

Newsletter

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Seventh Annual Parent Conference: Best Year Yet!

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The Nevada Dual Sensory Impairment Project has successfully presented yet another annual parent conference. Twenty parents and ten service providers (i.e., teachers, speech/language pathologists, early interventionists) gathered at the Reno Flamingo Hilton on May 13 & 14 to participate in many outstanding sessions. These presentations included: Shared Experiences, There is Help Out There, Let the Play Begin, Children with Disabilities & Siblings, The Communicative Intent of Behavior, Show Me the Magic, Legal Considerations for the Special Needs Family, and "It's Your Turn".

Those who attended the conference felt that it was "another great year," and covered a "good range of topics." Additional comments regarding the stronger features of the conference included: "This conference reminds me that I am not alone and that other people do care," "This conference is my yearly 'fix'," "The information is always useful," "This conference opened my eyes to all the different families & all their different problems & issues facing their every-

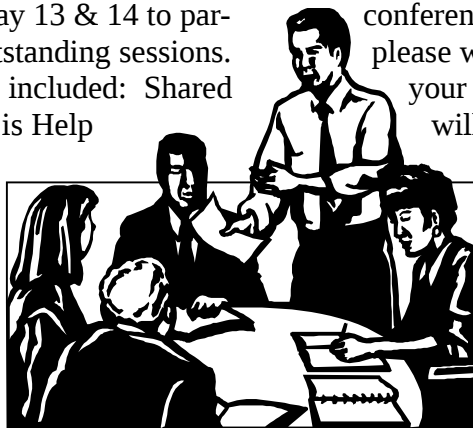
day lives," and "The speakers are wonderful." Some suggestions for topics for future conferences included:

"More on behavior—play ideas—communication," "tactile signing,"

"music as therapy," "visual concerns," and "sifting through information on the Internet". If you have ideas for future

conferences or parent meetings, please write or call and share your ideas! The conference will be back next year.

We hope to see you there.



[This conference was supported, in part, by the Hilton/Perkins National Program of Perkins

School for the Blind, Watertown, Massachusetts. The Hilton/Perkins National Program is funded by a grant from the Conrad N. Hilton Foundation of Reno, Nevada. The conference was also funded, in part, by the U.S. Dept. of Education, Office of Special Education Programs (Grant No. HO25A50019-98).]

What is Sensory Integration?

Reprinted with permission from *Deafblind Focus* Winter 1999

Sensory integration is a child's ability to feel, understand, and organize sensory information from his body and his environment. Sensory information comes from a child's senses of sight, hearing, touch, smell, and taste, as well as from systems developed for knowing about gravity, position of body parts, and movement (kinesthetic senses). The process of the brain organizing and interpreting this information is called sensory integration. Sensory integration provides a crucial foundation for later, more complex learning and behavior. This sensory information, when organized and integrated, is integral to a child's development, learning, and esteem.

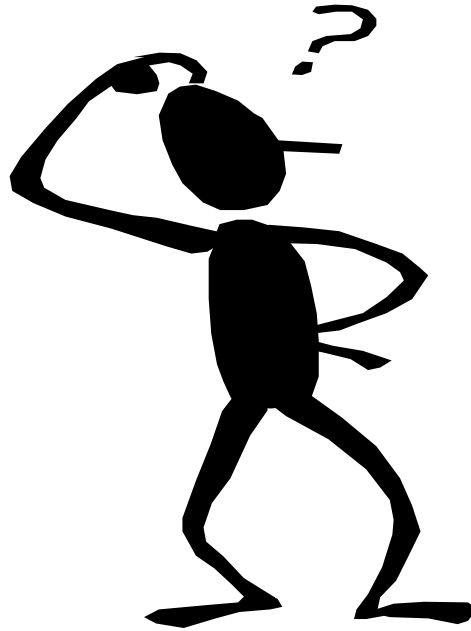
Through sensory integration, a child learns to dress himself, communicate, play, pay attention, read, and write. He gradually learns to take responsibility for his behavior and develops independence. Sensory integration sorts, orders, and eventually puts all the individual sensory inputs together into a whole brain function. The brain must filter all the sensory information it is bombarded with in order for a child to be able to make adaptive responses to that information.

