

Deaf-Blind Perspectives

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Collaboration Achieves Travel Success (Project CATS)

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South winds blow through Wyatt, Kansas, a sleepy border town. The air is hot and filled with the sweet scent of cattle grazing on the range. Wyatt is one of those places that have only one stop light and two main streets. Everyone in town knows each other, and everyone knows the rules. Wait for your neighbor to cross the road. Always stop at the blinking red light. Always tip your hat to those who pass by, even though they may be strangers.

It is not uncommon to find students from Wagoner County Middle School walking to the local five and dime after school. They gather around the soda fountain, counting their change for ice cream floats or malted milks. Among the students is Alonso Cardenas, a 14-year-old student who is deaf-blind. "Next!" shouts the waitress behind the counter. Alonso promptly uses his Easy Speak™ and with the press of a button, a digitized male voice delivers Alonso's message, "I would like a root beer float please." "That will be 95 cents, Alonso," the waitress responds.

After finishing his root beer float, Alonso walks down the sidewalk of Main Street to a corner with a red flashing light. He enters the crosswalk without checking for oncoming cars and wanders crosswise to get to the other side of the street. Observing this, Clyde, the only police officer in town, stops him. "Do you need a ride to your house?" Officer Clyde asks Alonso in a rather forlorn voice. Alonso nods his head yes and gets into Officer Clyde's car with a big grin on his face. Alonso loves to ride in cars, especially police cars. This was not the first time Officer Clyde has had to watch out for Alonso. "Why don't they teach him how to cross the street in school?" he thought to himself. "I am getting tired of watching out for this kid and so is everyone else around here."

At the time of this example, Alonso had received only one orientation and mobility (O & M) evaluation since beginning elementary school. Nationally, there is a documented shortage of certified orientation and mobility specialists (COMS), who teach children and adults with visual impairments and blindness, and an even greater shortage of those who teach people who are deaf-blind (Bailey & Head, 1993; Gense & Gense, 2000; Lolli & Sauerburger, 1997).

A survey of four states—Indiana, Kansas, Kentucky, and Tennessee—conducted in 1999 and 2004 found that very few students with deaf-blindness receive O & M instruction. The 1999 survey indicated that among four of the five states participating in Project CATS, the estimated number of students receiving O & M services in schools ranged from 3 to 12. By 2004, the number of students receiving O & M services ranged from 2 to 19.

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Project CATS

Project CATS was created to address the need for orientation and mobility instruction. Project participants developed a model that educational teams can use to design travel and familiarization plans for deaf-blind students, including those with multiple disabilities. The terms “travel” and “familiarization” are used instead of the terms “mobility” and “orientation” to describe this process for students who do not have a COMS on their team. Project CATS is not meant to be a substitute for O & M services, but rather it serves as a supplemental information source for teams that do not have immediate access to a certified O & M instructor.

The project was supported in part by a four-year (1999–2003) matchmaker grant from the U.S. Department of Education and involved the participation of five state deaf-blind projects: Indiana, Illinois, Kansas, Kentucky, and Tennessee. Together they developed a Web-based interactive media package as well as other materials that support the Project CATS model. Project representatives in each of the five states worked with one or two educational teams during the pilot phase of the project.

Project CATS is based on the assumption that collaborative teams can make travel and familiarization decisions for their students that are effective, efficient, and safe. Key principles of the model are:

- ◆ using a collaborative team approach for decision-making and planning;
- ◆ emphasizing the teaching of skills that students need to become familiar with their environments and to travel safely;
- ◆ teaching skills within the context of everyday situations at home, school, work, and in the community.

The model consists of 10 phases that guide teams through the process of reviewing a student’s current travel opportunities, identifying activities and travel routes where the student needs instruction or support, selecting a goal, creating a plan to meet that goal, and assessing the student’s progress. Teams may choose to follow all 10 phases in a sequence, or they may choose just the phases that they need. The following is a brief description of each phase. The entire process, including all of the necessary instructions, forms, and detailed examples accompanied by video clips, is available on the Project CATS Web site: <http://www.indstate.edu/soe/blumberg/Deafblind.html>.

Phase 1: Assemble the team.

Finding answers to travel- and movement-related questions is best done by a team. Since issues surrounding mobility are often complicated, each member of the team, including family members who know the individual best, has expertise and advice to share that will ensure student success.

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Phase 2: Review current settings and activities favorable to travel.

