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# SEE/HEAR

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A QUARTERLY NEWSLETTER ABOUT VISUAL IMPAIRMENTS AND DEAFBLINDNESS  
FOR FAMILIES AND PROFESSIONALS

A collaborative effort of the Texas School for the Blind and Visually Impaired and  
Department of Assistive and Rehabilitative Services, Division for Blind Services

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## Who Am I??

by Mary Sue Welch, TSBVI Board Member, Dallas, TX

*Abstract: A TSBVI Board Member shares her memories of TSBVI and reflects on how they had an influence on who she is today.*

*Key words: family, blind, visually impaired, personal experience, TSBVI History*

*Editor's Note: The following is an excerpt from Mary Sue's contribution to the Sesquicentennial Memories page on the TSBVI website. We encourage you to read her delightful article in its entirety at <<http://www.tsbvi.edu/school/sesq/memories.htm>>. Do you have an amusing anecdote about the school? Were you fond of a teacher that you had here? Please contribute your own story or a story from your family or friends who might have attended.*

Mine has not always been the fairy tale life I now enjoy. Now I live on the 23rd floor of a high-rise in downtown Dallas with a marvelous view of the city. My husband (who is also blind) actually has a job and provides us with a new Mercury Monterey van—black in color—with a wonderful young man to drive it. This young man takes me shopping and makes our lives easier in a number of ways. No, it hasn't always been this way for me.

I was born the blind child of a middle-class, sighted, white family in Huntsville. Yes, my mother, my father, my brother Walter Charles, my half brother Tommy and my half sister Marie were all sighted. They had other problems, but being blind was not among them. Mother said my birth was tumultuous with great physical pain for her. Much to my dismay, she never described me as a beautiful newborn. Rather, I was told that my hue was bluish and my eyes were never opened when I was brought to her in the hospital.

Mother just thought I was sleepy all the time, but my father was worried. On the day of my arrival home, Daddy took me into the bedroom and shined a flashlight in my eyes. My right eye responded, but the left did nothing at all. Upon sharing his concerns with my mother, she fell apart. When I was six weeks old, we began the round of eye doctors lasting until I was age three when a doctor in Austin told my parents that nothing could be done about my vision. He advised them to plan to send me to The Texas School for the Blind when I was six and to prepare for my life as a blind person. I actually think that things became easier for my parents then because they knew what to expect.

I left home to attend the Texas School for the Blind on September 26th, 1954, the day after I turned six. Early on that Sunday morning, my grandmother on my mother's side had a stroke. My mother was devastated, feeling that she was losing both her mother and her baby. In spite of that, my parents loaded me and my stuff into the car and took me to Austin. It was a very unselfish act and I am grateful to them even today.

They were told that they could not come to see me or call me for three weeks. It was explained that I needed this time to become acclimated to my new surroundings. They left me at the swings playing with my first friend at school. I was okay until nighttime, but then the homesickness swept over me. The houseparent on duty was not the loving type, so I cried myself to sleep without comfort from anyone. The kids were not allowed out of bed, but they would have comforted me if they could. The houseparent felt I would do better to tough it out. That's what I did.

The next morning, my training in independence truly took off as I learned to make my bed. I bet it was a sight, but I can whip one together pretty well now.

My first grade teacher had the most beautiful voice. She was quiet and kind and I loved her dearly. She started working with me on Braille right away. I loved it and learned fast. I still love Braille and am taking a course to be a certified Braille transcriber now at my old age.

I remember my first trip to the school library as a real turning point in my life. I was fascinated with all those books in one place. As the years went by, I spent much of my time studying and reading in the library. Books have remained a true source of pleasure for me all my life. I credit our wonderful librarian with encouraging my love of reading and my desire to know more about others. She would probably be a bit disappointed to learn that I love mystery and legal thrillers best. I think she would have wanted me to like the classics.

Though I was never a good musician, I took piano lessons for 7 years. My piano teacher was always encouraging. She told me that even if I never played very well, I would learn much about self-confidence and poise from my musical training. I think it was from those days of performing that I developed a love of public speaking. My music also gained acceptance for me as a teenager in my Rainbow Girls assembly. I was a musician and that was a big deal to most of those girls who couldn't play at all. By the way, I got into Rainbows through the help of my cooking teacher at school. I mentioned that I was interested, and she introduced me to friends of hers who sponsored me.

I graduated from the Texas School for the Blind in 1966. I attended the school during some very interesting years. More than the big sidewalk split the campus in half separating the girl's side from the boy's side. Even inside the main building, there were separate water fountains and stairs for the girls and boys. And of course we sat on separate sides in the auditorium. Until I was about 16, I was afraid to drink from the boy's water fountain for fear of becoming pregnant. We had to be very careful about holding hands in the hallway because if the principal saw us doing that, the couple was in for a long talking to. We got grades in department, and once I got a C simply because I drank from the wrong water fountain. Or was it that I was caught kissing at the fountain? It was one or the other. Anyway, I was in trouble at home and at school.

When I think about my days at The Texas School for the Blind, I remember all kinds of sounds and smells. Some of them are still there when I return to visit. The main building still smells like books—not just any books—Braille books. The bell is not exactly the same as it was when I was a student, but I love hearing it ring. Although I know I am welcome to use any stairway I want, I still use the “girl's stairs”. It's only right!

I remember winter mornings especially well. Our dorms were heated by steam radiators. In the very early morning I would awaken to the sound of those radiators heating up. They would bang and clang and hiss and I loved hearing all that noise. I felt safe. I would grab one of my Braille library books and read until the wake-up bell rang.

Spring was just as good. We had assemblies on Mondays, Wednesdays, and Fridays in the school auditorium. Wednesdays were our favorites. We would almost always have student recitals that day. The windows in the auditorium would be open. Birds would be singing and our friends would be performing. It was a wonderful time for all of us.

As a small child at school, I loved rainy days. Sometimes our houseparents would make fudge or popcorn for us. We would listen to stories on the radio or just play inside. We had little chairs in

the dorms just our size. I could still see a little bit then and I remember that they were painted red, blue, green and yellow. We would gather all the chairs in the back of the dorm and build a boat—at least our view of a boat.

On sunny Saturdays, we often roller skated outside or played games like Red Rover, Red Rover. This could only happen after we finished our chores. We were always required to make our beds, dust our furniture, dust mop our floors, and clean the radiators. We didn't dislike these chores. It gave us a feeling of being in charge of our rooms. At least that's how I felt. We were learning responsibility, and how to care for ourselves and for our homes.

My senior year, we had a new superintendent. Bill Allen had been the superintendent for 40 years and he retired the year our school was integrated. The new superintendent had kids of his own, and things changed dramatically on campus. The integration went off without a hitch that I ever knew about until recently when I read the story posted here by Gene Brooks. We were simply pleased to have some new kids to get to know. We had a Student Council for the first time and I was voted president. We also had a yearbook for the first time and I was co-editor of *The Wildcat*. I also won the prestigious Crisco award for my cooking and sewing abilities.

Graduation was exciting and sad, as it is for young people all over the world. I planned to go to college, but I was terribly afraid that I would never learn my way around the campus. Although I had been a member of the National Honor Society, I didn't have much confidence in my ability to learn without all the support from school. I was in love as well, so when the chance came, I opted for love and married shortly after my 18th birthday.

I am fortunate enough to serve on the School Board for TSBVI. It gives me great pleasure to give something back to the school that taught me independence and self-confidence. Those old buildings sheltered me, and I believe that many of our teachers actually loved us. This place, those times helped me become who I am today.

That's the question! Who am I? I'm a career person, a wife, a mother, and a blind person. I'm me! And very glad about that.

## **Texas School for the Blind and Visually Impaired Announces the Winners of the Poetry Contest**

from the TSBVI website <[www.tsbvi.edu](http://www.tsbvi.edu)>

*Abstract: The Texas School for the Blind and Visually Impaired is celebrating 150 years in Austin! The contest winners of the first Sesquicentennial Poetry competition were announced in January, and more competitions are to come*

*Key Words: family, blind, visually impaired, TSBVI student poetry*

On January 27th, Ric Williams from the Austin Chronicle announced the winners of the first sesquicentennial poetry contest.

The two winners, Ryan Garcia, from Flour Bluff ISD, outside of Corpus Christi, and Maricela Alvarado who is currently a student at TSBVI and who lives in Fresno, Texas, read their poems on stage to a standing-room only crowd. Ryan was escorted to Austin with an entourage of family and VI teachers.

Both Garcia, a former TSBVI student, and Alvarado received \$100.00 from All Blind Children of Texas, a TSBVI T-shirt and a calendar.



Ryan Garcia

Congratulations! And don't forget to enter the next contest by April 13, 2006! Contest entry details can be found at <<http://www.tsbvi.edu/school/sesq/poetry-all.htm>>.

*Editor's Note: Along with the details on the next competition, the winning poems can be found on the TSBVI website at <<http://www.tsbvi.edu/school/sesq/12706poetry.htm>>.*

## **My Exciting Ski Trip or Cute Boys in Colorado**

By Tish Monroe, Student, TSBVI

*Abstract: A 22-year-old young woman who is blind shares her recent adventures skiing in Colorado.*

*Key Words: family, blind, visually impaired, recreation, social skills, snow skiing, personal experience*

My name is Tish Monroe. On February 1st, 2006, I went on a ski trip to the Adaptive Sports Center in Crested Butte, Colorado, with Coach Paschall and Brandon from TSBVI. I'd never been out of Texas before this trip. It was exciting. It's a lot different there.

To get ready, I bought a hat and ski boots in Austin. At home, my mom and I bought a jacket, long johns and some thermal underwear shirts. I wore the long johns under my ski pants, which I borrowed from my technology teacher. I borrowed some other things from my job coach and from Coach Paschall.

I flew from Austin to Gunnison, Colorado. It was my first time in an airplane. I had to go through a security check. On the airplane they told us all the rules, about what we could and couldn't use, about turning off



our cell phones after we left the gate, and keeping them off until we landed. I chewed gum so my ears wouldn't pop. My stomach felt kind of weird when we took off in the air, and when we went through some unexpected turbulence.

I'd never seen snow before. It was awesome. It was cold. It was a lot colder than I thought. Even with gloves on, my fingers got real numb playing in the snow. We went to a restaurant and there was snow on the streets. We walked down the road and there were huge piles of snow. I mean huge. They'd plow a little bit, then in the morning there would be fresh snow. The piles were huge.



My favorite part of the trip was meeting new people. When we got there I met some cute boys. A lady named Julie was my roommate. She's a really nice person. I'm very lucky to have her as a friend. She was my sighted guide around the town and the motel, and going up and down the elevator. Julie uses a wheelchair and has a service dog. It goes and gets things for her and helps her in and out of her wheelchair. She's going to send me some pictures by e-mail. I plan to keep in touch with her.

I also met President Jimmy Carter on my trip. He was really nice. I shook his hand, talked to him very briefly, and took a picture with him. Everybody at home was excited when I called and told them. They all wanted to fly up and meet him.

My ski instructor was pretty awesome too. Her name is Lisa. She's cool. We went skiing down the trails together. I was scared at first. We were pulled up the mountain on a lift. It was like a chair that I sat in as it went up the mountain. When it stopped, we got off and skied down the trail. Lisa guided me from behind with long ropes tied to tethers that were attached to me and to my skis. To slow down and keep from falling, I learned to turn in the toes of my skis and kind of lean in to make a "wedge."



If you ever have the chance to go skiing in Colorado, you absolutely should do it. You might be a little bit scared at first. I was, especially when I skied alone with the tethers off. I was so scared that I fell the first time. I fell a few times, and even went off the trail once. I was sore afterward. The two biggest paths we skied down were called Painter Boy and Red Lady. I liked it a lot.

Skiing was a lot of fun. It felt like I was rolling on wheels. Being able to go somewhere different, somewhere I've never been before, and have new experiences, gave me confidence in myself for the future. I want to go back to Colorado again, one more time. I want to play in the snow just one more time. Then I want to go to Port Aransas.