For most children, sensory integration develops in the course of ordinary childhood activities. Motor planning ability is a natural outcome of the process, as is the ability to adapt to incoming sensations. But for some children, sensory integration does not develop as efficiently as it should. For example, children with deafblindness may have particular difficulty with sensory integration due to a lack of sensory input and a lack of prior

information and memories to make the input meaningful.

What Can Occupational Therapists Do to Help?

Occupational therapists have had considerable success in treating children with sensory integration disorders. The goal of sensory integration therapy is to regulate a child's arousal level and then work on developing a child's skills. This is usually accomplished in the context of play in order to motivate the child to build muscle tone, perception, attention, and coordination. This approach



was developed in the 1960s by Dr. A. Jean Ayres for children with learning disabilities and emotional disturbances, but it is now used to treat many other disabilities, including autism and pervasive developmental delay.

Sensory integration therapy is primarily provided by occupational or physical therapists, although more special education teachers across the country are working with therapists to employ some of the methods in the class-

room. Therapists certified in sensory integration have received specialized training and must have worked with a mentor trained in sensory integration for a period of time.

Occupational therapists certified in sensory integration will be able to administer a diagnostic test to determine if sensory integration therapy is necessary for a particular child and then provide therapy for that child. The therapist's general goals would be to: 1) provide the child with sensory information which helps organize the central nervous system; 2) assist the child in inhibiting and/or modulating sensory information; and, 3) assist the child in processing a more organized response to sensory stimuli.

What are the Disorders Relating to Sensory Integration?

Several disorders relating to sensory integration can affect children. These disorders can be organized around the three basic senses primarily affected -- *system* includes nerves under the skin which send information to the brain about touch, pain, temperature, and pressure. One example is feeling the tags on your clothing but "getting used to it." Children with disorders of the tactile system cannot block out the feeling and may be irritated all day long. Another example may be when the child mistakes pressure for pain and might claim someone "hit" them when they are brushed against.

The *vestibular system* refers to structures in the inner ear (the semicircular canals) that detect movement and changes in the position of the head. For example, you can feel a car is slowing and brace yourself. A child with dysfunction of the ves-

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Who Are the Children Involved with the Nevada Dual Sensory Impairment Project?

Each Spring the Nevada Dual Sensory Impairment Project is required to submit a report to the U.S. Department of Education, Office of Special Education concerning the children involved in the project. The information reported to the U.S. Department of Education is that which the project is mandated to collect and includes information regarding age, major cause of deaf-blindness, degree of vision loss and hearing loss, other disabilities that the child might have, how the child is reported by the district or agency under the Individuals with Disability Education Act, where the educational services are provided, and where the child lives. This article provides you with an overview of Nevada's population of children who have impairments in both vision and hearing.

In the most recent report, the project identified a total of 71 children, birth through 21 years of age. Although those involved with

children were under 12 years of age. As would be expected, most of the children receive their educational or early intervention services in the "population centers" of the state (i.e., Reno and Las Vegas). However, numerous children live in the rural areas of Nevada (See Figure 2).

