Hearts & Hands

Newsletter of Wyoming Services for Children who are Dual Sensory Impaired Serving Children with Dual Sensory Impairments, Their Families and Service Providers

Fall 2005 Wyoming Department of Education, Deaf-Blind Project

The Fall issue is dedicated to Literacy

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Welcome Our New Parent Consultant!

Autumn Pitman

Autumn Pitman has been very interested in the Deaf-Blind Project since her son, Travis, first attended the Wyoming First Step Diagnostic Clinic. Autumn was determined that other parents be made aware of the services available and wanted a way in which to make a difference, to help and to assist. With that, Autumn began attending the Family Service Providers List-Serve preliminary meetings and the Family Service Providers meetings across the nation, determined to find a way in which to assist other families in Wyoming. She has contributed to the Wyoming Deaf-Blind Project as a member of the Advisory Board and now joins us as the new Parent Consultant.

Autumn's Story:

I am married to a wonderful man, Travis. Together we have two gorgeous children, Travis Jr. and Aria. Travis is now 4 ½ and Aria is 3 years old. When Travis was born we thought that everything was ok. At 5-weeks old we woke up and knew that something was terribly wrong. We rushed him to the hospital and it all started from there. The scary thing was we were out of town when all of this happened. When they got him stabilized, he was flown to St. Vincent's Hospital in Billings Montana, and from there it was a five day process full of tests to figure out what was wrong. On the 4th day, they told us he had Pan Hypo Pituitarism and the morning that we were to be released, they told us that Travis would never see. We headed home full of questions, with no answers. The first real help and answers that we received were from our local doctor in Casper. I called him on our way back home and he took the time to research what this condition meant both for Travis and

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for us as a family and gave us some direction on where to go next. Early intervention is a key for any child who has vision problems and Travis was no exception. The services that we received from Child Development Center, Infant Outreach, The Wyoming Diagnostic Clinic, and the Wyoming Department of Education Services for the Visually Impaired were great assets and resources. Today, Travis is an active, fun loving kid who loves to explore, just like most other kids his age. Everyday has been a joy to be around him and better is yet to come.

Autumn is available for parents and care providers, you can contact her at 307.232.0089 or email at tapitman2003@yahoo.com.

Up Dates

Technical Assistance (TA): Both the Project Director and the Parent Consultant are available to provide free consultative assistance to families and school personnel both in the home and at the school. In addition to actual site visits, information can be provided through email, phone calls, letters or viewing video questions. Please feel free to contact Joanne Whitson at 877.875.9467 or jwhits@educ.state.wy.us with any of your requests.

Wyoming Census of Students who are Dual Sensory Impaired: The census forms will be mailed out to the Special Education Directors in the next couple of months. The census is mandated by the Federal Office of Special Education. If you have any questions concerning the census process please contact Joanne Whitson toll free at 877.875.9467 or jwhits@eudc.state.wy.us.

Wyoming First Step Diagnostic Clinic: The Spring clinic is scheduled for March 31, 2005. If you are interested in having your child or student attend, please access the application on the website www.k12.wy.us/svi/index.html or contact Joanne Whitson for an application. Space is limited, so please consider your needs.

Space Camp: The Wyoming Department of Education Services for the Visually Impaired along with the Montgomery Trust for the Blind sponsored 9 lucky students to attend the Space Camp in September. The students had a great time, learned about space, rockets and the history of the space program. The department is considering writing another grant in hopes of expanding student's horizons! Contact your local consultant!

Lending Library: The project has both a video, DVD and book lending library for families, care providers and school personnel's use. Items are available for a one-month loan and as many items as you wish can be checked out. The Lending Library can be accessed through the project's website at www.k12.wy.us/svi/index.html. New materials are placed on loan every 3 months, so please check it often, if we do not have something you are interested in this time, we may have it in the next couple of months.

New Titles
Check Them Out!