## A Simple Insight: A Father's Invention Lets Blind and Sighted Read Together More Easily

By Bill Marvel, *Dallas Morning News*

Photos by Brad Loper, *Dallas Morning News*

Reprinted with permission from the *Dallas Morning News*, February 9, 2006

*Abstract: A father finds a creative way to promote literacy for his son who is blind. He designed two braille books that keep the original text and pictures intact in order for sighted and blind to enjoy reading together.*

*Key Words: family, blind, visually impaired, literacy, reading, braille, home literacy strategies*

*Editor's note: Frequently Outreach staff answer phone calls from parents asking why their child is not reading. Long before teaching your child **how** to read, please consider teaching your child to **want** to read. There are numerous reading programs and strategies available for educators and families, but extensive research has proven that reading aloud to a child is the single most important factor in raising a reader. These fifteen minutes a day will be the best investment you will ever make towards your child's future. The following links give great ideas, tips, and resources available to promote lifetime reading: *The Read-Aloud Handbook* <[http://www.trelease-on-reading.com/rah\\_intro\\_p1.html#pagetop](http://www.trelease-on-reading.com/rah_intro_p1.html#pagetop)>; and *Literacy Connections* <<http://www.literacyconnections.com/ReadingAloud.html>>. The following article describes how a Texas family with a son who is blind incorporates the love of reading into their home.*

DENTON – Ethan Ligon, 8, sits on the sofa reading *Guess How Much I Love You* to his younger brother, Spencer, 7. It's not *Harry Potter and the Goblet of Fire*, which is Ethan's favorite book these days. *Guess How Much I Love You* is about Little Nutbrown Hare. It's really aimed at a preschool audience. But Ethan is reading it to show off his dad's invention.

Eric Ligon, a graphic designer who teaches at the University of North Texas, has devised a kind of book that allows a child who's blind – Ethan, for example – and a child who's sighted – Spencer, for example – to read together. Or, for that matter, a sighted parent and a blind child.

"We're a Braille family," says Leslie Ligon, Ethan's mom. Both parents have taught themselves to read and write Braille. She's a jewelry-maker who creates bracelets and rings with Braille in the design. Her husband has set up the nonprofit BrailleInk to spread the word about the new books he's designed.



*Ethan Ligon (left) reads to brother Spencer. Their father designed a copy of *Guess How Much I Love You* that lets blind and sighted to read together more easily.*

### THE MOVING HAND

In most books meant for sharing by sighted parents and their blind children, transparent plastic sheets with raised Braille text are interleaved with pages of printed words and pictures. The trouble is, as the child's hand progresses across the Braille, it covers the print.

“Ethan would get to a word he didn’t know and he’d say, ‘What is this?’” Mr. Ligon says. “And we’d say, ‘Move your hand.’” Then he’d have to start all over again at the top of the page to find his place. “With this book,” Mr. Ligon says, “he doesn’t have to lift his finger.”

“It’s a useful and novel approach,” says Dr. Karen Wolffe of Austin, director of professional development for the American Foundation for the Blind and expert on special education and rehabilitation. “When a child stumbles, you’re not wondering which word he’s stumbling on,” she says. “It gives more control to parents.”



*Ethan Ligon, 8, reads a Braille version of “Guess How Much I Love You” to his father. Eric Ligon, who designed the book to help the blind and sighted read together*

This all began with a visit to the pediatrician when Ethan was 2 months old. “We were laughing,” Mr. Ligon recalls. “Then the doctor stood up and said, ‘Brace yourselves. He can’t see.’” Both retinas were detached. An operation failed to correct the problem. “That is how we got in the Braille business.”

The Ligon family are enthusiastic readers. Well-stocked bookshelves dominate one wall of the living room. Mrs. Ligon read to Ethan almost from birth. It didn’t matter what books, she said. “It was just the sound of my voice.” Studies show that reading stories together with parents is critical in building a young child’s reading skills. But what if that young child is blind?

## LEARNING TO READ

When Ethan was 4, the family moved from Dallas to Denton and started Braille training. Mom and dad also began learning the system, which translates letters, punctuation and mathematical symbols into rows of raised dots. “Suddenly I started seeing dots everywhere,” Mrs. Ligon says.

A bright, cheerful child, Ethan was ready and eager to read by 4 1/2. “The first time I saw him pick up a book and put down his hand on it, it was clear,” she says. In their enthusiasm, they found a 1954 Braille edition of Webster’s College Dictionary on eBay. It arrived on their doorstep in a crate, all 38 volumes. Mr. Ligon now admits that perhaps they were a little too enthusiastic.

More useful was an ancient Perkins Braille writer, a kind of typewriter for Braille. When Ethan started kindergarten, “We would write lunch box notes to him,” Mr. Ligon says. “The usual thing, ‘Have a nice day.’”

So that the teacher could help Ethan read them, Mr. Ligon would write a letter-by-letter translation above the Braille cells. “As a graphic designer, I was thinking in early literacy there’s always somebody reading with the child,” he says, “and it’s almost always somebody who’s sighted.”

And the experience is almost never entirely satisfactory, because the moving hand of the Braille reader inevitably gets in the way of the moving eye of the print reader. So he applied to the university for a semester-long sabbatical to work on the problem.

## NOTES FROM HOME

The lunchbox notes offered a solution. “It occurred to me to put the printed text and the pictures above the Braille,” he says. “Frankly, it seems so simple now and so dumb that nobody had ever done it before.”

As a demonstration of his idea, he selected that favorite Dr. Seuss read-together, *Green Eggs and Ham*. Mr. Ligon photocopied the illustrations and type, then embossed the Braille text beneath. (Before copyright lawyers start sharpening their swords, the copy was an experiment and wasn’t for sale.)



*Eric Ligon demonstrates to Ethan how long Nutbrown Hare’s ears are.*

But why have pictures at all, since a blind child can’t see them? Because sighted parents love to describe what’s going on as they read, he explains. To illustrate his point, he demonstrates to Ethan just how long Nutbrown Hare’s very long ears really are: He takes the boy’s arms and spreads them as wide as possible. Besides, he adds, “I needed to return to the original sensual experience for the sighted reader.”

Surprisingly, few parents of blind children go to the trouble of learning braille. The sight of a page of braille dots can be intimidating. “it’s like a blizzard,” Mr. Ligon says. But when the dots appear on the same page as the type, parents can begin to get a sense for it. “I’d be so frustrated if I couldn’t read braille,” Mrs. Ligon says.

## DID YOU KNOW?

Not all Braille is created equal. In Grade 1, or “uncontracted” Braille, a combination of up to six raised dots in a cell stands for a single letter, punctuation mark, or numeral. “Contracted,” or Grade 2 Braille makes use of standard abbreviations and contractions – almost 200 – to shorten words. For example, “little” is written with the Braille signs “ll.” There are special forms of Braille for mathematics, chemistry, computer programming and music.

## LABOR OF LOVE

BrailleInk, the nonprofit Mr. Ligon has started with Bruce Curtis, formerly with Perkins School for the Blind, has produced two books in the new format: *Guess How Much I Love You* (BrailleInk, \$19.95) by Sam McBratney and Anita Jeram, and *The Dot* (BrailleInk, \$19.95) by Peter H. Reynolds. The plan is to publish more titles. To order the books or learn more, log on at <<http://www.brailleink.org>> or call 1-800-324-2919.

## The Dillon Chronicles: Reflections on Our Morning Walk

By: Dr. John M. Slatin, Director of Accessibility Institute at the University of Texas, Austin, Texas with contributions from Dillon

*Abstract: An adult who is blind describes in rich detail the route he and his dog guide take on a morning walk.*

*Key Word: family, blind, visually impaired, Orientation and Mobility, dog guide, personal experience*

It's a beautiful morning. It was in the mid-50s when we woke up, and by now it's in the low- or mid-70s. Sun's out, and it's very bright; there's a light breeze, and the air smells good. Dillon and I just got back from a short walk. This is the third morning in a row we've done this: yesterday and Thursday we went around the block, first walking east to Duval, then turning south for a block, then west onto E. 34<sup>th</sup>, north onto Tom Green, and east again onto E. 35<sup>th</sup> Street, and up to the house in the middle of the block. Takes nine or ten minutes. It was so gorgeous out this morning that I wanted to do something a little different, extend the walk a little. So instead of turning onto E. 34<sup>th</sup> St. I told Dillon to keep going; we crossed 34<sup>th</sup> and went down to 32<sup>nd</sup>.

Each block is so different. From 34<sup>th</sup> to 33<sup>rd</sup> is a long block. At the southwest corner of 34<sup>th</sup> and Duval there are hedges growing out over the edge of the sidewalk just as you come up to the top of the curb cut, where the nubby part of the wheelchair ramp begins; Dillon stops and waits for me to find the branches with my outer arm, then moves forward. In a minute he stops again to let me find the raised part of the sidewalk with my foot, and does so again a few steps further on. A few yards later we have to stop for an overhead branch hanging directly in my path; there are others just to the east of that one, so Dillon waits for me to tell him what to do. I duck low and tell him to go forward, and we continue on to the end of the block. It smells like fall. We pause at the corner of 33<sup>rd</sup> so I can listen for traffic; there isn't any, so we cross.

This next block has a completely different climate. There are plantings on either side of the sidewalk—trees and bushes and ferns, some at knee- or thigh-level, others at eye-level, each a decision point for Dillon and for me. He sort of goes on tiptoe through this part. We haven't walked this way for a long time, and he isn't sure I'll remember, so he takes it slowly, not quite trusting me to dance with him as easily as I used to. We come out the other side, and in a few steps we're at the downcurb into the alley that bisects the block running east and west. Unlike the alley that runs along the east side of our house, this one is well paved, with real curbs on either side (so much for people in wheelchairs), but it's still an alley as far as I know. It's not as interesting on the other side—just a straight shot to the corner past ordinary lawns. There's one small patch of sidewalk where someone has put in a flagstone walkway; it's slightly uneven, so Dillon stops to remind me.

The next block isn't just a different climate again; it's a different world. The entire block from 33<sup>rd</sup> down to 32<sup>nd</sup> is occupied by one huge house on a huge lot, with a brick-and-ironwork wall/fence abutting the sidewalk. And it's on a small hill. There's no curb cut (again) on the southwest corner, and there are two more steps going up to the sidewalk after you step up on the curb; the first one's at a slightly awkward distance from the corner, about a step and a half; even knowing it's there, and even with Dillon leading the way, it's awkward. The other side of the street is even worse—it's a good deal hillier, and there's no sidewalk at all. Behind the big fence are two dogs that set up a frenzied barking as Dillon comes up the stairs and we stop for him to let me feel the branches coming out over the sidewalk. One of the dogs sounds pretty big and has a big bark and a low growl; the other one sounds smaller, with a higher-pitched bark and more frantic running back and forth. Both of them follow us all the way past the house, until they

come to the far corner of their yard. I had been expecting them so wasn't as upset or annoyed as I sometimes get when they surprise me on the way to or from campus. But of course Dillon's on alert, trying to keep an eye on them and remember that he's supposed to be guiding me, too. We go past the wheelchair ramp that leads to the bus stop for the #7 southbound, and get to the corner. There's no real street here, though maybe there was once; it's a sort of driveway/parking area. Capital Metro put in a wheelchair ramp here too, a year-and-a-half or two years ago. I check my watch; it's been about 10 minutes since we left the house. Though I'm feeling good, my breath is coming shorter, and I figure this will make a good place to turn around and go home so I don't run out of steam on the way back. So that's what we do.

I love that walk. I've done it hundreds of times in the nearly seven years we've lived in this house. It's my route to and from campus—down Duval to San Jacinto, then down San Jacinto to E. 24<sup>th</sup> Street, and across to my office in the FAC. It's a terrific walk: every block is different, with different smells, different textures underfoot, different patches of shade and light, different sounds. Some are lined with small private houses (some of which are occupied by students). There's a big apartment complex or two, a pizza joint where students often sit drinking beer on the porch in the late afternoons as I head for home, and there's a Laundromat, a Subway franchise, and a bar/burger joint, the Posse East, that's been there forever (There used to be a Posse West, too, around 24th and Rio Grande, but that's been gone for years). And that's just the stuff north of campus.

Not only is each block different, but each trip is different too. You can't step in the same river twice, as the saying goes, and evidently you can't quite walk on the same sidewalk twice, either. Because Dillon is so beautifully trained to stop, or at least slow down for changes in elevation, overhanging branches, etc.—anything that might trip me up—a shift of just a few inches to right or left of where we walked last time can make a difference in what he encounters—a bit of sidewalk angling up over a tree root, a branch coming down, a gate open in a fence.

It's been a long, long time since we did that walk, or even that part of it. It felt wonderful, like a rediscovery of my neighborhood and a re-expansion of my world. Dillon seemed happy and proud. He loves doing guidework, and I haven't given him nearly enough of it over the past three months, and even before that, because Anna had been dropping me off at the office a lot after we'd gone out for breakfast. So there was a lilt in Dillon's step, too, and a definite wag in the tail when we got back to the house and I told him what a great dog he was.

