SEE/HEAR

A QUARTERLY NEWSLETTER ADOUT VISUAL IMPAIRMENTS AND DEAFDLINDINGS FOR FAMILIES AND PROFESSIONAL

A collaborative effort of the Texas School for the Blind and Visually Impaired and Texas Commission for the Blind

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To Begin With...

we would like to mention the 2003 Texas Symposium on Deafblindness that took place February, 7-8 in Austin. It was a learning and networking experience for over 400 family members and professionals who have an interest in deafblindness. It is always a pleasure to be surrounded by that community of people. Those who contributed to the success of the symposium are too numerous to mention, but we would like to acknowledge those who were selected by a committee of their peers to receive awards at this year's luncheon. In recognition of outstanding contributions by a family member, Norman McCallum of Dallas received the Trailblazer Award. Recognized with the Intervener Award was Mercedes Brown of Killeen. Peggy Tarver, of TSD in Austin, was recognized for Excellence in Education. The Ann Silverrain Award, for a significant and long-term commitment to Texans who deafblind, was presented to Gay Bellamy of San Antonio.

As for *SEE/HEAR*, in the Winter edition we regrettably omitted a portion of the article, "Brothers & Sisters: Strategies for Supporting Siblings of Children who are Deaf-Blind." We apologize to our readers and California Deaf-Blind Services for the error. The web version of the Winter *SEE/HEAR* has been revised to include the complete article. You may access it at http://www.tsbvi.edu/Outreach/seehear/winter03/index.htm. We think we have some good articles for you this time. Hopefully they are all 100% here!

Mountains to Climb: Blind Dillon Teen Conquers Baldy Mountain

by Maryanne Davis Silve and Marty Greiser

Reprinted with permission from *Future Reflections*, the National Federation of the Blind Magazine for Parents and Teachers of Blind Children, Summer/Fall 2002.

(Originally published in the *Montana Standard*, Tuesday, January 8, 2002.)

Future Reflections Editor's Note: Cody was just a baby when his father, Marty Greiser, joined the National Federation of the Blind (NFB). Today, as a Vice-President in the National Organization of Parents of Blind Children, Marty is respected by parents nationwide for his consistent, and thoughtful application of a positive philosophy about blindness in his relationship with his son. Here is Marty's account of a climb he and his son, Cody, recently completed together:

Some of us climb hills and think they are mountains. Others climb mountains and consider them molehills. Fifteen-year-old Cody Greiser is a mountain climber, but says, "What is so special about me climbing a mountain?" Cody is blind.

"Even before Erik Weihenmayer, the first blind man to climb to the top of Mount Everest, was in the news, my then 12-year-old son, Cody, was talking about climbing mountains," remembers Cody's father, Marty Greiser. "He was asking if there were mountains nearby, what were their names, and which ones could be climbed and when could we do it? In western Montana where we live, a mountain is always nearby and they can all be climbed, weather permitting."

So why was Marty reluctant to take his son mountain climbing? After all, he has been to the top of many a mountain in the area over the years and thoroughly enjoys hiking and climbing in the mountains.

"I know what it takes to prepare and I am aware of the risks and hazards involved, some of which can be very serious, Marty said. "As I considered taking Cody up a mountain, worrisome thoughts pounded my mind. What if something happened? What would his grandparents think, or his mother? What would the neighbors say? I had visions of it.

"That careless, reckless father, what was he thinking? Doesn't he know better than to take a blind kid mountain climbing? That's just asking for trouble."

But Cody had been raised with a "can do" philosophy, Marty said. "Plus, I had always preached that the broad umbrella of overprotectivism has bad consequences. I knew this was something Cody really wanted to do, not because he was blind and not to prove anything to anybody. He just wanted to climb a mountain, just like any other teenage boy might want to do."

Marty remembers the interest and excitement that came after hearing about Weihenmayer's adventure to the summit of Mount Everest. "When he heard Weihenmayer had made it to the top and back, he was excited," said Greiser. "When he learned that Weihenmayer was going to talk about his climb up Mount Everest at the National Federation of the Blind Convention in Philadelphia, there was no way Cody was going to miss that. At the convention, an hour before Weihenmayer spoke, Cody was right up front with his own tape recorder."

Cody's goal to climb a mountain was fueled with another burst of enthusiasm after listening to Weihenmayer's talk. Weihenmayer's determination to achieve his dreams and his refusal to let blindness stand in his way provided a powerful message that blind people can compete and can be adventurers in everything

they undertake, Marty said. After Weihenmayer's talk, Cody, now 14, turned to me and said, 'OK, Dad, when can we climb Baldy Mountain?'" Greiser said.

Greiser knew that Baldy's 10,568-foot elevation was no Mount Everest. But still, he considered it a real wild mountain with no gentle, groomed trail leading to the top. We knew when anyone climbed it, they were on their own and responsible for their own safety. The moment of decision had come. Greiser swallowed hard and answered his son, "As soon as we get home, and the weather looks good, we'll climb Baldy."

It was August 10, 2001. Temperature was in the mid-30's. "We started out at daylight," Cody said, still feeling the excitement of the that day, "It was chilly and I remember when we got to the top of the mountain, it had that feeling of winter even though the temperature had warmed up quite a bit."

Greiser described the terrain. "We had to walk sharply up through standing timber and over and around downfall to reach the upper tree line," said Greiser." Then it was rock and wide-open spaces. We had to negotiate boulder fields, rock slide rubble and slope so steep in places you could reach out in front of yourself and touch it.

"We made the top in just over three hours. As we went, Cody usually grasped my right arm, just above the elbow with his left hand. He had his cane in his right hand. On a few occasions of rock hopping, we clasped hands for safety. While on top we ate lunch, enjoyed the mountain, and took pictures. I then began to notice clouds gathering on the horizon and above other nearby peaks. It was time to start down. I knew that a bare, open mountainside was no place to be caught by lightning, hail, or rain."

The pair made much better time going down, Greiser remembered. "Cody's ability to walk on broken ground just kept getting better, and I focused more on our route and speed. If I had known we were going to get down so quickly, we would have spent more time on top."

The adventure ended safely as Cody and Marty reached their truck with a tired but triumphant feeling. The sun was still shining and the temperature had climbed into the 70s. No storm ever materialized.

Recalling the trip made Greiser reflective. Their trip had been a success and they were safe. "But what if we, or Erik Weihenmayer, had not been successful or safe? What then? Would Erik's effort be seen as folly? Would I be seen as a reckless father? Would Cody and other blind kids be seen as deserving more protection? Could we not, in fact, be perpetuating the very negative stereotypes we are trying to eliminate? To answer my own questions: perhaps, but most likely not. I have to think that allowing blindness to prevent our trying something new has far more negative connotations than the consequences of trying and failing at any particular task."

Cody echoed Marty's thoughts. "If we hadn't made it, we'd just have tried again, until we did," he smiled.

"Cody never had any doubt that he could make the climb," Greiser said, "I was the reluctant one. I just did not believe or understand how a blind person could walk on such heaved and broken rock as exists on the top of mountains. I still don't know how Cody managed the terrain. But I nearly let blindness stop us from having a good time. After all, we didn't climb it to prove blind people can climb mountains. Weihenmayer did that, and did it royally. Cody and I climbed Baldy Mountain just for the fun of it.

"My desire is to encourage other parents of blind children to think out of the box," he said.

Cody says, "We plan to do it again. Maybe not Baldy, but Dad and I have other mountains to climb."

Using Assistive Technology For a Student with Multiple Disabilities

Holly Cooper, Ph.D., Technology Consultant, TSBVI Outreach

In this article, I will introduce you to a young lady I have had the pleasure of working with for several years, a student named Alyssa, and her mother Sarah and father Jim. Originally I worked with Alyssa as her itinerant vision teacher, and as a team member on our school district's assistive technology team. Now I have continued my relationship with Alyssa, her family and educational staff as a technology consultant at TSBVI Outreach. This is one student's story, but assistive technology is about the people. For us to make better use of technology, we must know the people with disabilities who use it, the families and educational staff who must support it, and the people who interact with the student with disabilities through or with the aid of the technology.

Readers may think of technology for students with visual impairments as screen reading applications (JAWS and the like), computer screen magnification software, computer braille translation, braille note takers and video magnifiers (CCTV's). This type of technology is widely used with students with visual impairments across Texas and other areas. However, there are many more students who are visually impaired who have additional disabilities and do not benefit from access to all the amazing braille and low vision technology. There are currently a number of computer programs that teach switch use with simple cause and effect activities, but for blind and visually impaired users who are more advanced, finding useful software and devices can be a real challenge.

Alyssa is 18 years old and attends high school in a suburban school district in the Dallas-Fort Worth area. Her mother works as a school librarian for the same school district and her father works as a systems analyst. Alyssa spends part of her day in a class for students with multiple disabilities, and part in a class for students with mild and moderate developmental disabilities. She attends an adaptive physical education class, and some semesters is able to attend a general education class such as Spanish or Home Economics.

Alyssa is legally blind, and her vision is complicated by cortical visual impairment and visual field losses. We have not had success with enlarging icons on the computer or using picture symbols for communication or pre-literacy because of her vision loss. She can recognize letters of the alphabet and numbers if they are large enough, and can sight read a few words, but forgets them if she doesn't use them often.

Alyssa has cerebral palsy and uses a motorized wheelchair with switches built in to the headrest to control the forward, left and right turn functions. She has a switch behind her elbow that changes the direction to reverse. The switches can be disconnected from the motor and used to operate the computer with a switch interface, or electrical appliances with a transformer. Alyssa is able to travel independently indoors in her wheelchair, and knows how to travel to familiar locations around her school. She has some difficulty with depth perception relating to travel and requires supervision.

Alyssa's cerebral palsy also effects her speech articulation. She is able to communicate verbally, and familiar people can understand much of what she says if they know the context or topic about which she is talking. However, she does have significant difficulty getting her point across when the listener does not know something about what she is trying to say.

Alyssa's parents have been energetic advocates for appropriate educational interventions for her, and being knowledgeable computer users, have taken the initiative to try many things with her, and seek out specialists and evaluations outside of the school district as well as in.

Remember that this is one student's story. Each student has different abilities in cognition, vision, motor control, and the support of the family and school environment. This article was compiled and paraphrased from email exchanges and discussions over several months' time.

Holly: What are the types of technology that Alyssa has used in her life both at school and at home?