During this phase the team members review the environmental settings and activities in which the student participates and determine where travel routes or mobility patterns can be developed or improved. If possible at this stage, they select an activity on which to focus.

Phase 3: Explore environments and select travel situations.

Some degree of travel or movement occurs in most environments and during most activities. In Phase 3, team members gather additional information about where the student currently travels or may be able to travel in the course of his daily activities.

Phase 4: Brainstorm all possible ways to move to, from, or through an activity.

This phase involves reviewing the movements required by a particular route or activity and then listing all of the possible ways that the student could perform and complete the activity.

Phase 5: Travel option comparison and selection.

During this phase, the team selects the most appropriate option for the student. Then, as a group, they reevaluate the selected option, making a list of any possible risks, issues, or concerns not previously addressed or still considered problematic by one or more team members. They may consider bringing in additional team members to help. For example, a team might determine that an orientation and mobility specialist must be consulted to check a traffic-related or other safety concern, or they may discuss with a physical therapist the risks involved for a student climbing a set of stairs.

Phase 6: List the specific steps of the selected option.

Once the team has selected a specific activity, it lists the sequence of steps required to perform the activity. This is called a task analysis, and it involves writing down the sequence of steps that a nondisabled peer would perform to complete the same activity.

Phase 7: Complete the discrepancy analysis.

Once the task analysis for the nondisabled peer has been completed, the team identifies any steps in the activity that the deaf-blind student is unable to complete. This is called a discrepancy analysis, and it involves watching the deaf-blind student

perform the same activity as the nondisabled peer and then identifying those steps that the deaf-blind student is able to perform independently and those that he cannot perform independently.

Phase 8: Determine supports to address discrepant steps.

During this phase, team members consider the types of skill instruction, support, and adaptations that will enable the student to complete the steps he was unable to perform independently.

Phase 9: Develop a travel plan.

Once the team has decided what the student must do to complete discrepant steps, team members put the entire activity sequence into a travel plan that outlines specific objectives, measures for determining progress, and how frequently the data will be collected and reviewed.

Phase 10: Implement the travel plan and assess progress.

The team needs to determine how well the travel plan is working by judging both the progress of the student—ability to learn skills, use adaptations, and understand his responsibilities—and the appropriateness of any supports that have been provided.

Using the Project CATS Process for Alonso

Alonso's educational team was one of the first to use the Project CATS model. Because they participated in the project's pilot phase, they received assistance during the process from two Project CATS facilitators—Joan Houghton, the Kansas Deaf-Blind Project Director at that time and a COMS, and Donna Wickham, the Project CATS Kansas State Team Facilitator. Their role was to answer questions, troubleshoot technology, and provide technical assistance based on the team's needs.

Alonso's team had already been working together for more than eight years. His team consists of general education teachers, a teacher of the hearing impaired, a teacher of the visually impaired, a special education consultant, Alonso's parents, his paraeducator (who is his job coach), and Alonso. The first time that the team met to discuss Project CATS, they conducted a family interview to determine what Alonso's parents thought was most important and how they would like to see him participate in the community.

Through a translator, they were asked what they would like Alonso to learn and they answered, "Para cruzar la calle y caminar mientras que mira donde él va (to cross the street and to walk while looking where he is going)." Señora Cardenas was very concerned about her son's safety. She said cautiously, "Me preocupo de él que no mira donde él está camina (I worry about him not watching where he is walking)." Based on the Cardenas's concerns and those of other community members such as Officer Clyde, Alonso's team decided that their main goal would be to teach Alonso how to cross the street safely.

Using the Project CATS process, Alonso's team developed an approach to achieve this goal. They chose to focus on the issue that seemed to cause the most problems for Alonso, the community, and his family—his inability to cross the street safely at the lighted intersection. They identified the steps he needed help with and responded by providing adaptations and targeting particular skills for instruction. For example, they realized that Alonso could enhance his residual vision if he wore tinted NoIR™ glasses to protect his eyes from the sun and to highlight environmental features when he traveled outdoors. They also decided that Alonso should use an identification cane for his safety when crossing an intersection. An identification cane alerts drivers that there is someone in the road who has reduced vision. It would serve as a signal to oncoming motorists to stop when Alonso entered an intersection. Several practice sessions were conducted with Joan, Donna, and Alonso's team members to ensure that Alonso used the identification cane correctly.

