Teaching Strategies and Content Modifications for the Child Who Is Deafblind

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Children who are deafblind have unique educational needs. Although they are deaf the adaptations needed for their learning style will differ from the child who only has deafness. Although they are blind the adaptations needed for their learning style will differ from the child who only has blindness.

In order to understand what this means we can examine a variety of issues that might be addressed for three different children with disabilities in a regular preschool class: one born with a severe hearing loss, one born with visual impairment resulting in acuities of 20/600, and one born with a combined severe hearing loss and visual impairment resulting in acuities of 20/600.

It is important to note these are not actual children and that instruction for any child with a disability must accommodate his/her individual needs. Our intent is to demonstrate some of the basic differences in educational approaches to address each of these disabilities. It is also important to note that the additional disabilities experienced by the majority of children who are deafblind further complicates program development.

Imagine each child is in a preschool classroom structured around play centers such as the House Center, Art Center, Block Center, Library Center, and Science Center. There is a morning welcome, a story time, and films which occur in a large group. Small group activities are conducted around a theme or unit such as Families, Animals, etc. The play centers have materials which require some explanation or direction from an adult. For example, the teacher must demonstrate or have examples to help the children make animal puppets from socks. Recess occurs in a large group and the child may choose an area of recreational activity, i.e., swings, slide, tricycles, wagons, or the sandbox. All the children eat together in the cafeteria.

Using the example of a unit on farm animals, we can look at the difference in teaching strategies and content modifications that might be made for each of these three children.
Teaching Strategies and Content Modifications

The Child with Hearing Impairment

Most of the same teaching strategies used to instruct children who do not have a disability would be appropriate for the child with a hearing impairment. This child will learn from what he sees and what he does (action). He learns a great deal incidentally by watching others. Instruction in a large group can be very beneficial for this child because he can prepare for his response while waiting for his turn.

Adaptations for teaching communication and auditory training goals include small group or individual instruction. Real experiences should be the basis of units that are taught, however this child would probably be able to relate story books, role play, and discussion to the real experience. The teacher may also rely on print, pictures, gestures, and movements to support or give instruction.

Issues for the child with hearing impairment include difficulty with English language structure which can affect the development of reading and critical thinking skills. Special attention should be given to teaching such structures as "why", past tense verbs, complex sentences, etc. He may also need additional practice in using language to explain and make predictions such as, "Why didn't the brick house fall down?" or "What will happen if you don't take a nap?"

The child with hearing impairment would probably have an experiential base about animals before he began to study the unit on farm animals. He might have a pet at home, has probably seen birds and squirrels in his yard, or has watched animal stories on television. He will understand stories about farm animals if it is signed and he can see the pictures. He might play with plastic farm animals and farm figures in the sandbox. He might color pictures of farm animals in the Art Center and sort zoo and farm animal figures in the Science Center. At recess he could pretend to be a horse that pulls a wagon outside. During auditory training he might try to discriminate between the sound a pig and a cow makes or point to the appropriate picture of each animal in the Old MacDonald song. Speech or speechreading might focus around the names of farm animals. At the end of the week his class may visit a working farm which would build on his week-long study of farm animals.

The Child with Visual Impairment

Some of the same instruction strategies could be used with the child who has a visual impairment. However, his learning will take place primarily through his own actions/experiences and information he receives auditorily. He can learn many things through group instruction with minimal support. Unlike the child with hearing impairment, this child will need more instruction that occurs through real experience. Imaginary play may be difficult for him, reducing the effectiveness of role play as an instructional tool. Language instruction for this child should be paired with ongoing activities. The use of pictures and print would be of limited value.

Using the example of a unit on farm animals, the child with visual impairments would likely have less knowledge of animals to begin with than the child who is deaf. He would not have seen the television programs or watched animals playing in his yard. He might have a pet and perhaps has some knowledge about caring for an animal. This unit may be most meaningful for him if the visit to the farm was scheduled before beginning classroom instruction.
Although he might be able to sort the animals in the Science Center using visual cues of color and shape, he may or may not relate them to the real animals. A more appropriate activity might be telling a classmate or teacher whether the animal lives in the zoo or on the farm after they name the animal or make the animal sound. Then he could put the animal in the proper area. Instead of coloring animal pictures he might use modeling clay to make an animal figure or scraps of fur to make tactile pictures. He could interact with other children in the wagon while working on the concepts of "left", "right", "fast", "slow", "stop" and "go" pretending to drive the horse. These concepts might be taught and practiced individually within orientation and mobility training. New textures can be introduced at the sand table. Working on listening skills during story time may also be somewhat effective, especially after the child visited the farm. He could be encouraged to explore his environment to search out the sound of a mooing cow.

The Child who is Deafblind

The child who is deafblind requires considerable modifications to teaching content and different teaching strategies. He cannot learn from what he sees like the deaf child does. He cannot learn from listening like the blind child does. He learns only by what he does. This means that no learning is taking place for him while waiting for others to take their turn. For this reason, small group or individual instruction becomes more critical. Large group instruction is only valuable if he can be consistently active (e.g. playground activities).