Calendar Everyday Exposure to Experiences for Enjoyment, by Nancy Smith, Preschool services Statewide Consultant for Children who are Visually Impaired and Blind. This calendar was designed specifically for use with young visually impaired children. However, all children within a family group or school setting may benefit from participating in the activities. Each day of the year – a new fun activity is suggested in providing a stimulating learning environment.

Integrated Functional Behavior Assessment Protocol, Kevin D. Arnold, Ph.D., & Thomas M. Stephens, Ed.D, IF-BAP's strategy is intended to create a comprehensive view of the student with deaf-blindness or severe disabilities. This protocol has been designed to increase understanding of the interaction among the various behavioral and sensory systems of the student. Once the interactions are understood, programs can be designed to not only address each of those systems, but also to have a complete picture of the whole student.

Interpreting Strategies for Deaf-Blind Students: An Interactive Training Tool for Educational Interpreters, Susanne Morgan, MA,CI,CT, This is a module based training program containing a DVD and workbook. Students who have a combined hearing and vision loss have unique communication needs. Educational interpreters working with these students need to gain skills and knowledge in order to make the necessary modifications for each student. This tool will assist in developing clear communication in the classroom, support the development of interpersonal peer relationships, encourage self-determination and promote equal access to the general population.

First Things First: Early communication for the Pre-Symbolic Child With Severe Disabilities, Charity Rowland, Ph.D & Philip Schweigert, M.Ed., This workbook discusses what pre-symbolic communication is, how communication develops, the overview of instruction, assessment and planning.

Tangible Symbol Systems: Making the Right to Communicate a Reality for Individuals with Severe Disabilities, Charity Rowland, Ph.D & Philip Schweigert, M.Ed. Workbook and DVD. This is not just a mode of communication, but a systematic instructional sequence. They discuss the use of tangible symbols for communication throughout the day.

Communication Matrix: Especially for Parents, Charity Rowland, The Communication Matrix is designed to show you exactly how your child is communicating now. It will also give you an idea of logical communication goals for your child.

A Guide to the Learning to Learn Model and Instructional Materials, Charity Rowland, Ph.D & Philip Schweigert, M.Ed. This is an educational approach for children with severe and multiple disabilities. The outcome targeted by this model is to enhance the child's ability to communicate and make his or her wants known.

Time to Learn: An Environmental Inventory to Help Design Learning Activities for Children who are Deaf-Blind, Workbook and DVD, Charity Rowland, Ph.D & Philip Schweigert, M.Ed. This workbook was designed to help teaches of children with severe multiple disabilities to identify and create opportunities for active participation and steady learning in typical classroom activities.

Hands-On Problem Solving for Children with Multiple Disabilities: Guide to Assessment and Teaching Strategies, Charity Rowland, Ph.D & Philip Schweigert, M.Ed. This workbook was developed to demonstrate useful ways for students to assess object interaction and problem solving skills related to the physical environment.

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New Research Articles about CHARGE Syndrome

The March issue of the *American Journal of Medical Genetics Part A* (Vol. 133A, Issue 3) is devoted to articles about the behavioral aspects of CHARGE Syndrome. A few additional articles about other aspects of CHARGE Syndrome are also included.

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Early Literacy:
What is it? When does it Begin?

Literacy begins when the child first "sees" mom and dad doing things with print, reading the paper, working on the bills, having a story read to him or her. As the child grows and their world expands, the child sees the written word all over their home, on the television set, books sitting on the table, canned goods in the kitchen and frozen food labels. When the child is going out for a drive in the community, he or she is exposed to the bill boards, street signs, golden arches, all recognizable forms of writing. Though the child is not writing, or reading, he or she begins to have a sense of what the written word is and that there is meaning attached to it. As the child grows a little older, he or she is looking for ways to mimic writing; scribbling with a pen or pencil, coloring and pretending to read to mom, dad and siblings. For the child who is not sighted or who has limited vision, the opportunities for pre-literacy that the sighted child is exposed to needs to be planned, the family and care providers should make special attempts to introduce the child to the written word. Teaching a child with limited vision or no vision about the written word can be accomplished quite easily:

- Reading tactile and print books to your child. Have the child on your lap and feeling the book while you are telling the story so that your child knows that the story is "written" down and not just something that you are making up.
- When you are reading the paper, have the child on your lap so that he or she can feel the paper and talk about items of interest, "oh look, the paper says that it is going to be a sunny day! We can go to the park."

