Hi, my name is Ed Gervasoni and I’m an Orientation and Mobility Specialist specializing in the area of deafblindness. I’m here today to talk to you about deafblindness and orientation and mobility. Orientation and mobility is about teaching children to connect with things outside themselves in the world, to help them understand and organize the world so that they can go to it and use it.

Spatial relationships:

For deafblind people who might have no vision or no hearing, they will begin to use their hands more and more as a way to see things and as a communication tool. From some of the deafblind adults that I have met, they are able to distinguish all types of small similarities with their hands through observation. My job, and your job as a parent, is to help the children, number one, understand spatial relationships and then be able to use their hands with residual vision or hearing to make sense of those things. That lays the foundation for greater exploration and more independent travel as a child grows and develops.

The way I teach children to travel from place to place is, number one, with a baby like this [he is kneeling on the floor holding large doll in front of him] I would have them in front of me. I would have my hand underneath theirs. If I had a baby carrier in the front that would be very good. Then I could have both my hands underneath the child’s hands to not only communicate where we are going, but also to demonstrate the things I want the child to explore. What I found with children is that if you move through space in very direct grid pattern-like ways, they internalize those movements and then begin to be able to recreate them when they are able to move themselves. The two important components here are going from object to object, thing to thing, that are in direct relationship to each other. The other piece is to have your hand underneath the other person’s hand guiding it and leading it to the object that we are leaving, pointing towards the direction we are going, and then placing it on the other object.

The other important piece with this is to have labels. So if I am using this desk, I should have something that I am using as a communication tool to label what this desk is so I can refer back to it with the child and we can use it to associate with the desk. And then with the other object a label for the other place we are going to. That begins to develop the foundational communication skills and helps students know that there is a label for every place and that each place has certain features that can be expanded upon and be communicated about—explored. So if I was to show this child, I would travel from the desk to the door, and have my hand underneath hers, we would label the desk, in this case “desk” in sign language or some sort of tactile label that we have for this, then with my hand underneath hers, I would point to where we are squaring off and crossing over, touching the wall, encouraging again travel from here from place to place (and we’ll repeat that), coming to a landmark, this is a landmark or something that could initiate change, and then we square off, change our body direction, and then crossed over. So we have gone from object, to object, to object. I would tie in sign language for door, something to square off at (squaring off is having your back against the wall or an object, and then crossing over in mid-space), and I point the direction in which we go. Then, with my hand underneath theirs (I try never...
to grab the person’s hand but always put my hand underneath theirs) we trail to where we need to get to. We develop spatial relationships that way. It is really important in the home to be able to do that.

I also use string and rope for ways for students to understand connections to things. We tie a rope to one thing together. Then we’ll string it across the room to the next thing. Then we’ll follow the rope to see how things are in line. Sometimes with older students when they are traveling and they are lost we use rope to see where things went wrong, how it connects to where they were trying to go, and to try to draw that triangular, or whatever it is, that they fell off their path on so they can see how they need to go from an object back on their path or how to back up. It has been a great tool for problem solving and understanding spatial relationships. Again, when you have no vision, it is really hard to understand how things are organized in space. But, by early on, traveling very methodically from point A to point B, or from one object to the next, and then from that object to another object, that’s where I could change my direction or something like that, it really helps a deafblind person understand that space can be looked at in a grid pattern and can be used in those ways.

Now, when a student has some vision and we travel, we still do the same things, but initially I always incorporate touch with the vision because it is so important to integrate all those sensory components together to help the student interpret information better. It actually helps them develop their vision by also having their hands on it because it gives more information about details. Sometimes we even create environments like where we label things—big colorful labels. Maybe a certain room in a communication system is associated with a certain color. The labels in that room have that color as the background and then maybe different things, different shapes, are on top of that background to denote various objects in that environment that important to that child. Instead of maybe trailing completely with our hands, we start to look for things and encourage vision, encourage the use of vision. Like, look for the red table. Then we start moving toward it using our vision. Students who have a little bit of vision can go a long way quite quickly if encouraged and used correctly.

When it comes to hearing impairment, it is very difficult for a person who is deafblind and totally blind, to be able use their hearing to find things in the environment. One of the things that makes echo location possible in the environment for a blind person is the ability to hear equally out of both ears to locate things in space. A lot of times, people with hearing impairment, they don’t have that component and they are not able to locate things. If they have no vision and some hearing, I don’t know, you will really need to depend on the tactile modes and object to object relationships rather than hearing.

For the younger students it is really important to develop that object to object relationship and again to have labels for each place in the environment that they visit. That sets up a foundation that will be useful as they age and travel in a variety of settings.

I work with a lot of high school students who are completely deaf and completely blind and they do get out in the community and travel independently. They take buses, they have communication cards and systems for learning how to use the bus, following certain routes, getting to certain locations. The biggest problem that a deafblind person encounters today is the ability to cross streets independently. If
one has no vision and not very good hearing, then they are not able to determine traffic patterns across the street. They either have to solicit aid to cross the street or take their chances. Most students find someone to help them get across the street. In some cases we have students who go into a business and someone from the business will just assist them through the street crossing. Other students travel in areas where there is a lot of pedestrian traffic and they have various communication tools that help them get across the street safely. Other than that, most students usually have no problem traveling.

This is my cane for mutual transit, it has two grips. It is a little extra long so that I can use it and she can hold on to it and I don’t have to bend over. We can work together and look at things in the environment and I can also show her some things. Here we are traveling, you can see she has hit something, we come up to it, we find it with our cane, and then we reach out and we touch it. Together we share it. I can then take some time out to talk to her about what it is, show her the qualities about it, things like that. Just know that to travel in space together, I don’t have to have my hand over on top of hers, and at the same time I can help her move through space so that she has a way to get some support while traveling.

I want to demonstrate this sighted guide technique. Sighted guide is where she grabs my arm above my elbow with a grip, her thumb on the outside, her fingers on the inside. For a person who is smaller, or a young child, she could grab my wrist or my finger. The important thing is that her arm is at a 45° angle so that she is one step behind me. That gives her enough reaction time to respond to anything my body is doing. The specialized part of this for the deafblind person is the other hand. This allows us to use it for communication purposes while we are walking and talking and for demonstration purposes. Here I can show her the jungle gym, lead her hand to it, she can check it out, I can show her the different features of it, talk to her about it, show her some more, and allow us to move through space safely and look for different things. I can show her different things that are in the environment so she knows to watch out for them. Or I can just have her protect what is in front of her face. Then she can find my hand and again I can use this to communicate with her.

The most important thing that I encourage parents to do with their child is to get out and explore space with them. Anywhere that you go, being in contact and showing where things are and how things are related in space, is critical to the student’s understanding of what is out there in the environment and how to access it. Again, especially when someone does not have any vision, the only way that they really have the opportunity to observe what is out there and how to use it is through direct experience. Guided practice like that is phenomenal. Also any kind of activities that encourage movement, play, wrestling, independent travel around the house, choice-making, being able to say (after labeling the environment) can you go to it and get something and bring it back, you know that your child is developing a nice foundation that they will be able to use throughout the rest of their life.