The Project CATS process worked very well for Alonso and his team. The final test of his ability was when Joan drove a car near the intersection that Alonso had already begun to cross. Under the watchful eye of his team members and Donna, Alonso, with his head up, cane extended, and his



Alonso crossing the street while using his cane

free arm stretched in the direction of the car to indicate "stop," did not miss a beat crossing the street to the other side. With a grin that stretched from ear to ear, Alonso said to himself, "Wow! I can stop traffic!"

Unbeknownst to the team, Señora Cardenas was driving down the opposite side of the street while the final test was taking place. She watched with amazement. Alonso was actually looking while he was crossing the street with his cane. During the debriefing meeting after the session, Señora Cardenas, with tears in her eyes, credited Alonso's accomplishment to *el bastón mágico* (the magic cane).

Through the collaborative efforts of his team and consistent application of the instructional strategies in the Project CATS model, Alonso gained the confidence and skill he needed to safely and independently travel in the community. Now the Cardenas family no longer worries about Alonso walking to and from school, his job site, or home, and Officer Clyde no longer has to watch out for Alonso's safety.

References

- Bailey, B. R., & Head, D. N. (1993). Providing O&M services to children and youth with severe multiple disabilities. *RE:view* 25(2), 57–66.
- Gense, D. J., & Gense, M. (2000). *The importance of orientation and mobility skills for students who are deaf-blind*. Monmouth, OR: DB-LINK.
- Lolli, D., & Sauerburger, D. (1997). Learners with visual and hearing impairments. In B. B. Blasch, W. R. Wiener, & R. L. Welsh (Eds.), *Foundations of orientation and mobility*, 2nd ed., pp. 513–529. New York: AFB Press.

Project CATS was supported in part by the Collaboration for Achieving Travel Success Matchmaker Project, U. S. Department of Education, CFDA84.326C, and the Blumberg Center for Interdisciplinary Studies in Special Education, Indiana State University, the Kansas State Department of Education, the University of Kentucky, the Philip J. Rock Center, and Peabody College at Vanderbilt University. The opinions expressed herein do not necessarily reflect those of the U. S. Department of Education, and no official endorsement should be inferred.

Understanding Balance Problems in Children with CHARGE Syndrome

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Balance problems are common in children with CHARGE Syndrome. The vestibular system—located within the inner ear—is responsible for equilibrium, and in children with CHARGE, the vestibular organs are often damaged or missing. This creates problems not only with balance, but with the attainment of gross and fine motor skills, the coordination of eye movements, and possibly overall development and learning. Attention to identifying vestibular dysfunction and working with children to help them compensate for any difficulties is essential beginning early in life. Vestibular (or balance) function has important roles in:

- ◆ detecting and responding to the earth's gravitational pull;
- ◆ detecting motion;
- ◆ having awareness of position in space and security in moving against gravity;
- ◆ providing stability during body movement;
- ◆ influencing muscle tone and posture;
- ◆ coordinating movement of both sides of the body (necessary for reciprocal activities such as skipping);
- ◆ learning to plan and carry out a sequence of movements in proper order;
- ◆ perceiving auditory and visual stimulation;
- ◆ reacting to the environment without becoming overstimulated (appropriate levels of alertness or calmness depend on the capacity to ignore irrelevant stimulation and to attend to relevant input).

Children with CHARGE Syndrome begin life with severe multisystem disorders, multiple illnesses, prolonged hospitalization, frequent surgery and anesthesia, and multisensory impairments. The medical and surgical aspects of care appropriately demand priority in the first few months. However, much brain development de-

pends on sensory input, especially in infancy. Early evaluation of all sensory systems, including the vestibular sense, is necessary so that interventions are provided to ensure optimal sensory stimulation at the most critical times. All senses are needed for optimal and efficient development and function.

Early Warning Signs

A recent study (Hartshorne, Grialou, & Parker, in press) found that 80% of children with CHARGE have difficulties with balance and 99% have gross motor delays. Most learn to walk between 18 months of age and 5 years, with an average around age 3. The warning signs of vestibular dysfunction in young children are:

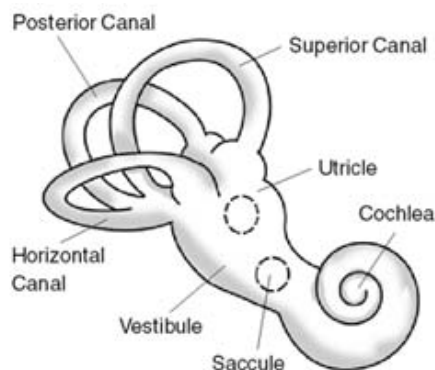
- ◆ poor head control;
- ◆ slow hand placing;
- ◆ resistance to position changes;
- ◆ delay in fine and gross motor skills;
- ◆ appearing clumsy, almost as if walking in the dark;
- ◆ discomfort in upright and sitting positions;
- ◆ a tendency to fall;
- ◆ odd body postures.