- When you are preparing the food, have the child feel the wrapper on the item – salad bag, can, anything with writing on it, and discuss that this says what the item it.
- If the child has some sight, when in the community, make special stops to show him or her signs that the sighted child can easily see – McDonalds, the mall sign, names on restaurants, etc.

All of these simple ideas can begin to teach the child who is visually impaired that there is a world of written material out that that is telling you something, and that is something that they want to be interested in.

For pre-writing skills, even though your child may never use a pen or pencil, encourage him or her to play with a marker on paper that is attached to a piece of screen – so that the child may have some tactile input on what they are doing. Encourage your child to write their own stories, as the story boxes above, or a book about what they are doing to show dad or mom when they come home for work.

All pre-literacy activities will strengthen your child's and student's desire to learn the written word, whether that form take large print, Braille or be in an auditory mode. So read to your child, read to your student, even though you do not feel that they can "see" what you are doing.

Story book Boxes: A Hands on Literacy Experience,
Reprinted with Permission from the Colorado Deaf-Blind Project Newsletter Fall 2005

What is a Story Box? It is simply a collection of items in a box or bag that corresponds to the items mentioned in a story. A Story box is a way for young children with visual impairments to experience a story. It is an early literacy event that can easily fit into your daily routine as well as a tool to enhance the learning of concepts. In short, it is a fun, interactive learning experience for children and adults alike

Remember:

- It takes more time to figure out what an object or shape is through tactual exploration than through vision. A tactual learner needs to examine parts of an item separately then put the information they have gathered together to gain full understanding of the item.
- Words are just symbols representing ideas and concepts. Without meaning, words are a series of disconnected sounds and letters. Hands-on experiences help to provide meaning to words.

- You need not present all the items in a box with easy reading. Determine your child's interests and attention so as not to over whelm her with *stuff*.
- Share your story boxes with young sighted children. They are very popular.

Why Story Boxes

The purpose of a story box is to create hands-on literacy experiences for your child. Educators have long emphasized the importance of tactual exploration, i.e. hands-on learning, for young children with Visual Impairments. This is important not just for future Braille readers who will be using their finely tuned sense of touch to discriminate letters and to decode words, but also for all young children so that they can take in information, build concepts and future understanding their world. Purposeful exploration involves thinking, and concept building. Children gather information through the experiences that they have. This is how they develop an understanding of how things relate. These experiences give meaning to their lives through the development of concepts. Literacy for any child emerges from hands-on experiences. Sighted children's experiences are rich with opportunities for learning that occur by chance, however, child with Visual Impairment seldom, if ever, take in information incidentally. Yet teachers often expect that the youngster with blindness comes to school with the same information that sighted children have picked up on TV, through pictures, etc. Hence, the importance of hands-on experiences such as Story Boxes for young learners with blindness.

Step 1: Books, Books Everywhere: Choosing a Story:

- When selecting a story for your child, choose one that is simple and tells about familiar objects and concepts. Story boxes can range from very concrete hands-on to the more complex and abstract.
- Initially a box might contain items that your child uses during daily routines. You can make up a story about the routine or family activity. Your child may be the main character of your story. It can be about a trip to Grandparents, bath time, mealtime or a playtime with Dad. No book is really needed.
- Choose books about familiar activities. Those stories will be meaningful for your child.
- Variety is fun. Expose your child to different types of books. Adaptation may make the book more accessible and interesting. Simple board books can be enhanced with Braille Dymo tape. Twin Vision books provide enrichment for siblings as well. Sound books can be made accessibly by affixing a little texture to the spot one must depress to activate.