Writing this, I'm reminded of how liberated and excited I was when I first went out to San Rafael back in 1998 (Tuesday will be the seventh anniversary of the day I left for Guide Dogs, I realize!) to get the dog who turned out to be Dillon. On my first walks with Dillon I was startled to recognize how much I had slowed down in the preceding months and years, as I wrote in the Dillon Chronicles.

## A Brief History of Tactile Writing Systems for Readers With Blindness and Visual Impairments

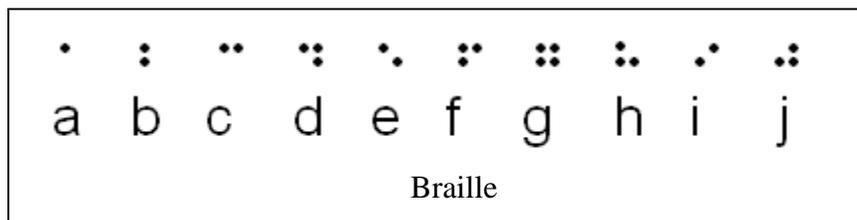
By Holly L. Cooper, Ph.D., Outreach Assistive Technology Consultant, TSBVI

*Abstract: This article describes and illustrates a variety of tactile writing systems used with individuals with blindness. Tactile codes included are New York Point, Boston Line Type, American Modified Braille, Moon type, Fishburne and standard Braille. Alternative media including Tack-tiles and tactile symbols are also discussed.*

*Key words: Programming, Braille, tactile symbols, tactile writing, reading*

This year, 2006, is the Sesquicentennial anniversary of the founding of Texas School for the Blind and Visually Impaired. In 1856, when TSBVI was founded, not only was Texas on the frontier of the American west, but education for people with blindness and visual impairments was also at the frontier of education. At the time there was no standard tactile reading code for people with blindness. In recognition of the advances and changes in blindness education in the last 150 years, we present an overview of tactile reading and writing codes for people with blindness.

Braille, the reading and writing code currently used in the U.S. and other English speaking countries by readers with blindness and visual impairments, was invented by Louis Braille. Braille was a Frenchman who lost his sight in childhood from an eye infection caused by an accident with his father's leather working tools. Louis Braille developed his ideas for a tactile code system adapted from French soldiers who wanted to be able to read notes in the dark. Louis Braille modified this 12-dot system into 6 dots, and had written in Braille and taught others by 1832. Braille was introduced in the U.S. about 1860, and was taught at the St. Louis School for the Blind and other schools.



There have been many other tactile reading media for people with blindness in the past 200 years. Originally, most reading instruction was done with books made with raised or embossed letters created by wetting paper and printing with an ink printing letterpress. People also learned letters and reading by using carved wooden letters arranged into words, and letters made with bent and twisted wire. It was long thought by educators of blind people that having a tactile code different from the letters that sighted people read would separate blind people from the mainstream of society and limit the amount of reading material to which they had access. Special reading codes would also mean teacher training was more demanding, and finding teachers able to work with students with blindness more difficult. Around the same time Louis Braille was developing his code, other codes were also being developed. Many blind students secretly learned Braille and other dot-based tactile writing codes when their schools officially taught embossed letters. Ultimately the dot-based letters of Braille became the most widely accepted tactile reading code in English speaking countries, and most of the world.

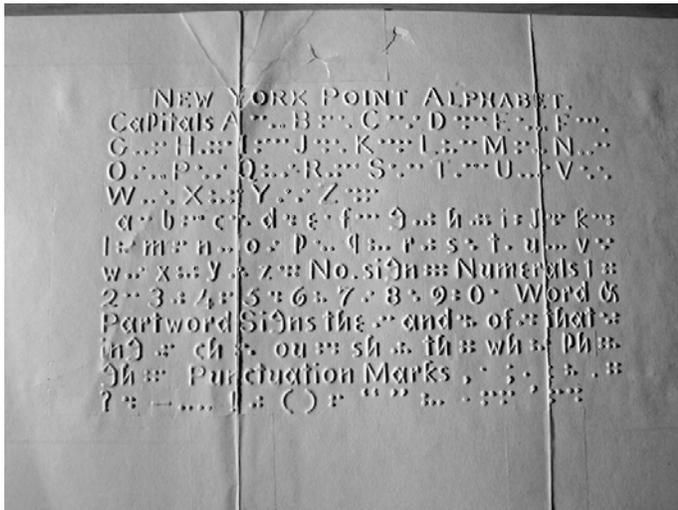
## BOSTON LINE TYPE

Boston line type was developed by Samuel Gridley Howe, the founder of the New England School for the Blind (later Perkins School for the Blind) in Massachusetts. Since at the time there was no reading medium for people with blindness, Howe developed an embossed simplified angular roman alphabet without capitals which he called Boston line type. He published the first book in Boston line type in 1834, and this type continued to be the primary tactile reading code used in the United States for the next 50 years. The American Printing House for the Blind first published books in Boston line type, and it was the official code used by students at Perkins until 1908.



*Embossed type, probably Boston line type*

## NEW YORK POINT

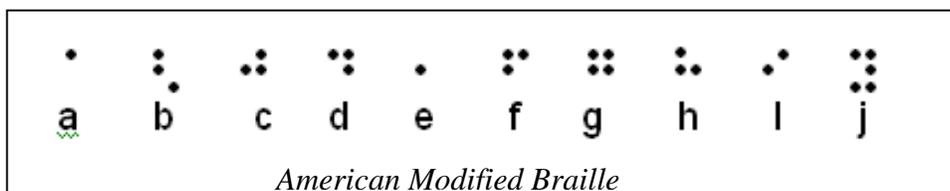


*The New York Point alphabet*

William Bell Wait, working in New York in the mid-1800's, developed a point code for readers who were blind that used characters which were two dots high and one, two, three and four dots wide. Working at New York Institute for the Blind, Wait began teaching this system to students and invented a point writing machine called the Kleidograph, which allowed for easy production of text without the use of slate and stylus. New York Point was widely used by schools for the blind in the United States in the late 1800's. Mary Ingalls, the sister of Laura Ingalls Wilder, author of the Little House books, learned New York Point and embossed letters at Iowa Braille and Sight Saving School in the late 1870's and 80's.

## AMERICAN MODIFIED BRAILLE

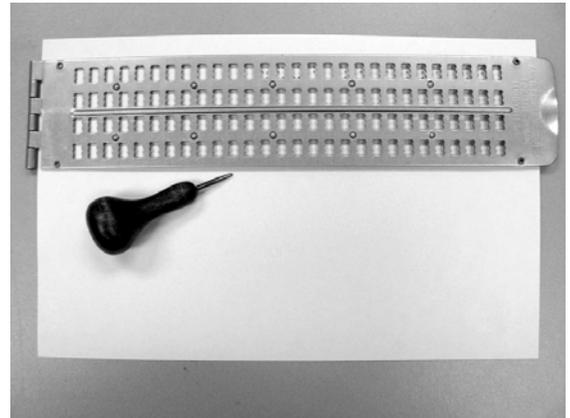
Joel Smith, a piano-tuning teacher at Perkins School for the Blind in Massachusetts, developed the American Modified Braille Code in the 1870's. When developing his system, Smith designed characters he believed would be fast to read and an efficient use of paper. This code was used in 19 schools for the blind in the United States, including Perkins. American Modified Braille assigned the fewest dots to the characters that occur most often in the English language. If you look at American Modified Braille, you will see the familiar three dot high and two dot wide characters, but dot configurations correspond to will see the familiar three dot high and two dot wide characters, but dot configurations correspond to different print letters and letter combinations than standard Braille today.



*American Modified Braille*

## WRITERS

Before the development of Braille writing machines, people writing Braille used a slate and stylus. The slate held the Braille paper and provided a template for the dot locations, and the stylus was used to punch holes into the paper. Since the dots are raised, the person had to learn to write in reverse from the back of the paper. Frank Hall, superintendent of the Illinois School for the Blind, developed a personal Braille writing machine in the late 1880's. In the next decades, other inventors developed writers for Braille and New York Point. Since most machines were not mass produced, their reliability and consistency of writing varied widely. In the 1930's, the American Foundation for the Blind commissioned a Braille writer from a typewriter manufacturer.



*Slate and stylus*



*Perkins Braillewriter*

It was heavy and not durable enough for practical use. Later, David Abraham of the industrial arts department of the Perkins School For the Blind worked to develop a Braille writer at the urging of Gabriel Farrell, director of Perkins. He had a model working by the early 1940's, but the war years limited manufacturing. After World War II, Abraham's Braille writer went into production, and was on the market in 1951 as the Perkins Brailier.

Since the Perkins Brailier is available to students who read Braille in the United States at no cost through a quota funds system with American Printing House for the Blind, it is the most widely used method of writing Braille in the U.S. However, many other Braille writers are available, particularly in Europe. Now the Tatrapoint is available in the U.S. from MaxiAids. It is lightweight and easily portable with some components made of high-impact plastic. The adaptive model allows adjustment to accommodate different hand and finger sizes. Quantum Technology in Australia recently released a small manual brailier called the Jot-A-Dot. It uses letter weight paper of a small size and is intended for taking short notes. The same company also makes the Mountbatten Brailier, an electronic Braille writing device which talks. Some models interface with computers and ink printers. The Mountbatten provides good support for people helping students who read Braille, but who don't read Braille themselves.



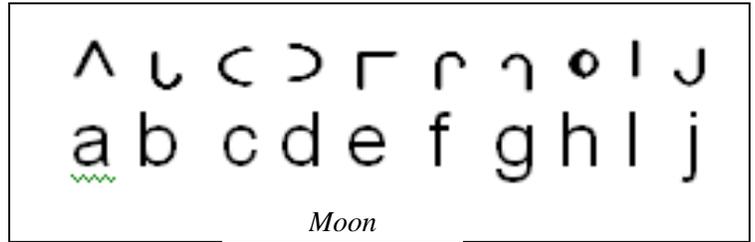
*Jot-a-dot*



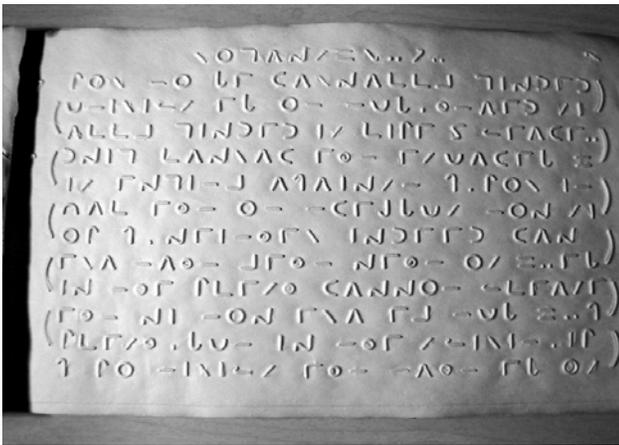
*Mountbatten Brailier*

## MOON

William Moon of Great Britain lost much of his sight in childhood from scarlet fever. After finishing school in the mid-1800's, Dr. William Moon experimented with a variety of raised alphabets for teaching reading and writing to blind students. He eventually settled on Moon type, a raised line code based on print letters.



Still used in Britain for people with learning or fine motor difficulties, and those who have lost their sight later in life, Moon type is believed by its supporters to be easier to learn and more tactually simple to discriminate than Braille. Although almost unknown in the U.S., books in Moon are available from the Royal National Institute for the Blind, and are available in Canada and Australia as well as Great Britain.



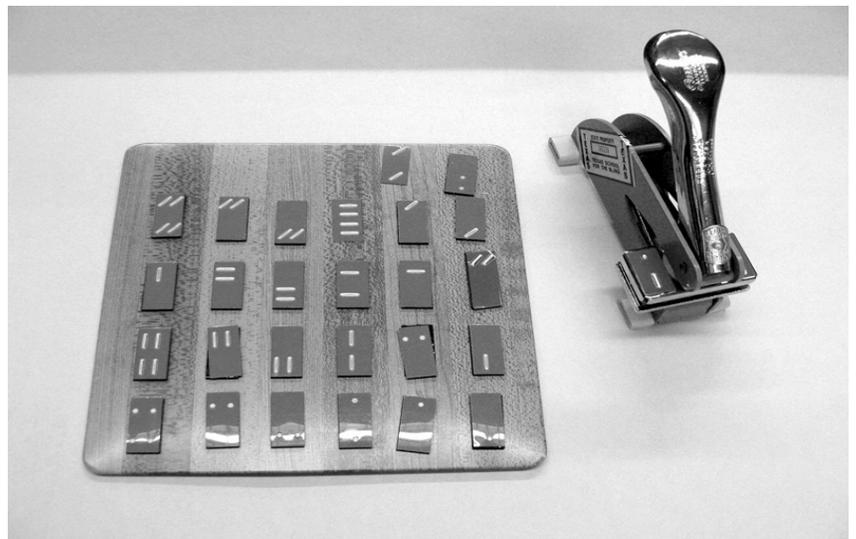
*A page of a reading primer in Moon type*

Moon can be generated with computer software today. Duxbury, readily available in the U.S., has an English Moon translator available in their “translation tables” menu. Files can be embossed in a “dotty Moon” style with an Enabling Technologies embosser with a Moon setting. Some Moon fonts can be found on the Internet for use with a computer.