Children may demonstrate both hyperresponsive and underresponsive vestibular function at different times. Children with a hyperresponsive vestibular system become overwhelmed by movement and have a strong fear of falling. They do not enjoy playground equipment, avoid rough play, are anxious when their feet leave the ground, and dislike being upside-down. They are slow to learn skills like climbing stairs and rely on a railing for long periods of time. These children enjoy movement that they themselves initiate but do not like movement by others, particularly if it is unexpected. They dislike new activities and they have difficulty learning them.

Children with an underresponsive vestibular system crave movement and do not feel dizzy. They like to climb to high, precarious places and have no sense of limit or control. They are in constant movement, enjoy rocking or running, and like to swing very high and for long periods of time. They enjoy getting into the upside-down position.

Anatomy and Function of the Vestibular System

The inner ear consists of the cochlea and vestibule and is located in the hard and dense part of the temporal bone of the skull. The cochlea is the organ of hearing, and the vestibule is responsible for balance or equilibrium. The vestibular system consists of five distinct organs: three semicircular canals (SCCs) and two otolith organs, the utricle



Anatomy of the inner ear

and the saccule. In combination, these organs help us to monitor and compensate for two different kinds of motion—rotational and linear.

The SCCs, are connected to the utricle at right angles to each other, an arrangement that allows them to accurately detect head rotation. The three SCCs are called anterior (superior), posterior (inferior), and lateral (horizontal). They play a major role in vision by keeping the eyes steady when the head moves. The vestibulo-ocular reflex (VOR) is the system that detects rotations of the head and counter-rotates the eyes in the opposite direction to stabilize the line of sight. To illustrate, move your head while reading this line. Your eyes should be able to stay focused on the words. Without SCCs, this would be extremely difficult.

The otolith organs detect linear motion (along a line). The utricle monitors motion in the horizontal plane (back and forth, like riding in a car and knowing that you are going forward or backward), and the saccule detects motion in the vertical plane (up and down, like taking an elevator and noticing that you are moving up or down). Static equilibrium refers to orientation of the body (mainly the head) relative to the ground. Specialized sensory receptors called the maculae are located in the utricle and saccule and are responsible for static equilibrium. They provide sensory information about head position in space and maintain posture as we stand or sit. If you

start to tilt, they will automatically compensate by helping you to adjust back to upright.

The basic mechanism for detecting motion in the vestibular organs is hair cells that are covered by a gelatinous material. When the head is turned or the body moves, the gelatinous mass flows over the hairs and bends them. The movement of the hairs stimulates the sensory neurons and transmits nerve impulses to the brainstem.

In addition to a properly functioning vestibular system, the integration and maintenance of equilibrium requires input from the eyes (vision), the cerebral cortex of the brain (consciousness and alertness), muscles and joints (proprioception), cochlea (hearing), and the tactile sense (touch). All of these may be affected by CHARGE Syndrome.

Assessment of Vestibular Dysfunction

Vestibular function may be assessed at any age with assessments that are adapted for age and development. However, the most detailed and accurate assessment is best attained in an appropriately equipped and staffed neuro-otologic laboratory after the age of 6 years.

Clinical Tests

A variety of clinical tests are available for the assessment of vestibular dysfunction. In a clinical evaluation, a physician will assess the following:

- ◆ Delay in developmental milestones, not in itself an indication of vestibular dysfunction, but an expected outcome of vestibular dysfunction;
- ◆ Eye wobble (nystagmus) at rest as the eye tries to stay focused on an object or scene;
- ◆ Worsening of nystagmus with sudden head movement;
- ◆ Gait and stance disturbance when walking in line, veering to one side, heel to toe walking, standing on one leg, hopping in a circle, standing on a tilt board or foam rubber, or marching (all these maneuvers are worsened by eye closure).

