Oregon Deafblind Project

IDEAs that Work
Office of Special Education Programs

Building Effective Programs

Lyn Ayer, Project Director • Fall-Winter 2011

December 2011

Greetings to everyone!

It's the beginning of the holiday season and things at school are probably winding down. I hope everyone had a good Thanksgiving

Enjoy the rain! And give every child who is deafblind the opportunity to experience this phenomenon. Imagine if you were always sheltered and never ever felt raindrops on your face, the sensation of wet clothes or "squelchy" shoes, heard the sound of trees swaying and groaning in the storm, thunder growling, flashes of lightning, or been able to see windows with drops running down or becoming a "sheet" of water. As a child, I lived in a city which did not get very much rain at all. We had intense dust storms and heat and cold; but when the rain first fell for the brief rainy season, we would run out to play, get soaking wet and just have fun. And then I lived in another city where we had "monsoon" rains — heavy, soaking, continuous — like we have here in winter. We all scurried around trying to keep as dry as possible under umbrellas that kept blowing inside out. But then there was hot tea and snacks in little roadside shanties — and I remember sleeping really well with the sound of rain pounding on the coconut leaves, and the "slither-thunk" sound of one of the huge leaves dropping to the ground. So — enjoy the season and the holidays! Take care.

Lyn

CONTENTS

Is there anything worse than being blind? Yes, a man with sight and no vision (Helen Keller 1880-1968)

BOOK NOOK

When I pick up a book, ideas run through my mind. This is an attempt to share some of these ideas, and to pose some questions for you to think about.

Did you ever think how closely hands and movement are related to music? To a composer such as Mozart the auditory sense alone would not have made him a musician. He had to repeatedly move his hands and fingers on the piano, in the air, to connect the sounds and rhythms to his hearing. He also had to use his hands — and eyes — to document this on paper! In fact, Beethoven did some really phenomenal composing when he could no longer hear with his ears and had to depend on his "inner music". We could say, that true music is in the brain! One of the authors of a book I am looking through says, "...highly trained musicians can hear the whole work in their heads, sometimes claiming the experience has the advantage of freedom from the blemishes of an actual performance."

Knowing this, are there ways we might maintain the "inner music" for children who may be losing their hearing? Enhance their ability to use touch, vibration, residual vision to create musical memories?

We do not yet know exactly how the brain stores music, how much is retained, and for how long. We are not even sure whether these memories remain the same or are influenced by other memories and become intermingled with them. We do know that we can recognize music that we have heard before — sometimes even if we cannot remember the name of the tune. It is possible that if we paid close attention, we could recognize the rhythm of a specific piece of music if someone tapped it into our hands or on our backs.

Are there rhythm "games" we can invent — a type of karaoke perhaps — to have participants "tap" out a tune, or even tap dance to it?

The book I am reading reminds us that even though our sense of hearing may be regarded as marvelous, there are animals who have better hearing. What is truly marvelous is a human being's ability to organize and reorganize things in his brain and to thus train and strengthen "his powers of auditory discrimination, analysis and imagery". The author says, "Where a musician speaks of someone having 'a good ear', a neurologist might speak of his having good auditory 'receiving' and 'association' areas of cortex". When a musician's hands shape themselves to play chords on a keyboard, he is going to execute patterns that represent complex sounds — even before his hands actually touch the keys.

- **For a child whose hearing is deteriorating, even if his audiogram or other clinical documentation indicate a loss in a specific frequency, is it not possible that the brain retains some of the sounds beyond what the paperwork might reflect?**
- **Is it possible to transpose some music to help hear it in a different frequency — or use a different system?**