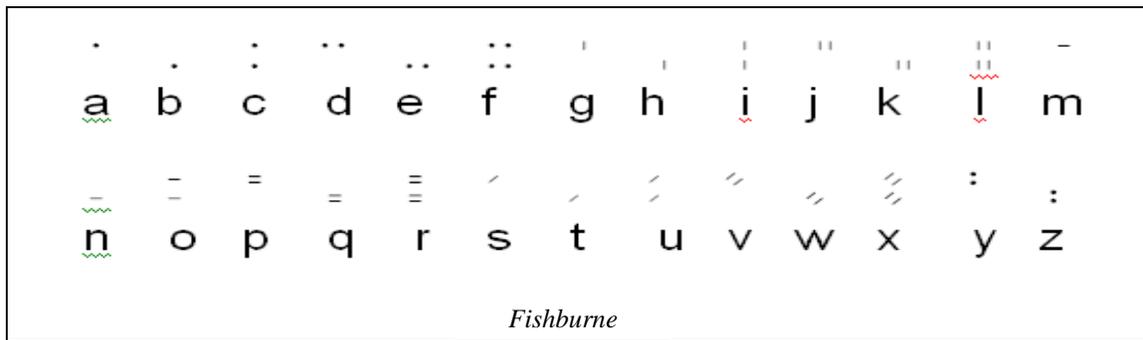
Moon books are still produced through a modified typesetting process. Reading materials are now also generated with moon writers, thermoform machines, computer moon fonts printed on swell paper, and moon translation software and embossers. Moon can also be handwritten with a stylus on plastic sheets with a frame guide in a manner similar to using a slate and stylus to produce braille. A moon teaching curriculum is available from the royal national institute for the blind in great britain.

## FISHBURNE

The Fishburne system of tactile writing was developed in 1972 by S. B. Fishburne. Mr. Fishburne became acquainted with some blind adults and found that many of them were not able to read Braille. He developed a tactile alphabet, which is larger than Braille, to be used primarily for labeling items used by people in daily activities. Fishburne is typically used for labeling objects, containers and appliance controls, not for literary purposes.

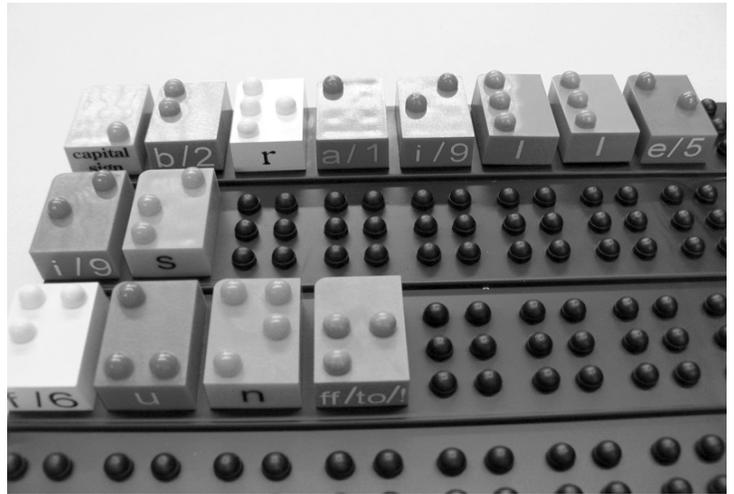


*Fishburne labeler and magnetic labels with a single letter of the alphabet on each*



## TACK-TILES

Since standard Braille is always the same size, each character 1/8 inch wide by 1/4 inch high, it can be difficult for people with motor impairments or problems with tactile sensitivity to read. Even Jumbo Braille is very small. To address the issue of literacy for individuals with significant disabilities, Kevin Murphy developed Tack-tiles. Tack-tiles are small Lego-sized blocks with Braille dots on each. They are used primarily in educational settings to teach Braille to very young children and those with additional disabilities. Tack-tiles can be used to create a computer keyboard labeled with Braille using the Intellikeys keyboard. Tack-tiles are available with all Braille symbols, including punctuation marks and contractions.

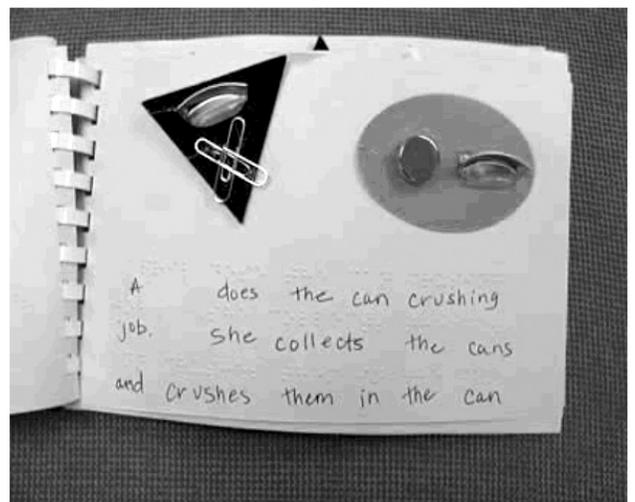


*Tack-tiles displaying, "Braille is fun!" in uncontracted Braille*

Specials sets are available for math and Braille music. For many students with visual impairments and additional disabilities, Tack-tiles and a computer are the best or only means to literacy.

## TACTILE SYMBOLS

While not traditionally considered a literacy medium, tactile or tangible symbols have become widely used by students with deafblindness or visual impairments with additional disabilities. Educators seeking to expand the opportunities for such students to communicate and participate in supported literacy experiences in the classroom are using tactile symbols in a variety of learning activities. These symbols are used in communication boards, labels in the classroom, and language experience stories. While there is no standard vocabulary of tactile symbols as there is the widely used Meyer-Johnson picture symbol system, some recommended standards do exist with instructions for making and using tactile symbols.



*A teacher-made book which includes Braille and tactile symbols*

The Texas School for the Blind and Visually Impaired maintains an illustrated dictionary of picture symbols on our website. American printing house for the blind now has a kit called tactile connections

## **ACCESS TO LITERACY**

Early in the twentieth century the widespread use of many different tactile reading codes and systems made learning to read a challenge for learners with blindness. Disagreement about which code was easiest to read and the most efficient use of paper led to the “War of the Dots” between educators in English speaking countries. A uniform English Braille system was agreed upon in 1932 which included the alphabet and grade 2 contractions. Since that time discussion about other tactile modes of literacy has been limited. In the last five years, concern about access to literacy for individuals with visual impairments and additional disabilities has given rise to discussions about the use of uncontracted Braille, Tack-tiles and other large format Braille, Moon type or other embossed letters, and tactile symbols. While the adoption of standard Braille has given tactile readers access to a large amount of material and more consistent quality of educational experiences, consideration of access to literacy for all learners should prompt educators and parents to broaden their definitions of tactile reading and consider the use of alternative tactile media.

Note: Embossed materials including Boston line type, Moon, New York Point, Fishburne and Tack-tiles photographed courtesy of Texas School for the Blind and Visually Impaired Learning Resources Center teaching materials and archives.

## **WEB RESOURCES**

American Modified Braille Joel Smith, see Books for the Blind at:  
<http://www.perkins.org/museum/section.php?id=200>

American Printing House for the Blind  
Tactile Connections tactile symbols kit:  
<http://www.aph.org/advisory/2005adv10.html#P3>

David Abraham, developer of the Perkins Braille Writer  
<http://www.perkins.org/museum/section.php?id=202>

Duxbury Systems  
Moon translation from the translation tables in Dux 10.3 and higher. More information is included within the Duxbury Help files under “Moon.”  
[http://www.duxburysystems.com/lan\\_english\\_moon\\_no\\_capitals.asp](http://www.duxburysystems.com/lan_english_moon_no_capitals.asp)

Getting In Touch With Literacy Conference 2005  
Copies of the proceedings of this conference are on-line. Look for an informative discussion of literacy and tangible symbols by the Perkins staff entitled *Literacy and Technology: Facilitating Emergent Literacy for Students with Visual Impairments and Additional Disabilities*  
<http://www.gettingintouchwithliteracy.org/program.htm>

History of Reading Codes for the Blind  
<http://www.nyise.org/blind/barbier2.htm>

Mary Ingalls and life at the Iowa Braille and Sight Saving School  
<http://www.rootsweb.com/~iabenton/ibsss/ingalls.htm>

MaxiAids

Seller of Perkins and Tatrapoint brailers

<http://www.maxiaids.com>

Dr. Moon Page

<http://www.deafblind.com/moon.html>

The History of Moon

[http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public\\_moon.hcsp](http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public_moon.hcsp)

Perkins School for the Blind

Perkin's speech pathologist Deirdre Walsh's web page about making literacy experiences accessible to children with visual impairments and additional disabilities.

<http://www.e-advisor.us/Deirdre/Titlepage.html>

Quantum Technology

Maker of the Mountbatten Braille and the Jot-A-Dot

<http://www.quantech.com.au/>

Royal National Institute for the Blind

Moon Cats: Moon reading curriculum available from RNIB. Go to products page, select publications, learning and curriculum, Moon. Or use the following URL:

<http://onlineshop.rnib.org.uk/browse.asp?n=11&c=477&sc=14&it=2&l=3>

Samuel Gridley Howe and Boston line type

<http://www.perkins.org/museum/subsection.php?id=122>

Tack-Tiles

<http://www.tack-tiles.com/>

Texas School for the Blind and Visually Impaired

Tactile symbols directory with photos:

[http://www.tsbvi.edu/Education/vmi/tactile\\_symbols.htm](http://www.tsbvi.edu/Education/vmi/tactile_symbols.htm)

Visual Impairment Centre for Teaching and Research

Dotted Moon. Research study comparing reading rates of standard Moon to Moon produced with dots using a computer Braille embosser.

<http://www.education.bham.ac.uk/research/victar/research/projects/DottedMoon.htm>

War of the Dots (History of Reading Codes for the Blind) by Robert Irwin:

<http://www.nyise.org/blind/irwin2.htm>

William Bell Wait and New York Point reading code:

<http://www.nyise.org/text/wait.htm>

# **Issues in Deafblindness: When the IEP Is Aligned with the General Curriculum**

By Robbie Blaha, Deafblind Specialist, Texas Deafblind Outreach  
With help from Kate Moss, Deafblind Specialist, Texas Deafblind Outreach

*Abstract: Students with deafblindness who participate in the general education curriculum face some unique challenges. This article discusses these issues and proposes some strategies for addressing these concerns.*

*Key words: Programming, deafblind, general education curriculum, intervener, concepts, IEP*

## **WHO ARE WE TALKING ABOUT?**

Though instruction for many students with deafblindness is focused more on life skills or functional skills, some students with deafblindness are in regular education classes or a combination of regular and resource classes. These are the students we are focusing on in this article. They are learning from the general education curriculum, and are presented the same concepts as their peers, even though they may not have the ability to deal with these concepts similarly because of the impact of their deafblindness. Even in resource classes, which typically have fewer students and curricular content at least two years below grade level, there are some important considerations for the student with deafblindness.

## **THINGS TO CONSIDER:**

There are a number of considerations for students with deafblindness who are participating in the general education curriculum, even if they are working below grade level.

### **Access to information**

“For a student with deafblindness, the combined effects of the vision and hearing loss create a barrier that significantly impedes the ability to gather information from the environment. This causes chronic difficulties with incidental learning and concept development. Students cannot learn what they do not detect, and they may be unaware of what they are missing. Access to information is a primary issue for all students with deafblindness, and should be addressed in each IEP.” (From *IEP Quality Indicators for Students with Deafblindness* - <<http://www.tsbvi.edu/Outreach/deafblind/indicators.htm>>)

### **Rate of instruction**

In either regular education classes or in resource classes, the typical rate of instruction can occur too rapidly for the student with deafblindness to completely process it. Additional processing time is a requirement for this student to be able to gather and interpret information. For students with normal vision and hearing, this process occurs spontaneously.