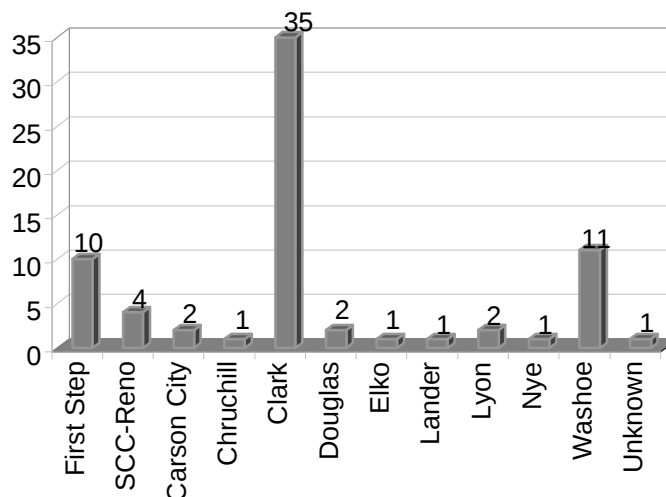
Figure 3 shows that the ma-

4). This category includes those children who were reported to be "untestable". The next frequent degree of hearing loss was the further testing needed category. This category includes those children whose results were atypical in some way, but a precise degree of hearing loss was not identified. In terms of identified degree of hearing loss, the majority of the children had a mild

hearing loss (i.e., 26-40 decibel loss). A moderate hearing loss involves a 41-55 decibel loss; a moderately severe is a 56-70 decibel loss; a severe loss is a 71-90 decibel loss; and a profound loss is greater than 90 decibels.

Figure 5 (Page 4) shows that there are a wide variety of causes of deaf-blindness. Heredity/Chromosomal Syndromes & Disorders include Down, Dandy Walker, Trisomy 13,

Figure 2—District or Agency



jority of the children have cortical vision impairment, followed by those children who are legally blind (i.e., visual acuity of 20/200 or less or they have a visual field of less than 20 degrees). A review of the data regarding hearing loss shows that the major category involves those children who had their hearing tested but the results were nonconclusive (Figure 4, Page

Figure 3—Degree of Vision Loss

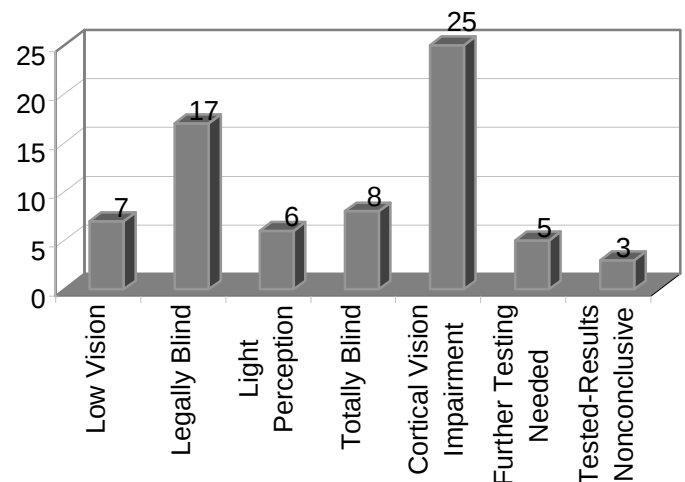
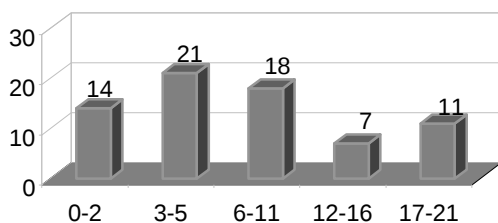


Figure 1—Ages of Children

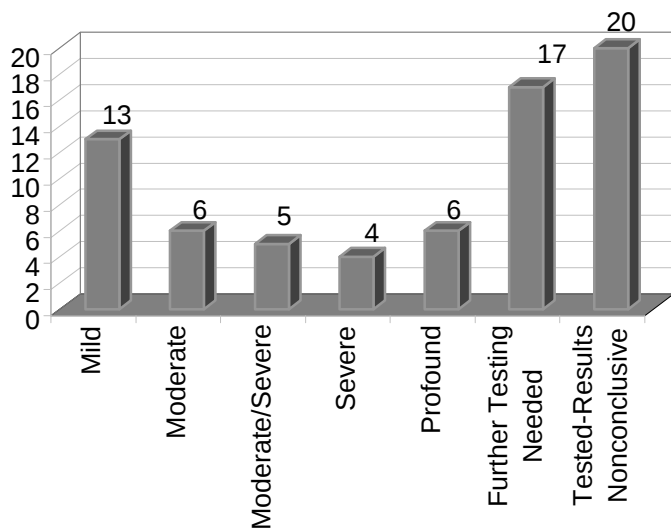


the project range in age from less than one year to 21 years of age, Figure 1 shows that the majority of

