STEP TOWARD EQUALITY: CANE TRAVEL TRAINING FOR THE YOUNG BLIND CHILD

By Fredric Schroeder, Director of the New Mexico Commission for the Blind.

Dr. Fredric Schroeder has dedicated his professional life to advancing opportunities for individuals who are blind. He began his career as a cane travel instructor, specializing in orientation and mobility training. From 1981 to 1986, he served as the Coordinator of Low Incidence Programs for the Albuquerque Public Schools. In 1986, Dr. Schroeder was appointed Director of the New Mexico Commission for the Blind, where he significantly expanded services for blind residents. His leadership and expertise led to his appointment in 1994 as the Commissioner of the Rehabilitation Services Administration, a federal agency within the U.S. Department of Education. Following his tenure in public service, he transitioned to academia as a research professor at San Diego State University. Dr. Schroeder later served as President of the World Blind Union, where he represented the interests of blind individuals on a global scale.

Beginning in 1981, the Albuquerque Public Schools implemented a unique program of providing cane travel instruction to blind children as they begin kindergarten. This program is viewed as radical by some since it operates from the philosophy that all blind children should begin cane travel instruction at a very early age. One of the most fundamental parts of a blind child's training is the development of independent travel skills. Without these skills, the blind child is placed in a position of being dependent on others for inclusion in daily activities. As a result, we find a direct correlation between the acquisition of independent travel skills and the development of self-confidence. As self-confidence increases, we find a marked increase in the degree to which blind children are accepted by their peers.

There presently exists a controversy in the orientation and mobility field concerning the age at which cane travel instruction should begin. The traditional practice is to introduce cane travel instruction in high school or mid-school and in rare cases in the upper elementary grades. It is felt that young children are not able to use the cane responsibly before this time.

Further, it is felt that young blind children are not developmentally ready to begin cane travel instruction due to the coordination required for handling the cane and the spatial concepts needed for orientation. The controversy hinges upon the meaning ascribed to the concept of "readiness" for using the cane. Those of us who believe that very young blind children should receive cane travel instruction pose the counterargument that the traditional method of orientation and mobility training is designed for adults and, therefore, it is the method of instruction which is deficient for encouraging early use of the cane rather than the child's maturational inability to use a cane effectively.

It is the method of instruction which is deficient for encouraging early use of the cane rather than the child's maturational inability to use a cane effectively. Certainly, very young children will not handle a cane in precisely the same manner as adults; however, this is not to say that the very young child uses the cane incorrectly or inappropriately.

The way in which cane travel instruction is taught to very young children differs in a number of ways from conventional travel training. The first modification concerns the type of cane to be used. For very young children it is necessary to have a cane which is lightweight, flexible and durable. We do not use metal canes of any type since they are heavy and become bent with significant use. The best cane we have found is manufactured and distributed by the National Federation of the Blind (1800 Johnson St., Baltimore, MD 21230, 301-659-9314). This cane is of the hollow fiberglass type and uses a metal glide tip. The hollow fiberglass makes for a lightweight, flexible cane, and the metal tip reduces the likelihood of catching the cane in tall grass or shrubbery. We believe that a child's cane should be longer than normally recommended. We measure a child's cane so that it comes up to his or her nose or higher. In this way, the child is provided a two- to three-step warning of upcoming objects, thereby allowing the child to move quickly and confidently.

Next, we modify the way in which cane travel instruction is introduced. The two-point touch technique in a formal sense is not practical for five-year-olds. However, the two-point touch technique remains the goal, and therefore early instruction must be structured with this goal in mind. For example, the two-point touch technique requires that the individual use a particular grip with the index finger extended along the shaft of the cane. The hand must be centered with the body, and the cane is to be moved from side to side in an arcing motion. The arc of the cane should ideally reach a height of one and a half

inches at its highest point. The width of the arc should be two inches to either side of the body. Finally, the cane tip should touch in opposition to the leading foot. That is, as the cane touches to the left, the right foot should be forward. Without a doubt, a five-year-old would be hard pressed to master all of these skills and coordinate them while walking. Nevertheless, it is well within the ability of a five-year-old or even three-year-old to master the fundamental concepts of cane travel and implement them to a developmentally appropriate level.

The initial objective is an awareness that the cane can detect objects in the environment. Since the cane is a natural extension of the arm and hand, few children have difficulty in understanding the usefulness of the cane as an exploration device. Next, the instructor will encourage the student to move the cane from side to side for the purpose of establishing a clear path. A centered hand position can be introduced at the same time. At this point, the instructor should not be concerned with the student's keeping in step. Similarly, it is not necessary for the student to have the index finger extended while gripping the cane. These refinements will come later. At this stage, the primary objective is to encourage the student to move independently, using the cane to find a clear path. In this way, children develop an awareness that the cane will allow them to move easily and without fear. Unlike conventional orientation and mobility training, from the time cane travel is introduced our students are required to use their canes at all times.

Our students are required to use their canes at all times This includes using the cane in familiar environments such as within the school building, in the cafeteria, and on the playground. Using the cane in familiar environments helps the child learn to interpret information received from the cane. If stairs or a familiar object can be anticipated, then the child will learn to use the cane to find these familiar landmarks. At this stage, attention to the width and height of the arc should be of the most general type. The teacher should resist focusing on technique in lieu of encouraging independent travel and exploration.