Sarah: Alyssa uses a switch activated remote control for the TV from Ablenet. We program in the channels that Alyssa is likely to want to see; six channels at this time. Alyssa scrolls through them to decide what she wants to watch. She uses this totally independently. She uses a cordless big red switch with an X-10 system. This controls the mixer and the blender. That is Alyssa's part of cooking. This can control lights and other small appliances. Her power chair is controlled with head switches. These can be unplugged to control the big red or the computer.

Her computer is used everyday (at home). Alyssa does e-mail with friends and family, keeps a diary, scans her recipes for her cookbooks, and listens to her textbooks when they have been typed in. She also has a switch activated telephone. It has 5 numbers stored in it, so she can call these people and hang up by herself.

Her computer hasn't been adequately used at school. There are several reasons. One reason I think is that the teachers she has had haven't been particularly computer literate. There has been a high turn over in teachers and aides every year, so as soon as someone gets comfortable with her computer they are gone. I think one of the major problems is that the teachers haven't actually ever seen a computer integrated in the classroom. One of the teachers liked having Alyssa's computer read the chapters to the whole class. Alyssa enjoyed that also. Unfortunately, this teacher didn't come back this year. Alyssa has used CCTVs since third grade. She isn't using one now. They have tried using communication devices with Alyssa. I think the main problem with them is that Alyssa has a good vocabulary, and likes to talk. She would rather wait and talk to people who understand her.

Holly: How do you find out about the technology that you have used with Alyssa? How do you find out about the technology assessments that you have had done at C-CAD (The Center for Computer Assistance for the Disabled) and UCP (United Cerebral Palsy)?

Sarah: I think there were several ways that we found out about technology. It wasn't in our local school district yet. In 15 years Alyssa has never had a computer literate teacher in her Developmental (multihandicapped) classes. Exceptional Parent had articles on children and technology for years. We began getting catalogs from companies that sold technology. The rehab center Alyssa went to spent years trying to set up a lab, and since I worked for a school district I knew that the Regional Education Service Center had software to lend and an assessment team. I went to meetings for parent groups that talked about technology. I had looked at the Dallas UCP web site, and saw they did computer evaluations. The problem is that they weren't equipped for a child with vision problems. The optometrist at the low vision clinic for children told us to go to C-CAD.

Holly: How do you get the tech Alyssa uses?

Sarah: Alyssa's first laptop was from TSBVI (Outreach Technology Loan Program). She now has one from the vision department of our school district. A laptop works much better for a child with CP than a regular computer. I can position the laptop and switch on her tray or the table to accommodate how she is comfortable sitting at the moment. If she wants to stretch out, she gets on a mat and still use her laptop. And it can go back and forth to school, vacation, etc.

The district supplied the Clicker 4 and Zoomtext. We have supplied Juno (email), and (mass market) screen readers and a version of Clicker 4. We have bought the switch activated TV remote and the cordless Big Red (switch) and X-10 (cordless environmental control) system, switches (from Ablenet) and an improved switch interface for the laptops. Insurance has paid for the power wheelchairs. A state program that provides phones for the disabled supplied the telephone.

Holly: What were some of the first things you tried with her, how did they work?

Sarah: Alyssa tried some communication devices at school and we would practice at home. The speech therapist in high school decided that it was too frustrating for her. I think the problem is that she would rather talk, and she has a great vocabulary. I would like her to be able to use a communication device with strangers who don't understand her. They will try using a simple communication device to use on field trips next year. Alyssa doesn't like to talk to strangers, so this might help.

The teachers in grade school and middle school did not use computers in the classroom with her. I don't think they had the knowledge and had not ever seen computers used in a Special Ed classroom. We purchased an Apple computer when Alyssa started Early Childhood, since we were told there would be one in the classroom. The computer in Alyssa's classroom did not ever get out of the box. The teacher didn't have any knowledge of computers, so she didn't push it. At that time, I think the technology department was setting up the computers in the district, and they were overworked and things sometimes got overlooked. I borrowed switch accessible software from the Regional Education Service Center. Alyssa liked it, and was good at the simple programs that didn't require reading.

This worked for a couple of years. The problem was that the programs became boring for her. Alyssa mastered cause and effect and the bigger than/smaller than type of software--I guess I mean basic concepts types of programs. This took awhile. It then seemed like she had mastered nonverbal programs, and the school began to work on communication devices. The more complicated programs were either too busy visually so she couldn't handle them, or required reading, which Alyssa couldn't do. So Alyssa's computer use was put on hold for awhile. I tried to find out about programs that might work for her.

When we moved here e-mail and good screen readers made computers useful for Alyssa again. If Clicker 4 had been available when Alyssa was in grade school it would have been great. The computers available then probably couldn't have run programs like that. Alyssa never really liked the simple switch toys. After operating them once or twice, they seemed to bore her.

Holly: Tell me about technology and applications on the computer that have been used with Alyssa for communication over the years. How has that worked out? What are some of the problems?

Sarah: There are problems finding computer software for a child that needs switches and is low vision. Most of the commercial software for children seems to be very busy with small pictures. So they may work with switches but they don't work with a child with low vision.

When we moved here, Alyssa needed a way to communicate with her relatives. We began to use e-mail. At first, Alyssa would dictate a couple of sentences (I would type them); I would read them back, and she would be done. Then we discovered free screen readers, like ReadPlease. This made a world of difference. When Alyssa could hear back what she had written, the whole process became more relevant to her. She then began sending a page instead of a couple of sentences. E-mail became very important to her, and she began writing friends as well as relatives. She still dictates. We did dictate into Click4, using a one-cell grid with a "read all" command as a screen reader. We have tried setting up scanning grids, but she likes to say so much and the grids would be too complicated.

We now use ZoomText (document reader function) while using Juno to read back what Alyssa has written. We also used JAWS the same way. Alyssa loves to e-mail. She does this as soon as she gets home from school, and again after dinner.

Alyssa then began dictating a diary on Clicker 4. She enjoys hearing back what she had done. Alyssa's class was making a cookbook of the scrambled eggs and toast kind of recipes. The physical therapist told Alyssa she could make her own cookbook. Alyssa told me, so we did. Alyssa picks out the recipes, we try them out, she runs the mixer. I type the recipe into grids, which Alyssa scans into the correct order (she uses auditory scanning to select the steps of the recipe and put them into the correct sequence). Alyssa gave them out as Christmas presents. The ARC contracted with the job coach at school to make 25 copies of the cookbook, which they will sell at a meeting, where Alyssa will autograph them. Alyssa has listened to chapters in short textbooks after they were typed into Clicker 4. We are now using ZoomText with chapters scanned into (Microsoft) Word (by the vision teacher or braillist who uses an optical scanner), which will work better. I have made worksheet type activities on Clicker 4 to go along with Alyssa's schoolwork. The teachers have liked them, but not made any of their own.

Holly: Talk about the different settings of her life now, and how the computer, JAWS and ZoomText (or similar things) Clicker 4, switches, communication strategies are used now?

Sarah: We were using JAWS with Juno, but the district took off JAWS and put on ZoomText. I have had trouble with ZoomText reading web pages. The next time Alyssa cooks in her home economics class she will have the recipe in Word, and use ZoomText and a switch to read it. The teacher didn't like the recipe in Clicker 4, because if you stop, the program always begins reading from the top. Alyssa will continue to use Clicker 4 at home for making cookbooks and her diary. I will also try to get the teachers to use worksheets on it, instead of doing them orally next year.

Alyssa uses her power chair controls as a switch if she is in that chair. I purchased a head switch on a gooseneck with a c-clamp that fastens to her manual wheelchair to use if she is in that chair. She uses a Jelly Bean switch (from Ablenet) if she is lying on the floor. We just purchased a Don Johnson switch interface that plugs into the USB port, so the computer can still use the mouse.

Alyssa's IEP calls for some low-tech communication devices to be used next year because Alyssa doesn't like to talk to strangers, even though she talks continually to people who understand her. So she will use prerecorded messages in simple switches on community outings and while picking up and delivering things at school to try to get her to initiate communication.

Holly: What are your dreams for how Alyssa could use tech in her adult life: work, recreation, participation in community settings, and other purposes?

Sarah: Alyssa wants to go to the special ed. program at (a local junior college). She loves her job, working at the special education office of her school district, shredding and doing things like that. She understands that it is a real job that needs to be done. A job like that in the community would be great.

I think she will always love to e-mail. Recreation is hard, because she doesn't like the Special Olympic activities. She loves to hang around with (her regular ed. friend) and go out to eat or shop. Her friend will go to college next year. I hope that Alyssa will make friends at (the junior college) who like to do the kinds of activities she enjoys. Alyssa plans to live at home. I had talked to someone at an ARC meeting who was in charge of group homes in our County. She felt that Alyssa would not be a candidate for the homes because of her physical disabilities. So there is a real worry of where Alyssa will live when Jim and I can't take care of her due to our age.

Technology has made great strides since Alyssa was born. It has made a real impact in Alyssa's life. I expect that there will be similar improvements. One thing that will be a big help for Alyssa will be when speech recognition programs get to the point where they can recognize speech that is as inconsistent as Alyssa's. She would no longer have to dictate, and could control the computer with her voice. I think there will be improvements in technology that I can't even imagine that will greatly improve Alyssa's life.

References

The best place to learn more about technology that is currently available and how is it used, is on the internet. If you don't have internet access, check with your local public library for availability of computers with internet access. Below are web and postal addresses for the resources mentioned in this article.

Ablenet, Inc: 1081 Tenth Avenue SE, Minneapolis, MN 55414, web address: http://www.ablenetinc.com/home.html>

The Arc of the United States, (formerly known as the Association for Retarded Citizens), 1010 Wayne Avenue, Suite 650 Silver Spring, MD 20910, web address: http://www.thearc.org/

The Center for Computer Assistance for the Disabled Inc. (C-CAD): 1950 Stemmons Freeway - Suite 2019 Dallas, Texas 75207, web address: http://www.c-cad.org/

Clicker 4, available from Crick Software: 50 116th Ave SE, Suite 211, Bellevue, WA 98004: web address: http://www.cricksoft.com/us/

Don Johnston Incorporated 26799 West Commerce Drive Volo, IL 60073, web address: http://www.donjohnston.com/

Exceptional Parent Magazine: 65 East Route 4, River Edge, NJ 07661, web address: http://www.eparent.com/

ReadPlease Corporation, 121 Cherry Ridge Road, Thunder Bay, ON, Canada, P7G 1A7, web address: http://www.readplease.com/

United Cerebral Palsy (UCP), 1660 L Street, NW, Suite 700, Washington, DC 20036, web address: http://www.ucpa.org/

Frustrated Student at an IEP

by Erin Byrne

Reprinted with permission from Future Reflections, Summer/Fall 2002

I sit for an infinite age,

Wondering just how loquacious a person can be.