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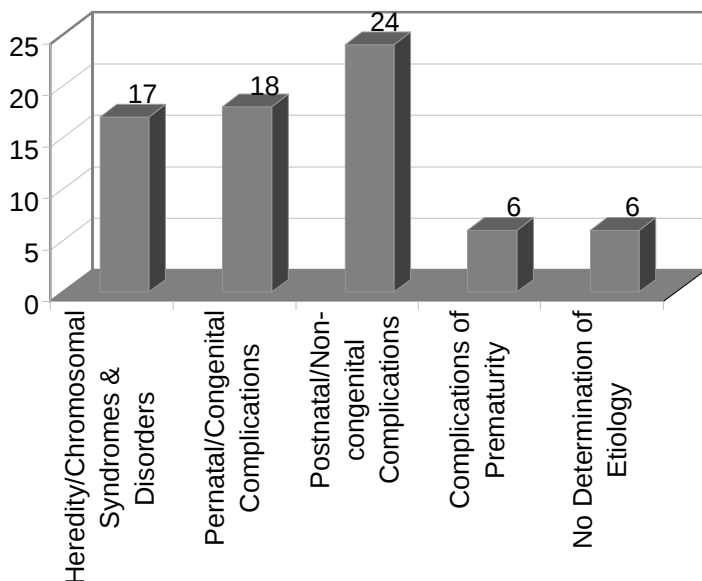
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Figure 4—Degree of Hearing Loss



Usher, Refsum's, Goldenhar, Fraser, Wolf-Hirschhorn, and many more. Examples of Pre-Natal/Congenital Complications include, but are not limited to rubella, syphilis, toxoplasmosis, cytomegalovirus (CMV) and fetal alcohol syndrome. Post-Natal Congenital Complications include asphyxia, encephalitis, infections, meningitis, severe head injury and

Figure 5—Major Cause of Deaf-blindness



stroke, just to name a few. For six of the children, complications of prematurity was the sole known cause

of their disabilities. Another six children had no determination of etiology.

Figure 6 shows that the majority of children have other disabilities in addition to sensory impairments. Because children can actually have several disabilities, the total number for this figure is greater than the total of 71 children. For example,

the typical child involved with the Nevada Dual Sensory Impairment Project has physical impairments, cognitive impairments and has complex health care needs. Given the large number of children who have multiple disabilities, it is not surprising that the major disability category, as

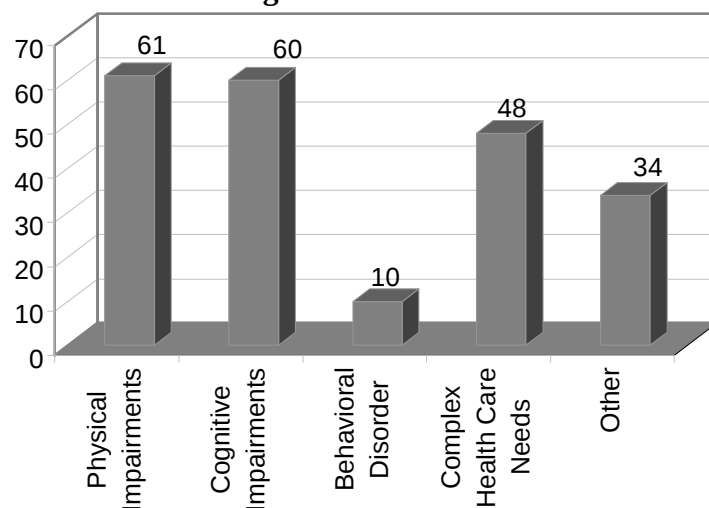
specified in Part B of the Individual with Disabilities Education Act, represented in Nevada is multi-disabled (see Figure 7). In this figure the total number is 57 because Part B is only used for those children between ages three and twenty-one.