Choose:

- Books that have characters and items that are readily available. Remember the complexity of the story and the number of items presented should be suited to your child. Often, simple is better.
- A story to match your child's attention span. Short and sweet works well for young children.
- Books that are predictable and that have rhythm and rhyme.

Step 2: Getting it All Together: How to actually Construct the Story Box

<u>Choose</u> an appropriate book

<u>Select</u> corresponding items. You may choose to go on a shopping spree but often collecting familiar objects from your household will do just fine.

<u>Place</u> the book and items in a storage container. Although many folks us Zip-Lock bags or shoe boxes, sweater-sized plastic containers are preferable as they are stackable and durable, thereby affording you an opportunity to establish a story box "library".

NOTE: prying these boxes open is a beneficial activity which develops the hand strength needed to read Braille.

Label the exterior of the container. A tactile marker will enable you and your child to "read" the title; e.g. three pieces of fake fur might be a good label for the story of Goldilocks and the Three Bears.

Step 3: Reading the Story:

- Handle the objects in the box one at a time giving your child lots of time to explore. Comment on the item's size, its shape, and texture than name the item. If it's a spoon, pretend to eat. If it's a shoe, try it on. Allow the child to explore freely. Compare items.
- After tactually exploring the items, place them aside. Read the story and once again present the items as they are mentioned in the story. Avoid clutter. Too many items at once can be confusing for young children with blindness.
- Have fun when reading. Use sound effects and dramatic intonation to peck your child's interest.
- When you finish with the story box, put clear closure on the activity by having your child help place the objects back in the box. This provides another opportunity to handle the objects.

Children can experience the same story box at many levels over time. Some children will want to touch Braille on the page. Others will enjoy anticipating and their favorite items, while still others will memorize the book and tell the story to the adult.

Mark Your Calendars!

Job Fair, February 9 – 10, 2006 Casper – Expand your expectations! Realize your potential. The Job Fair is an opportunity for students, grade 5 on up, their service providers, families and school personnel to meet adults who are visually impaired and members of the work force. Speakers will include business leaders, DVR and employed adults who are visually impaired. Vendors will also be onsite to demonstrate the newest adaptive technology for the workplace.

Communication Matrix, June 5, 2005 (Place to be determined) – Kathee Keller Scoggin will instruct us in how to use the Communication Matrix. This tool was designed to show you exactly how your student is communicating now and provide you with an idea of logical communication goals for your child and how to develop them.

Transdiciplinary Teaming Approach, June 6, 2005 (Place to be determined) – Kathee Keller Scoggin will present on the Transdiciplinary approach to working with students. This approach is key to providing appropriate services to our students as it examines the needs of the student as a whole, incorporates the strategies used in all of the pull out services into the student's daily routine thus providing maximum transfer of skills.

American Association of the Deaf-Blind

American Association of the Deaf-Blind (AADB) is pleased to announce the dates and location for the next AADB national conference. The AADB Board of Directors approved a bid to host the conference on the campus of Towson University in Baltimore Maryland, June 17 – 23, 2006. Mark your calendar!

More details on the conference will be available through the AADB's website (www.aadb.org) and quarterly publication, *The Deaf-Blind American*, which is available to AADB members.

For more information on any of the above events, check the website, www.k12.wy.us/svi/index.html and go to in-services / workshops.

Writing and AAC
Janet M. Sturm

http://www.asha.org/about/publications/leader-on-line/archives/2003/q3/030909g.html

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Literacy skills can enable quality of life for all members of society—especially those who use AAC. Although reading garners the most attention, for persons who use AAC the power of orthography takes on heightened importance, opening up opportunities for sophisticated communication across home, school, community, and employment settings. Reading allows individuals to learn about the world; writing provides access to the outside world.

