Visual Impairment and Deafblind Education Quarterly

Division on Visual Impairments and Deafblindness

2015 International Convention Highlights Issue

Volume 60 • Number 2 • 2015

The Voice and Vision of Special Education

Council for Exceptional Children
The voice and vision of special education

Contents

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Cover Photo

Cover photo is of board members of the Council for Exceptional Children's Division on Visual Impairments and DeafBlindness (CEC-DVIDB). Pictured from left to right are: Christine Bischke, Karen Koehler, Amy Parker, Vicki DePountis, Deborah Hatton, Mackenzie Savaiano, Adam Wilton, Kathleen Farrand, Derrick Smith, and Diane Pevsner.

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Message from the Editor

Kathleen Farrand, Ph.D.
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The Spring 2015 issue of the *Visual Impairments and Deafblind Education Quarterly* journal highlights moments from CEC's International Conference in San Diego, CA from April 2015 in the field of visual impairments and deafblindness. This issue aims to remind you of a favorite presentation, recognize outstanding DVIDB members, and inspire you to attend next year's convention.

This issue begins with articles highlighting the awards that were handed out at the convention to exemplary members of DVIDB. In addition, articles are included that highlight some of the presentations at convention in the field of VI and DB. This issue captures the exceptional contributions that DVIDB members made this year to the field of education that were recognized at convention. I look forward to seeing you all again next year in St. Louis!

+

Special thanks to our social sponsors-who provided even **more** opportunities to learn and grow in San Diego!

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WSSB

President's Message

Diane Pevsner,
University of Alabama at Birmingham

I always get very excited around convention time. I love seeing old friends, making new ones, and learning new information concerning visual impairments and deafblindness. This year, while in San Diego, I got to do all of these things plus enjoy spectacular weather. It was a very fulfilling and interesting time.

This was our first convention as DVIDB (Division on Visual Impairments and Deafblindness), and I was so excited to see so many deafblind professionals there. I think this addition to our organization will bring about collaboration and partnership. This teamwork can only mean positive things for those we so lovingly serve.

If you were able to attend the 2015 CEC Convention, I thank you for your participation. If you were unable to attend, I hope the 2016 convention

in St. Louis on April 13-16 will be possible. I hope you will enjoy this edition of the *Visual Impairment and Deafblind Education Quarterly* (VIDBEQ), which has captured some of the excitement and knowledge shared by our division.

Council for Exceptional Children
Division on Visual Impairments and Deafblindness
Presents 2015 Awards
At International Conference in San Diego, CA

VIRGINIA M. SOWELL
STUDENT OF THE YEAR AWARD

Adam Wilton
University of British Columbia

The Council for Exceptional Children, Division on Visual Impairments and Deafblindness is proud to present the *Virginia M. Sowell Student of the Year Award* to Adam Wilton at the Council for Exceptional Children Convention and Expo in San Diego, CA on April 9, 2015.

The *Virginia M. Sowell Teacher of the Year Award* is in honor of Dr. Virginia Murray Sowell. Dr. Sowell trained professionals to improve the lives of individuals with visual impairments in the nation and beyond. She had a strong commitment to training quality teachers and O&M specialists. Her lifetime contributions to the profession mattered to countless numbers of children and adults with visual impairments.

Adam Wilton is completing his doctoral studies at the University of British Columbia (UBC). He was nominated by Drs. Cay Holbrook and Kim Zebehazy, faculty from the UBC. They stated that Adam "has distinguished himself as an excellent student, a thoughtful scholar, a dedicated professional and a generous colleague." During his studies at UBC, he has completed all coursework to be qualified as a teacher of students with visual impairments as well as coursework and certification as a Certified Orientation and Mobility Specialist.

As part of his work at UBC, he has become an active professional leader. He has presented 19 times at different major conferences in the field including CEC, the Association for the Education and Rehabilitation for the Blind and Visually Impaired, and the American Educational Research

Association.

Along with being a student and scholar, Adam has become a leader through various service activities in the field. He is the student representative from UBC with Shared Vision BC, an advocacy group that works for better outcomes and life opportunities for individuals with visual impairments. He was also instrumental in bringing the Braille Challenge to British Columbia, hosted the Children's Low Vision Project at his school district numerous times, and is heavily involved in Blind Beginnings, a group which supports parents for young children with visual impairments.

Adam has served as the CEC Division on Visual Impairments and Deafblindness board as the Student Representative (2011-2012) and is currently a Director. He is engaged with many activities within DVIDB but his most notable contributions are as the Division's Webmaster and social media coordinator.

Adam Wilton has distinguished himself in all areas of professionalism, support, scholarship, and teaching, all while being a full-time student and a local TVI. It is with great pleasure that DVIDB award to him the 2015 *Virginia M. Sowell Student of the Year Award*.

Council for Exceptional Children
Division on Visual Impairments and Deafblindness
Presents 2015 Awards
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Dissertation of the Year

Dr. Mackenzie Savaiano
University of Nebraska, Lincoln

The Council for Exceptional Children, Division on Visual Impairments and Deafblindness (DVIDB) is proud to present the *Dissertation of the Year Award* to Dr. Mackenzie Savaiano at the Council for Exceptional Children Convention and Expo in San Diego, CA on April 9, 2015. Dr. Savaiano recently completed her Doctorate of Philosophy in Special Education at Vanderbilt University in May, 2014.

The *Dissertation of the Year Award* is presented to a DVIDB member who makes a significant contribution to the field through extensive study and research. Dr. Savaiano's dissertation, "*Comparison of vocabulary instruction strategies for students who read braille"* addressed whether the presence of a target word in braille during instruction facilitated vocabulary learning more efficiently than an auditory only instructional condition.