### **Unfamiliar concepts**

The Texas Essential Knowledge and Skills, or TEKS, comprise the state-mandated curriculum that establishes what every student, from elementary school through high school, should know and be able to do. (TEA website, 2006.) When providing instruction related to TEKS, teachers can present information that the student with deafblindness may not have the background to understand. For example, a lesson in Texas History can cover a period of time in the 1840’s when cattle drives were common through northern

Texas. In order to find meaning in this lesson, the deafblind student needs to understand the concepts of an event occurring 160 years ago, that the map of Texas represents a state he lives in, the meaning of the word “drive” as it is used in cattle drive, and what the terms “cattle” and “herd” mean. He would also probably need to know why any one would want to drive cattle from one place to another. This lesson, like most that take place in general education curriculum, would progress at an alarming rate with ever more complex information being shared, and make it very difficult for the deafblind student to keep up.

An additional problem occurs when the teacher clarifies new information being offered in a lesson by using what would be familiar examples for the typical students, but may not be for the student with deafblindness. For instance, the science teacher presents oxidation as a “chemical change brought about by exposure to oxygen” and uses rust on an old car as an example of slow oxidation. While the example helps the class better understand the new information, the student with deafblindness is unfamiliar with rusty cars. Rather than clarifying the new information, the example has just increased the amount of unfamiliar information the student has to juggle in the class.

### **Adaptations, accommodations and/or modifications cannot completely resolve these problems**

The student’s IEP adaptations, accommodations and/or modifications may include large print, an FM system, frequent comprehension checks, preferential seating, reduced assignments (meaning 10 vocabulary words rather than 20) and assistance from an intervener. While all of these are critical in assisting the student to gather information, there is still a demonstrated need for the curriculum to be modified. The modification of the curricular content may involve reducing and prioritizing the information that the student is responsible for learning. The goal is for the student to have the information that provides a useful working knowledge of the curricular content.

### **Concerns about the “other stuff” the student does not know**

There is ongoing evidence that the student with deafblindness is lacking a body of information that may be considered an extension of the expanded core curriculum that is taught to students with visual impairments.

Basic environmental/cultural facts: Other students possess an incredible amount of knowledge about their immediate environment and teen culture that would be very useful for the student with deafblindness. The student may not know, but would benefit from knowing things like: What is a mall? Who is Lance Armstrong? What are some popular bands/songs that teens like? How do you buy a soda at school?

Social skills that encourage good relationships: Many deafblind students miss out on basic social skills that other nondisabled students get incidentally. Examples of these skills include such things as: How do you greet people (peers, adults, strangers)? Where do you sit in the cafeteria if you want your peers to interact with you? How do you respond if a classmate tells you that she has been sick?

Self advocacy skills: deafblind students need to know how to get other people’s support in gaining access to the environment and to learning. They need specific instruction in self-advocacy. Examples of these skills include things like: how do I explain to others how to use my fm system, or let the teacher know that he or she needs to turn the microphone on or off? How do I ask a peer to give me sighted-guide so I can get through the crowd at the pep rally? How do I let someone know I don’t understand the instructions on a test?

## **WHAT CAN GO WRONG?**

There are many things that can happen to prevent the student with deafblindness from appropriately accessing the general education curriculum in these settings. Here are some problems we often see:

- The intervener is given sole responsibility for adapting the information that is being presented in the classroom. Often times he/she is left to choose and attempt to explain the information to the child as the rest of the lesson flows past.
- Sometimes the student ignores the teacher and the teacher ignores the student. This may happen because the teacher thinks the intervener is the only adult who is supposed to be involved with the student. At other times it may be the student who perceives the intervener as the only source of credible information.
- There is no real expectation that the student will learn anything of substance from the general curriculum. Unfortunately for the student with deafblindness, some people think it is enough that the deafblind student is sitting in the classroom with typical peers. They may think it is acceptable that the deafblind student only memorizes facts and never really understands the concepts needed to finish homework or to take tests independently. The intervener or others often do most of the assignment and give the student some bits of it that he/she can do with existing skills.
- The student does not have time in the day to do the critical concept and skill development that truly brings understanding to the student and increases social skills and independence. For most students with deafblindness, additional time for this work must be provided by scheduling a study hall period or having regular time provided throughout the day for this work to be done. All too often, this extra time is not provided in the student's schedule, so he/she is scrambling to participate in the class with the other students.
- The student is not participating in making sure his/her adaptations are in place. Too often a student with deafblindness finds his/herself in a learning situation without the supports he/she needs, and makes no effort to advocate for that support to be provided. The intervener or the teacher takes all the responsibility for making sure the adaptations are in place for the child. When the student becomes dependent on someone else to magically supply the adaptations he/she needs, what happens when that person is out sick? Self-advocacy skills need to be taught. Being able to ask for what you need is just as important as having that support provided to you.

## **WHAT SHOULD HAPPEN?**

To gain a useful bank of information from the Texas Essential Knowledge and Skills (TEKS), there are a variety of things that should be considered. First of all, the amount of information the child will be taught needs to be reduced by prioritizing critical concepts. Separate lesson plans need to be developed to teach underlying concepts that support learning the general curriculum. In addition, the student must have instruction in critical concepts and skills that build relationships, independence, and an understanding of the world around them.

## **HOW DO WE MAKE THAT HAPPEN?**

### **1. Modify the general curriculum.**

Each regular education teacher and resource teacher should select the main points that are critical for the student to learn.

### **2. Select the appropriate items from the expanded core curriculum.**

The TVI, through interviews with each team member as well as discussions with and observations of the student, should guide the team in selecting the environmental information and social skills to be taught.

### **3. Resolve logistical considerations.**

- Time is provided in the student's daily schedule for learning concepts related to the general curriculum and items from the core curriculum.
- The team decides which person will be responsible for providing the instruction in each setting, and also who will take on the responsibility for materials preparation.
- A plan is made related to accessing the community as part of instruction as it is needed.

### **4. The IEP is written to specify how all of the above areas will be addressed and by whom.**

For example, the TVI may take on responsibility for brailleing all materials, but the intervener will adapt other materials under the guidance of the TVI. That needs to be spelled out so that every team member is clear about whose responsibility it is to take care of producing the materials. If the student needs additional time to work on concept development, time will need to be carved out of his/her schedule, perhaps as a study hall period. The intervener needs to know what concepts to work on with the student, and how the instructor would like to approach those concepts. If these things are left to chance, it is typically the student who suffers.

## **CONCLUSION**

A student with deafblindness who participates in the general education curriculum, either in general education classes or resources classes, has very complex challenges in accessing the curriculum and benefiting from these programs. For the student to be successful both academically and socially, the supports provided and the content of the program need to be well orchestrated by the student's educational team. Providing the student with an intervener may be necessary. However, the intervener needs to be part of a coordinated team effort, and not given the total responsibility for figuring out and implementing that support for the student. Providing support to the student in general education settings can be incredibly challenging, but if done well can lead to excellent outcomes for a student with deafblindness.

## **REFERENCES**

- TEA website, 2006. TEKS and TAKS,  
[http://www.tea.state.tx.us/ssc/teks\\_and\\_tas/teks\\_and\\_tas.htm](http://www.tea.state.tx.us/ssc/teks_and_tas/teks_and_tas.htm)

## **Research: Looking for Treatments and Cures in Blindness**

By Kate Moss, Deafblind Education Specialist, Texas Deafblind Outreach, TSBVI

*Abstract: There is some fascinating research underway in the area of blindness. The Foundation Fighting Blindness is a major contributor to this effort and has much to share on their website for those who want to keep up with this research.*

*Key words: Programming, blindness, visual impairment, deafblindness, Retinitis Pigmentosa, Usher syndrome, macular degeneration, Stargartz*

One of the greatest dreams for many people with blindness and their families may be that someday there will be a cure or treatment for blindness that can restore vision to those who have lost it and/or delay any potential loss of vision. We are living in a remarkable age, and it is very likely that in the lifetime of many of our readers such a dream may become reality for many people, especially those whose vision loss is caused by certain diseases or syndromes. Most research efforts are still in the early stages using animal models; a few are beginning very limited human trials. Undoubtedly some will prove successful and some will not, but it is exciting to learn more about what is being done. This work falls generally into four categories:

- Genetics and Gene Therapy
- Retinal Implants and Transplants
- Pharmaceutical Therapy
- Nutritional Therapy

The Foundation Fighting Blindness (FFB) is funding much of the work. The FFB has as its mission to drive the research that will provide preventions, treatments and cures for people affected by retinitis pigmentosa (RP), macular degeneration, Usher Syndrome, and the entire spectrum of retinal degenerative diseases. The Foundation has funded thousands of research studies at hundreds of prominent institutions in promising areas such as genetics, gene therapy, retinal cell transplantation, artificial retinal implants, and pharmaceutical and nutritional therapies. Since its inception in 1971, the Foundation has raised over \$240 million and provided information for patients, families and professionals. It has over 30 volunteer-led groups across the US. These dedicated volunteers raise funds, increase public awareness, and provide support in their communities. For more information about FFB contact them at:

11435 Cronhill Drive  
Owings Mills, MD 21117-2220  
800-683-5555 • 800-683-5551 TDD  
[www.FightBlindness.org](http://www.FightBlindness.org)

If you visit the FFB website you can find out more about specific research that is being done, and keep up on new research findings.

### **GENETICS AND GENE THERAPY**

#### **Genetics**

Many of the research efforts focus on identifying specific genes that may cause retinal problems resulting in visual impairments and blindness. Some of the syndromes that are being studied include

Usher syndrome, Stargartz, Leber's Congenital Amaurosis, Age-Related Macular Degeneration – wet type, Chorioideremia and Retinoschisis. Much of the work that is going on around the world involves learning what genes cause what conditions and diseases. The Human Genome Project is a

13-year project completed in 2003 involving scientists from the United States, the United Kingdom, Japan, France, Germany, China, and other countries. This truly amazing work will undoubtedly lead to vastly improved knowledge of, and ability to treat, diseases and conditions that affect the human body in all areas including vision and hearing loss. The project mission has been to:

- *identify all the approximately 20,000-25,000 genes in human DNA;*
- *determine the sequences of the 3 billion chemical base pairs that make up human DNA;*
- *store this information in databases;*
- *improve tools for data analysis;*
- *transfer related technologies to the private sector; and*
- *address the ethical, legal, and social issues (ELSI) that may arise from the project.*

(Human Genome Project - [http://www.ornl.gov/sci/techresources/Human\\_Genome/home.shtml](http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml)), 2006)

Genetics sets the stage for the work that is done in gene therapy. Specific research into genes that cause visual problems has been done by a number of different programs. One that has been very active in addressing Usher Syndrome and other hereditary causes of deafness is the Boys Town Research Hospital. Many families from Texas have participated in this research, giving DNA samples from each member of the family. To learn more about these research efforts in the area of Usher Syndrome, go to <http://www.boystownhospital.org/Usher/index.asp>.

## **Gene Therapy**

Gene therapy involves the insertion of genes into an individual's cells and tissues to treat diseases, particularly hereditary diseases. This therapy sets out to transform either somatic cells (most cells in the body) or germline cells (such as sperm, ova, and stem cell precursors). So far, gene therapy is primarily directed at somatic cells.

Somatic gene therapy falls into two broad categories: *ex vivo* (cells are modified outside the body and transplanted back in) and *in vivo* (genes are changed in cells while still in the body). Some of these gene therapies use viruses that, in simple terms, have had the diseased part of the gene strand taken out and replaced with material from the "good gene". This is an huge oversimplification of course, but basically the virus inserts itself into the cell and gives new instructions from the "good gene" for what the cell is supposed to do. (Wikipedia - [http://en.wikipedia.org/wiki/Gene\\_therapy](http://en.wikipedia.org/wiki/Gene_therapy) , February 2006)

In another FFB-funded research program, Copernicus Therapeutics is using nanoparticles as a way to deliver genetic material to the retina. They have completed a trial on humans using this technology related to addressing cystic fibrosis. (Foundation Fighting Blindness - <http://www.blindness.org/content.asp?id=251>), 2006.) Nanoparticles are microscopic particles whose size is measured in nanometres, with at least one dimension <100nm. Nanoparticles are made of semiconducting material. (Wikipedia - <http://en.wikipedia.org/wiki/Nanoparticle>), 2006)

One of the newest research breakthroughs related to gene therapy applies to Leber's Congenital Amaurosis (LCA). Scientists have successfully used a RPE65 gene replacement therapy to restore vision in dogs born blind as a result of LCA. Researchers hope to get permission to begin clinical trials on humans in 2006. To learn more about this program and various other research projects supported by FFB, go to <http://www.blindness.org/content.asp?id=251>.