Figures 8, 9 and 10 (page 5)

show the setting of educational services by age group. The vast majority of children ages birth through

two years of age receive their educational services via home based early intervention. Most children ages three through five received their education in an early childhood special education setting followed by a homebound/hospital environment. Those children in the project ages six through twenty-one received their services mostly in a specialized class or a public specialized school. An examination of the children's living setting (Figure 11, page 5) shows

Figure 6—Other Disabilities



that the overwhelming majority of them live with their birth or adoptive parents.

Why refer children to the project?

The purpose of the project is to enhance the educational services provided to children, birth through 21 years of age, who have impairments in both vision and hearing. The services provided by the project include:

- ⇒ assistance in identification of individuals with dual sensory impairment,
- ⇒ provision of on-site technical assistance (e.g., consultants, inservice workshops, program review) to families as well as educational & early intervention

Continued on page 5

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- providers,
- ⇒ maintenance of a lending library,
- ⇒ quarterly newsletter,
- ⇒ parent access to a parent-to-parent network,
- ⇒ teacher access to a teacher-to-teacher network,
- ⇒ a yearly parent conference.

Technical assistance is provided throughout Nevada in the child's home, school, or early intervention agency. All technical assistance is provided at no cost to families, school districts, early intervention agencies, and others who provide services to children with dual sensory impairments.

Referrals to the project can be made by parents as well as educational, medical, and social service agencies. If you would like to refer someone to the project, please call (775) 784-6471 for a referral packet.