The study utilized an "adapted alternating treatments single-case experimental design" with three students with visual impairments whose primarily reading medium was braille. Data was collected on definition recall and spelling was collected in each session with definition recall used to measure mastery. The results of this study are not consistent with previous findings with students who read print. Visual analyses of the data indicated that participants reached mastery in both conditions, but all three reached mastery on definition recall in fewer sessions in the auditory only condition. Spellings of words were learned in the flashcard condition only, and possible implications of this are discussed. The difference in the unit of recognition and working memory load between reading braille and reading print is discussed

as one possible explanation.

It is with great pleasure that the CEC, Division on Visual Impairments and Deafblindness present this year's 2015 Dissertation of the Year Award to Dr. Mackenzie Savaiano for her leading work in reading learning strategies.

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If you are passionate about the education of children and youth with visual impairments and deafblindness, including those with additional disabilities, please become part of our social network on Facebook. If you have a Facebook account, you can find our page and become a fan by searching for Division on Visual Impairments and Deafblindness. For those who do not have a Facebook account, you can view our page by going to the following URL:
https://www.facebook.com/pages/Division-on-Visual-Impairments-and-Deafblindness/248244976215

Council for Exceptional Children
Division on Visual Impairments and Deafblindness
Presents 2015 Awards
At International Conference in San Diego, CA

Teacher of the Year Award

Karen Koehler
Ohio State School for the Blind

The Council for Exceptional Children, Division on Visual Impairments and Deafblindness (DVIDB) is proud to present the *Teacher of the Year Award* to Ms. Karen Koehler at the Council for Exceptional Children and Expo in San Diego, CA on April 9, 2015. Ms. Koehler has been an educator at the Ohio State School for the Blind (OSSB) for 26 years where she has taught

students with visual impairments in grades 7-12, particularly in science.

The *Teacher of the Year Award* honors a person who is exceptionally dedicated, knowledgeable, and a skilled, certified Teacher of Students with Visual Impairments or Certified Orientation and Mobility Specialists in any state approved or accredited day or specialized school, who serves students who are visually impaired, ages birth through 21, with or without additional disabilities. It is the highest award presented to education professionals within the Council for Exceptional Children, Division on Visual Impairments and Deafblinenss. Past recipients include Dr. Sheila Amato and Susan Osterhaus who were later awarded the Council for Exceptional Children Clarissa Hug National Teacher of the Year Award. Therefore, the Division on Visual Impairments and Deafblindness has a long history of excellence of education professionals accepting this award.

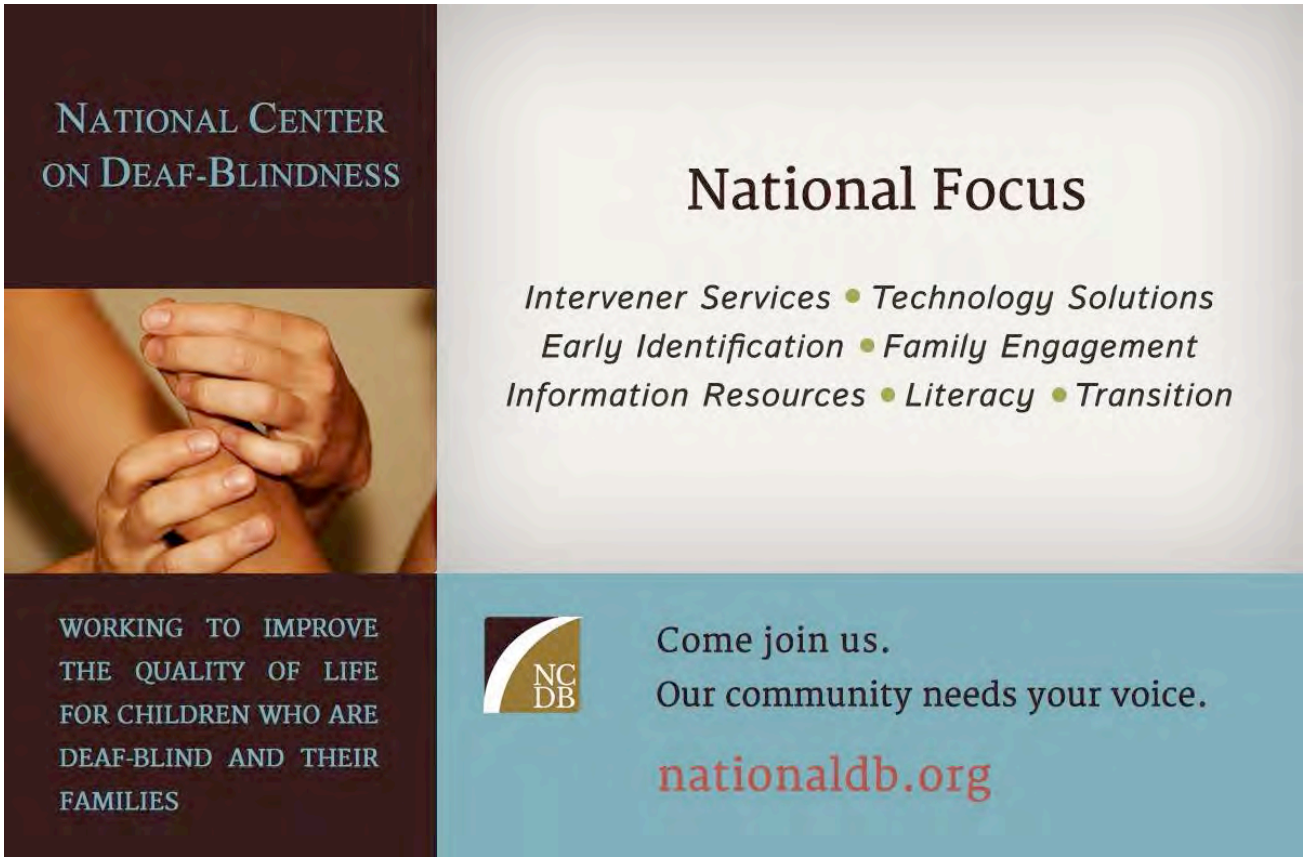
In her nomination documents, Mrs. Koehler's teaching methods were described as "innovative and provide students with many opportunities for learning. She is willing to try new things and works to provide her students with the latest and greatest equipment to use in her classroom." Mrs. Koehler