Other clinical tests include formal testing of physical ability and sensory function with instruments such as the *Sensory Integration and Praxis Tests* by A. Jean Ayres (1989) and neuro-otological testing. Neuro-otological tests are performed in a laboratory with special equipment.

Imaging Tests

Computerized axial tomography (CAT) is used to evaluate the structure of the inner ear. In children with CHARGE the semicircular canals are usually absent or poorly developed. Abnormalities of the utricle, saccule, cochlea, and ossicles (small bones within the inner ear) are also possible. Magnetic resonance imaging (MRI) of the inner ear has the same diagnostic ability as CAT but is more expensive.

Activities to Enhance Vestibular Function

Attention to vestibular dysfunction should be a part of the developmental and educational programs of all children with CHARGE Syndrome, and the support of an occupational therapist and physical therapist is essential. Because loss of the vestibular sense can affect visual, proprioceptive, tactile, and potentially other senses, sensory integration of multiple systems is problematic. Enhancement of vestibular function will be assisted by the following:

- ◆ When positioning young babies, move slowly and securely from one position to the next.
- ◆ When positioning a child in a chair, make sure that the child's torso is stabilized so that the hands are free for play and touch activities.
- ◆ Allow children to be actively involved in their own movement. For example, letting children push themselves on scooters or letting them signal when to stop or start a motion such as swinging allows them to more actively control their own movements. For the vestibular mechanism to be adaptive, movement should be provided in all planes and in all directions, and the type of movement should be varied.
- ◆ Provide stimulation only in the context of a child's developmental needs. Choose activities that are suitable for the child's level of maturity and can compensate for any sensory deficits.
- ◆ Select activities that provide ocular input, such as switching on the lights for a tunnel activity or attaching a flashlight to a scooter bike. This will provide visual stimulation.

- ◆ Remember that vestibular dysfunction can affect ocular coordination. This, in combination with coloboma (a fissure of the eye), can result in significant visual impairment, even with good acuity.
- ◆ Enhance proprioceptive input through the use of weighted objects, firm pressure to joints, movement against gravity, traction, and resistive activities. For example, play activities might include using a trampoline, playing tug-of-war, and catching weighted balls or bean bags. Some children enjoy weighted vests or blankets.

There are also many things that parents can do on an ongoing basis to help enhance a child's vestibular function. Maximize your child's visual, auditory, and communication input. All of the senses need to be developed to help a child learn to compensate for the lack of a healthy vestibular sense. A total communication approach is helpful to stimulate as many sensory channels as possible. The use of body and finger signs can provide extra stimulation.

Assess your child's preference for light or firm touch. This preference may change over time, or at various times, and many children with sensory impairments are tactilely defensive and find touch difficult to tolerate. Tactile stimulation is important, and so engaging in touch, in line with the child's preference, is important. Minimize sensory experiences that are overstimulating. Loud noises, for example, can startle and upset the balance of a child with vestibular problems. They need to be able to concentrate to maintain their balance.

Be alert to safety needs. At home, provide handrails and smooth walking surfaces and eliminate steps where possible. Supervise bathing, swimming, skating, and other activities. Consider the need for a helmet and knee or ankle pads during sports and activities. Keep training wheels on bicycles until competence is achieved. Have your child wear goggles when swimming, and be careful about diving. Avoid dangerous sports such as surfing.

References

- Ayres, A. J. (1989). *Sensory integration and praxis tests*. Los Angeles: Western Psychological Services.
- Hartshorne, T. S., Grialou, T. L., & Parker, K. R. (in press). Autistic-like Behavior in CHARGE Syndrome. *American Journal of Medical Genetics*.



DVD/Video Review: We Have Contact!

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Imagine my surprise when I was asked to review a new DVD from Australia while preparing a presentation for an upcoming international trip to train teachers to work with children with multiple disabilities, including deaf-blindness. It was like hitting the jackpot before going on a shopping spree. The DVD (also available in video format) is called *We Have Contact!* It was developed in Western Australia and is quite a gem of a training tool. It has a friendly yet professional style, with clear concise language explaining the principle of establishing a personalized communication system rather than using a standardized communication approach when communicating with deaf-blind people. The video footage introduces a variety of types of learners and their communication styles. The underlying theme is respect for the individual and meeting a child where he or she is.