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It is very important for children not to become dependent on using memorized routes of travel. During orientation and mobility lessons children should be encouraged to make use of landmarks for orientation which are naturally

encountered by the child. Students should not be allowed to trail walls with their hands, count steps or slide their feet to find stairs. Furthermore, children should not be allowed to use protective arm techniques (particularly the upper hand and forearm technique), since it interferes with the child's ability to make use of auditory clues. In addition, children should not be allowed to square off with walls as a means of making ninety degree turns. Instead, children should be encouraged to use the cane to find landmarks which would naturally be encountered in the environment.

It is critical that children be encouraged as soon as possible to travel independently through wide open spaces. This will enhance development of the child's ability to orient him or herself by means of broad environmental clues. Our students use the cane on the playground and are able to find their way to the swings, slide, and other playground equipment. When necessary, students will ask directions of other children.

Similarly, all of our students are expected to function independently in the cafeteria. They are responsible for going through the line with the other children, using the cane, gently, to determine when the student ahead has moved forward. Our students carry their own trays, using the cane in either a diagonal technique or, for more experienced travelers, using the pencil grip. The pencil grip is a technique for holding the cane at a nearly vertical angle. As the name implies, the cane is held like a pencil using the thumb, index and middle fingers to move the cane from side to side. This technique leaves free the ring finger and little finger which can be used to hold one end of a tray with the free hand holding the other end. Our students find their own seats and are expected to bus their own trays after lunch. In short, we believe that children who are provided cane travel at an early age are able truly to mainstream themselves in all aspects of school life.

As time goes on, the orientation and mobility specialist begins to help the student refine his or her cane technique until it takes the form of the conventional two-point touch method. We have not encountered any of the difficulties which are generally presumed to occur with the introduction of cane travel at a very early age. The traditional thinking in the field is that giving a cane to a very young child will result in the child's developing bad habits which will need to be remediated later on. We have found this concern to be wholly vacuous and perplexing by its lack of understanding of child development. It would certainly be an exceptional two-year-old who would hold a crayon in the same manner as an adult holds a pencil. Nevertheless, it is

recognized that a young child's early scribbling is providing good practice in the development of the fine-motor skills which will eventually enable him or her to hold a pencil properly later on. To deny a child of early writing experiences so as to avoid the development of bad habits would be considered ludicrous and would be recognized as retarding the development of eye-hand coordination and other important skills. As previously stated, we do not expect young children to use the cane in the same manner as adults. We have found that as children grow, they become developmentally ready to master new aspects of efficient cane technique. In addition, there are many residual benefits to early introduction of the cane.

We find that children, if provided canes at an early age, develop the ability to orient themselves easily in complex environments, which frees them from the limitations of route travel. It appears that early exploration is the key to enabling young children to develop spatial concepts. Furthermore, we find that use of the cane greatly improves posture by eliminating the need for the student to shuffle his or her feet or walk with his or her hands extended. Finally, we find that use of the cane improves children's feelings of self-confidence and self-worth as they are able to participate independently in the school community.

Let me now address the issue of "pre-cane" techniques. The orientation and mobility profession has identified a number of pre-cane skills, including protective arm techniques, trailing walls, and use of sighted guides. We believe that these skills are rendered useless once cane travel has been introduced.

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Furthermore, they are a separate and less efficient travel system which is unrelated to eventual cane travel. Therefore, we do not consider them "pre-cane" skills since they do not provide developmental readiness for eventual cane use. For this reason, we are philosophically opposed to conventional pre-cane techniques since they promote unnatural and inefficient mobility.
In particular, we discourage the use of sighted guide procedures. It is our experience that the use of sighted guides places the blind student in a subordinate status which is damaging to the child's development of independence. When being led by a sighted guide, it is difficult to remain well-oriented since natural landmarks are not encountered. More importantly,

there is a tendency for the blind child to relinquish responsibility for his or her own orientation. In some instances, such as traveling through a crowded shopping center or sports stadium, the use of the sighted guide technique may be helpful in keeping track of a companion; however, at no time do we refer to the technique as "sighted guide," nor do we allow the child to give up responsibility for his or her own orientation.

To accomplish this end, we introduce crossing of major intersections, bus travel, and travel through large shopping centers in elementary school. We often have the children go in pairs with the more experienced traveler serving as a role model for children less experienced. In this way, the children learn how to rely on their own abilities to reason their way through new situations without significant intervention by the orientation and mobility specialist. Let me hasten to add that the process I have been describing is not limited to a select group of students with extraordinary ability. Our students include blind children with other conditions. For example, two of our students have been identified as having communication disorders. This would normally be assumed to cause great difficulty in understanding and following directions as well as conceptually understanding large open spaces. We also have a student with a hydrocephalic condition and a hearing loss in one ear, which makes localization of sound more difficult. Let me also add that the success of our students is not based on the degree of residual vision. Students with any vision (including light perception) wear ocular occluders (sleep shades) during all orientation and mobility lessons. In this way, the children genuinely develop the ability to rely on the cane as well as landmarks and auditory clues. Properly developed, these skills will enable the child with residual vision to function easily and confidently in situations where glare or other physical conditions make his or her vision unusable.

The benefits we have observed from the early introduction of cane travel have been greatly encouraging. Children benefit individually through increased confidence and self-esteem, as well as benefiting socially by being able to participate on an equal footing with their peers. For these reasons, we remain firmly committed to early cane travel instruction from both a philosophical and practical standpoint. As educators, there is no greater gift we can give a child than the skills to take charge of his or her own life and take a step toward equality.