also serves as the co-director of the state STEM camp for students with visual impairments held every summer at OSSB. Her roles have included everything from camp administrator, marketing director, accountant, lead teacher, and direct instructor to students. This activity demonstrates her drive to not only impact students who attend OSSB but to reach students across the entire state of Ohio.

As well as being a dedicated teacher to her students, she is also a mentor to future teachers of students with visual impairments and deafblindness. She has served as an adjunct instructor in the personnel preparation program at The Ohio State University where she focuses on STEM education, tactile graphics, and mentoring activities.

Ms. Koehler is professionally involved in education and research at both the state and national level. She has presented at both state and national conferences, including the CEC National Convention and Expo. She is currently a doctoral student at The Ohio State University and the DVIDB treasurer.

As evidenced by her teaching, service, and leadership record, Mrs. Karen Koehler represents the ideal type of educator to be awarded the CEC Division on Visual Impairments and Deafblindness *Teacher of the Year Award.*



Council for Exceptional Children
Division on Visual Impairments and Deafblindness
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Distinguished Service Award

Dr. Rona Pogrund
Texas Tech University

The Council for Exceptional Children, Division on Visual Impairments and Deafblindness (DVIDB) is proud to present the *Distinguished Service Award* to Dr. Rona Pogrund at the Council for Exceptional Children Convention and Expo in San Diego, CA on April 9, 2015. Dr. Pogrund is a Professor in the Special Education Program in the College of Education at

Texas Tech University where she serves as the Coordinator of the Program for Teachers of Students in Visual Impairments. Dr. Pogrund is a noted author, researcher, educator, professional leader, and advocate for students with visual impairments and deafblindness.

The *Distinguished Service Award* is presented to a DVIDB member who provides exemplary leadership and commitment to the field through service, education, and research. Dr. Pogrund received this prestigious award for her diligent work as an advocate to persons with blindness, deafblindness, deafness, and multiple disabilities. Her contributions to her profession have been broad-based and immeasurable, especially her books which are considered seminal texts in the field.

Dr. Pogrund has been a progressive leader in the field of visual impairments and deafblindness for over thirty years. During her tenure in California, she co-founded the Joint Action Committee of Organizations Of and Serving the Visually Impaired in 1980. She directed the O&M program at California State University, Los Angeles from 1987 to 1991. She was the developer of the *California Guidelines for Programs Serving Visually Impaired*

Individuals and led efforts for legislation that mandated the guidelines in 1986.

While serving as the Coordinator of the Program for TVIs at Texas Tech University, Dr. Pogrund has continued to lead advocacy efforts to ensure highly-qualified TVIs within the state including leading to two bills being passed that mandated O&M evaluations for all students with visual impairments and that students should be evaluated in the Expanded Core Curriculum.

Dr. Pogrund has been a national and state leader in multiple organizations and in various capacities. She has won numerous local, state, and national awards for her work as an advocate, leader, and educator. She is most widely known for her seminal books: *Early Focus: Working With Young Children Who Are Blind and Visually Impaired and Their Families* (first edition in 1992 and second edition in 2002) and *TAPS: Teaching Age-Appropriate Purposeful Skills: An Orientation and Mobility Curriculum for Students with Visual Impairments* (first edition in 1993 and second edition in 2012).

Dr. Rona Pogrund has served the field of students with visual impairments and deafblindness well for many years. The CEC Division on Visual Impairments and Deafblindness is honored to present her with this well-deserved award.

Council for Exceptional Children
Division on Visual Impairments and Deafblindness
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Exemplary Advocate Award

Glinda Hill
Education Program Specialist
US Department of Education
Office of Special Education Programs

The Council for Exceptional Children, Division on Visual Impairments and Deafblindness (DVIDB) is proud to present the *Exemplary Advocate Award* to Ms. Glinda Hill at the Council for Exceptional Children Convention and Expo in San Diego, CA on April 9, 2015. The *Exemplary Advocate*

Award honors an individual whose personal and professional activities have significantly promoted and improved quality of life for people with visual impairments and deafblindness.

Ms. Hill was nominated by Dr. Tiffany Wild from The Ohio State University with supporting letters from Dr. Karen Blankenship from Vanderbilt University and Dr. Stacy Kelly from Northern Illinois University. In their letters, all three stated that Ms. Hill has long been a champion for students with disabilities, particularly those with sensory impairments. From her work in establishing the first inclusive classroom in the Metropolitan Nashville Public Schools in 1975 to her current efforts toward federal support of education for students with sensory impairments, Ms. Hill has dedicated her life's work to the education of students with disabilities.