Many of the principles I was planning to discuss with the teachers were beautifully demonstrated in the video including identifying yourself in a consistent way to a child who is deaf-blind, the importance of recognizing that all behavior is communication, using touch cues to let the child know that you are in his space, following the child's lead, and waiting for the child to process information before moving on to the next topic of conversation. All of these principles are based on taking advantage of everyday life experiences to communicate with the child about the world around him. Additionally, there is some nice video footage of an older deaf-blind man that shows how to incorporate the same principles of respect, use of touch or object cues, and following the person's lead. For further information, contact Deafblind Specialist Services, Senses Foundation, Inc., 134 Whatley Crescent, PO Box 14, Maylands, Western Australia 6931. E-mail: db@senses.asn.au. Web: <http://www.senses.asn.au>. You will be pleased that you added this resource to your training toolbox.



Research Update

"Research Update" is a regularly recurring feature consisting of announcements related to research in deaf-blindness. Researchers and other interested individuals or agencies may use this column to share information about new, ongoing, or recently completed research projects and new publications. If you have information about a research topic that you would like to include, contact:

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Research Project Update: Promoting Communication Outcomes through Adapted Prelinguistic Milieu Teaching for Children Who Are Deaf-Blind

Submitted by Nancy Brady and Joan Houghton, University of Kansas

History. Communication is a primary concern for children who are deaf-blind. A number of different intervention approaches have been tried in recent years, in an effort to address communication difficulties between children with deaf-blindness and their communication partners. However, a substantial need exists for research demonstrating which strategies work best. One of the greatest needs is for research-based approaches for children whose communication abilities are at a prelinguistic level (before the development of language). At present, the most well-researched strategy for promoting prelinguistic communication is Prelinguistic Milieu Teaching (PMT). This strategy focuses on increasing a child's rate and variety of prelinguistic communication, including conventional gestures and vocalizations. In the PMT model, children are taught to communicate within motivating, naturalistic routines, and their primary communication partners are taught to respond to their communicative attempts in appropriate ways. Prelinguistic Milieu Teaching has proven effective for increasing prelinguistic communication skills and has been associated with improved language outcomes for children who have significantly delayed language associated with cognitive disabilities. This set of teaching strategies has not, however, been implemented with children who are deaf-blind.

Purpose. The purpose of this current research project is to study the effects of adapted PMT strategies with 12 students in the northeast Kansas area. The intervention will also be replicated in Wichita and Indiana. Researchers from the University of Kansas and Indiana State University have developed an assessment protocol to measure the communicative behaviors of young children who are participants in the study using *Dimensions of Communication* (Mar & Sall, 1999) as a framework. The assessment framework consists of (1) family interviews; (2) videotaped observations of the child during unstructured activities, structured instructional activities, and meal time (at least one of these activities needs to be with peers); (3) vision, hearing, and cognitive records; (4) 10 structured assessment activities designed to provide children opportunities to request and to comment; and (5) the *Promoting Communication Outcomes (PCO) Environmental Checklist*, a tool developed by the project investigators for this study. This assessment protocol will be used to measure communication development during baseline and pre- and post-intervention phases.

Current Status. Over 12 participants between the ages of three and seven years are participating in the study. Currently, baseline data are being collected on children from the greater Kansas City area, Topeka, and Lawrence. A coding manual of intentional communicative behaviors is being developed. Coding of the videotapes will be conducted within the next two months. The results of the assessments and data coding will determine participant eligibility. At the end of the six-month baseline period, assessment data will be collected to determine any communication development. If the participants continue to qualify, they will be divided into groups of three. Each group will participate in structured intervention activities one hour per day, four days a week. Additional participants will be identified from Wichita and from Indianapolis and Evansville, Indiana, during the third year of the project.

Project Investigators. Life Span Institute of the University of Kansas (Nancy Brady, Ph.D., Susan Bashinski, Ph.D., and Joan Houghton, Ed.D.) and The Blumberg Center for Interdisciplinary Studies in Special Education, Indiana State University (Karen Goehl, M.S.).

References

Mar, H. H., & Sall, N. (1999). *Dimensions of Communication*. New York: Published by the authors.

SKI-HI Receives Grant for Training Paraprofessionals

Submitted by Gail Leslie, DB-LINK

The use of paraprofessionals for children who are deaf-blind is a practice that has increased substantially over the past 10 years. In recent years, state deaf-blind projects have worked to provide training to paraprofessionals on an in-service basis, but there has been growing recognition of the need for paraprofessional competencies and a standardized training curriculum. A new project, the Consortium for National Paraprofessional Training in Deafblindness, at SKI-HI Institute is the first project to address training and competency issues on a national level.