Figure 7—Disability Category

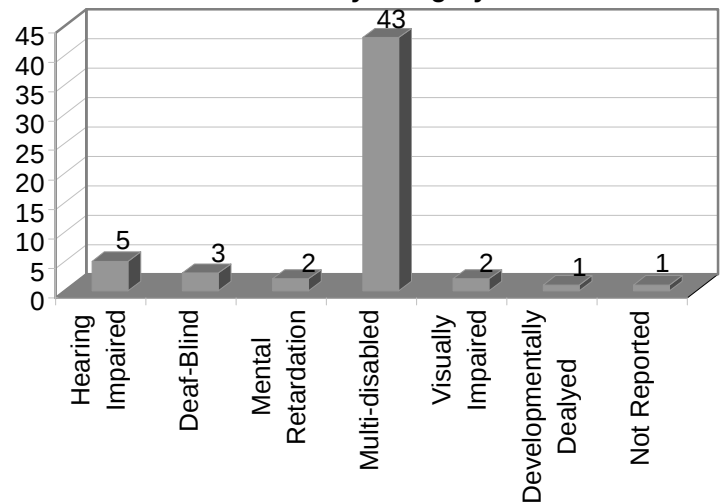


Figure 9—Educational Setting 3-5

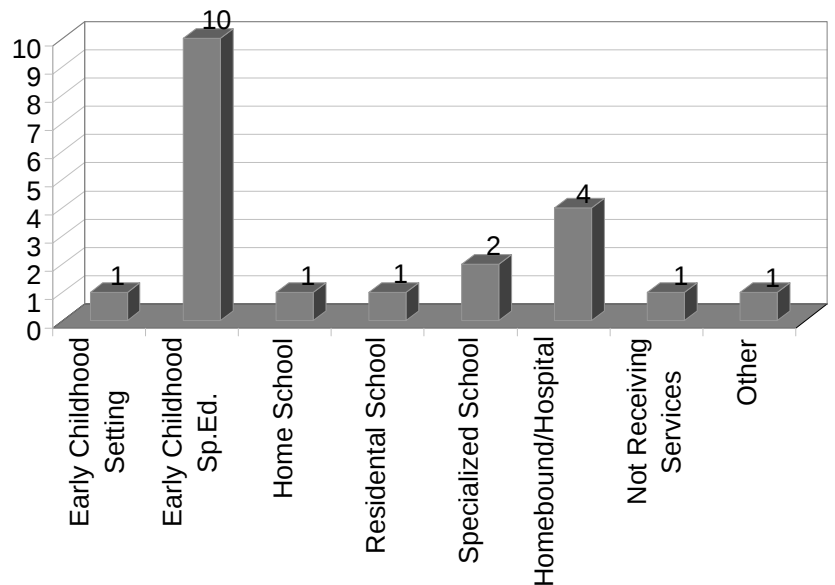


Figure 8—Educational Setting 0-2

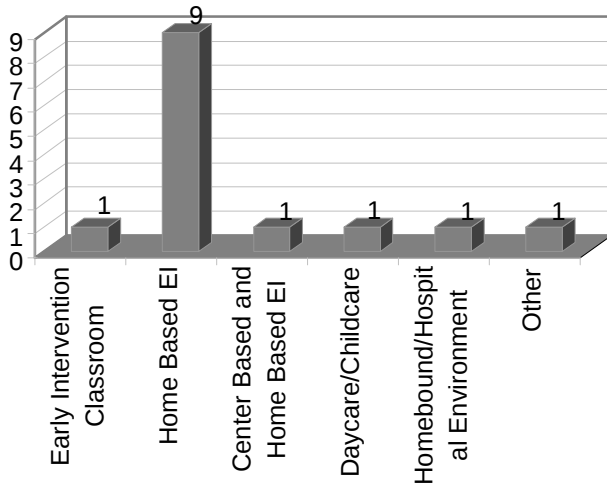


Figure 11—Living Setting

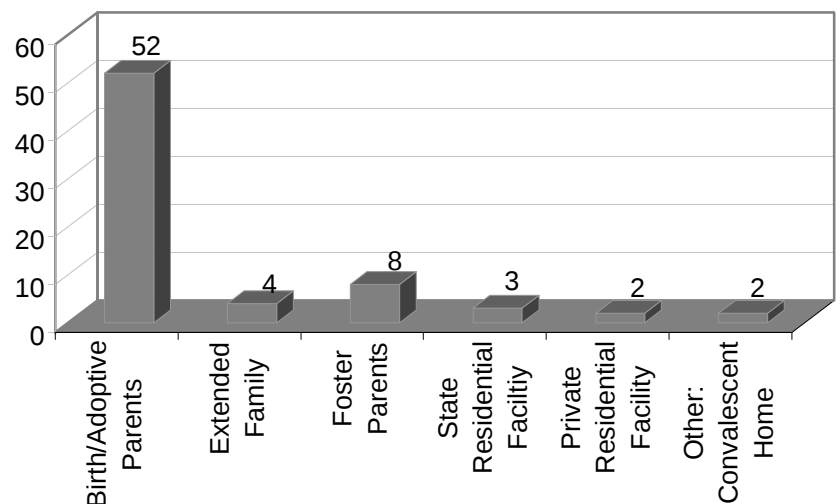
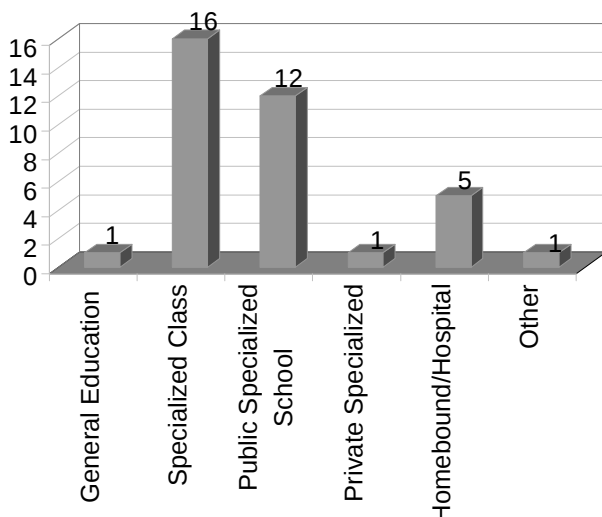


Figure 10—Educational Setting 6-21



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tibular system tends to over exaggerate this bracing because they do not receive the warning until it is too late.