Ms. Hill has been an advocate for individuals with visual impairments and deafblindness for years through her efforts as the project director/co-project director of numerous multimillion dollar grants to improve the educational outcomes of students with visual impairments and deafblindness. In particular, she served as the project director for the National Center for

Leadership in Visual Impairments (NCVLI) and the National Center for Leadership in Sensory Disabilities (NCLSD). These large-scale leadership grants established a consortium of university programs with the objective of establishing a community of practice and training of over 20 new doctoral level leaders in the sensory impairment areas. Ms. Hill is also the project director of multiple personnel-preparation grants that focus on training teachers to work with students with visual impairments and deafblindenss.

One of her most recent accomplishments was receiving the U.S. Department of Education's Golden Apple Award for her work on the World Intellectual Property Organization Marrakesh Treaty. This treaty ensures worldwide access to publisher's digital files for all persons who are blind, visually impaired or have a print disability.

For her dedication for students with visual impairments, blindness, and deafblindness and those professionals who work with these students, the CEC Division on Visual Impairments and Deafblindness is delighted to present this award for her lifetime of advocacy on behalf of students with sensory disabilities.

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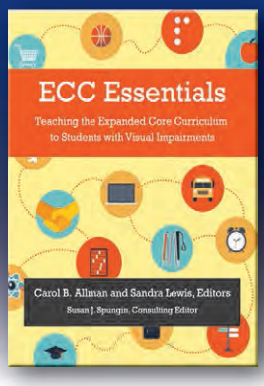

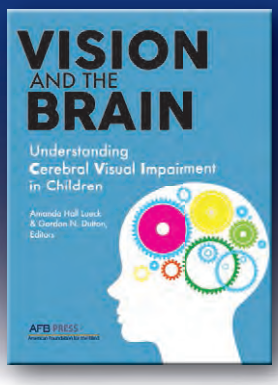

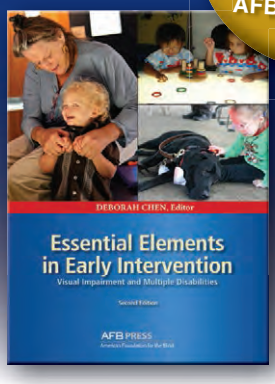

ECC Essentials

Teaching the Expanded Core Curriculum to Students with Visual Impairments

CAROL B. ALLMAN and SANDRA LEWIS, Editors
SUSAN SPUNGIN, Consulting Editor

This new handbook for teachers presents effective strategies for helping students develop skills in all areas of the expanded core curriculum. Includes learning activities that can be used in the classroom immediately, and targeted resources for understanding each area of the ECC.

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AMANDA HALL LUECK and GORDON N. DUTTON, Editors

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DEBORAH CHEN, Editor

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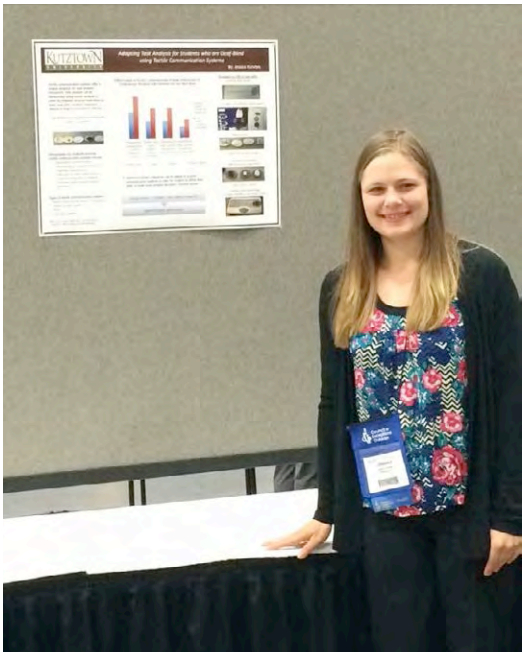
Experience at CEC Convention from a First-Time Presenter

Jessica Kolvites, Student, Kutztown University,
jkolv357@live.kutztown.edu

My name is Jessica Kolvites and I am currently entering my senior year at Kutztown University. I am studying to become a teacher of the visually impaired and will soon be entering my professional semester where I will be placed in a 4-8th grade classroom. This past April I was able to attend and present at CEC's conference in San Diego, CA with two other students from Kutztown University and my professor, Dr. Nicole Johnson.

Last spring I successfully submitted a proposal for a poster presentation on adapting task analysis using tactile communication systems for students who are deafblind. As part of my research I created a survey about the effectiveness of using tactile symbols to teach students who are deafblind, new skills and had teachers working with these systems answer several



questions based off the student's skills before and after the students were taught these systems. I was also able to work closely with one TVI and her student who used tactile symbols as their main form of communication. I included several strategies that this student's educational team used with her tactile symbols. Some of these strategies include: creating book reports with the symbols and combining tactile symbols with braille. An additional strategy was combining labeled symbols with technology such as the Logan Proxytalker for students who have some hearing to receive auditory confirmation of the symbol they chose to answer a question or make a request with. I felt that my presentation went very well and I had many members of CEC come to hear me discuss my research at length. Several members also took pictures of the example strategies that were presented to use for their own students.