- **For some ideas, see "The Toolbox" section of this newsletter.**

When a piano performer plays a musical piece, he has probably practiced it over and over so that it has become incorporated into the "automatic" portions of his brain. So he doesn't need to think of how to combine all the different chords, or segments of the music. Again — think about all that is combined in the playing of the piece: his "seeing" of the musical score, the "touch" of how each chord or musical segment feels, how it "sounds" once his hands touch the piano, the vibrations through his feet, the pressure underfoot when he uses the piano pedals at certain times, even the position of his arms and body, and the tenseness or relaxation determined by whether the music is quiet or intense, loud or soft, rapid or slow. This suggests that

isolation of any senses may not serve us well! I know that when I learned how to "touch type" I was combining various things. Touch typing included a rhythm — relating both to my hands and fingers, as well as my hearing and the position of my body. If I broke the rhythm, my speed decreased. Initially, I had to use my vision to learn where each key was situated on the keyboard. However, now if I try to look at my hands as I type, it slows me down and I make errors. Children learning braille have the same experience. Often, a teacher will make sure that the student cannot see his hands while reading or writing braille.

- **What is the difference between passive listening and "active" listening or participating?**
- **Are there ways to ensure our children who are deafblind are given the opportunity and the means to listen actively?**

The author of the chapter I am reading also points out that that our perceptions of our body, and its position and relationship to objects in space (perhaps the piano) relate more to signals coming from our muscles, and also joints and tendons than to skin sensations from our fingers. So participating in a musical experience should be a "whole body" experience. When a muscle is stretched, one becomes aware of movement. If you play the piano, you will know through your sense of touch and your muscles that you have hit the wrong note — even before you hear it.

Is it possible that, for certain activities, ensuring the non-use of vision might actually improve the quality of the experience? Or the efficiency of the task being done?

The above were my reflections while I was reading Chapter 4: Brains and Hands. Other interesting chapters in this book are:

Chapter 1: Neurological Aspects of Musical Experience. This contains a segment on the role of the special senses, somatic music and sensory systems, synaesthesiae (relating colors to musical notes), and memory.

Chapter 3: Psychological and Physiological Aspects of Hearing. It includes information on the central auditory pathways, directional hearing and how this is related to frequencies, and aspects of loudness perception.

Chapter 7: Memory and Attention in Music. The chapter contains information about the organization of pitch memory, attention in music and how it relates to the type and complexity of music being heard.

Chapter 12: Music, Emotion and Autonomic Function—talks about the affective aspect of music.

Chapter 13: Ecstatic and Synaesthetic Experiences during Musical Perception—addresses the interesting phenomenon of how some people "see" color when they listen to music.

Chapter 14: The Language of Music — that it is both receptive and expressive, just like any form of communication.

Chapter 18: Deafness and Musical Appreciation. This chapter has some interesting biographical information about several musicians who became deaf. (My note: I recall a Deaf harpist who plays with a symphony orchestra — but needs to do this barefoot so that she can feel the vibrations to coordinate effectively with the group).

AND THE BOOKS IS:

Music and the Brain: Studies in the Neurology of Music (eds.: M. Critchley & R.A. Henson. 1977. Publishers: William Heinemann Medical Books Ltd., London)

THE TOOLBOX

Functional use of MUSIC as a tool in Education for a Child who is Deafblind

"I know my child is not deaf because he loves music." We have all heard this statement at one time or another. This is indeed true of many children who are deafblind. They may indeed enjoy music. And if a child enjoys this, it is usually an excellent motivator.

Here are some ideas:

- Find out what type of music appeals the most (country, jazz, children's tunes, classical, jazz, drums) — and then try to figure out the "what" and "why". For example, a child may be hearing certain parts of the music — the drums and the rhythm, the low-toned stringed instruments, the plucking sounds on a guitar, some tones on a piano, the prolonged sounds of an organ or xylophone. Children who like music may not all hear everything we hear — and this includes voice. It is entirely possible to enjoy a song and not hear the actual words.

- Giving a child an instrument to play on while listening to the music will usually increase the enjoyment of the music. Often, a child who is left to listen to music will do so for a while. Then it may put him to sleep, or it may eventually lead to boredom. However, if he is listening "actively" and doing something while he listens, he will be engaged for a longer period of time.