## RETINAL IMPLANTS AND TRANSPLANTS

### Implants

In the 1980s, the Massachusetts Eye and Ear Infirmary-Harvard Medical School began collaborating with the Massachusetts Institute of Technology to develop a microelectronic retinal implant for restoring vision to patients with age-related macular degeneration or retinitis pigmentosa. (Boston Retinal Implant Project - <<http://www.bostonretinalimplant.org>>, 2006) This project has been funded by the National Science Foundation, the W.M. Keck Foundation, the National Institutes of Health and Second Sight Corporation, the Foundation Fighting Blindness, the VA Rehabilitation Research & Development Service, the Wynn Foundation, and the Lions Club of Massachusetts.

A retinal implant is something similar to a cochlear implant used to help people with hearing loss. The Boston Project describes what its implant does this way.

*Patients with macular degeneration and retinitis pigmentosa become blind when the photoreceptors (light capturing cells in the eye) no longer function. The retinal prosthesis is designed to take over the function of the lost photoreceptors by electrically stimulating the remaining healthy cells of the retina. Through electrical stimulation, the activated ganglion cells can provide a visual signal to the brain. The visual scene captured by a camera is transmitted via electromagnetic radiation to a small decoder chip located on the retinal surface. Data and power are then sent to a set of electrodes connected to the decoder. Electrical current passing from individual electrodes stimulate cells in the appropriate areas of the retina corresponding to the features in the visual scene.* (Boston Retinal Implant Project - <<http://www.bostonretinalimplant.org/project/prosthesis.xml>> , 2006.)

Another group, Optobionics and the University of Southern California, are also working on retinal implants. In fact, they have actually implanted some humans. Most experienced at least a temporary improvement in their vision, such as perceiving increased light, detecting motion and shapes, and in some cases even reading large letters. (Foundation Fighting Blindness - <<http://www.blindness.org/content.asp?id=209>>, 2006)

It is important to mention that a retinal implant does not restore vision to normal, just as a cochlear implant does not restore hearing to normal. What it can do is give the person more visual ability for increased mobility, confidence, and safety when traveling through the environment.

There are challenges in designing retinal implants that will work well. Issues such as providing the right amount of electrical energy to stimulate the rods and cones without damaging them, how to mount the camera, how to power the processor, and so forth have yet to be satisfactorily addressed. However, great strides are being made every day in this area, and though it sounds like something from a science fiction movie, effective implants may not be that far away.

### Transplants

Although significant research has been undertaken related to transplants in the retina of the eyeball, there have been very limited successes. Three types of transplants are commonly the focus of these efforts:

- Photoreceptor transplants – transplanting new, normal photoreceptors (rods and cones) on the surface of the retina;
- Retinal Pigment Epithelium (RPE) cell transplants – RPE cells, located just below the retina, support the photoreceptor cells by supplying nutrients, removing waste products, etc.;

- Stem cells – primitive, multipotential cells that can multiply many times and can ultimately develop into any type of mature cell that is found in the body.

All three of these transplants hold promise, but results still seem a long way off. Probably the most exciting is the prospect of using stem cells to rebuild a retina—another piece of science fiction that may come to pass in the future.

## PHARMACEUTICAL THERAPIES

Cells are programmed to die when they are diseased or unwanted. This is known as Programmed Cell Death (PCD), and the process by which it takes place is called apoptosis. Too much apoptosis causes cell-loss disorders (like Retinitis Pigmentosa), and too little apoptosis causes cancerous tumors. Much of the pharmaceutical therapy research is aimed at slowing down the process of programmed cell death in the photoreceptors of the eye through a neurotropic agent. Neurotropic agents may or may not be produced naturally by the body. At this point, getting these agents into the retina would involve frequent injections into the retina, which is not a good idea. One approach to address this problem is the development of intraocular slow-release capsules, inserts, and trans-scleral delivery systems. (*Progress in the Treatment of Deaf-Blind* – PowerPoint presentation by Dr. GERAL J. CHADER, 2005.)

## NUTRITIONAL THERAPIES

Work is also being done to determine if diet can play a part in preventing or slowing the progress of vision loss. For example, one study through FFB is looking at the benefits of dietary supplementation with vitamin A palmitate, in combination with the omega-3 fatty acid DHA (docosahexanoic acid), to slow loss of vision in people with retinitis pigmentosa (RP).

*“The combined therapy was found to primarily benefit people not previously taking vitamin A. For those people already taking vitamin A, a diet rich in omega-3 fatty acids is indicated to slow the decline in visual field sensitivity. Good sources of omega-3 fatty acids include: salmon, tuna, mackerel, sardines, and herring. For more information on dietary supplementation for RP, see the following link: < <http://www.blindness.org/rp-nutrition/index.asp>>.”* (Foundation Fighting Blindness - <<http://www.blindness.org/content.asp?id=251>>, 2006.)

In another study, research seems to indicate that diets high in fats like those found in processed baked goods increase the risk of age-related macular degeneration. Diets that are high in omega-3 fatty acids, like those found in nuts and fish, appear to delay the progression of the disease. (Foundation Fighting Blindness - <<http://www.blindness.org/content.asp?id=251>>, 2006)

It only makes sense that what we put into our bodies can impact how well our bodies function. Still, there is much to be learned. Before considering changes in diet, especially when adding vitamins or supplements, it is important to discuss these changes with a doctor. Vitamins and other nutritional substances can do more harm than good if not taken in the proper balance. There may also be precautions against taking supplements if, for example, you are pregnant. So if you are interested in exploring one of these nutritional programs, visit with your doctor first to learn more about the possible benefits and risks.

## CONCLUSION

Some researchers and others speak of a day, one too far away at the moment to seem real, when we might be able to correct genetically caused visual problems before a child is born. Only time and research will tell if this is possible. But so much is now being learned about genetics, gene structure, and genetic engineering that some of us may live to see such a day. Even if that day never comes, perhaps some of the advances in biotechnology will bring about retinal implants or transplants that can restore sight. It would be a wonderful day! Until then, we must put our efforts

into supporting research and also into helping individuals with blindness and visual impairments get the skills and opportunities in they need to have successful and satisfying lives.

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## A Sample of Historic Times at TSBVI

By Kristi Sprinkle, Intranet Developer & Unofficial Historian for TSBVI, Austin, TX

*Abstract: This article describes some of the interesting moments in the 150-year history of the Texas School for the Blind and Visually Impaired*

*Key words: School for the Blind, history, sesquicentennial, advancements*

*Editor’s Note: We are currently celebrating the Sesquicentennial of the Texas School for the Blind and Visually Impaired—150 years. This history is being preserved in a museum being created on campus. At a recent sesquicentennial assembly, some interesting highlights discovered in researching these years were presented to the TSBVI staff by Kristi Sprinkle, who has taken the role of campus historian. In place of Dr. Phil Hatlen’s usual article from TSBVI, we have chosen to print the text of Kristi’s presentation.*

To understand the significance of the year 2006 for the Texas School for the Blind and Visually Impaired, you’d have to understand where we came from—not necessarily the buildings we lived in, but the kind of people we were and what our predecessors did.

When Elisha Pease, Texas’ first governor, took office, there were few schools for the blind in the Southwest and, in fact, only a handful in the US—less than 20. But in Texas, we had a great opportunity when Governor Pease established our public school system, and in 1856 we, as well as the School for the Deaf and the Insane Asylum, were created, even though there were less than 1800 people living in Austin at that time. In November of 1856, we rented the house now known as the Neill Cochran House on San Gabriel St., six blocks from the Capitol. This was our very first home.

It was at that house that the first pupil arrived, one Robert McKeachern, on December 29th of 1856. As a 17-year old teenager, Robert couldn’t get away with much, as he was under the thumb

of not only the Governor's personal physician—who became our first superintendent, but also his wife. By the end of the school year in 1857, the school had a total of seven students and one teacher. In comparison, today, TSBVI serves almost eight thousand students through on-campus instructional programs and outreach services across Texas.

By 1860, we were living in the new home for the Institute—a place of our own at the corners of Red River and 19th Street—a city block now owned by the University of Texas. At this time in our history, the *Superintendent* was our maintenance man, and was responsible for maintaining the grounds, including working on the pipes and trimming the hedges. If you can imagine Dr. Phil Hatlen mowing the campus lawns, or painting the dorms, then you might have a clear picture of what was expected back then.

But other roles at the school would also seem a bit odd to us today, however necessary and proper they were 150 years ago. For example, the principal, even into the late 1930s, was also the superintendent for Sunday school. It was mandatory that each student attend chapel every day as well as church on Sunday. And teachers were required to help with Sunday school with no extra pay.

In the early days, even on the current campus, the matron made sure that students followed the rules and kept to their schedule of activities while in the dorms. There were no Residential Instructors, but “housemothers” who often had charge of 15 to 18 pupils each. At this time, the Superintendent disciplined every misbehaving student. It was usually his job to notify the parents of the child's mischief. For example, a 1923 letter to one parent went like this:

*Dear Mrs. West:*

*Your letter of October 17th was received yesterday and I have made inquiries in regard to the matter. There was nothing much the matter. Maude Harris, a friend of Frances', told Frances that Edna Brown said that Louise Wilson said something about her. On investigation, it seems that Louise Wilson didn't mention Francis, but said something about Maude Harris. So it seems there is no reason in the world for Frances to get excited or worked up. In fact, Maude Harris is not right bright, and so it seems there was nothing really serious as I feared when I received your letter...*

*Yours sincerely,  
Superintendent EE Bramlette.*

Teachers did not have an easy job, either. They were responsible for escorting the students on all off-campus visits, and often went home with the students to help them with their studies and report to the parents. There were two resident teachers for each dorm. These teachers also taught regular classes at the school, while having to look after the students in the dorm after hours and on Saturday and Sunday. For these extra duties, they were compensated solely by free room and board.

Other jobs on campus emerged over the years, as well. The “transportation guy” was the one who polished the buggy and took care of the horses, including making sure the barn was mucked out, the animals were fed, and the horseshoeing was done. He would also make sure that the mules, donkeys or horses of the travelers from El Paso were fed and tended. When the trains arrived in the 1870s, this person would meet the students at the train station and escort them to TSBVI. Often TSBVI would pay for the return trip of the guardian who escorted the student to Austin.

In the early 1900s, the school's *farmer* was the ultimate job coach, getting students to help him and supervising boys who wanted to learn about gardening, poultry or hog raising as a means of

making a living when they left TSBVI. On the land behind our current location, our farmer grew 225 bushels of corn, 6 tons of oats for livestock, 6 tons of sorghum cane for molasses, and 2 tons of hay. He also tended various 6 to 10-acre gardens, and with student help, grew beets, English peas, mustard, radishes, onions, tomatoes, squash, lettuce, snap peas, shallots, okra, cucumbers and cantaloupes. Although the school wasn't self-sufficient after the move to our current location, these gardens and the farm greatly reduced the school's food budget.

There were other items we made in the interest of self-sufficiency. Girl students took sewing classes from our resident seamstress to make dresses for themselves and for the entire school. The students also made shoes for the residents of the school. The industrial arts pupils made brooms, selling them door-to-door here in Austin as well as to other state institutions.

So instead of placing students in local businesses as we do today, many of our students learned a trade at the school. Basket weaving, bead work, sewing, gardening, animal husbandry, piano tuning, musician training, chair caning, mattress making (with locally grown cotton) and broom making. One year, we made and sold 15,000 brooms.

In the late 1860s, after the Civil War devastated the Texas economy, we relied on the businessmen who were on our school board, some of whose names can still be found on the streets and monuments that dot the Austin landscape. Lewis Hancock, the namesake of Hancock Center and Hancock Drive, built the first and longest standing golf course in Texas. He also owned an Opera House where many of our students were graduated while Hancock was on our board of trustees.

Then there were the Littlefields of Littlefield Hall, Littlefield Mall, and Littlefield Fountain fame. George Littlefield was a cattle and land baron who owned one of the first banks in town—a bank that would also hire a famous local writer and scoundrel named William Porter (aka O. Henry). George Littlefield was on our board with Lewis Hancock in 1874. He donated the original 40 acres for the building of the University of Texas and was one of the first trustees there, as well.