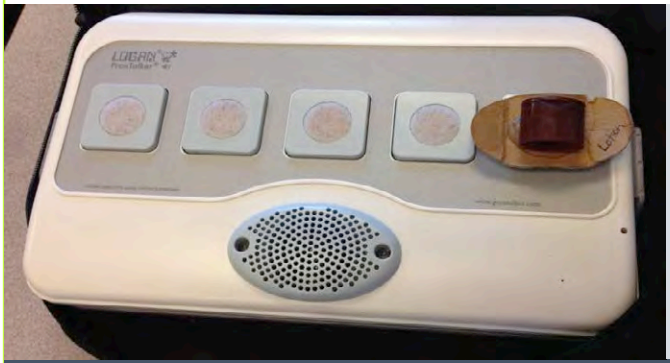
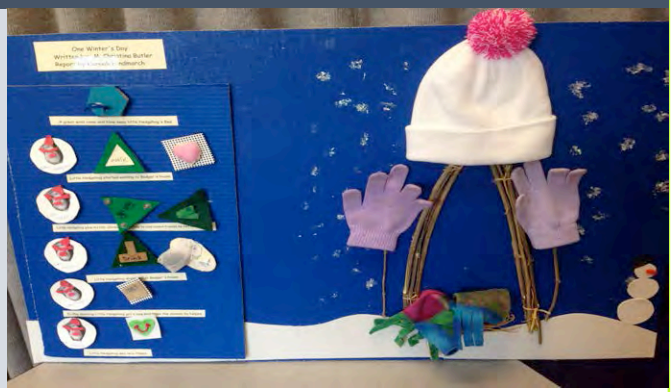


Image 2: Using Logan Proxytalker to hear tactile symbols read aloud.

Image 3: Example of book report using tactile symbols.



Additionally at the conference this year, I became the newest student ambassador for the CEC's Division on Visual Impairments and Deafblindness (DVIDB). I am very excited about this opportunity to become even more involved in the division. As I take over from last year's student ambassadors, I plan on continuing their mission to connect students who are studying in vision programs together and hopefully each with their own TVI mentor. To do this, I am planning on establishing a Facebook page that will serve as an easily accessible form of communication and a common place to ask questions and start discussions. Overall, I felt that the conference was a great opportunity to learn a lot about the field I will soon be entering. I am grateful that I was able to successfully share with other professionals the research I have done and I am very excited to represent DVIDB as the newest student ambassador.

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Supporting Student Problem-Solving and Critical Thinking in the ECC:

Presentation at CEC 2015

Kim T. Zebehazy, Assistant Professor, The University of British Columbia, Vancouver, Kim.zebehazy@ubc.ca

Deborah L. Butler, Professor, The University of British Columbia, Vancouver, Deborah.butler@ubc.ca

U.S. Common Core State Standards, as well as many Canadian provincial standards, have a focus on teaching higher-order thinking skills and problem-solving within the core curriculum (BC Ministry of Education, 2013; Common Core State Standards Initiative, 2015). As teachers of students with visual impairments, we are in a unique position to be mindful about helping students engage in thinking skills within the expanded core curriculum (ECC) as well. Figure 1 shows a conceptualization that highlights the importance of attending not just to the skills students need to learn but how they think about what they are learning and how they approach learning situations. Once the school supports surrounding students are gone, the thinking skills that surround what a student learned in the core and expanded core are what will help carry students into successful transitions.

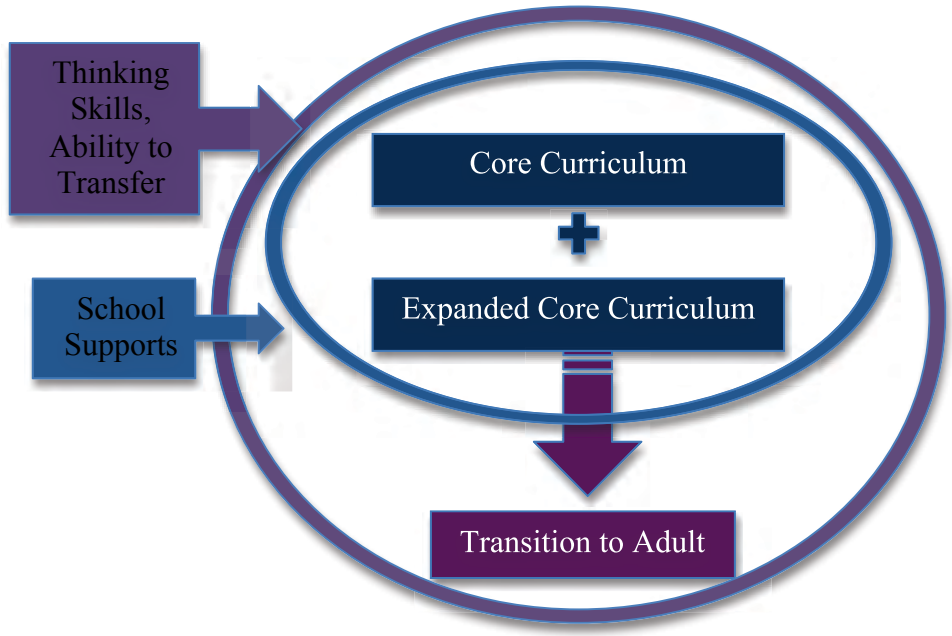

Figure 1: Conceptualization of the importance of thinking skills

Description: Two boxes labeled ‘core curriculum’ and ‘expanded core curriculum’ are connected by a plus sign with an arrow pointing to a box that reads ‘transition to adult.’ A circle labeled ‘school supports’ surrounds just the core and expanded core curriculum boxes, and a circle labeled ‘thinking skills, ability to transfer’ surrounds the whole diagram, including the box ‘transition to adult.’

Research specifically in the field of education of students with visual impairment about how to approach the development of student thinking and problem-solving abilities is sparse, particularly related to the ECC. However, some studies that have been conducted support the benefit of explicitly focusing on thinking skills. In the content area of science, for example, Wild and colleagues have found inquiry-based learning beneficial for developing students with visual impairments' understanding of science concepts (Wild, 2010; Wild, Hilson, & Hobson, 2013). While Weaver and Markham (1999) reported that the divergent thinking abilities of students with visual impairments varied, Cole and Pheng (1998) found that verbal mediation training supported students with visual impairments' and their sighted peers' ability to perform problem-solving tasks.