Seems even stranger when a stranger is talking;

After all,

They're discussing me.

I sit for an infinite age,

In a room of seven or eight,

Wondering when, or if, I'll ever get my say,

Or is it too late.

Indignantly, I think,

"How can a goal ever be set, if not by oneself,

By other persons in a team of two or three?"

Strange, it seems,

Not right,

After all,

They're discussing me.

I sit for an infinite age,

Restlessly, shifting my feet under the table,

Anticipating the onset of freedom,

When the pen is passed to me.

"Sign, sign." they say,

"Everything is done."

And, as I touch the pen to paper,

I wonder if my presence in the room,

Is really known.

Suddenly, I realize with a start,

I've lost track of much of what was said.

Signing my name,

I wonder, in my heart,

What is in store for me in the year ahead.

I sit for an infinite age,

A frustrated student at my IEP.

How unusual the meeting is;

I think, next time,

I will speak!

After all,

They're discussing me.

Erin Byrne is a 19-year-old entering freshman at Miami University in Oxford, Ohio, where she will major in Music Education and Spanish. Among her many accomplishments, Erin is one of the youngest members to be inducted in the Stark County, Ohio, Women's Hall of Fame. She is a lifetime member of Girl Scouts, and a NFB of Ohio Scholarship winner. Blind from birth from a type of osteoporosis (she has used a wheelchair since 5th grade), Erin wrote this poem when she was a 17-year-old student at Glen Oak High School in Canton, Ohio. Theresa Byrne, Erin's mother, reports that Erin was a full and effective participant in all her IEP

meetings throughout her middle and high school years. Evidently, Erin did learn to speak up! Erin reports that she still likes to dabble in creative writing regarding disability issues. Hopefully, we will see more of her thoughts in future issues.

Braille/Print Literacy Issues and the Learning Media Assessment

By Eva Lavigne and Ann Adkins, TSBVI Outreach

Parents and teachers of students with visual impairments often have questions about how the choice is made regarding a student's literacy medium. They express concerns about whether a student should be primarily a print reader or a Braille reader, and want to know how and when decisions about reading media are made. Dr. Phil Hatlen, Superintendent of the Texas School for the Blind and Visually Impaired, addressed this issue in a previous *See/Hear* article (Winter, 2001), and stressed the importance of the Learning Media Assessment (LMA) and the role of the teacher of the visually impaired. While the definition and purpose of the LMA are clearly defined by State Board of Education (SBOE) rules and the Individuals with Disabilities Act (IDEA), a definition of literacy is not always easily understood, especially for visually impaired students.

WHAT IS THE LEARNING MEDIA ASSESSMENT (LMA)?

A learning media assessment is mandated in the State Board of Education Rules for each student who is referred for an initial evaluation to determine eligibility as visually impaired. It is also required every three years as part of the reevaluation process to maintain eligibility. Best practices indicate that the learning media assessment should be an ongoing process and it should be updated as often as needed, sometimes annually for very young students or those whose needs and abilities change.

All students who are referred for evaluation or reevaluation to determine eligibility as visually impaired must receive a learning media assessment conducted by a certified teacher of students with visual impairments. It must include:

- Recommendations for the use of visual, tactual, and auditory learning media.
- A recommendation for ongoing assessment when it is needed.
- A determination of the student's primary learning medium to decide whether the student is functionally blind.

The LMA gathers three types of information on each student:

- 1. The efficiency with which the student gathers information from various sensory channels: visual, tactual, and auditory
- 2. The types of general learning media the student uses, or will use, to accomplish learning tasks
- 3. The literacy media the student will use for reading and writing

The LMA focuses on two phases:

- 1. The selection of the initial literacy medium (this phase begins at infancy and continues through the beginning of formal literacy instruction).
- 2. The continuing assessment of literacy media (this continues throughout the student's school years).

The learning media assessment is "an objective process of systematically selecting *learning* and *literacy* media" (Koenig and Holbrook). This includes the total range of instructional media needed to facilitate learning, and is understandably different for each student. It consists of *general learning media* (instructional materials and methods) and *literacy media* (the tools for reading and writing). Instructional materials can include a range of options, such as pictures, real objects, tactile symbols, videos, worksheets, tapes, and augmentative communication devices. Methods can involve modeling, demonstrating, prompting, questioning, pointing, and lecturing. The wide range of possible materials and methods provides for students at all ability levels. The scope and definition of literacy media is more complicated, however. The "tools for reading and writing" generate concerns about print and Braille, prompting many questions about literacy for visually impaired students.

WHAT IS "LITERACY"? WHAT DOES LITERACY MEAN FOR A VISUALLY IMPAIRED STU-DENT?

Most people acknowledge that literacy has something to do with reading and writing. Many recognize the importance of literacy in order to be "an educated person" and realize that success in school and employment are fundamentally linked to the attainment of literacy skills. Braille literacy is directly addressed in the 1997 amendment to the Individuals with Disabilities Act (IDEA). In developing the IEP (Individual Education Plan), the ARD committee must:

... in the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the IEP team determines, after an evaluation of the child's reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the child's future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child. [IDEA Section 1414(d)(3)(B)(iii)]

Literacy, however, is more than just legal terminology and involves more than the ability to read and write in Braille. The following definition reveals the role literacy plays in everyday life:

"Literacy is the ability to read and write at a level that would enable an individual to meet daily living needs. Literacy is a continuum from basic reading and writing skills all the way up to various technical literacies. It is different for different people, in distinct times and various places." (Marjorie Troughton, One is Fun, 1992)

This definition indicates the importance of looking at the student individually along a literacy continuum and the value of re-examining literacy needs and skills as the student progresses. Many VI students need an array of literacy tools and perhaps several literacy media to be successful in school. For example, a student might use Braille for note taking, speech output for the computer, audiotapes or a scanner for reading novels, and print for math. Students learn and develop as individuals, not as a group. Their needs may change as they become older and as they approach tasks beyond the school environment. It is important to identify the medium/media which most benefits each student. For example:

- Some students may benefit most from using print.
- Some students may benefit from using uncontracted Braille.
- Some students may benefit from using contracted Braille.
- Some students may benefit from using both print and Braille.
- Some students may not be able to benefit from either Braille or print, and may primarily use an auditory medium, tactile symbols, real objects, or other tactual media.

The degree to which a given student uses a specific medium will be influenced by many factors: age, general ability, visual and tactual functioning, visual prognosis, motivation, academic/nonaca-

demic demands, environmental conditions, personal and interpersonal factors (such as an acceptance of one's blindness), reaction to societal attitudes about blindness, and/or a lack of exposure to Braille (Caton, APH, 1991). Each student with a visual impairment has a unique personal journey to literacy that should include all the necessary literacy tools and media to meet school and daily living needs. It may take an extended period of time for a visually impaired student to master the multimedia he or she will be required to use. Planning and preparing for a student's literacy needs throughout his life is a challenging yet important task.

HOW ARE THESE DECISIONS ABOUT LITERACY MADE? HOW DOES THE LMA INDICATE WHICH STUDENTS MIGHT BENEFIT FROM USING PRINT AND WHICH MIGHT BENEFIT FROM USING BRAILLE?

It is clear that decisions about literacy media are to be made based on the assessed needs of the student and not on other factors such as the availability of a teacher of the visually impaired, financial considerations, convenience, or any other outside factor. The learning media assessment is a process of gathering objective information to provide a basis for selecting appropriate learning and literacy media for blind and visually impaired students. Objective data is collected from many different observations and is used to make decisions about the student's learning and literacy needs. Parents are key members of the educational team, and parent observations and parent interviews provide valuable information to include in the decision-making process. It is important for teachers and parents to work together to gather information, increasing the accuracy and effectiveness of the LMA. Results of the LMA guide instructional planning and programming to insure that each student gains literacy skills in a medium or media (print and/or Braille) and develops an array of literacy tools to meet school and daily living needs.

A valuable reference to help with making these decisions is a publication entitled *Learning Media Assessment of Students with Visual Impairments: A Resource Guide for Teachers*, by Alan Koenig and Cay Holbrook (1995). It provides a process and rationale for conducting learning media assessments, and has a variety of forms for gathering objective data. This text also reveals the characteristics of students who might be likely candidates for a print or a Braille reading program (page 43):

Characteristics of a Student Who Might Be a Candidate for a Print Reading Program:

- Uses vision efficiently to complete tasks at near distances (reaches for object on visual cue, explores toy or object visually, discriminates likenesses and differences in object or toy visually, identifies object visually, etc.)
- Shows interest in pictures and demonstrates the ability to identify pictures and/or elements within pictures.
- Identifies name in print and/or understands that print has meaning.
- Uses print to accomplish other prerequisite reading skills.
- Has a stable eye condition.
- Has an intact central visual field.
- Shows steady progress in learning to use her vision as necessary to assure efficient print reading.
- Is free of additional disabilities that would interfere with progress in a conventional reading program.

Characteristics of a Student Who Might be a Candidate for a Braille Reading Program:

- Shows preference for exploring the environment tactually (explores object or toy tactually, uses tactual means to travel and explore the environment, etc.).
- Efficiently uses the tactual sense to identify small objects.
- Identifies her name in Braille and/or understands that Braille has meaning.
- Uses Braille to accomplish other prerequisite reading skills.
- Has an unstable eye condition or poor prognosis for retaining current level of vision in the near future.
- Has a reduced or nonfunctional central field to the extent that print reading is expected to be inefficient.
- Shows steady progress in developing tactual skills necessary for efficient Braille reading.
- Is free of additional disabilities that would interfere with progress in a conventional reading program in Braille.

Other Factors to Consider in Determining a Student's Literacy Medium/Media:

Debra Sewell, of TSBVI, lists these considerations:

- 1. School requirements:
 - Can the student "keep up" with peers?
 - How much time is spent completing homework?
 - How much energy is spent completing work?
 - Is the workload being reduced?
 - Is there enough practice with meaningful text? (extended reading, not just line by line reading, such as on worksheets)
 - Are the skills adequate for the future?
- 2. Are there (diagnosed or undiagnosed) reading problems?
- 3. Are there neurological issues? (such as reduced fine motor skills, etc).
- 4. What is the availability and use of optical devices?
- 5. What is the portability of optical devices?
- 6. Is the student motivated to learn?