The complexity of learning to compose text is particularly challenging for persons who use AAC because of cognitive, language, sensory, and motor needs. Despite these challenges, evidence is mounting that active participation in context-rich instructional opportunities can result in the development of reading and writing skills. Unfortunately, access to these opportunities has been limited. There are several erroneous assumptions regarding literacy instruction for children who use AAC that may be inhibiting this access. These assumptions include:

- Evidence of prerequisite literacy skills is needed before providing literacy learning opportunities.
- Writing skills are best taught in isolated tasks such as handwriting practice, worksheets, or grammar lessons.
- Conventional writing is not possible.
- Products of beginning writers should reflect conventional spelling.
- Spoken communication is not needed during writing.
- Symbol-writing activities provide a natural transition into conventional writing.

It is important that speech-language pathologists challenge these assumptions as they work together with school teams to provide meaningful literacy learning opportunities. In our work with students who use AAC, we use best practices of writing instruction with typically developing students as our point of departure. These practices employ an emergent literacy model of development where reading and writing are integrated with speaking and listening early in life. Best practices of instruction indicate that writing skills are optimally developed in daily, meaningful writing opportunities where children are encouraged to choose their own writing topics, drawings, and writing forms (e.g., sharing opinions or retelling a story) and publish products of their choice. Children also are allowed to choose their own letter combinations and engage in invented spelling.

Best practices also indicate that there is an extensive amount of spoken communication between teachers and students, and among peers, throughout the writing process. This communication involves a range of topics, some of which might include sharing a new idea, discussing a new angle, or providing suggestions for improvement. Finally, evidence does not exist indicating the need for symbol writing as a first step in the writing development of children who use AAC. Whenever possible, it is important that these students be provided with access to orthography when engaged in the writing process.

Language, Communication, and Writing

While language is recognized as central to literacy learning, children who use AAC often struggle to acquire basic language and communication skills. Across language domains they frequently demonstrate significant needs, including vocabulary delays, morphological difficulties, a predominance of 1–2 word utterances, poor syntax, impaired pragmatic skills, and restricted speech acts. Given what we know about the inseparable links between speaking, listening, reading, and writing, a solid foundation in language and communication is essential to full participation in classroom writing opportunities. Development of conventional writing skills will be enhanced when children who use AAC have rich background knowledge, access to a broad range of vocabulary to express that knowledge, and the communication competence to convey their background knowledge using a range of AAC systems.

When setting up writing experiences for students who use AAC, we can use observations of skilled writers as a point of reference. Skilled writers set goals for writing, have a sense of audience, and approach writing tasks with strategies. They spend an extensive amount of time planning, generate ideas easily, and have an understanding of a variety of text structures. The act of writing involves the juggling of multiple factors, including audience, word choice, sentence development, and text organization. Skilled writers are able to manage these multiple constraints by quickly moving among these factors while in the

writing process. From their earliest writing experiences, it is critical that students who use AAC have access to instruction and technology tools that allow them to move recursively among all writing processes.

Supporting Beginning Writers

Beginning writers are persons who are in the emergent to early conventional stage. They are in the process of learning that text makes meaning. In our research at the University of North Carolina at Chapel Hill, we learned that typically developing children in kindergarten and first-grade classrooms received an average of 85 opportunities during the school year to learn how to make meaning through writing. These same students created more than 100 drawings. Most students in general education classrooms achieve more conventional writing forms by the end of first grade.

Beginning writers focus their energy on generating ideas and producing text. They use images in their head to decide what to share through pictures and words. Central to idea generation is having knowledge of the topic at hand. Beginning writers typically use drawings to plan their topic before they begin to write. They chat with each other and their teacher about what they are writing. When this beginning text is created using invented spelling, the drawing and the oral language communicated during the writing process support joint reference between the creator and the receiver.

Our research also shows that beginning writers don't focus exclusively on narratives. They choose to compose a variety of forms of emergent text structures, including text labels, opinions, and story retellings. Students who use AAC can learn about text structures through frequent readings of a variety of types of books and through teacher models that illustrate multiple purposes for writing. Revising and editing are not core components of the writing process for beginning writers. Until second grade, revision during writing involves "saying more" by adding to already-composed text. Therefore, it is not essential that children who use AAC have their writing products edited for errors by teachers at this stage of writing development.