During the forty years following the Civil War, the superintendents for our school emphasized vocational skills. These leaders also believed in physical education, and every student was required to participate in physical fitness on a daily basis. This was usually a recommendation from the physician on staff—and in the formative years of our school, that physician also happened to be the superintendent. Again, can you imagine Dr. Hatlen doing a tonsillectomy on one of our students? Dorm F and Dorm C were once used as emergency hospitals. Things have certainly changed.

Finally, by the turn of the century TSBVI superintendents were hired more for their educational background than for their skills as a physician or as a man of the cloth. We kept the vocational skills training, but reading, writing and arithmetic—and keeping up with the kids in public school—seemed more important. The routine of a child circa 1905 went like this:

6:00 A.M. - rise for an hour for exercise.

30 minutes for breakfast.

30 minutes to study, and 30 minutes of chapel (including a lecture from the superintendent about the current events of the day);

8:30-12:30 classes were held followed by an hour for lunch;

1:30-5 P.M., classes again;

5:00 an hour of recreation in open air, only a half hour for supper, and then two hours for study and preparation for classes;

at 8:45 P.M., students were allowed to retire for the evening.

Wednesdays and Sundays were mandatory bathing days. There was no contact between the boys and the girls at any time unless supervised by an adult at the school. Mail to and from the opposite sex was forbidden and grounds for dismissal from the school—as was tobacco chewing and smoking, especially for the girls.

The school's cook and assistant received goods fresh from local farmers, baked bread, and produced things like buttermilk and butter. Large quantities of fruit, such as peaches, were bought and canned before we had refrigeration, supermarkets, and even before Amy's Ice Cream. Because the school had no refrigerators until 1930, ice was brought in from local icemen, one of whom was Mr. Zilker, of Zilker Park and Gardens.

There are those who will tell you that this school once had a famous visitor named Helen Keller. But there were others of local fame who were quite influential in our world. A local black leader named Norris Cuney Hare was unrelenting in his battle to create a place like ours, but for underprivileged black children. Despite never having been elected to any state position, this man almost single-handedly pushed through the Legislature the bill that would create the Institute for Deaf, Dumb and Blind colored youths on April 5, 1887. This institute remained open until 1943, when it combined with the state orphan home in Corsicana to create the Blind, Deaf and Orphan School in Austin, where Norris Cuney Hare's daughter taught music and wrote about their lives.

In 1965, during the struggle for equality for all people, the Blind, Deaf and Orphan School disbanded and its teachers and pupils joined our current schools for the blind and deaf. It was from the Blind, Deaf, & Orphan School that TSBVI attained longtime administrator Matthew Caldwell, as well as other fine teachers and staff.

In the early 1980s, the students and staff of the TSB Deaf-Blind Annex became part of our main campus, abandoning the old Confederate Widows Home on 38<sup>th</sup> Street. Along with the students and staff, this brought to campus the seeds of what has become one of the biggest and best outreach programs in the country for all blind and visually impaired students, including those with multiple disabilities.

Because of the hard work of the staff through the years, and because we have had leaders with vision, TSBVI is now recognized as one of the top schools in the country. So we are not just celebrating the school's history, but the future of every child that has passed and will ever pass through TSBVI. We are celebrating every person who has ever worked here including those that do right now. I think we are all worth celebrating and are all important to this school and to its ongoing history. So Happy Birthday, everyone! It's time to celebrate.

## **Building a Foundation of Confidence, part 2**

By Barbara J. Madrigal, Assistant Commissioner, Division for Blind Services

*Abstract: this article reviews services available through DBS and how to access those services.*

*Key Words: Division for Blind Services, DARS, blindness, disability, News & Views, confidence, self-esteem, services*

In the last edition, I shared information about DBS services for children and youth and how those services support and challenge our youth to meet their potential, to become confident and independent, and to contribute to the community. I described our Blind Children's Vocational Discovery and Development Program and our Transition Program as well as the six major skill areas that we consider stepping stones to an independent, productive, and satisfying life.

In this edition I want to share some "real people" stories—stories that I hope will give a vivid picture of our services. (Please note: identifying information has been changed to protect confidentiality.) How exactly do DBS services help our youth and families to meet the challenges of life and to develop and strengthen self-esteem and independence? In this edition I plan to focus on three of the six major skill areas, and I will complete Part 3 of this series in a future edition.

Adjustment to Blindness services focus on familiarizing families with diagnostic procedures, medical treatments, and other things they need to know to support their child as well as promoting coping and self-advocacy skills. For example, Isadora is a 5-year-old girl with glaucoma whose left eye was removed at age 18 months; the acuity in her right eye is 20/100. Isadora had recently become aware that she "looked different" from other children and she did not know how to respond when classmates asked why her eyes looked "that way." The DBS Blind Children's Specialist accompanied Isadora and her custodial aunt to the ocularist where she was fitted with a prosthetic eye. The Specialist also counseled and reassured the aunt that she would be able to insert, remove, and take care of the prosthesis as well as to teach Isadora to assume responsibility for these tasks when she reached an appropriate age. Upon receiving her prosthetic eye, Isadora was very excited to look in the mirror and see that she looked like "all the other kids."

In another region, Blind Children's Specialists arranged for group meetings with a professional counselor where consumers could discuss concerns about their visual impairments. In these sessions they also learned stress relaxation techniques, coping skills, and problem-solving skills. In between classes, the consumers completed homework assignments in which they could practice the skills and concepts they learned in class.

These are just a couple of examples of our services. Other services that fall within this category include preparing families for eye appointments, helping families understand medical procedures, helping families develop a list of questions for their medical providers, assisting with referrals to eye medical providers in the community, assisting families in working through the grief process, and identifying and referring families to support group resources in the community. Specialists and Counselors also organize activities that include training on any of the above topics in a group setting where families can learn together and support one another in the adjustment process.

Another primary skill area is Independent Living Skills. In very young children, independent living skills refers to the attainment of developmental milestones, such as crawling, walking, and language development. Blind Children's Specialists may assist parents by providing a

developmental assessment, attending ECI meetings, or recommending specialized toys or equipment that foster skill development. One of our Specialists recalled assisting 10-month-old Jordan who loved playing in the water, but had not developed the muscle strength to sit for more than a few minutes. The Specialist attended an ECI meeting with the mother where the ECI team, consisting of the parent, the Specialist, the ECI Services Coordinator, the Teacher of the Visually Impaired, and the Physical Therapist, discussed the child's developmental needs. The ECI team had loaner equipment available, and was able to loan the mother a bath seat and a corner chair, as well as provide the mother suggestions for how to increase strength and coordination in the routine of her daily activities with Jordan. Jordan and his mother also participated in a therapeutic swimming class, a group activity arranged by the DBS Specialist and facilitated by a physical therapist, and the Specialist also provided ongoing counseling and guidance.

For older children, independent living skills refers to grooming and hygiene, table skills, household and money management skills, organizational skills, and social/recreational skills. For example, eight-year-old Stephen has 20/400 vision due to congenital nystagmus. When the Specialist observed him in a school setting, he was shy and withdrawn; on the playground, he stood near the building or asked to stay inside with the teacher's aide. The parents had attempted to enroll him in a karate class, but were unable to find one. They had spoken to several teachers but all expressed safety concerns about having a visually-impaired child in the class. The Specialist, however, met with a teacher, addressed his concerns, and identified simple adaptations that would enable Stephen to participate in the class. Stephen, now age ten, is still quiet and reserved by nature, but he has made friends at school and he participates in other social activities.

Children's Specialists frequently work in conjunction with DBS Vocational Rehabilitation Teachers (VRT) to instruct a consumer or parent in specific skills such as food preparation, matching clothes, organizing personal items, identifying coins and dollar bills, or performing household chores. Often, however, training in independent living skills is most effectively provided in a group format. From El Paso to Texarkana, from Lubbock to Houston, children, adolescents and their parents participate in group activities where they not only learn specific skills, but also provide mentoring and support to one another. Here is a sample of group skills training activities that have occurred in the past year:

- At a Holiday Crafts and Cooking Training, 44 consumers or former consumers and 56 parents participated in making Christmas decorations, gingerbread houses, and holiday cookies, along with enjoying an evening banquet. Consumers assisted in food preparation and set the table for the evening meal, and older consumers acted as mentors for younger consumers throughout the day.
- Seven Transition consumers hiked six miles of rugged terrain in the Pedernales Falls State Park, each carrying about 50 pounds of supplies and equipment. The campers were responsible for organizing their space, preparing their own meals, traveling independently, and pitching their tents. In the process, they learned about organization, camaraderie, and teamwork!
- Camps, camps, and more camps. DBS organizes camp activities throughout the state. In addition to the customary horseback riding, swimming, canoeing, archery, and hiking, the campers are responsible for their own personal management skills and cabin maintenance.
- Consumers in middle school and high school have participated in "Dress for Success" workshops where, in small group activities, they are exposed to current fashion trends and learn nonvisual techniques for facial care, including make-up and shaving; nail care; matching clothes and colors; and tying a necktie. In one workshop, manikins were

dressed in different styles, and students could tactually explore the various styles of dress.

- More than 100 consumers and family members participated in a Beep Baseball Tournament that focused on developing teamwork, sportsmanship, and social/recreational skills.

It's great when one teacher or caseworker can teach a consumer how to prepare a sandwich or apply make-up, but it is really powerful when consumers and families meet together to share success stories, support one another through challenging life situations and to demonstrate by example real opportunities and possibilities!

Communication Skills refers to the development of reading and literacy skills, including reading, writing and using Braille and other techniques, using assistive technology, and accessing information. I am thinking of one child who has been a consumer since birth. Andrew was born with Goldenhar Syndrome which results in malformation on one side of the face. He has no light perception in one eye and is 20/70 in the other; he has a malformed palate and is hard-of-hearing. Because of his facial malformations, it was unclear if he would be able to speak, and the DBS Specialist has been very involved since his birth in assisting the family in identifying a communication system. As a toddler, Andrew began to exhibit behaviors that reflected frustration at his inability to communicate, such as tantrums, head-banging, and general noncompliance. The Specialist assisted the family in developing sign language skills, including sign language classes, print material, and computer software. Within weeks of learning sign language, Andrew was able to sign in sentences—he had desperately wanted to communicate!—and his behavior problems diminished. The Specialist also made a referral to the DBS Deafblind Specialist, and together they worked with the ECI team that included the ECI Service Coordinator, the speech therapist, occupational therapist, physical therapist, and nurses. Now almost three-years-old, Andrew uses both sign and verbal communication.

In this article, I have covered three of the six skill areas that we consider primary steps toward independence and positive adjustment: Adjustment to Blindness; Independent Living Skills; and Communication Skills. In the next installment, I will talk about Travel, Support Systems, and Vocational Discovery and Development. I also plan to discuss some of the other programs available at DBS. In the meantime, the Division for Blind Services would like to work with you and your family. If you are currently working with a Blind Children's Specialist or Transition Counselor, but were not aware these services are available, please contact your provider to schedule a meeting. If you would like to work with us and are not yet enrolled in services, please contact DARS Inquiries at 1-800-628-5115 (V/TTY). Let them know you would like to apply for DBS services, and they will give you contact information for your local DBS office.

### **Lion Brand Yarn Offers Free Accessible Knitting and Crocheting Patterns**

By Beth Dennis, BCP/Transition Consultant, Division for Blind Services, Austin, TX  
from information provided by Garry Bowman, Teacher Consultant, Division for Blind Services

*Abstract: this article provides information regarding free knitting and crocheting patterns available from Lion Brand Yarn provided in accessible formats.*

*Key Words: blind, blindness, visually impaired, knitting, crocheting, yarn, accessible*

Lion Brand Yarn is now offering free knitting and crocheting patterns in speech and Braille accessible formats. The three versions are:

1. Standard pdf version (includes images and text);

2. View without Images Html version. (formats the pattern to be read in large-format type or by text-to-speech browser or software);
3. View as Braille Input Html version (formatted for refreshable Braille displays or Braille software).

They have patterns for home, adults, children, babies, toys, and animals in English, French and Spanish. Go to the web site at <<http://cache.lionbrand.com/patterns/index.html>>. When you have found the pattern you want, open that link and look for the links that say, “View Without Images” or “View as Braille Input”.

To make information more useful for screen readers and Braille users, they have added color descriptions for all their yarns, and special features to the patterns and pattern directories that are not visible to sighted readers, but that make it easier to understand when they are read by text-to-speech browsers. The company welcomes your suggestions and comments. Please send them to <[support@lionbrand.com](mailto:support@lionbrand.com)>.