WHAT IS THE CONTINUING ASSESSMENT PHASE OF THE LMA?

In the continuing assessment phase of the LMA, the educational team will consider the appropriateness of the initial decisions and examine the student's need to develop new literacy skills. The continuing assessment phase annually collects and examines:

• The results of any new medical information to determine if there has been a change in visual functioning since the last review

- Reading rates and reading grade levels, to determine whether the student reads with sufficient efficiency to perform academic tasks successfully
- Academic achievement, to determine whether or not the student is making academic progress in the current medium
- Handwriting skills, to determine whether or not the student is able to read his or her own handwriting and whether or not the handwriting is legible to others
- The effectiveness of the student's existing array of literacy tools, to determine whether instruction is needed in additional literacy tools to meet current or future literacy needs
- Diagnostic teaching allows for ongoing assessment of the appropriateness of the initial decision about literacy. If a student is not making adequate progress, the educational team might consider adding supplementary literacy tools or changing the primary literacy medium. Additional instruction may be needed in new methods or the use of new materials. Diagnostic teaching will continue to evaluate the student's efficiency with literacy tasks.

CONCLUSION

It should be evident that the determination of a student's literacy medium/media is not an "either/or" decision. Nor is it a final one. Students change, as do their needs for different types of information. More and more visually impaired students are realizing the benefits of using both print and Braille, and many supplement their reading with auditory information. Supplementary literacy tools, such as E-books and materials on CD-ROM, are helpful as students approach tasks requiring increased reading and writing skills in higher education. All students need access to a variety of literacy tools. This is no less true for visually impaired students. Future *See/Hear* articles will not only address the increasing variety of literacy methods and materials available for VI students, but also the use of dual or multiple media and the importance of ongoing, continued assessment.

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Creating and Using Tactile Experience Books for Young Children With Visual Impairments

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SEE/HEAR Editor's notes: The boxes referenced in the text are located at the conclusion of the article. Some graphic elements of the original article were not reproduced.

Dr. Sandra Lewis will discuss this topic in more detail at Texas Focus 2003, June 12-13 in San Antonio. Information on Texas Focus can be found in the "Classified" section of SEE/HEAR. Address correspondence to Sandra Lewis, Associate Professor, Department of Special Education and Rehabilitation Counseling Services, Florida State University, 205 Stone Building, Tallahassee, FL 32306-4459 (e-mail: lewis@coe.fsu.edu).

What do very young children learn about reading? According to many studies on developmental learning (see Box 1, "What Does the Literature Say?"), young children develop an appreciation that "reading" activities in which they engage are related to the words they speak and hear, and are further connected to the written symbols of our language. They observe others reading and writing within functional contexts and meaningful activities. Further, they develop important basic concepts about reading materials (see Box 2, "Book Concepts").

But what about children whose vision is limited, or children who are blind? How do they participate in early reading activities? This article explores ways that educators, parents, and caregivers can ensure that *all* young children have a chance to learn to read.

LITERACY NEEDS OF CHILDREN WITH VISUAL IMPAIRMENTS

Obtaining access to the written symbols of language and observing adults and peers modeling reading and writing are not easily achieved for children with significant visual impairments. Visual impairment can directly interfere with the observation of symbols and events that are key to the development of early literacy skills. Many educators and researchers have discussed ways to purposefully introduce these young children to Braille and print and to inform them of reading and writing activities of others (Harley et al., 1997; Swenson, 1999; Wormsley, 1997).

An even more significant issue related to emergent literacy for young children with visual impairments is the development of meaningful concepts through essential life experiences (Finello, Hanson, & Kekelis, 1992). Because children with visual impairments are restricted in their frequent, spontaneous, incidental access to the things and events in their world, their information about these items is limited, inconsistent, or fragmented (Ferrell, 1997).

In addition, a key learning characteristic of children with visual impairments is learning from part to whole. Because their perception is limited to what can be felt by the hand or seen within a limited visual field, children with visual impairments often have difficulty understanding the "gestalt" of an experience (Ferrell, 2000). A sighted child can frequently observe from a distance all of the objects that are stored in the desk drawer, are

pulled out of the cabinet to wash the car, or are associated with a bath; but the child with visual impairment may not have had the same experiences or understanding. As a result, many children with visual impairments do not bring to the emergent literacy process the same kind and quality of information that young children with good vision do. Children with visual impairments may not understand what others read to them and what they are expected to read themselves (Koenig & Farrenkopf, 1997).

ILLUSTRATIONS IN BOOKS FOR YOUNG READERS

Children with typical vision have an added advantage in the process of learning to read over young children who are blind or who have significant visual impairment. Sighted children can learn about things even if they have had no direct contact with them—animals, events, people, and objects—except through the illustrations in their books. The thousands of books published for emergent readers almost always include illustrations or pictures. These illustrations not only introduce children to information with which they may be unfamiliar, but these pictures facilitate understanding of the text. "Illustrations play a major role in enriching the story line, adding humor and intrigue, giving instant clues to what the story is about and enabling the reader to reconstruct the story line (often without reference to the text)" (Lamb, 1995, p. 7).

Illustrations also provide the bridge between listening and early reading behaviors (see Box 3, "Early Reading Behaviors"). Children only gradually become aware of the text. At first, they use the illustrations as prompts to recall the meaning and words of the story.

TACTILE ILLUSTRATIONS

For young children who are blind or who have severe visual impairments, the visual aspects of books written for emergent readers present a significant problem. The obvious solution to this accessibility issue is

the use of raised line drawings in conjunction with Braille text. Interpretation of raised line drawings, however, is a far more difficult task than is recognition and identification of pictures. Raised line drawings attempt to present the 3-dimensional world in two dimensions. Although we can visually see the relationship, a circle is really very unlike the way a ball feels; the outline of a birthday cake bears no resemblance to its tactile reality. Similarly, the outline of the "Cat in the Hat" holding a fish cannot be easily related to the outline of the Cat sitting in a chair. The details and constancy that make even abstract illustrations so identifiable visually cannot be reproduced in a tactile form.



A teacher helps as student "reads her tactile experience book

Another solution that frequently has been recommended is to create "story boxes" (Newbold, 2000), or "book bags" (Miller, 1985; Stratton & Wright, 1991; Wormsley, 1997). These items are similar in that objects related to either a published or unpublished story are used as illustrative props to bring meaning to the story. Miller, the mother of a child who is blind, first described her creative use of book bags, in which she stored objects mentioned in commercially published books. Miller and her children dramatized events in the stories

they read using these objects. Others have recommended keeping the objects in a bag or a box, to stimulate recognition and discussion as they are handled and explored by the young child with visual impairment as the adult reads (Stratton & Wright, 1991; Wormsley, 1997).

Newbold's (2000) story boxes were designed to address the problems young children with visual impairments often have in relating their experiences to the act of reading. She recommended that simple stories about a child's experiences be written on note cards and included in a box with mementos from the event. The adult and child examine the objects together as the adult reads the story, which incorporates people and events that are familiar to the child.

Neither book bags nor story boxes address the need, for children who are blind, to be exposed to books on which the text and the objects or activities described by that text are presented on the same page. "Tactile experience books" can meet this need. In tactile experience books, artifacts from an event experienced by the child are actually incorporated onto the pages of a simple, sturdy book. Each page also includes Braille and print text. Adults using these books with young children can encourage the association of words that are read with Braille and the use of appropriate hand movements during story reading. Children can use these books independently; they can turn to a page, tactually explore the artifact attached to the page, and pretend to read the story aloud. Children with more experiences with these types of books can begin to recognize specific words based on their length, position in the text, or the letters with which they start or end.

MAKING TACTILE EXPERIENCE BOOKS

Selecting topics for tactile experience books is as easy as examining the objects that are part of the environments in which students with visual impairments spend time. Events can be planned specifically to collect artifacts for a book, or artifacts can be collected as part of a naturally occurring event, such as a trip to a baseball game or an investigation of the school grounds. Ideally, the child participates in these collection activities, collecting and putting aside the objects to be used later in the book.

Regardless of the child's involvement in his or her collection, artifacts must be items with which the child has come in contact tactually. Using car keys to represent going for a ride will not be appropriate unless the child has in some way used the keys, perhaps to unlock the car door. Using objects that the adult associates with an event, but which are unfamiliar to the child, is a common mistake of inexperienced bookmakers. In addition, artifacts used in the book must be real—not miniature representations of an object. Miniatures do not provide the same detail for the tactual learner that they provide to the visual learner. Thinking again of representing a ride in a car, a toy car would not be an appropriate artifact, unless perhaps, the child played with the toy car during the ride. In general, a toy car is very different from the car experience of a child who is blind or who has low vision. A better representative object might be a swatch of fabric from the child's car seat or the seat belt buckle that the child has helped to fasten.

Preferred books are those that are easily handled by the child. Heavy cardboard should be used for the cover and pages, which should be securely fastened. We have found that metal rings are more durable than ribbon or string used to bind the pages. It is best for only one object (or category of object) to be placed on the page. Because an object that has been glued to the page creates a different experience than the same object held in the hand, we recommend that artifacts be affixed to the pages using loop fasteners (Velcro©) whenever possible, so that the child can experience them in three dimensions. Another way to assure that objects can be fully accessed by the child is to store them in Zip-lock bags that have been glued or stapled to the page. Large objects, which can add bulk to the book and make it unmanageable by small hands, can be attached by a string to a particular page and stored outside of the pages, to be pulled nearer by the child when that page is read.

Another method of incorporating a large object, such as the big bow from a birthday present, is to place the item on the cover. The child can use this artifact to identify the book and distinguish it from others in his or her collection. Covers don't need to be fancy. Although it is visually meaningful to have a book about Jim's trip on the city bus cut out in the shape of a bus, this shape doesn't provide the same stimulus for the student with visual impairment. Keeping the transfer pass that the driver handed to the child as he or she boarded the bus and gluing it to the cover would be a more meaningful reminder of the trip.

Sighted children can easily identify the location of the text on the page, so its placement is not critical. The young reader who is blind is helped if the text can be found at a predictable location on the page. The Braille text should be created on heavy Braille paper in one continuous line. Words should not be cut apart and placed on the page as single units or phrases. The page of text should not be pasted to the page, since the adhesive can reduce the sharpness of the Braille dots. We recommend stapling the text to the page, using Brailleables®, or gluing only the edges and corners of the page on which the text is Brailled. Note: For many young children with visual impairments, the decision regarding use of Braille or print for instruction has not been made. Therefore, it makes sense to include high-quality print versions of the text as well. The print can be created with a word processor on the page before the Braille is affixed. Even for children who are blind, print included on the page will help parents, peers, and others share in reading the story.