The *proprioceptive system* refers to the muscles, joints, and tendons that provide a person with a subconscious awareness of body position. For example, you can tell if your hands are at your sides or straight out in front of you without relying on your visual input. A person with deficits of the proprioceptive system has to “see” their body parts or significantly exaggerate the movement for it to register.

Sensory integration disorders involving the vestibular and proprioceptive systems include: gravitational insecurity, hypersensitivity to movement, vestibular-bilateral disorder and developmental dyspraxia. **Gravitational insecurity** is a feeling of insecurity in relation to the pull of gravity. **Hypersensitivity to movement** is aversiveness to movement, particularly rotation. **Vestibular-bilateral disorder** is a disorder resulting from insufficient integration of information about movement and gravity. **Developmental dyspraxia** is a disorder of the sensory systems involved in creating an adequate body scheme and the ability to plan skilled or non-habitual tasks before executing these tasks.

A dysfunction of the tactile system (tactile defensiveness or hyper-responsiveness to touch) results from an imbalance within the tactile system observed as aversiveness to certain types of touch. Behaviors associated with tactile defensiveness are aggressiveness, avoidance, withdrawal, intolerance of daily routines or excessive rigidity.

Tactile defensiveness also includes oral-motor defensiveness (tactile defensiveness within the mouth). Children who are “oral motor defensive” also may have extremely limited food preferences because of their intolerance of various textures. Premature infants often have a lot of oral-motor dysfunction because the tactile system is the first to develop. When they are born, doctors and other medical staff often put tubes and tape all over their bodies. Thus, they are bombarded with nega-



tive input into the most well-developed system they have.

Tactile defensiveness was identified in the 1960s by Dr. A. Jean Ayres. Following that time, other forms of **sensory defensiveness** have been identified. These are behaviors characterized by a “fight or flight” reaction to sensory information which most persons would consider harmless. The other forms of sensory defensiveness identified include auditory, visual, and olfactory defensiveness.

Auditory defensiveness can occur with negative responses or fears related to sounds and noises. Some children may show intolerance of sounds and noises by holding their hands over their ears. *Visual defen-*

siveness can occur with hypersensitivity to light or avoidance of gaze. Finally, children with *olfactory defensiveness* may be distressed with certain smells which others do not notice or mind.

Resources and Links

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Scardina, V. (1990). *Sensory Integration: Understanding the Subtle Neural Disorders in Children (Guidelines and Reference Material)*. Indianapolis, IN: 2nd Annual Ed-Med Conference.

Sensory Integration: A Foundation for Development (Handbook for Parents). Southpaw Enterprises, Inc. 800 Third St., Dayton, OH 45407-2805.

Sensory Integration International, 1602 Cabrillo Ave., Torrance, CA 90501. (A non-profit organization dedicated to networking and providing information about sensory integration.)

S.I. Net - Sensory Integration Resource Center: <http://www.sinetwork.org/>

Stephens, L. C. (1997). *Sensory Integrative Dysfunction in Young Children*. *AAHBEI News Exchange*, 2(1).

Sensory integration: how effective is it? *Early Childhood Report (Bonus Report)*. LRP Publications: July, 1996.



New Resources to Project Lending Library

Videos

Learning to Communicate (1999) (2:00) Video is a result of a satellite training aimed at providing information to families and service providers about the significant role of communication in the early development of infants who have multiple impairments.

The Training Video Series for the Paraprofessional:

Where Do I Start? (1996) (40:00) The role of the paraprofessional in the inclusive setting for children and youth with disabilities is defined within this video series. It explains the paraprofessional's role in making this possible.

Working with Students in the Inclusive Classroom (1996) (40:00) This video focuses on the following areas for the paraprofessional: 1.) Importance and usefulness of program goals and directives. 2.) Documenting and reporting on students' progress. 3.) Assessing the special needs and abilities of students. 4.) When and how to modify class activities.