It is important that beginning writers focus on fluent expression of ideas in text. The goal is for students to write and then write more. Students who use AAC need rich life experiences and a solid language base that enables them to share through writing. Persons who use AAC can be beginning writers across the age-span. Understanding the key aspects of early writing experiences and the qualities involved in exemplary writing instruction will allow SLPs to offer appropriate writing support for students of every age.

Colin

Colin, a first-grade student with cerebral palsy, provides insight into the development of writing supports for a student who uses AAC. Colin uses a Dynavox as his dedicated communication system and actively communicates through gestures and facial expressions. Academically, he knows his numbers, colors, and letters of the alphabet and can identify rhyme in words.

Colin is fully integrated in a general education first-grade classroom. His teacher uses a "writers' workshop" model of instruction where students choose their own topics; share and discuss with teachers and peers before, during, and after writing; and publish writing projects of their choice. Colin's teacher provides writing instruction through a series of short mini-lessons that help students pay attention to different aspects of the writing process. During a typical large group lesson, his teacher provides a model for writing by thinking aloud about her own writing process. For example, she may talk aloud about how she generates and chooses a writing topic. Following this lesson, students might be asked to create a folder that contains a list of possible topics for their daily writing. Mini-lesson topics take on a variety of forms, ranging from use of writing conventions to development of sophisticated text structure to selection of vocabulary.

In order for Colin to successfully participate in writing, it is important that he have access to writing tools as well as vocabulary on his AAC system. Because of physical difficulties that result in a slow writing rate, Colin will not be able to compose as many writing products as the other children in his class. It is essential that his writing tasks be carefully chosen to reflect appropriate writing development and high-quality instruction. When Colin plans his writing, he works with his parents to take and choose photographs that reflect important events in his life. These photographs will be used as his "drawings" and allow him to choose topics that reflect his knowledge and that are important to him. The photographs parallel the drawings created by his peers and fit nicely with a mini-lesson on generating and choosing topics.

To be successful during classroom writing sessions, Colin also has access to vocabulary on his AAC system that allows him to communicate with his peers and teacher. For example, he may ask a peer, "Hey, let me see what you picked," to ask about a writing topic. Composing means that Colin's "pencil" includes several AAC tools—an eye gaze frame, a Dynavox, an alternate keyboard, and an alternate mouse system.

While composing, Colin can engage in "writing" through a variety of forms. He can use a Qwerty keyboard array, either on his Dynavox or on an alternate keyboard, to compose text. Like his peers, composing using standard orthography will allow Colin to use invented spelling when writing. Also like his peers, the photograph selected as Colin's "drawing" will support his teacher and his peers in understanding Colin's invented text. Colin also may use word banks located on the eye gaze frame, alternate keyboard, or word-processing program that support him in composing text at a faster rate. When using the word banks, Colin chooses among words that set him up for different types of emergent text forms. For example, he can choose "I like…" to compose a text reflecting his opinions. He also may have vocabulary choices that represent his writing topic.

In this classroom the teacher uses "author's chair," a writers' workshop activity that features individual student sharing of writing products and includes a follow-up large-group peer discussion. When it is Colin's day to share his writing, he is able to introduce himself to the group using his Dynavox and tell the class his writing topic. He then releases his writing product line-by-line using the Dynavox or a talking word processor. Students in the class also choose what writing products they would like published and shared with others. Colin has access to publishing software that allows him to print and share his work. For students who have greater cognitive or language needs, the tasks above can be adapted to reflect their individual learning needs. For example, a student who is not yet able to compose text using orthography can choose a photograph as her "writing." The adult

supporting this student can generate a simple label that can be written below the photograph, read aloud using synthesized speech, and published for others to read. For each writing event there are multiple ways in which the task can be adapted to offer meaningful opportunities that foster the writing development of individual students.