Determination of whether the Braille text should be created in alphabetic Braille (where the Braille matches the print exactly) or in Grade II Braille (the format of Braille used in commercially published materials, including schoolbooks) is based on many factors. The parents, early interventionist, and teacher of students with visual impairments, if one has been assigned, should make this decision jointly.

Books published for young children with vision feature text that is simple and often repetitive. This repetition helps the emerging reader to memorize the text, so that attention can be placed on correspondence between the text and spoken words. This same practice can be used in tactile experience books published for children with visual impairments. Though it is tempting to write long descriptive passages, young children benefit when there are few words on the page. They also benefit when phrases are repeated, such as "In my bathroom, there is a _____," or "When we fixed the doorknob, we used ____."

MARY'S TACTILE EXPERIENCE BOOK

Mary, who is totally deaf and blind, is in kindergarten in her local school district. A team of educators, including the second author, Joan, who is an orientation and mobility (O&M) specialist, provide support services to Mary. O&M specialists generally work on development of skills associated with travel, including use of the cane, body image, spatial concepts, sensory perception, and environmental-recognition skills. Joan decided that an "experience book" would be an ideal vehicle for reinforcing concepts of travel with Mary and approached the speech-language pathologist serving this student about working together on the project.

The two adults met with Mary and her interpreter in the school's courtyard garden and explored the area, which included flowers, trees, a gazebo, and even rabbits. Since Mary was unfamiliar with any garden, questions such as "What do you think might be in a garden?" were not helpful. Therefore, the adults asked Mary to move around the garden and look for items to the left or right, on the ground, or up high. As they explored, they discovered various natural items that were appropriate for an experience book; Mary picked these up and placed them in a large bag.

Joan then prepared the simple lines of the story in Braille and print. During their next meeting, Mary assisted Joan in the assembly of the book. The process went slowly as Mary explored each garden item, used sign language to identify it, and helped position it on the page. Mary affixed the items with tape; later, Joan

prepared more permanent mountings. Joan arranged short Braille sentences at the bottom of each page. The last page was left for Mary and Joan to work on together (see Box 4, "My Garden Walk" by Mary). Mary not only chose the words for this page, but also assisted in writing the sentences on the Braillewriter.

At first, the book was kept in a resource room and left on a bookshelf so that Mary could easily retrieve it independently. Mary loved her book and read and explored the pages often, fingering the artifacts. Later, the general education classroom teacher asked to keep the book in her classroom, so that Mary could read it during the class's independent reading time. Not surprisingly, the other kindergarten students also found the tactile experience book to be interesting; and they enjoyed sharing reading time with Mary and her book. The classroom teacher soon requested more books. Peers and adults have been encouraged to read the books aloud only when Mary is moving one hand across the Braille while her interpreter signs the words into her other hand.

OTHER TACTILE EXPERIENCE BOOKS

Peers have also been involved in the tactile experience books enjoyed by other students on Joan's caseload. One of the favorites is a book titled, "Things for My Hair" (see Box 5). This book consists of 10 pages with large items attached with Velcro for easy removal and replacement and small items placed in Zip-lock bags. Even though the young students with visual impairments did not participate in making this book, they have enjoyed putting bobby pins, bows, clips, and scrunchies in their own hair, as well as into the hair of their peers and teachers.

Another creative teacher, Alysa Crooke of Pensacola, Florida, also used a hair theme to describe a field trip taken by one of her students to a local beauty parlor (see Box 6, "Chloe's Makeover"). The following are two other books we have seen:

- *My Bathroom*—Repeated at the bottom of each page of this book is the text, "In my bathroom there is...." The artifacts included were soap, toothbrush, dental floss, trial size toothpaste, Q-tips, comb, ponytail holder, and a small piece of washcloth.
- *Things in Mommy's Purse*—This book was stored in a large straw purse. It consisted of 7 pages, and all items were removable for easy exploration and manipulation. Objects included compact case, comb, small spiral notepad, credit card, pen, lipstick, and Velcro-closed wallet in which coins and a dollar bill had been placed. The text on each page read, "I looked in Mommy's purse and found...."

BENEFITS

Tactile experience books offer a host of benefits to students with visual impairments. Because they describe personal experiences, children request that they be read, memorize their content with ease, and are eager to pretend to read them aloud to listening adults. Early book skills are mastered, grapheme-phoneme connections are initiated, and the pleasure of reading with adults and peers is reinforced.

Tactile experience books also can be used to present children with visual impairments opportunities to practice other important skills, including those in the motor domain. One 2-year-old who is totally blind learned the difficult skill of opening a paper bag and placing an item in it on a windy day. Almost all of the young students with whom we have used tactile experience books have learned how to open and close Ziplock bags, skills to which they previously had not been introduced. For many others, further fine motor practice has been provided in removing items from strong Velcro, from fastening barrettes in the hair of their friends, and from turning open the cap on a tube of toothpaste. Although seemingly very rudimentary, these are exactly the kinds of skills that adults assume young children with visual impairments are learning, and are surprised that they do not have when they enter school.

Similarly, tactile experience books can be used to reinforce spatial, temporal, and number concepts. They can facilitate meaningful expansion of language, social skills, and tactual perception.

As we described the creation and use of tactile experience books to parents of children with significant visual impairments, we found that many parents are surprised to think that their children might be unfamiliar with common items found in their home, how these items are used, and how they compare with one another. We have used these discussions as opportunities to help parents better understand the impact of visual impairment on development and learning, and consequently, to appreciate the critical importance of actively involving children in the simple events that occur around them.

CAUTIONS

Although tactile experience books seem simple to make, their creation requires both time and careful planning, especially if the child is involved in the collection of the artifacts and the making of the book. Breaking the task into several components is recommended to maintain the interest of the young child.

The parents and general education teachers who have worked with us have not been enthusiastic about including artifacts that can cause a mess, such as shampoo, toothpaste, or lipstick. Although we tend to favor these kinds of artifacts because students with visual impairments have such few opportunities to experience them in other contexts, we recognize the potential problem. In the purse story described previously, it was decided to substitute clear lip-gloss for the lipstick after a teacher complained of the messy students. Putting only small portions of liquid in containers is one solution to the problem, so that any spill that is created is small enough to easily clean (by the student, we would hope).

Finally, the objects included in books for very young readers must not present a choking hazard should they be put in the child's mouth. For infants and very young children, adult supervision when independently reading some tactile experience books may be necessary.

FINAL THOUGHTS

Tactile experience books can support the emergent literacy development of young children with visual impairments in a variety of ways. When tactile experience books are made available to early readers, these students practice

- Turning pages.
- Orienting books.
- Exploring objects.
- Using the hand movements associated with Braille.
- Experiencing independent pleasure reading.

At the same time, these children have the opportunity to see the connection between words that describe the activities in which they engage and the stories that they read—a key prerequisite for reading. They also gain experiences with writing and the symbols of the written language that they will be using in school.

We have also seen how tactile experience books support the social inclusion of preschool children with visual impairments in their general education classrooms. Children with visual impairments have meaningful stories from which to choose during reading time, and can share these stories with others, both as a competent "reader" and as a listener.

Lamb (1995) observed that students with visual impairment do not experience the same immersion in literature that children with vision do. Swenson (1999) agreed, noting that "because of the scarcity of Braille materials, children who are blind or have very low vision...do not automatically participate in...[early] literacy learning. Instead, their 'Braille immersion' must be deliberately orchestrated by teachers and parents" (p. 11). The addition of tactile experience books to the bookshelves of young children with visual impairments is an important "instrument" of that orchestration.

Box 1What Does the Literature Say About Learning to Read?

Developmental Reading Process. Learning to read is a developmental process that begins at birth (Lamb, 1995; Rex, Koenig, Wormsley, & Baker, 1994; Snow, Burns, & Griffin, 1998), one that can be positively influenced by the involvement of parents and other caretakers.

Recommendations for facilitating the early literacy experiences of young children include the following:

- Providing a print-rich environment (Clay, 1991; Handel, 1999; Purcell-Gates, 2000; Sawyer & Comer, 1996).
- Modeling reading behavior (Handel, 1999; Purcell-Gates, 2000; Sawyer & Comer, 1996).
- Reading aloud to even the youngest infants and toddlers (Anderson, Hiebert, Scott, & Wilkinson, 1985; Purcell-Gates, 2000; Sawyer & Comer, 1996).

In fact, being read to may be the most important factor in preparing a child to become a good reader (Anderson et al., 1985).

Emergent Literacy. The phase of reading development during which infants and toddlers begin to become familiar with written language and the process of learning to read and write is known as *emergent literacy* (Harley, Truan, & Sanford, 1997; Wormsley, 1997).

Box 2 Book Concepts

- 1. Books are generally made of paper, but may also be made of other materials such as cloth or plastic.
- 2. Books contain pages to be turned one at a time; pages are numbered.
- 3. Books may have pictures and words written on the pages.
- 4. Pictures resemble familiar objects.
- 5. Pictures and books have a top and bottom, front and back.
- 6. Books give information and pleasure.
- 7. Language is constant on each page.
- 8. Language can be remembered and related to specific pages or pictures.
- 9. Information presented in books stimulates the child's own related ideas.
- 10. Printed symbols tell the reader what to say.
- 11. Printed symbols are read from left to right and from top to bottom.

Source: Adapted from Communication skills for visually impaired learners (2nd ed.), by R. K. Harley, M. B. Truan, & L. D. Sanford, Springfield, IL: Charles C Thomas, 1997.

Box 3 Early Reading Behaviors

- Child enjoys listening to story.
- Child talks about the pictures.
- Child completes familiar lines in story based on memory.
- Child uses physical and visual cues surrounding print to make up story.

- Child pretends to "read" storybooks; may run finger along printed text.
- Child associates some letters with their representative sounds.
- Child recognizes key words in familiar stories

Box 4 "My Garden Walk" by Mary

Title cover: "My Garden Walk" by Mary: Glued to the center of the cover page were several pebbles from the path on which Mary had walked.

Page 1: Brailled sentence at the bottom of the page read. "I went for a walk in the school garden. I found 1 piece of tree bark." *Glued to the center of the page was a large piece of tree bark.*

Page 2: Brailled sentence "On the ground were 3 stones. Count them with me." 3 stones, one small, medium, and large, were glued onto this page.