This child also may have problems experiencing new things. Encountering the world without benefit of vision and hearing requires a great deal of trust. Bonding with the child is critical for the instructor, therefore it is important to evaluate the child’s response to an individual when determining who will be the primary provider of instruction. He may be withdrawn or passive, content to stay in one place and let the world come to him. Remember for him he will learn only through doing.

Things often magically appear and disappear before him. Cause and effect are elusive. People do things to him but not necessarily with him. There is little explanation of events before they occur. For this reason, it is important to make interactions balanced (my turn, your turn) to encourage him to be responsive. Instruction that is always directive requires no response from him.

Safety is also of critical importance to this child. Not only must the environment be made safe for him, but he must feel safe in order to move around on his own. If he does not, he is likely to stay glued to one spot resisting interaction with his environment and the people in it. Instruction and support from an orientation and mobility specialist is very important. She may need to help staff evaluate the environment for hazards and develop travel routes for the child to use. She may work directly with him to orient him to that environment, and provide training on travel techniques and travel equipment.

The curriculum focus for the child who is deafblind will differ from that of the child with only a single sensory impairment. The deaf education focus may be primarily on using language to code existing concepts. The curriculum focus for a child with visual impairment may be more oriented toward building concepts and experiences which can provide a firm cognitive foundation for language. The curriculum focus for a child who is deafblind should be on bonding and developing interactions and routines for expanding the frequency and functions of communication. This child will not learn about objects or actions incidentally. He cannot tie
together the fragmented input he receives without interpretation and instruction from others. He must be taught to use and accept this instruction.

Developing a communication foundation for learning is a priority. Typically, communication is tactile in nature using signals, objects, gestures and later on sign language or tactile symbols or some combination of forms. Language is developed through the use of routines, calendar systems, discussion boxes, etc. Because of the degree of vision impairment and his inexperience with real events in the world, the use of print, pictures, and demonstration will be of little or no value to this child. He may not understand pretend or role-play as an event that relates to some real experience. The child who is deafblind may first need to be moved co-actively through an activity to know what is expected of him. After he understands what is expected, this support would be faded to avoid building prompt dependence.

Because concepts develop so slowly for this child, there should be a focus on making learning functional. Great care needs to be given to developing clear goals and objectives for this child. Typically, these objectives need to be limited in number since this child will need many opportunities to practice skills before he is able to generalize the concept to other situations.

This child would have a very limited knowledge of animals because he cannot observe them or hear them. He has not seen television shows about animals. He may have a pet at home, but might only encounter it if the pet is placed in his lap or brought to him. His experience with that animal would be primarily tactile. He may not be able to distinguish his long-hair dog from his long-hair cat if he only pets the animal. Or he may experience the animal as a thing that licks or smells a certain way. This is why vocabulary (concepts) which are taught should be more broad in nature. Careful consideration should be given to concepts which can be applied to other units throughout the year and across a variety of settings.

For example, the farm animal unit might focus on action concepts such as feed, pat, rub, pull, walk, open, close, pour. These same concepts should be applied to other units or in different environments. For example, "pull the leaf", "pull the wagon", "pull the drawer", "pull off the lid" and so forth. This child may have a "pull" unit throughout the year that is embedded in the various units the other students will study. If this child has a pet at home, another approach to instruction could focus on things this child can learn to do with his pet. For example, he might learn to feed his pet, walk it, pet it, brush it, etc. Units could be developed around things that can be fed, walked, brushed, etc.

The child who is deafblind could meaningfully participate in the play centers but his goals would be different from the other children. For example, while the other children pretend to be animals, the child could "rub" or "pat" them as if he was the farmer they come to for attention. In the Art Center he could "pat" and "pull" modeling clay to help a classmate form an animal shape. At recess he could direct the other children to "pull" him in the wagon or practice pulling them with help from a classmate. The teacher for the hearing impaired or other staff could help him to learn to vocalize to get the other children's attention before he signs "stop" or "go". In the Science Center he could use his vision to find objects in the sandbox. Then he could "open" and "close" the door to the toy barn, "pour" sand on the toy animals, "pull" the shovel out of the sand, etc.

When he visits the farm with the other children he would experience the differing size, textures and smells of the animals, but his goal might be to use his cane or sighted-guide technique in unfamiliar environments. If field trips are regular events, he might also learn a field trip routine.
Unless he actually lives on a farm, learning about the animals and what they do will be of little value to him even though it may be a very pleasurable event.

Obviously this child will require a great deal of individual support. Initially this may need to be provided by the teaching staff. However, if good interaction and communication skills are modeled for the other students and an effort is made to draw them into successful play situations together, they may be able to provide instructional support for some activities.

**Conclusion**

The educational needs of a child who is deafblind are unique. Teachers without specific training in the deafblind education may be unable to appropriately program to meet these needs without specialized training and support. Few school districts have even one teacher with this kind of specialized knowledge. In addressing the child's education from birth - 21 a large number of teachers and support staff as well as community members and human service staff must work with the child. However, if his unique learning style is not addressed, the child who is deafblind is at risk for being excluded from the classroom, the family and the community.