The Role of SLPs

SLPs can play a strong role in fostering solid foundations for communication and language that lead to the development of conventional writing skills. A broad range of authentic and meaningful reading and writing should be integrated into the daily curricular experiences of students who use AAC. It is important that these children are afforded rich literacy learning environments that support them attaining their optimal writing performance. SLPs can support the writing development of children who use AAC by:

- Understanding the student's individual learning needs. Assessing the capabilities of students who use AAC will assist in knowing where to start with instruction.
- Using knowledge of the development of all language domains to support them in building a solid language foundation. Access to rich natural language learning contexts at home and school is essential.
- Learning about writing development and best practices of writing instruction. Exemplary writing instructional approaches used in general education classrooms can be used as a point of departure for children who use AAC.
- Identifying the mode(s) and strategies through which the student will compose text. Children who use AAC will be most successful when supported in being multimodal communicators (e.g., use of a combination of no-tech and high-tech systems).
- Ensuring that AAC systems support the range of communication during all writing activities and that these systems reflect students' individual profiles. Students who use AAC need access to vocabulary during each writing event in the day. The amount and sophistication of their messages will depend on the student's language and communication skills.
- Selecting systems that will support ease of movement between communication and writing and in the writing process. Ideally, students who use AAC will have their communication and writing tools readily accessible at all times. They should be able to move back and forth between talk with others and text production.
- Assisting with home-to-school transfer of personal experiences that can be used to stimulate topic and idea generation for writing. The transfer of information between home and school can be fostered through a variety of formats, including activity logs, journals, remnants, photographs, and recorded messages.
- Building background knowledge that supports topic and idea generation for writing.
- Working together with the school team to generate and organize photos that can serve as "drawings" to support students' writing. Photographs shared by the family will only be used in the classroom if they are set up in a user-friendly format that allows teachers to access them easily. Students who use AAC can assist with prioritizing and organizing photos as potential writing topics. When they begin planning, students will be familiar with what is available and their selection will be made easier.
- Identifying classroom discourse patterns (e.g., peer conferences or author's chair) of the writing curricula. Event-specific communication overlays can be created together

with the school team that reflects the classroom communication patterns of the writing curricula.

- Fostering classroom-based communication opportunities during writing events. SLPs can role-play together with children who use AAC to develop communication competence across the writing process. For example, these role-playing activities may involve learning how to use communication overlays, communication tools, or word banks. These activities also may foster the student's knowledge of the form, function, and timing of messages essential to successful classroom participation.
- Being available in the classroom during writing events to facilitate the student's success in communicating orally or in text. As students work to build communication competence, it is important that they have adult or peer supports available that scaffold them during writing experiences.

Looking Toward the Future

In the future, it is critical that we move greater numbers of students who use AAC from emergent to conventional writing. From infancy, critical connections between language and literacy learning must be made. We must look together to find out which writing activities are most appropriate for students at varying levels of language and literacy development. We should examine which writing activities at varying grade levels provide core foundational experiences across literacy levels. We also must determine which writing tools are best for different writing tasks. Together with educational teams, SLPs have the opportunity to play a core role in the integration of communication, language, reading, and writing. The SLPs' knowledge of language learning applied in the development of writing skills can enable greater access to the world for persons who use AAC.

Janet M. Sturm is an associate professor in the department of communication disorders at Central Michigan University. Her research and clinical interests relate to computer-supported literacy, tying together literacy assessment and instructional strategies, classroom communication, and educational integration of AAC users. Contact her by e-mail at sturm1@cmich.edu.

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Technical Assistance Needs?
Who to Call?

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If you have a student who is dual sensory impaired or visually impaired please feel free to contact Joanne Whitson, Project Director for the Wyoming Deaf-Blind Project, toll free 877.875.9467 or jwits@educ.state.wy.us, she is available to for home visits, school visits, telephone and email assistance. Autumn Pitman is also available and can be reached at 307.232.0089 or email at tapitman2003@yahoo.com. Additional assistance is available through your local WDE Services for the Visually Impaired Consultants and Deaf-Outreach Consultants – their information is located on the Department of Education's website: www.k12.wy.us/sp.asp.

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