- To have the instrument be most effective — ensure that the vibrations are reaching the child — not just through the air, but through his body. For example, if using any type of drum, have the child be barefoot, leaning against a surface that vibrates, or have the drum on his lap. Helen Keller enjoyed piano music by capturing the vibrations of the instrument through her hands and face. Close your eyes, put earplugs in your ears, and try putting your face against different areas of a piano while it is being played.

- The quality of vibrations differ with different instruments. Some have sounds that are more prolonged than others. Consider "real" instruments instead of using toy miniatures: piano, guitars, flutes or other wind instruments, "brass" band instruments such as horns, harps, drums, percussion instruments.
- There are also a whole host of unconventional "ethnic" percussion instruments — e.g., rain sticks, kolattam sticks, bamboo http://www.youtube.com/watch?v=BTzY3LL6lvk . Make your own rain sticks too: This "starter" You Tube video gives you the equipment you need. Others will pop up to show you the actual "how to" and how to play it too: http://www.youtube.com/watch?v=xr4UCJgsyic. Learn innovative ways to "play" a rainstick — tipping and turning, twisting and lifting motions: http://www.youtube.com/watch?v=Zu42RqcAtac&feature=relmfu

HOME MADE

- And then there are **home made** ones.

  - Here's an interesting website with a ton of great ideas — "Homemade Percussion & Junkmusic": http://rhythmweb.com/homemade/ This site has a yahoo group too where they discuss this topic! They remind us, "When you use your imagination to make or find percussion instruments for yourself, you are following a tradition that stretches back thousands of years to the dawn of human music making." Among other things, they use sticks, plastic bottles, coffee cans, and tubes. Via the tabs, you can look up specific instruments or even cultures. Here are some ideas I liked:
    - Off this page, listen to "Hubcap Ritual 12" — using a hubcap as the instrument. Note what the musician says about changing the pitches: "ACID recording software allows one to raise and lower the pitch without altering the timing or other characteristics of an event. This gave me the luxury of taking the hubcap down an octave for the bass part, and way up for a sort of

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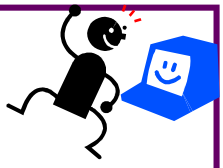
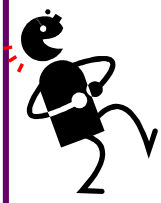
electronic sound that floats atmospherically through the mix in a couple of spots, and so on." For example, see: http://www.sonycreativesoftware.com/acidpro

- Also interesting — "Water Ritual #6", using 5 gallon plastic bottles. Someone else uses a cranberry juice bottle. And yet another person uses a large heavy plastic laundry tub inverted to create a really great bass drum.

- And what about the use of metal bowls to create music? There are several samples of this you can listen to. And by adding other tools, you can add to the sound effects — a chopstick, a knitting needle, a marble (rolled around inside).
- Read about Jason Bruns' Can Drum Orchestra. Jason, an LA area teacher, uses a variety of drums (including metal garbage cans!). That would be a really cool class project.
- The staff and stick activity uses these in conjunction with stomping the feet or each other's sticks — and so involves not just the hands but the whole body. For added effect, bells or other items can be added to the sticks.

- As with much in life, practice helps. So — repeat, repeat, repeat a music-based activity until it becomes a routine. Also — as with other routines (e.g., activities of daily living), it is always best if a child participates to the maximum extent possible.
- Keep in mind what Shakespeare said, "If music be the food of love, play on…" What he was referring to here is the music-emotion connection. One does not intellectualize music except perhaps to compose or to prepare for a music exam of some nature. So, when listening to or participating in a musical experience, children who are deafblind are also making this connection to their emotional selves. Emotions are often such an intangible thing that children who are deafblind find it hard to express these — especially if they have not learned about this from others, or if they have limited communication skills. Music is a medium that will help.





Books anyone?

Making Musical Instruments with Kids: 67 Easy Projects for Adults Working with Children (by Bart Hopkin) $15.60

Sound Designs: A Handbook of Musical Instrument Building (by Deanna Sclar, et al) is available from Amazon. While the new one costs $190, you can get second hand ones for as little as $9.45

How to Make Drums, Tomtoms, and Rattles: Primitive Percussion Instruments for Modern Use (by Bernard Mason) $8.95

Vibrations: Making Unorthodox Musical Instruments (by David Sawyer)

Making Music (by Ann Sayre Wise, John Lanstaff) has interesting chapters like "Kitchen things that Ring and Ping" and "African thumb pianos"!

