to behave as such leads to a lack of relationships with peers (Correa-Torres, 2008). In a qualitative study, Correa-Torres observed three included children with deafblindness in their classrooms and found that adults made the majority of social contact with the students with deafblindness, not peers, or children with blindness (Correa-Torres, 2008).

Bruce mentions the limited ability for children with deafblindness to access “social and context clues” that relay the information describing the functionality of certain behavior and communication that occurs between individuals (Bruce, Godbold, & Naponelli-Gold, 2004). This lack of viewing incidental social cues may lead to further isolation from peers for the child with deafblindness. Just the ability to greet another requires the ability to know that someone else is near and that the person near is another separate individual from oneself (Bruce, 2005a).

Lieberman & MacVicar (2003) write of their concern for children with deafblindness in the areas of physical fitness and daily play participation. Play is the area where many social skills are incidentally learned by children (Lieberman & MacVicar, 2003). Playing with peers promotes socialization and relationships for typical children and those with deafblindness may miss out on opportunities for cognitive growth through daily incidental learning activities with peers (Lieberman & MacVicar, 2003).

Susan Bruce states, “symbolism is necessary to linguistic expression” which helps develop higher cognition (Bruce, 2005b, p.233). Many children with deafblindness may have difficulty with transition from pre-symbolic communication into symbolic language. They may not be able to observe others talking or hear others talking, observe objects making noises, or other naturally occurring sounds in daily life which may further delay their communication and cognitive development.

In daily life, many communication functions take place one after another without delay. For example, a mother approaches her child, smiles, asks a question, and gives the child a cracker. A typical child with vision and hearing could look up, smile back at the mother, watch and listen to the question, reach for the cracker, and verbalize back to the mother. As the mother models approaching, smiling, asking, and giving the child the cracker, the child responds to each function. For the child with deafblindness, the functions could be unclear and the child could miss out on learning that as my mother approaches smiling, I smile back, and so forth for each communication function the mother shows her child.

Parental Strategies to Assist Incidental Learning

Vision and hearing allow typical children to access information through incidental learning, but grownups must intervene and “teach deliberately” the same incidental information to children with deafblindness (Bruce, Godbold, & Naponelli-Gold, 2004, p.87). Parents can be

the first in teaching the meanings of normal daily functions of communication to their child with deafblindness. Allowing their child to use other senses to learn otherwise incidental information can be a first step in building communication between the parents and the child with deafblindness. Parents can keep their child's environment stable, full of action-oriented toys, playing with toy objects together and taking turns so that their child can learn to imitate (Bruce, 2005b). Playing and interacting with their child is important both socially and physically for the child with deafblindness (Lieberman & MacVicar, 2003).

Parents can also teach and engage siblings in social play activities which may also help teach their child with deafblindness some social cues for interacting with peers. Remembering to allow for plenty of wait time for their child with deafblindness (Bruce, 2005b) to grasp each step in communicating something or sharing an object will help fill the gap for the child who is unable to access information through incidental learning. Plenty of time to play and explore, and wait for positive feedback by senses other than vision and hearing, may be key to aiding the child with deafblindness to grasp otherwise incidentally learned information.

Buying or building an active learning play space, may be a parent tool for helping their child with deafblindness to take in information. Active learning play spaces are safely built centers used to stimulate cognition and lead to independence in naturally exploring objects, sounds, and textures for children with deafblindness (Campbell & Truesdell, 2009). Parents may determine what objects and sounds are to be explored and place those within the confines of a small play space built from wood or heavy cardboard. Active play spaces may be purchased or homemade. The suggestion for parental use would be to place commonly used objects that typically developing children observe and learn from within the home environment inside the small play space within reach for a child with deafblindness to explore.

Conclusion

Children with deafblindness deserve the opportunity to learn information that typically developing children learn incidentally in natural settings in everyday life. Since the concomitant disability of deafblindness leads to limited access to information that the distance senses of vision and hearing provide, parents must intervene with strategic step-by-step plans for sharing information that their children may miss. Just imagine the inability to access naturally occurring incidental sensory information in one's environment without the ability to observe "anything beyond arm's length" (Ronnberg & Borg, 2001). It is obvious that adults must take time to teach with deliberation using the other senses so that their children with deafblindness may learn motivation for communication and mobility. The ideal adults to begin this process early are parents. If parents invest time and make good use of wait time during learning activities, their children with deafblindness can make gains in learning information. Parents can then also team together with school and medical professionals to establish further deliberate optimal learning opportunities for their child.

According to Ronnberg and Borg (2001) research is lagging behind in the realization of how vision and hearing loss in tandem takes "extraordinary demands on ingenious engineering, drawing on an analysis of the everyday ecological demands on information processing" for those with deafblindness. Extraordinary demands may take extraordinary commitments from the parents of those with deafblindness. Who is better equipped to begin the intervention processes

for children with deafblindness than those who share the same natural environment with them? Parents, of course.

References

- Bruce, S. (2005a). The application of Werner and Kaplan's concept of distancing to children who are deaf-blind. *Journal of Visual Impairment & Blindness*, 99(8), 464-477.
- Bruce, S. (2005b). The impact of congenital deafblindness on the struggle to symbolism. *International Journal of Disability, Development and Education*, 52(3), 233-251.
- Bruce, S., Godbold, E., & Naponelli-Gold, S. (2004). An analysis of communicative functions of teachers and their students who are congenitally deafblind. *Re:View*, 36(2), 81-90.
- Campbell, M., & Truesdell, A. (2009). Creative constructions: Technology that makes adaptive design accessible, affordable, inclusive, and fun. *Assisting the Development of Visually Impaired Students Through Online Resources*. Retrieved from www.e-advisor.us/css-test/PPS/page1.php
- Chen, D. (2004). Young children who are deaf Implications for professionals in deaf and heard of hearing services. *Volta Review*, 104(4), 273-284.
- Correa-Torres, S. (2008). The nature of the social experiences of students with deaf-blindness who are educated in inclusive settings. *Journal of Visual Impairment & Blindness*, 102(5), 272-283.
- Lieberman, L., & MacVicar, J. (2003). Play and recreational habits of youths who are deaf-blind. *Journal of Visual Impairment & Blindness*, 97(12), 755-768.
- Ronnberg, J., & Borg, E. (2001). A review and evaluation of research on the deaf-blind from perceptual, communicative, social and rehabilitative perspectives. *Scandinavian Audiology*, 30(2), 67-77.
- Van Asselen, M., Fritschy, E., & Postma, A. (2006). The influence of intentional and incidental learning on acquiring spatial knowledge during navigation. *Psychological Research*, 70(2), 151-156.