In terms of teachers' abilities to infuse opportunities for problem-solving and thinking, in preliminary analyses of two self-reflection studies on teaching, Zebehazy & Kritzer (2009) and Zebehazy, Correa-Torres, & Botsford (2012) found that pre-service teachers of students with visual impairments and orientation and mobility specialists identified a need to ask

more open-ended and higher order questions during instruction. Through reflection of video recorded lessons, they discovered occasions where they could provide their students with visual impairments more opportunities to develop their thinking skills. Participants in the studies who reflected on and analyzed their teaching more deeply appeared to make more changes in their questioning in their next teaching episode. As one pre-service O&M specialist reflected, “I have found that I get the best results as a teacher of subjects with which I have more experience when I ask thought-based questions and truly allow my students to become their own teachers.”

Model of Self-Regulated Learning (SRL)

Within the field of education, in general, there are a variety of models, taxonomies and frameworks from which we can draw to help us develop effective ways to incorporate thinking skills. This presentation focused on promoting thinking and problem-solving during instruction in the ECC through the lens of self-regulated learning. Self-regulated learning (SRL) is defined as, “the ability to control thoughts and actions to achieve personal goals and respond to environmental demands.” (Zimmerman, 2008 as cited in Butler,

Schnellert, & Perry, in press, p. 1-2).

Butler and Cartier's (2004) integrative model of SRL (see Figure 2) illustrates the inter-play of factors that promote a student's ability to engage in cycles of strategic action (Butler & Schnellert, 2015). According to this model, self-regulated learners direct their learning by interpreting learning activities and identifying task goals within the context in which they are working. They plan and engage strategies to achieve those goals while monitoring and adjusting their strategies based on how well they are progressing (Butler & Schnellert, 2015; Butler, Schnellert, & Perry, in press). As shown in Figure 2, the level at which students can engage in these cycles of strategic action depends on various factors including what the learners bring to the task (e.g., knowledge, beliefs, experiences, strengths/challenges, metacognition), the type of task encountered, the quality of the learning environment (e.g. type of task, resources/supports, assessment/feedback), and the students' emotions and motivation for engaging with the learning task. Emotions can arise based on the interaction of 'what students bring' with the learning situation (Butler & Cartier, 2004; Cartier & Butler, 2004). For example, a student who has had

little experience with an underlying concept related to the task may feel anxious about how to approach the task and put up barriers to systematically try to understand the task or may wait for someone to tell him/her what to do; whereas, another student in a similar situation who is more willing to take risks and brings experience with problem-solving to the task may feel confident to engage strategies for finding the information needed about the missing concept.

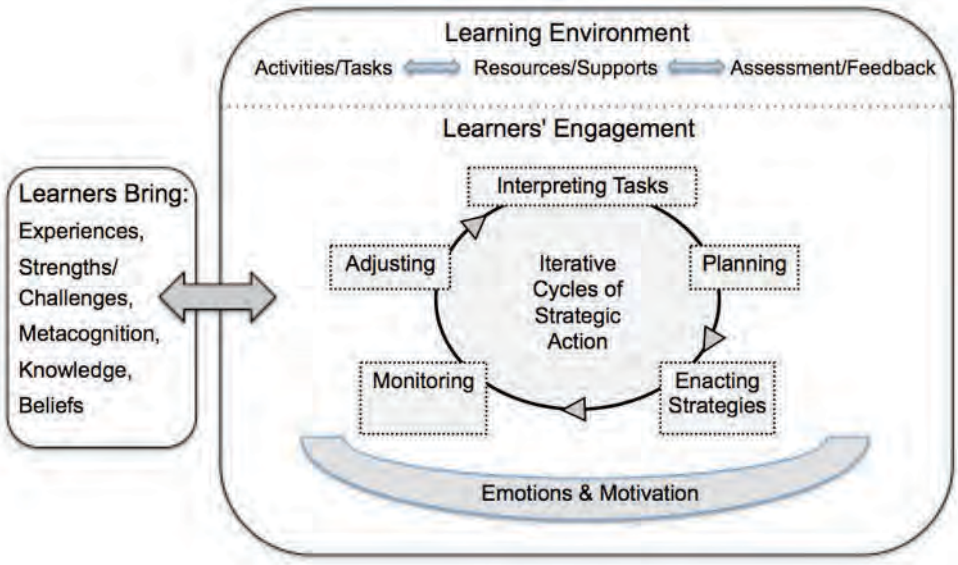

Figure 2: An Integrative Model of Self-Regulated Learning. Copyright 2014 by Deborah L. Butler and Leyton Schnellert. Reprinted with permission. Based on the work of Butler and Cartier (2004; see also Cartier & Butler, 2004).

Description: A continuous circle with arrows labeled ‘learner’s engagement’ shows iterative cycles of strategic action of ‘interpreting tasks,’ ‘planning,’ ‘enacting strategies,’ ‘monitoring,’ ‘adjusting’ and back to ‘interpreting tasks.’ A semi-circle cradling the cycle is labeled ‘emotions and motivation.’ Above the cycle delineated by a dotted line is an area labeled ‘learning environment’ and shows double arrows pointing back and forth to ‘activities/tasks,’ ‘resources/supports,’ and ‘assessment/feedback.’ A box to the left of the cycle is labeled ‘learners bring:’ and contains ‘experiences, strengths/challenges, metacognition, knowledge, and beliefs.’ A double arrow points back and forth between this box and the cycle of strategic action.