They also offer free instructions on how to knit or how to crochet. However, these are PDF files and contain both images and text and may not be fully speech or braille accessible.

In related news, there is now a Yahoo Blind/Low Vision users group for knitting, crocheting and spinning: <<http://groups.yahoo.com/group/VIP-Ewes/>>.

## **Explore It After School! Technology and Science Resource Guide**

Announcement from the Chabot Space & Science Center

*Abstract: this article announces the availability of a technology and science resource guide for projects and career exploration for students with visual impairments.*

*Key Words: blind, visual impairment, Chabot Space & Science Center, California School for the Blind Fremont, technology, science, career, Techbridge, resource guide.*

Chabot Space & Science Center and the California School for the Blind, Fremont, are pleased to announce the release of *Explore It After School! Technology and Science for Students with Visual Impairments*. This resource guide includes lesson plans for technology and science projects and career exploration resources to broaden the academic and career options for students with visual impairments.

Techbridge was launched in 2000 by Chabot Space & Science Center in order to engage girls in technology and science, fields where females have been underrepresented. Recognizing the potential of this multi-faceted program, Chabot Space & Science Center adapted Techbridge for students with visual impairments. The after-school program introduces challenging and rewarding activities that encourage students to work independently and to challenge stereotypes regarding academic and career options for persons with visual impairments. Techbridge projects include building telephones, creating websites, dissecting squid, and learning about solar technology. With the lessons learned from hosting Techbridge at the California School for the Blind, we developed *Explore It After School!* This guide includes:

- lesson plans for technology and science projects
- career exploration activities
- tips for role model visits and field trips

- case study of an internship
- ideas for hosting a technology or science program

Generous support from the Mitsubishi Electric America Foundation and the Gordon & Betty Moore Foundation has made the development of this resource possible. Seeing the exciting results of Techbridge at the California School for the Blind, we hope that many more students can benefit from the lessons we learned. *Explore It After School!* is available online at <<http://techbridgegirls.org/ExploreIt.html>>. For more information about Techbridge, contact <[techbridge@chabotspace.org](mailto:techbridge@chabotspace.org)> or 510.336.7332.

## **Short Classes at TSBVI**

By Lauren Newton, Principal of Special Programs, TSBVI

*Abstract: This article provides information about TSBVI Short-term classes for the 2006-07.*

*Key Words: TSBVI, Texas School for the Blind and Visually Impaired, short-term classes, Special Programs, vision-specific learning*

Do you have an academic student or child who might benefit from a week of intensive instruction in vision-specific learning domains? Would you like your child or student to participate in a long weekend class focusing on issues related to vision loss? If so, you may want to read this.

### **ABOUT SHORT CLASSES**

TSBVI Short-Term Classes serve students who are functioning at or close to grade level. Students come from across Texas to participate in our one-week or long-weekend small-group classes. These are students whose basic needs are well met in the local school district, but who may need a short, intensive training boost in one or two disability-specific areas (e.g., technology, aspects of the braille code, math concepts or adaptations, O&M, independent living). While at TSBVI, students also have experiences related to social skill development, interactions with other visually impaired students and professionals, and independent living.

Students must be referred for a Short Classes by their local school district. Students may attend more than one class each year; in fact this cycle of learning, returning home to practice, then attending another program, can be a very beneficial process for acquiring new skills. Our full week classes are the most academic in nature. They are designed to provide visually impaired learners with the kind of instructional support they may need to be successful in school. Students are requested to bring their week's school assignments (homework) with them. This serves several purposes, such as (1) the opportunity to teach new skills within the context of what students are learning at home, and (2) helping students keep up with their assignments while they are away. Before students come to one of these Short Classes, their local VI teacher and TSBVI teachers discuss the student's current level of functioning in the skill areas selected for instruction, to maximize effective instruction as soon as the students arrive. An extensive, usable report is written after each student's participation in a class, with the hope that local staff and parents can see what the student learned, as well as to provide useful suggestions to continue working on the newly acquired skills.

## SHORT CLASSES FOR THE 2006–2007 SCHOOL YEAR

If you have an upcoming ARD, this could be a time to talk about and make a referral. Please call TSBVI principal, Lauren Newton, if you have any questions about the program or if you want to make a referral to one or more classes. Contact:

Lauren Newton, principal, TSBVI Special Programs  
(512)206-9119  
[laurennewton@tsbvi.edu](mailto:laurennewton@tsbvi.edu)  
<http://www.tsbvi.edu/school/special/short-classes.htm>

### Fall Semester 2006

September 6 - 10	Regional Program at TSBVI: Tech for South Texas (secondary)
September 17 - 22	Secondary Technology Week #1
Oct 1 - 6	Elementary Access to Academic Skills #1: <ul style="list-style-type: none"><li>• Elementary Academic Access</li><li>• Special Focus: Math Tools &amp; Concepts</li></ul>
October 12 - 15 **	“Getting There” Weekend (grades 9-12)
October 22 - 27	High School Access to Academic Skills #1: <ul style="list-style-type: none"><li>• High School Academic Access (Oct 22 – 27)</li><li>• Special Focus: Preparing for College (Oct 22 – 24)</li></ul>
November 5 - 10	Middle School Access to Academic Skills #1
Nov 26 - Dec 1	Math Tools and Concepts (secondary)
December 7 - 10 **	Middle School Independence Weekend
December 15 – 17 **	Elementary School Independence Weekend

### Spring Semester 2007

January 14 - 19	High School Access to Academic Skills #2
Jan 28 - Feb 2	Middle School Access to Academic Skills #2
February 7 – 11	Technology Weekend (secondary)
Feb 22 - 25 **	Low Vision Weekend (secondary)
March 4 - 9	Technology Week #2 (secondary)
April 12 – 15	High School Independence Weekend
April 20 - 24 **	Capitol Experience (secondary)
April 29 – May 4	Elementary Academic Access #2 <ul style="list-style-type: none"><li>• Elementary Academic Access</li><li>• Elementary Technology</li></ul>

\*\* = weekend programs

“Access” = VI Needs to Access the Core Curriculum

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# CLASSIFIED

Mail or email your new classified to Karen Brown:  
TSBVI Outreach, 1100 W. 45th Street, Austin, TX 78756 or <karenbrown@tsbvi.edu>  
An up-to-date Statewide Staff Development Calendar  
is posted at <http://www.tsbvi.edu/Outreach/vi.htm>

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## Texas Focus 2006

### *Moving On: Transitions and the Student with Visual Impairments*

June 8 and 9, 2006

Dallas, TX

Wyndham Dallas North at the Galleria

**Keynote speaker: Dr. Anne Corn**, professor of Special Education and professor of Ophthalmology and Visual Sciences at Peabody College, Vanderbilt University.

Sessions being planned include:

- Moving from ECI to public school
- Vocational assessments
- Using SSDI money to support employment
- Person centered planning
- Finding housing
- Accessing transportation
- Moving from elementary to middle and high school
- Planning in the early years for graduation
- The Expanded Core Curriculum and transition
- What does it take to be successful in college

### **New Professional Preconference**

#### **Self-Determination**

**Dr. James Martin, University of Oklahoma**

June 7, 2006

Wyndham North Dallas by the Galleria, Dallas, TX

For more information, follow the Texas Focus links on the TSBVI home page at <<http://www.tsbvi.edu>>

or

Contact Jim Durkel at (512) 206-9270 <[JimDurkle1@tsbvi.edu](mailto:JimDurkle1@tsbvi.edu)> or

Paula Effinger at (512) 206-9344 [PaulaEffinger@tsbvi.edu](mailto:PaulaEffinger@tsbvi.edu)

## **Sesquicentennial Events**

### **Texas School for the Blind & Visually Impaired**

- May**
- May 4th-6th and 10-11th – Student performance of annual spring play. Public is welcome.
  - May 10-13th – TSBVI hosts the International Seminar on Preschool Blind.
  - May 25th – TSBVI Graduation - winner announced for Round 2 of the Poetry Competition.
- August**
- All Month – Callahan Traveling Museum Exhibit – “In Touch with Knowledge: The Educational History of Blind People” on loan from the American Printing House for the Blind of Louisville, Kentucky. TSBVI has also created it’s own museum of Texas artifacts. The public is welcome. See <<http://sun1.aph.org/museum/intouch.html>> for more information about this traveling museum coming to Texas in August and September, 2006.
  - August 16th - A special commemorative stamp cancellation honoring TSBVI at Austin post offices. Envelopes cancelled with this special postmark will be on sale at the School.
  - August 18th - 20th - Memory weekend! — Reunion for former students of the School.-musicians, speakers, sight-seeing tours of TSBVI’s humble beginnings.
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### **Annual Introduction to the Intervener Model Workshop June 12-13, 2006 in Austin**

Texas Deafblind Outreach provides statewide introductory-level training is for interveners and team members who have not attended previous general intervener training.

Contact Beth Bible at (512-206-9103) or email <[bethbible@tsbvi.edu](mailto:bethbible@tsbvi.edu)>.

### **American Association of the Deaf-Blind Conference Towson University Baltimore, Maryland June 17-23, 2006**

Registration packets for delegates, SSPs, observers, and family members are available at:  
<<http://www.aadb.org>>

Contact Jamie Pope, Executive Director  
(301) 495-4403 TTY: (301) 495-4402  
Email: [AADB-info@aadb.org](mailto:AADB-info@aadb.org)

### **The Cornelia DeLange Syndrome Foundation’s 23rd National Conference June 22-25, 2006**

The historic setting of the Philadelphia area will be the backdrop for a celebration of *OUR* history.

For more information visit the CdLS Foundation website at <<http://www.cdlsusa.org>> or call (860)675-8166 or (800)223-8355.

### **Joubert Syndrome Foundation & Related Cerebellar Disorders 8th Biennial Conference July 5 – July 9, 2006 Sheraton Grand Hotel Irving, Texas**

For information email to  
[joubertduquette@comcast.net](mailto:joubertduquette@comcast.net)  
or visit the Joubert Syndrome Foundation website  
<<http://www.joubertfoundation.com>>

**2006 AER Biennial  
International Conference  
July 13-18, 2006  
Snowbird, UT**

For more information, contact:  
Barbara C. Sherr, Conference Manager  
(703) 671-4500 ext. 201  
<bsherr@aerbvi.org>  
<http://www.aerbvi.org>

**Through Your Child's Eyes**

A workshop for parents of blind  
and visually impaired children

**Coming to Fort Worth in September 2006**

Topics covered include:  
Quality programming for your child's  
education;  
Eye Ball 101; Socialization skills;  
Travel skills, sighted guide, using a cane;  
Panel of experts; and more

**8th Annual Virginia Murray Sowell Distinguished Lecture:  
Orientation and Mobility for Travelers Who Use Ambulatory Aids**

**Sandra Rosen, San Francisco State University**

**September 30, 2006**

**Texas Tech University, Lubbock, TX**

Contact: Anita Page or Angela Gonzalez at (806) 742-1997 x233

**Calling All CHARGERS In Texas – Mark Your Calendars**

A group is currently being formed in Texas for infants, children, and teenagers with CHARGE Syndrome along with their siblings, parents and professionals. We're called the Texas CHARGERS, and we are dedicated to helping give the Texas Chargers a better quality of life. The goal is to meet biannually to discuss the physical and emotional needs of children with CHARGE through the sharing of information and the building of a support network. So, mark your calendars for the:

**1<sup>st</sup> Texas CHARGERS Retreat**

**October 7<sup>th</sup> 2006**

**Peaceable Kingdom Retreat <[peaceablekingdomretreat.org](http://peaceablekingdomretreat.org)> , Killeen, Texas.**

This retreat will provide a stress free day for the families to come out and connect with others. The day will include sharing information on raising a special needs child in Texas and activities such as a carnival with balloons, arts and crafts, face painting, cotton candy, snow cones and a train ride. We will also be having lunch and enjoying the activities at Peaceable Kingdom which include an Indian campground, miniature golf, dinosaur tracks, a theatre & game room, swimming pool and nature trails. If you would like to receive a registration package or be on the membership list please contact Cathy Springer at <dacspringer@austin.rr.com> or 512-255-3176. You won't want to miss all the fun so make sure you mark you calendars!

Keep reading future news letters for more information about the Texas CHARGERS and we look forward to seeing all of you on October 7<sup>th</sup> at Peaceable Kingdom.

## SEE/HEAR

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or email <bethbible@tsbvi.edu>.

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March 1st for the Spring edition

June 1st for the Summer edition

September 1st for the Fall edition

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