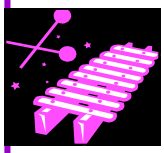
THE TOOLBOX

The PENTATONIC scale

C, D, E, G, A, C

Several years ago I learned about the Pentatonic Scale from a special education music teacher. The word "pentatonic" comes from the Greek words pente meaning five and tonic meaning tone — five notes within one octave. Here is some more information about it:

- The "anhemitonic" type does not have any dissonant notes or semitones: five notes with no in-between sounds.
- Any pitches in such a scale can be played in (a) any order or (b) combination without clashing. So children can play on instruments which have this scale and not be "out of tune"!
- It is easy to improvise using this scale because it cannot be dissonant and a child cannot therefore make any "harmonic" errors. It is therefore a wonderful instrument for errorless learning.



- Orff instruments, such as xylophones, glockenspiels, bells, and other metallophones, use wooden bars, metal bars, or bells which can be removed, leaving only those corresponding to the pentatonic scale. Carl Orff himself believed that this scale corresponds to children's natural tonality and that it is a good place to begin music.

The real instruments are much more effective than the toy versions although much more expensive. Look for "Orff Instruments" at the following sites:

- www.westmusic.com/1002408-orff
- http://www.muiciansfriend.com/orff-instruments
- http://www.wwbw.com/Orff-Instruments

I believe this is good information to have — and to use, especially if a child is "included" in band or percussion classes.

From Wikipedia:
The pentatonic scale is a beginning point for children before they go on to music that contains seven notes, sharps and flats. However, there is no reason why this could not continue to be used so a child can be included.

In Waldorf education, pentatonic music is considered to be appropriate for young children due to its simplicity and unselfconscious openness of expression. Pentatonic music centered around intervals of the fifth is often sung and played in early childhood; progressively smaller intervals are emphasized within primarily pentatonic as children progress through the early school years. At around nine years of age the music begins to center around first folk music using a six-tone scale, and then the modern diatonic scales, with the goal of reflecting the children's developmental progress in their musical experience. Pentatonic instruments used include lyres, pentatonic flutes, and tone bars; special instruments have been designed and built for the Waldorf curriculum. [8]

Learn more about the Waldorf curriculum and music at:
http://homemusicmaking.blogspot.com/p/pentatonic-scale.html

BOOKS ANYONE?
Just Five: A Collection of Pentatonic Songs (compiled by Dr. Robert E. Kersey). $9.50 from Amazon. This is a collection of songs based on the five-tone pentatonic scale. The natural chants and games of children and folk songs of all cultures show a sound and natural basis for developing music literacy. 76 pages of wonderful, familiar childhood songs to use as supplementary materials for teachers.....

Season's Greetings to all our readers—parents and families, educational teams, medical teams, all our friends in nationwide deafblind projects, all our partner agencies in Oregon and Washington D.C. and elsewhere

Have a Wonderful Holiday Season

THE OREGON DEAFBLIND WORKING GROUP

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Colleen McLaughlin—Region two, Central Oregon
Lynette Kleespies— Region three, Southern Oregon
Terry Cadigan — Region four, Cascade Regional
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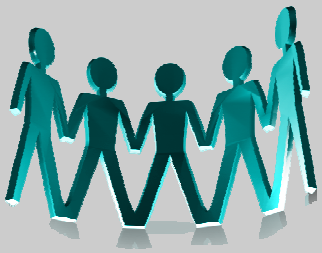

The Oregon Deafblind Project Website: **www.oregondb.org**
The home page has information about upcoming events; and our newsletters, both current and archived.
We also have our newsletters and other information on our web-page with our partner organization, the Oregon Department of Education:
http://www.ode.state.or.us/search/results/?id=185

Contact the Oregon Deafblind Project!

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