The more opportunities students have to actively engage in learning through these cycles of strategic action, the more practice in self-directed problem-solving students are also experiencing. As teachers, we play an integral role in promoting opportunities for students to develop the ability to think through learning tasks and to develop a repertoire of learning strategies they can use. The better students become at problem-solving and task interpretation the more likely they will also be able to invent, try and evaluate

new strategies based on the task-at-hand.

Considerations for Students with Visual Impairments within the SRL Model

Within the model of self-regulated learning, it is important to reflect on any blindness or visual impairment specific considerations that we should be cognizant of when supporting a student's ability to engage in active learning. In the 'what learners bring' box, for example, it will be important to take into account incidental learning that students may have missed in developing the concepts that support their ability to interpret and actively engage in the learning task. The repertoire of strategies a student has been exposed to or has observed closely enough to try may differ from other students and need to be enhanced with explicit modeling. Modeling will need to be conducted in a way that supports a student's ability to focus on the relevant and salient components of the strategies (Schunk & Zimmerman, 2007). Good assessment of the range of strategies a student has can serve as the benchmark for moving a student forward as a self-regulated learner. There will also be visual impairment specific strategies (e.g., compensatory skills,

sensory efficiency) that students with visual impairment will need to bring to learning tasks. Building proficiency with these strategies will support problem-solving. Assessing a student's ability to accurately understand his/her own strengths and challenges will also be important. Students who are blind or visually impaired sometimes have fewer opportunities to observe what peers are doing and evaluate their own skills in comparison and/or are not provided with realistic feedback. The more self-determined a student is (an ECC area itself!) the more a student can bring to analyzing a task and selecting strategies which enhances strengths and compensates for challenges.

The learning environment will also need to be accessible with high expectations in place for all students, including students who are blind or visually impaired. Does the learning environment present learning tasks in an accessible manner that optimizes a student's ability to self-direct learning? Are materials and supports that are needed accessible? Is feedback given in a manner that takes into account visual impairment specific needs? For example, is feedback descriptive enough to provide information that other students are absorbing incidentally and using as a basis for their own self-

evaluation and monitoring? Conscientious design of the learning environment can provide the supports for students with visual impairments to feel confident in more actively engaging in their learning.

Strategies for Developing Self-Regulated Learners in the ECC

Butler, Schnellert, and Perry (in press), provide a wealth of strategies and considerations for supporting and developing student success as self-regulated learners. This presentation focused on a few of these considerations as a means to begin the discussion and reflection about how we can interpret this model to better provide opportunities for thinking and problem-solving in our instruction within the ECC. One of the first shifts to make in our instructional thinking is that we are not only building specific skills in our lessons (i.e., disability specific skills in the ECC), but also fostering thinking skills within the context of the content we are teaching. Each lesson has the opportunity for students to practice self-regulated learning and engage in active problem-solving. The level of embedded supports and guidance will vary from student to student, depending, again, on what the learner is initially bringing to the learning task.

Instrumental Supports

As special educators, we are often very adept at identifying and providing the supports a student needs to be successful on a task. Where we sometimes have to stop and reflect is when and how to pull back on those supports as a student is ready to be more autonomous in the learning task. It is also important to consider the quality of the support. Is it designed to guide the student in engaging in thinking and decision-making or does it simply provide the student with information? Butler, Schnellert, and Perry (in press) describe instrumental supports as those that provide meaningful scaffolds to help students develop self-regulated learning. This can include providing explicit instruction on good strategy selection and thinking processes, modeling metacognitive thinking and self-evaluation processes, and providing supports that help a student remember and move through strategic action cycles. Table 1 shows an example within the ECC of how instrumental supports and guidance changes as a student develops more self-efficacy.

Table 1

Example of a general unit plan within daily living skills that promotes increasing opportunities for self-regulated learning and application of thinking and problem-solving.

Start of the Unit	**Beginning/Intermediate Lessons**	**Advanced Lessons**
• With the student, develop a framework and goals for cooking lessons • Establish basic set-up for kitchen and expectations for participation • Brainstorm kitchen concepts and strategies student knows and generate questions student is curious about	• Recipe selected by teacher or one of two choices given the target specific cooking skills • Skill development and problem solving during cooking modeled and guided by teacher with increasing opportunities for student to take the lead on selecting strategies • Compare and contrast efficacy of strategies	• Recipe selected by student with rationale for how it builds toward accomplishing established goals • Student takes lead on all aspects of the recipe, employing strategies (e.g. figuring out a measurement conversion) to solve problems and evaluates/monitors progress

Questioning

As seen in emerging data presented by Zebehazy & Kritzer (2009) and Zebehazy, Correa-Torres, & Botsford (2012), the quality of questioning that occurs during a learning situation can dramatically change the outcome. That is, the infusion of higher order thinking activities and questions will transform a lesson into an opportunity to develop problem-solving abilities. Use of taxonomies such a Bloom's (1956) and Marzano Kendall's (2007) can be helpful in reflecting on if the design of the learning task and the questioning embedded during instruction moves students forward from merely giving back learned information to actively applying, comparing, analyzing, and evaluating. In addition, Butler, Schnellert, and Perry (in press) highlight the importance of strategic questioning during a learning task. Strategic questioning provides an instrumental support for developing a student's fluency in moving through strategic action cycles when learning. In other words, using questions that help focus students on the thinking process as a self-regulated learner rather than just the end result of accomplishing the task highlights the importance of the learning process and models the

metacognitive thinking the student can be doing. Table 2 shows some examples of strategic questions related to a couple areas of the ECC.