Page 3: Braille sentence, "I have 4 limbs from a tree." *Arranged in increasing size were 4 limbs from various trees.*

Page 4: Brailled sentence, "I picked 3 leaves, one large, one medium, and one small." *In descending size, three different leaves were glued onto the center of the page.*

Page 5: Brailled sentence, "I petted one bunny rabbit." *In a plastic Zip-lock bag glued to the center of the page was bunny fur found on the ground near the bunny's cage.*

Page 6: Brailled sentence, "I picked a flower." One flower from a bush was attached to the center of the page.

Page 7: Brailled sentence, "I had fun walking with Ms. Joan." *Stapled to this page was the elastic from the handle of a discarded cane like the one used by Mary.*

Box 5 Things for My Hair

Title Cover: "Things for My Hair" A hairbrush was attached to cover with Velcro.

- Page 1: "Shampoo to clean my hair. Conditioner to make it soft." *Small travel-size containers filled with a little shampoo/conditioner attached at the center of the page with Velcro*.
- Page 2: "A brush and combs for my hair." Two combs and one small brush were attached to the page with Velcro. A large brush was attached to a string and hung outside of the book.
- Page 3: "Hair rollers to help curl my hair." Various sizes and makes of rollers were placed into a small plastic bag. The bag was fastened at the top of the page with Velcro.
- Page 4: "Large and small barrettes hold my hair in place." Various sizes and types of barrettes were placed in a bag, and the bag was fastened at the top of the page with Velcro.
- Page 5: "Bobby pins hold my hair in place." Large, small, and medium-size bobby pins were placed in a bag that was attached to the page.
- Page 6: "Ponytail holders keep my hair in a ponytail." Same as pages 4 and 5.
- Page 7: "Clincher combs keep my hair back." Same as pages 4 and 5.
- Page 8: "Headbands keep my hair out of my face." Same as pages 4 and 5.

Box 6 Chloe's Makeover

Ms. Margaret called Chloe and said, "Please come over, I have time today to give you a makeover."

Chloe was excited. She started to squirm. She had to wait on a lady getting a perm.

"Let's use a comb to comb your hair nice. Let's use a pick. We'll comb your hair twice."

Ms. Margaret said, "I know. Let's give your hair curls. This hairstyle looks wonderful on little girls."

"Which barrettes would you like to wear? You have good taste. They look great in your hair."

Next, Chloe got her nails painted and filed. Ms. Margaret said, "Beautiful." Chloe just smiled.

Chloe was good, so she got a treat ... A butter rum sucker, she was happy to eat.

Ms. Margaret said, "You're done. It's time to pay."

"Thank you, Ms. Margaret. I had such fun today."

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A Word About Prematurity

By Virginia Bishop, Ph. D., Consultant, Austin, TX

Editor's Note: Prematurity is a leading cause of vision loss, hearing loss, and deafblindness. The following is a section of an article, "Infants and Toddlers with Visual Impairments" by Virginia E. Bishop, Ph.D. The entire article can be found on the TSBVI website at http://www.tr.wou.edu/Education/infant/index.htm. Additional information about prematurity can be found on the DB-LINK website at http://www.tr.wou.edu/dblink/etiologies.htm#c3.

Babies who are born "too soon" or "too small" are at risk for many complications. Those who are born "too soon" are called **premature**; they are born before the 36th week of gestation (i.e., at least a month early). An infant (who may be full-term - 40 weeks or more) who weighs less than 5 1/2 pounds is "too small," or **dysmature.** The implications for disabilities are somewhat different for these two groups.

In a **premature** infant, body systems or physical characteristics may not be fully developed, and the more premature the less developed. There is less muscle tone (the infant is more likely to lie in an extended position than in a flexed position), the respiratory system (ability to breathe) is not fully developed, the brain may not be ready to control breathing yet, and an immature nervous system may inhibit the feeding process (sucking). The baby may also experience jaundice (a yellowing of tissue because the liver is not yet able to regulate the secretion of bilirubin), hypoglycemia (not enough glucose in the blood), and hypothermia (an inability to maintain body temperature because there is not enough insulating fatty tissue). Advanced medical procedures are able to manage these factors in many premature infants, but careful monitoring (usually in a neonatal intensive care unit, or NICU) is necessary until the child's body systems mature enough to function independently.

In a **dysmature** infant, the chances of respiratory distress are less, but the baby may still experience hypothermia, hypocalcemia (not enough calcium in their blood), and hypoglycemia. The incidence of developmental disabilities is higher in low birth-weight babies. Dysmaturity is more likely in babies whose mothers had poor nutrition during pregnancy, or were chronically ill, and adolescent mothers are at particularly high risk for low birth-weight babies.

Current neonatal intensive care units try to duplicate womb conditions for premature and/or low birth-weight infants. The lighting may be reduced with blankets over the incubator or crib, or gauze over the infant's eyes. Noise is controlled (kept under 50 db). Infants may be 'swaddled' (wrapped, to maintain skin contact). Indirect and continuous contact with the child's natural mother may be maintained by placing a bandanna worn by the mother (and saturated with her unique odor) lightly over the infant's face or eyes. The baby's own states may be monitored so that treatment occurs at the most receptive times (usually the "alert" stage). (The "states" are: deep sleep, REM sleep, drowsiness, alertness, fussiness, crying.) Self-regulation on the part of the baby is the desired goal. ("Neurobehavioral stability" is the term used to describe this self-regulation.)

Caregivers are taught to watch for signs of distress or agitation in the infant (changes in skin color or breathing patterns; "visceral" signs such as drooling, limpness, hyperextension, arching, stiffening, flailing of arms or legs, startle reflex) Caregivers are also taught how to alleviate the stress or agitation, by speaking quietly, moving slowly, supporting the infant's shoulders, giving the infant's feet something to push against, and swaddling.

Among infants who have experienced respiratory distress and required ventilation, a number will develop an eye condition with the potential for severe visual impairment. Retinopathy of prematurity (formerly called

retrolental fibroplasia) occurs primarily in premature infants born at 23-28 weeks gestation, or in those weighing less than 1000 grams (about 2 pounds 3 ounces), although it has also occurred in some full -term infants. The condition is related to retinal blood vessels, which are not fully developed in premature infants. Although oxygen was long believed to be the culprit in causing the disease, it is not a sole factor; the exact cause (and best treatment) of ROP has yet to be discovered (even after over 50 years of study). Current guidelines for perinatal care recommend that all infants born at less than 30 weeks of gestation, or who weigh less than 1300 grams at birth, should be checked for ROP before leaving the hospital, **regardless of whether they were exposed to oxygen.**

ROP has a wide range of impact. In as many as 90% of infants who develop the disease, it resolves itself with no treatment. In the infant whose ROP does not spontaneously resolve, cryotherapy may help prevent its progression, but hundreds of children still end up severely visually impaired (many of them blind). Whenever low birth-weight or prematurity are mentioned in medical records, the possibility of ROP should be investigated, to be sure it was either ruled out or identified. If ROP is listed as a visual diagnosis, a careful analysis of the eye report should reveal the extent of the disease (i.e., which stage). Since functional vision can range from useful to useless, a diagnosis of ROP should always be cause for referral to the VI teacher.

Syndromes Associated with Progressive or Degenerative Vision or Hearing Loss

By Kate Moss, Education Specialist, Texas Deafblind Outreach

We should never assume that any child's vision or hearing is stable since there are many reasons additional vision or hearing loss may occur. There may be the onset of additional eye conditions through injury or disease. Just because someone has cortical visual impairment, doesn't mean that they are immune to vision loss related to juvenile diabetes or Usher Syndrome. A person with a conductive hearing loss may acquire additional sensorineural hearing loss as a result of exposure to ototoxic drugs or an injury to the head. Some conditions such as Congenital Rubella Syndrome have high risk for late onset of cataracts and glaucoma. This is why regular and periodic screening of vision and hearing are mandated throughout the child's time in public school. However, when a child has been diagnosed with certain syndromes or conditions, we know that there is a greater possibility (or in some cases a certainty) that there will be additional loss of vision and hearing at some point.

There are a number of syndromes associated with deafblindness that have either progressive or degenerative problems with hearing and/or vision. It is important for both parents and professionals to be aware of the possible changes in vision and hearing for children with these syndromes so we can make sure we are always making appropriate accommodations and modifications necessary for the child in the educational setting.

Below is a list of some syndromes that have either a progressive or degenerative vision or hearing loss.

- Alstrom (Hallgren) Syndrome Vision: Progressive (Retinitis Pigmentosa).
- Bardet-Biedl Syndrome (Lawrence-Moon-Bardet-Biedl) Vision: Progressive (Retinitis Pigmentosa).
- Batten Hearing: Degenerative; Vision: Degenerative.
- Cockayne Syndrome Vision: Retinal degeneration.

- Hunter Syndrome (MPS II) Vision: Retinal degeneration in some types.
- Kearns-Sayre Syndrome Vision: Progressive paralysis of certain eye muscles (chronic progressive external ophthalmoplegia [CPEO]); abnormal accumulation of colored (pigmented) material on the nerve-rich membrane lining the eyes (atypical retinitis pigmentosa), leading to chronic inflammation, progressive degeneration, and wearing away of certain eye structures (pigmentary degeneration of the retina).
- Kneist Dysplasia Vision: Vitreoretinal degeneration and retinal detachment.
- Leber's Congential Amaurosis Vision: Progressive.
- Leigh's Disease Hearing: Degenerative; Vision: Degenerative.
- Neurofibromatosis 2 Hearing: Progressive; Vision: Progressive.
- Marshall Syndrome Hearing: Occasionally progressive, high frequency loss; Vision: Occasionally can progress to detached retina.
- Norrie Syndrome Hearing: Progressive; Vision: Progressive.
- Refsum's Syndrome Hearing: Progressive; Vision: Progressive.
- Stickler Syndrome Hearing: Progressive high frequency loss; Vision: Can progress to a detached retina.
- Usher I & II Vision: Progressive (Retinitis Pigmentosa).
- Usher III Hearing: Progressive; Vision: Progressive (Retinitis Pigmentosa).
- Cytomegalovirus Hearing: Progressive; Vision: Progressive.

If your child has been diagnosed with any of these syndromes or conditions, talk to your doctor about the possibility of a progression or degeneration of vision or hearing. Make sure you understand what changes may occur and how often vision or hearing needs to be checked to make sure changes have not occurred.