The project, funded by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE), will develop a three-course curriculum for paraprofessionals who work with students who are deaf-blind in K-12 programs, including those who have multiple disabilities. The new curriculum will be developed by a consortium that includes professionals in the field of deaf-blindness, state deaf-blind projects, four academic institutions, DB-LINK, the Community of Practice Focusing on Interveners and Paraprofessionals, and the National Paraprofessional Consortium. The curriculum will then be made available via distance education through community colleges and two-year programs. During the first phase of implementation, the project curriculum will be integrated into preservice programs at institutions in four states: Salt Lake City Community College (UT); Mount Wachusett Community College (MA); South Plains Community College (TX); and the University of Arkansas-Little Rock (AR). The consortium will continue to work collaboratively to ensure the replication of the training beyond the grant cycle. The grant began October 1, 2004, and is funded for three years. For additional information, contact: Linda Alsop, SKI-HI Institute, Utah State University, Logan, UT 84322. Phone: 435-797-5598 E-mail: lalsop@cc.usu.edu.





For Your Library

DB-LINK Web Site

<http://www.dblink.org>

The DB-LINK Web site has been updated. The site contains a wealth of information about deaf-blindness including full text information arranged by topic, access to DB-LINK's products and publications database, and contact information for local, state, and national resources. As always, DB-LINK's services are also available by phone at 800-438-9376 (800-854-7013 TTY) and e-mail (dblink@tr.wou.edu).

American Sign Language Online Video Library

<http://www.needsoutreach.org/Pages/sl.html>

These online video clips present American Sign Language (ASL) signs that can be used in academic classes for students in elementary grades through high school. Categories of signs include biology, countries, geography, government, mathematics, and history. Signs for auto mechanics and physics are being developed. This resource was developed by Needs Outreach in San Diego.

Computer Tutorials for Deaf-Blind Individuals

Iowa Department for the Blind

The Iowa Department for the Blind received a grant from the National Institute on Disability and Rehabilitation Research (NIDRR) to create 45 computer training tutorials for deaf-blind individuals. The first two tutorials are now available: 1) Microsoft Windows XP with JAWS 4.51 and the ALVA Satellite 570 Tutorial for Beginners; and 2) Microsoft Windows XP with JAWS 4.51 and the Focus 84 tutorial for Beginners. For more information contact Project ASSIST With Windows, Iowa Department for the Blind, 524 Fourth Street, Des Moines, IA 50309-2364. E-mail: ASSIST@blind.state.ia.us or walker.brian@blind.state.ia.us. Phone: 515-281-1317. <http://www.blind.state.ia.us/assist/deafblind-tutorials.htm>

Perkins Activity and Resource Guide: A Handbook for Teachers and Parents of Students with Visual and Multiple Disabilities (2nd Edition)

Perkins School for the Blind, 2004

This revised and updated edition provides practical information for those who teach and care for chil-

dren with visual and multiple disabilities. This book promotes a functional, child-centered approach to learning by addressing the basic principles of teaching children with multiple disabilities. In addition, it provides sequential checklists and a variety of lesson plans in major areas of instruction. Phone: 877-473-7546. E-mail: publications@perkins.org. Web: <http://www.perkinspublications.org>.

First Things First: Early Communication for the Pre-Symbolic Child with Severe Disabilities

Charity Rowland & Philip Schweigert. Oregon Health & Science University, 2004.

This book describes instructional strategies for teaching early communication skills to children with severe disabilities who are not yet ready to use symbols to communicate. It provides strategies for teaching children how to use pre-symbolic behaviors such as gestures, facial expressions, vocalizations, and switches to gain attention, to request more, and to communicate choices. Available from OHSU Design to Learn Products: Phone: 888-909-4030, ext. 108. E-mail: design@ohsu.edu. Web site: <http://www.designtolearn.com>.



Conferences and Training Opportunities

Congenital Rubella Syndrome: 40 Years after the Epidemic

March 14-16, 2005, Sands Point, NY

At this international symposium sponsored by the Helen Keller National Center, invited guests and speakers from around the world will discuss the current status of congenital rubella syndrome (CRS), including the history of CRS, late onset manifestations, CRS around the world, immunization efforts, and research. Contact: Nancy O'Donnell. Phone: 516-944-8900, ext. 326. E-mail: hkncnod@aol.com.