Working with Other Adults in the Inclusive Classroom (1996) (40:00) This video provides insight for the paraprofessional about relating to the regular classroom teacher. In depth coverage surrounds issues related to: 1.) How to be a "teacher supporter," utilizing various communication skills. 2.) How to put communication skills into practice. 3.) Techniques for managing instruction within the "teaching space."

Adapt-A-Strategy Booklet Series
Creel, C. S. (1990). Expressive communication. Adapt-A-

Manuals

Strategy Booklet Series for Parents and Teachers of Infants/Young Children with Multiple Disabilities. Hattiesburg, MS: University of Mississippi.

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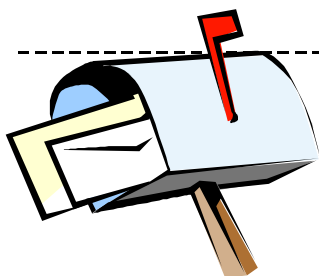
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Brown, D. (1998). Trends in the population of children with multi-sensory impairment. Making Sense, 43,3, 12-14.

Articles

Cacace, T. A., & McFarland, D. J. (1998). Central auditory processing disorder in school-aged children: A critical review.

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**Return to: MaryAnn Demchak, Ph.D. Department of Curriculum & Instruction/282
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Resources continued from page 7

Journal of Speech, Language, and Hearing Research, 41, 355-373.

Moss, K. (1998). Hearing and vision loss associated with Down syndrome. See/Hear, 3,3, 26-34.

Perski, T. (Winter 1997/1998). Getting the most out of your low vision experience--Low vision: The rules of the game. Around the Edges, 2,2, 28-35.

Smith, M., & Toy, R. (1998). Feelin' groovy: Functional tactical skills. See/Hear, 3,3, 10-18.

The Importance of Orientation and Mobility Skills for Students who are Deaf-Blind

DB-Link Publications

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Upcoming Conferences

Sixth Annual Inclusion Celebration

Sponsored by: Supported Life

Double Tree Sacramento
Sacramento, CA

September 29, 1999 7:00 p.m. to 9:00 p.m.

For More Information:

Supported Life '99
1010 Hurley Way, Ste. 195
Sacramento, CA 95825
Phone: (916) 263-1153
Fax: (916) 263-1155

"Inclusive Communities - Looking Beyond 2000:

Supported Life '99 Conference

Sponsored by: Supported Life and Area Board III

Double Tree Sacramento
Sacramento, CA

September 30, 1999 - October 1, 1999

For More Information:

Supported Life '99
1010 Hurley Way, Ste. 195
Sacramento, CA 95825
Phone: (916) 263-1153
Fax: (916) 263-1155

International Parent to Parent Conference 2000

"Pioneer Spirit - Blazing New Trails"

Nevada will be the host for the 10th biennial International Parent-to-Parent Conference, one of the largest conferences of parents and families in the world.

May 5 - 7, 2000

Reno Hilton Casino and Resort

For more information:

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(775) 784-4921 ext. 2352
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E-mail: cdinnell@scs.unr.edu
Web site: <http://www.unr.edu/repc/npn>

Team Based Approach to Address Problem Behaviors in Young Children Through Functional Assessment & Positive Prevention

October 21, 1999 Las Vegas

October 22, 1999 Reno

Sponsored by: Nevada Early Childhood Association for Special Children, Nevada Department of Education, and Nevada Department of Human Resources.

Presented by: Lynette Chandler, Ph.D. & Carol Dahlquist, M.Ed., Northern Illinois University & Educational Research and Services Center

Who should attend: Early Childhood Educators, Early Childhood Mental Health, Administrators, Related Therapists
Cost: NECASC Members \$50, Nonmembers \$60

For More Information:

Wendy Whipple
Phone: 775-688-2284
Fax: 775-688-2558
Email: wwhipple@govmail.state.nv.us

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Nevada
Assistance
Dual
for those with
Sensory
both hearing
and visual impairments
Project