As parents, if you notice new problems with the way your child is using his vision or hearing, you may want to request new assessments through your ARD committee. When your child or student has been identified with one of these conditions, the need for both medical and educational assessment or reassessment should be considered annually. This may mean that a child needs to go to the ophthalmologist or otologist more frequently. There may be a need to update the Functional Vision Evaluation and Learning Media Assessment or the Communication Assessment each year.

Vision and hearing are critical to accessing information in an educational setting. We must make every effort to make sure we know about any changes in the status of the child's vision and hearing so we can provide the support he or she will need to succeed in school.

RESOURCES AND REFERENCES

Boystown Research Hospital Website http://www.boystownhospital.org

Family Village website http://www.familyvillage.wisc.edu

Foundation Fighting Blindness website http://www.jwen.com/rp/wffb/ffb1.html

The Kniest Syndrome Info Center http://www.angelfire.com/va/btfarrell/articals.html

Lawrence-Moon-Bardet-Biedl Syndrome Home Page http://www.isgrd.umds.ac.uk/laurence/ OMIMTMOnline Mendelian Inheritance in Man http://www3.ncbi.nlm.nih.gov/Omim/ Pediatric Database website http://www.icondata.com/health/pedbase/index.htm/

Texas School for the Blind & Visually Impaired website http://www.tsbvi.edu/Outreach/seehear/spring01/lebers.htm

Learning from History Part One

by Phil Hatlen, Superintendent, Texas School for the Blind and Visually Impaired

I was recently interviewed by a woman who is writing her doctoral dissertation on the history of schools for the blind. The experience brought back many memories, and reminded me that these schools do, indeed, have a rich and illustrious history. I'm going to select some of what I consider turning points in the history of schools for the blind and share some thoughts with you. In the next See/Hear I'll provide an illustration of the current status of the Texas School for the Blind and Visually Impaired. There is a history, a present, and a future for all persons and organizations. Knowing about history helps us understand the present and guides us into the future.

1832

The first students are accepted at the Perkins School for the Blind in Boston and the New York Institution for the Blind. While there continues to be some discussion as to what school was the first in the U.S., it appears that these two schools accepted students at the same time. At Perkins, Samuel Gridley Howe is the first Director. He is very clear in his philosophy that he believes that all children should be educated in their home communities, in local schools, while living with their families. However, Dr. Howe recognizes the necessity of schools for the blind for geographic reasons, not for philosophic reasons. He knows that blind students require the special skills of highly trained teachers, and he realizes that this will not happen often in local communities due to the low prevalence of blindness

1900

A class for blind children is begun in an elementary school in Chicago. This early success in "integration" is widely publicized, and in subsequent years other urban cities begin their own educational programs for blind students. This small intrusion into the monopoly held by schools for the blind doesn't seem to bother them, for residential schools continue to have more applicants than they can admit.

1903

I insert this particular year because soon the New Mexico School for the Visually Handicapped will be celebrating its 100th anniversary. Almost concurrently, the Maryland School for the Blind is having its 150th birthday. I have invitations to events honoring both of these occasions on my desk right now, and they remind me of the long and honorable history of our schools for the blind.

1930s

Through the first 30 to 40 years of the 20th century, there is not much change regarding education of blind children in the U.S. By about 1915, around 15 cities have day classes for blind students. These hardly cause a ripple within schools for the blind. In the 1930s, several schools for the blind begin placing their senior high school

students in local high schools. Two reasons are given for this move. First, the local high schools have the population and the resources to offer a much richer curriculum, with multiple choices for courses. Schools for the blind, with their small enrollment, cannot even come close to providing the curriculum choices of local comprehensive high schools. The second reason is that some of the leadership at schools for the blind begin to realize that, by senior high school, some of their students have mastered the use of curricular adaptations, methods, and materials so that the playing field has been leveled in most areas of academic courses. Blind students sit in classes with sighted peers and study the same curriculum, with little disadvantage. It should be emphasized that this expansion of mainstreaming is initiated by schools for the blind.

1950s - 1960s

This period, without a doubt, contains the most profound changes in education of blind children in our history. Until this time, schools for the blind carefully selected their students, and seldom admitted children with multiple disabilities or complex learning needs. They were the "only game in town", and had complete control of how they functioned and whom they served. Then, suddenly, retrolental fibroplasia (RLF) changes everything. The dramatic result of this cause of blindness is to change forever the educational systems in this country. If any of you would like a more detailed accounting of this period, I would be pleased to write it for another publication, but suffice it to say that neither local schools nor schools for the blind will ever be the same again.

Local school programs become the primary education placement for blind students who do not have additional disabilities. Schools for the blind begin to experience a reduction in enrollment as the population they are accustomed to serving are now attending their local schools. As their students decrease in number, it becomes apparent to many schools for the blind that they will have to change their admission policies and serve students with additional disabilities—such a change is a matter of survival, not necessarily choice.

Of course, the teaching staff at schools for the blind have to either adjust or leave, and in most cases, about half choose each alternative. In some cases (Western Pennsylvania School for the Blind, for example), a decision is made to convert the school for the blind into a school that serves exclusively students with visual impairment and additional disabilities. Other schools for the blind diversify their enrollment, and begin serving students with other disabilities (New York Institute for Special Education). And other schools become primarily service centers (North Dakota School for the Blind). All of these are remarkable and appropriate transitions, and these schools continue to thrive in their changed roles.

Most schools for the blind accept children with multiple disabilities and continue to serve children who are visually impaired only. These schools have, over the years, struggled to provide outstanding services to two very diverse populations on one campus.

These profound changes happen quickly, and often neither service delivery system is quite prepared when the change occurs. And the transition does not always find all parties in agreement. Sometimes local schools only grudgingly open their doors to visually impaired students, and passively resist efforts to make the change healthy and successful. But even more often, residential schools resent the change and seriously question the ability of local schools to meet the needs of blind children. Unfortunately, these differences tend to make the transition a smooth, positive experience for children and parents. I can only imagine how the 1950s and 1960s might have been if schools for the blind had led the way in mainstreaming and given the movement both solid support and its expertise. Instead, local school programs develop without much help from most schools for the blind.

By the end of this period, local school programs are experiencing good success in their efforts to replicate the education of sighted children for their blind students. And, sometimes much to their amazement, schools

for the blind become excellent at providing an appropriate, useful education for children with multiple disabilities.

1980s

I often refer to this decade as a time when schools for the blind begin to assertively take charge of their own destiny. Instead of viewing their role exclusively as supplementing the programs offered in local schools, and serving only those children whom local schools didn't want to serve, our residential schools begin carving out a new image for themselves. This new image says that sometimes academic students need time at schools for the blind, that a "revolving door" process, resulting in students moving back and forth between local schools and schools for the blind, can indeed work, that in some areas of academic instruction, mathematics and science, for example, schools for the blind can actually provide a better instructional program than local schools, that self-esteem and self-confidence can often grow and thrive in a residential school, that it is healthy for blind children to know and play with other blind children, that time spent in a school for the blind need not result in loosening family ties, that time spent in a residential school does not make it more difficult for a young adult to assimilate into her home community.

In other words, we begin to learn that there is no hierarchy of desirability between the two educational systems—that both have strong qualities from which students can benefit. Placement should not be based on philosophic principles, but on the individual needs of children. Staff at the school for the blind and in the local schools, together with parents, can really sit down together and discuss the individual needs of a child without having a bias for one system or the other before the meeting even begins.

My friends, we live in the most wonderful era in our profession's history. We have learned how to respect and honor the assets and liabilities of various placement options, and we can make decisions that truly represent the best interests of each individual child.

Part Two will discuss the school for the blind in the 21st century.

No Crystal Ball Available Into Legislative Session Results

Terrell I. Murphy, Executive Director

Writing deadlines aren't usually problematic for me. It's common for state agencies to write information well in advance of publication dates; so keeping in touch with *See/Hear* readers each quarter with timely news is normally uncomplicated. Every two years, however, I know that what I write today about the outlook for Texas Commission for the Blind services may be accurate today and nowhere in the ballpark one day later, much less three months from now when this issue of *See/Hear* will be published. That's the nature of state government when the Texas Legislature convenes. This session is proving to be the most complicated of my 30 years with the state.

Last issue I shared with you information about the Commission's legislative appropriations request and plans for the 2004-2005 biennium. I wrote the article shortly before every state agency's original LAR became

extinct after revenue forecasts came out in January. Because of the limited availability of general revenue funds for the upcoming biennium, agencies were subsequently instructed to present new budgets in terms of core functions and essential agency services, how the services can be provided more efficiently, and what the services cost. The legislature will examine essential services in relation to each other, and budgets will need to be "built" up, in priority order, to the estimated \$54.1 billion available for the 2004-05 biennium, beginning with the most essential service "blocks." This new process promises to be extremely complicated for agencies and decision-makers. Every program in Texas is vulnerable at this point.

Five days before we received new budget instructions, Gov. Rick Perry, joined by Lt. Gov. David Dewhurst and House Speaker Tom Craddick, directed state agencies to immediately cut this year's general revenue spending. The agency responded by cutting 5.4% of its general revenue budget. This will mean cutting back planned travel, delaying needed capital purchases, freezing hiring, and reducing some service contracts immediately.

To make planning even more challenging, Comptroller Strayhorn issued her e-Texas report, *Limited Government, Unlimited Opportunity*, in the same month. The Comptroller recommended the consolidation of all health and human service programs into five large agencies:

- an expanded Health and Human Services Commission (HHSC), which would have control over:
- a newly formed Department for Children and Families,
- a newly formed Department for Persons with Disabilities,
- a newly formed Department for Health and Mental Health, and
- an expanded Department on Aging.

The deadline for providing articles for *See/Hear* is this week, which coincided with the deadline for filing bills. So far, three bills have been introduced that follow along the lines of the Comptroller's recommendations. In each of the bills, the Texas Commission for the Blind is abolished as a state agency. All of the current policy and rule-making boards would be eliminated. The authority to adopt all rules and policies governing the delivery of services to persons who are served by each department and the rights and duties of persons who are served or regulated by each department is moved from citizen boards appointed by the Governor to the HHSC Commissioner.

H.B. 1814, filed by Representative Jim Pitts of Waxahachie and its companion bill, S.B. 1421, by Senator Kyle Janek of Houston, consolidate all human service programs into four departments under HHSC:

- the Department for Children and Families;
- the Department on Aging;
- the Department for Persons with Disabilities; and
- the Department for Health and Mental Health.

The Department for Persons with Disabilities would be formed from the mental retardation portion of MHMR services and services of the Texas Rehabilitation Commission, the Texas Commission for the Blind, the Commission for the Deaf and Hard of Hearing, the Council on Early Childhood Intervention Services, and the DHS Office of Services to Persons with Disabilities.