Communication Strategies for Children with Deaf-Blindness and/or Multiple Disabilities Oklahoma Department of Human Services Governor's Conference on Developmental Disabilities *April 4-5 2005, Tulsa, Oklahoma*

This presentation will be part of the Governor's Conference on Developmental Disabilities. Participants will learn how to encourage communication and select specific communication modes to fit the individual needs and abilities of children with multiple disabilities. Contact: Oklahoma Developmental Disabilities Council.

Phone: 800-836-4470. E-mail: OPCDD@aol.com.
Web: <http://www.okdhs.org/ddsd>.

8th Helen Keller World Conference and World Federation of the Deafblind 2nd General Assembly
June 3–7, 2005, Tampere, Finland

The theme of the conference is "Our Right to be Deafblind with Full Participation in Society." E-mail: contact@helenkeller2005.com.
Web: <http://www.helenkeller2005.com>.

7th International CHARGE Syndrome Conference
July 22–24, 2005, Miami, Florida

Contact the CHARGE Syndrome Foundation for more information or if you would like to help with conference planning. Phone: 800-442-7604. E-mail: conference@chargesyndrome.org.
Web: <http://www.chargesyndrome.org>.

Helen Keller National Center National Training Team 2005 Seminar Calendar

May 15–20	Orientation & Mobility Techniques for Deaf-Blind Travelers
Aug 20–23	Interpreting Techniques for the Deaf-Blind Population
September 12–16	Enhancing Services for Older Adults with Vision & Hearing Loss
October 17–21	Transformation: Person-Centered Approach to Habilitation
November 14–18	Expanding the Arena: The Magic of Technology

Contact: Doris Plansker. Phone: 516-944-8900, Ext. 233. TTY: 516-944-8637. E-mail: ntthknc@aol.com.
Web: <http://www.hknc.org>.



Announcements

Dr. Jeffrey Bohrman Inducted into National Hall of Fame for Persons with Disabilities

Dr. Jeffrey Bohrman was inducted into the National Hall of Fame for Persons with Disabilities at a recognition ceremony on November 6, 2004. Dr. Bohrman is deaf-blind due to Usher Syndrome. He is nationally recognized as a leader in the field of deaf-blindness and is the Director of the Ohio Deaf-Blind Outreach Program at the Columbus Speech and Hearing Center in Columbus, Ohio. He has received a number of honors and awards for his educational accomplishments and for his work to help people with disabilities gain increased quality of life and independence. He served for many years on the board of the American Association of the Deaf-Blind and

is currently a board member for the World Federation of the Deaf-Blind and the National Technical Assistance Consortium for Children and Young Adults Who Are Deaf-Blind. Dr. Bohrman began his career as a scientist. He has a Ph.D. in Pharmacology and worked for ten years as a research toxicologist at the National Institute for Occupational Safety and Health.

Up to five individuals are inducted into the Hall of Fame each year at the recognition ceremony. Eligible candidates include persons with a physical or mental disability that presents a challenge to their ability to function in everyday activities. Consideration is given to an individual who has a significant disability; is a high achiever in overcoming obstacles, handicaps, or limitations imposed by a disability; is a high achiever in a vocational or professional area; is a significant contributor or benefactor to humanity; is nationally recognized for his or her accomplishments; and is a recipient of previous honors, awards, or recognitions. Previous winners have included Helen Keller, Robert Smithdas, Franklin D. Roosevelt, and James Brady.

Call for Papers (Getting in Touch with Literacy Conference)

The Getting in Touch with Literacy Conference, dedicated to the literacy needs of individuals of all ages with visual impairments and deaf-blindness, will be held in Denver, Colorado on December 1-3, 2005. Proposals for concurrent or poster sessions should address an aspect of the conference theme, Living Literacy, which reflects the role of literacy in all facets of life. Proposals are due by February 21, 2005. For more information, go to <http://www.gettingintouchwithliteracy.org>.

Los Angeles Area Support Group for Deaf-Blind Persons

M.G. and Sanjay Shah are interested in forming a support group for deaf-blind adults in the LA area. If you would like to join or need more information, contact: Mr. M.G. Shah, 1750 Deerwood Drive, Fullerton, CA 92833-4810. Phone: 714-879-1840 (Voice/TTY). E-mail: sanjaymshah@msn.com.

You are welcome to copy articles from *Deaf-Blind Perspectives*. Please provide the appropriate citations.

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