H.B. 2850, filed by Representative Wohlgemuth of Burleson, consolidates all service programs into three new agencies under HHSC:

- the Department of Community and Long-Term Care Services;
- the Department of Health and Mental Health Services; and
- the Department of Rehabilitative Services.

The Department of Rehabilitation Services would be comprised of the former rehabilitation programs of the Texas Commission for the Blind, the Texas Rehabilitation Commission, and the Texas Commission for the Deaf and Hard of Hearing. TCB's independent living program and part of TRC's services would be transferred into the Department of Community and Long-Term Care Services.

H.B. 3006, filed by Representative Swinford, abolishes all the current health and human service agencies and transfers their programs to HHSC. The HHSC Commissioner is then authorized to organize the operations of HHSC so that health and human services are provided in this state through divisions created within the commission, as determined by the commissioner.

As you can see, at the time I'm writing this, there is no way to predict the reaction of legislators to these particular bills. We can expect lots of discussion on the issue of consolidation in the media and among advocacy groups throughout the health and human services arena. What the future holds will have taken greater shape by the time this article is published. If you want to keep abreast of legislative actions that affect you and your children, stay informed through the news, your local and state advocacy groups, and your local representatives. Visit Texas Legislature Online to look up a bill by author, subject, or committee. The address is www.capitol.state.tx.us/tlo/legislation/bill_status.htm.

I've told our staff that the last thing we want to happen is for us to be distracted from our mission during the ensuing debate over service models and budgets. TCB will keep on doing the best we can with what we have to provide quality services to Texans who are blind. The Texas Commission for the Blind already knows how to do this better than any agency in the country, and we plan to stay the course as long as we exist.

Interesting Facts from the Year 2003 Annual Registration of Students with Visual Impairments

By Nick Necaise, APH Materials and VI Registration Coordinator, TSBVI Outreach

The Annual Registration of Students who are Visually Impaired (VI) is the count of eligible students who are visually impaired in each school district of Texas as of the first Monday in January. The "as of" date for this year's Annual Registration was January 6, 2003. This count is done for a number of reasons.

- 1) It determines the amount of funding the state receives to get materials from the American Printing House for the Blind.
- 2) Each region's State Supplemental Visually Impaired (SSVI) funds are portioned out according to the number of VI students they have. These SSVI funds can help pay for things like Vision Specialists at the Education Service Centers, salaries of VI teachers and O&M Specialists, training workshops, family support and other VI-unique needs as determined by plans within each region.

- 3) It is a tool for statewide and regional planning.
- 4) It is a federal requirement.

Here are some interesting facts from the 2003 registry that give us a picture of students in Texas with visual impairments.

- Total number of students registered 7104, plus 4 students who are enrolled in non-public schools
- Number of students who were on the 2002 registration but not on the 2003 registration 1006
- Number of new students (not previously on 2002 registration) added to the 2003 registration 1165
- Braille readers 366
- Large print readers 1417
- Regular print readers 1526
- Auditory readers 407
- Pre-Braille readers 144
- Pre-readers 1438
- Non readers 2857
- Number of legally blind students 4649
- Number of infants 602
- Number of preschoolers 761
- Number of kindergartners 398
- Number of districts with 1 or more VI students 737
- Number of districts with only 1 VI student 207
- Number of districts with 3 or less VI students 395
- Number of students whose primary handicapping condition is visually impaired (VI) 4128.
 (The first handicapping condition listed is VI. The students may or may not have additional handicapping conditions listed.)
- Number of students whose secondary handicapping condition is VI 1675 (The primary handicapping condition listed is other than VI.)
- Number of students whose third handicapping condition is VI 1032 (The first two handicapping conditions listed are other than VI.)
- Number of students who are VI only 2387 (No other handicapping conditions are listed.)
- Number of students with 2 or more handicapping conditions 4717
- Number of students with AI/VI (Auditorially Impaired/Visually Impaired) or DB (Deafblind) 427
- The region with the most VI students on the Annual Registration (Region 4 / Houston area) 1420
- The region with the least VI students on the Annual Registration (Region 9 / Wichita Falls area) 97

- There are 50 Braille reading students at the Texas School for the Blind and Visually Impaired.
- 1805 or 25.94% of the students on the 2003 Annual Registration receive instruction in Orientation and Mobility.

Distribution of VI students in Texas based on the 2003 Annual Registration:

- 1 VI student 207 districts or 28%
- 2-3 VI students 188 districts or 26%
- 4-7 VI students 161 districts or 22%
- 8-11 VI students 49 districts or 7%
- 12-15 VI students 33 districts or 4%
- 16-19 VI students 18 districts or 2%
- 20-29 VI students 19 districts or 3%
- 30+ VI students 62 districts or 8%

U.S. & Canada Adopt New Braille Terminology

BANA Press Release

The Braille Authority of North America (BANA) announces a change in terminology to what has been traditionally known as "grade 1" and "grade 2" braille. These categories will now be referred to as "uncontracted" and "contracted" braille respectively.

The change is being made at the request of many in the blindness field. People often confuse grades of braille with first and second grades in elementary school. BANA believes that the change to more accurately descriptive language will increase awareness and improve the overall understanding of how braille is learned, read, written and transcribed.

BANA urges all **organizations**, **agencies**, **teacher training programs**, **braille production facilities**, **software developers**, **professionals in the field of blindness**, **and braille readers** to incorporate this terminology into writing, publications, presentations and general practice.

The ultimate goal is to enhance understanding and more accurately reflect what braille truly is—a versatile and effective reading and writing system for people of all ages who are blind and visually impaired.

CLASSIFIED

Mail or e-mail your new classifieds to Jim Durkel at:
TSBVI Outreach, 1100 West 45th St., Austin, TX 78756, or JimDurkel@tsbvi.edu.
An up-to-date Statewide Staff Development Calendar is posted on TSBVI's website at <www.tsbvi.edu>.

INSITE Training A Home-Based Model For Infants, Toddlers, and Preschoolers Who Are Multiply Disabled Sensory Impaired

A 6-day training for school and ECI professionals working with families who have children (birth to 5) with multiple impairments, including sensory impairment. Topics include information on vision loss, hearing loss, communication development, motor development, active learning, and working with families.

Austin, Texas - May 12-17

Contact: Gigi Newton at <giginewton@tsbvi.edu> Phone: (512) 206-9272

Fort Worth, Texas

(ESC Region XI, Holiday Inn North) - 9:00 a.m. - 3:30 p.m.

June 24-25 - Part I

July 8-9 - Part II

July 29-30 - Part III

Your may register for all training opportunitites either via our website at www.esc11.net or use our catalog paper registration forms

Contact: Olga Uriegas at <ouriegas@esc11.net> or 817-740-756

Motor, Vision, & Travel: Working Together As A Team, To Address The Motor & O&M Issues Of The Young Child With A Visual Impairment

This workshop will cover information about the importance of movement, development of motor skills, and exploration of the environment and the possible impact of vision loss on motor development. This includes information on the inter-relationships of vision, reflexes, posture and motor control, object exploration, sensorimotor development, concept development, fine motor skills, and body awareness. Participants will learn about fun O&M, fine motor, and sensory games and activities and the importance of teamwork between the O&M, PT and OT.

This workshop is being sponsored by the following Regional Education Service Centers:

Region XX: San Antonio, June 2, 2003 Region VI: San Angelo, June 6, 2003

Region I: Edinburg, TX, June 4, 2003

Contact: Karen Scanlon at 512-206-9314 for more information.

NEWS & VIEWS

BART: Bonding and Relaxation Techniques Training

(Massage for Special Needs Children)

Evelyn Guyer, who developed the BART Program, will be conducting both days of training. She is a nurse educator, Certified Instructor Trainer, and author. Evelyn has worked with families for over 35 years.

BART Certification Training

This one-day training will certify participants to teach BART Techniques to parents.

June 2, 2003--Dallas, TX **June 5, 2003--**Austin, TX

BART Trainer Course

This course will allow participants to teach other professionals BART Techniques.

(This one-day training of trainers is open ONLY to people who have been BART certified for at least one year.)

June 3, 2003--Dallas, TX, **June 6, 2003--**Austin, TX

Dallas training will be held at Country Inn and Suites, DFW Airport South, 2000 Hardrock Road, Irving, TX 75061 (972) 399-9874

Austin training will be held at
Four Points Sheraton Hotel,
7800 N. IH-35 (NW corner of Hwy. 183 & 1H-35)
Austin, TX 78753
(512)836-8520 or (866) 223-9330

For more information please contact: Evelyn Guyer S. 1140 Lyndale Lane, Elma, NY 14059 eguy4families@cs.com

Texas Focus 2003: Focus on Tactile Learning

June 12 & 13, 2003

Featured Keynote Speaker: Dr. Sally Mangold Location: Gunter Hotel, San Antonio, TX Contact: Jim Durkel at JimDurkel@tsbvi.edu or (512) 206-9270

6th International CHARGE Syndrome Conference

July 25-27, 2003

Keynote speaker: Dr. Jan van Dijk Location: Independence, Ohio

For information about this event go to http://www.chargesyndrome.org/cleveland.htm or email to conference@chargesyndrome.org or call

Phone: (800) 442-7604 or (573) 499-4694. Late fee of \$50 per registration if registered after June 15, 2003.

Students With Visual and Multiple Disabilities, Including Autism

July 9-10, 2003

Location: Region IV ESC, Houston, TX Presenters: Marilyn and Jay Gense, Oregon Contact: Karen Crone, <kcrone@esc4.net> Cost: \$60.00

Open to 200 people. We would love to have people from around the state.

O&M for Students with Deafblindness

July 11, 2003

Location: Region IV ESC, Houston, TX.
Presenter: Marilyn and Jay Gense
Contact: Karen Crone, <kcrone@esc4.net>
Cost: \$30.00

2003 American Association of the Deaf-Blind (AADB) Convention

July 12-18, 2003

Location: San Diego State University, San Diego, CA

Contact: American Association of the Deaf-Blind

814 Thayer Ave., Suite 302 Silver Spring, MD 20910; Phone: 800-735-2258;

email: <info@aadb.org>

SEE/HEAR

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The audio version of *SEE/HEAR* is provided by Recording for the Blind and Dyslexic, Austin, TX.

If you no longer wish to receive this newsletter, please call Beth Bible at (512) 206-9103 or e-mail her at BethBible@tsbvi.edu.



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