Feedback

Providing feedback to students is another area where, if done with a focus on the learning and thinking process, can be used effectively to support a student's ability and motivation to improve. Well-intentioned feedback can sometimes actually be sending the wrong message if it focuses too much on whether the end result was accomplished or not (Butler, Schnellert, and Perry, in press). When crafting feedback to students on their performance within areas of the ECC, consider whether it helps the student understand what good performance is, facilitates self-evaluation and reflection on the learning process, supports movement from the student's current performance toward improved performance, and maintains support of self-esteem and motivation (Butler, Perry & Schnellert, in press; Nicol & MacFarlane-Dick, 2006). Table 2 shows differences in feedback, with the second option adhering more closely to principles of good feedback.

Table 2

Examples of feedback that promotes thinking and self-regulated learning

Area of the ECC	**Strategic Questioning Related to the Strategic Action cycle (Figure 2)**	**Effective Feedback**
Assistive Technology	• How will you know you did a good job using hot keys to accomplish this task? (Setting goals/interpreting task) • There was a pattern there that you used to navigate the needed program. What did you do that you can do again in other situations? (Enacting/inventing strategies) • How efficient were you getting from program to program and in completing the task? What criteria did you use to judge your efficiency? (Monitoring)	Less effective: You are really good at this! More effective: I can tell you practiced, your speed at using hot keys to navigate has improved
Orientation and Mobility	• How will you know you are ready to travel the route you plan? (Interpreting the task) • What strategies have worked for you before to find a new destination? (Enacting strategies) • I see you are disoriented, what can you change to get back on track? (Adjusting)	Less effective: Don't worry about it, that route was hard More Effective: Let's see if we can figure out together why you were disoriented and what you could try next time

Summary

Butler and Cartier's integrative model of self-regulated learning provides a comprehensive way to think about improving the opportunities we provide students who are blind or visually impaired to developing thinking and problem-solving skills that will transfer and support life-long learning even when school supports are no longer available. This presentation's goal was to begin the conversation about how the SRL model translates into instruction within the ECC and can be used to evaluate the efficacy and quality of our instruction with students who are blind or visually impaired.

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Summer VIDBEQ Issue

The Submission deadline for articles and advertisements for the summer issue of VIDBEQ is July 24, 2015. Please contact Kathleen Farrand (farrand.9@buckeyemail.osu.edu) for more information.

New!

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*Roman-Lantzy, C. (©2007). *Cortical Visual Impairment: An Approach to Assessment and Intervention.* American Foundation for the Blind Press.

Fostering Success in Mathematics for Students with Visual Impairments

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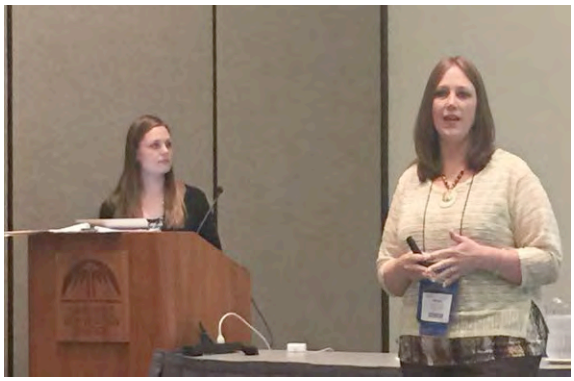

A survey was developed for teachers of the visually impaired (TVIs) to solicit information regarding instruction in mathematics. The survey included 10 questions and three of the questions were open-ended to allow for reporting successful methods. Some domains of the survey included: level of preparation for teaching students with visual impairments, the most effective methods for working with these students, and the importance of collaboration between TVIs and general education mathematics teachers. There were 35

participants and responses are described.

Preparation of TVIs

Sixty-percent of TVIs felt confident in teaching the abacus to students with visual impairments. In addition, only half of the survey respondents felt that they received adequate instruction in Nemeth Code and teaching mathematics to students with visual impairments in their TVI programs. However, 74% of respondents felt confident in teaching the Nemeth Code to students with visual impairments out in the field. TVI preparation programs are now including Nemeth as well as Unified English Braille (UEB) math codes.

Most Effective Methods

Abacus. The abacus is a useful calculation tool whether used alone or in conjunction with other devices because of speed, accuracy, portability, and flexibility. The abacus allows for concrete manipulation, leading to a more meaningful understanding of numbers than the use of talking calculators (Project Math, 2006).

visual

Braille. The Braille Nemeth Code and UEB Math gives students with visual impairments the opportunity to read, write, and solve Braille numerical computations. TVIs are not expected to know the meaning of symbols, but should verify that the symbols have been correctly interpreted by the student who is blind.

Using both Braille codes and abacus. The majority of respondents felt a combination of Nemeth Code and abacus should be used to teach math skills to students who are blind/visually impaired for many reasons. The following reasons were noted by survey respondents:

- Nemeth is how numbers are written and the abacus teaches number sense/place value.
- Students need to be able to compute as well as read the math.
- The abacus can be used for learning basic math problems (concepts) and Nemeth code helps in learning how to write math (problems, equations, etc.).
- Students should have a variety of tools to choose from for math computation because what works best for one student may not work for others.

Amato, Hong, & Rosenblum (2013) recommend that among many instructional tools, the abacus and Nemeth code should be introduced in the primary grades. Survey participants were also in agreement that students with visual impairments should begin learning math computations early (e.g., as early as their same-grade peers, or at the kindergarten level).

Hands-on materials. Concrete and functional materials should be used to teach early mathematics**.** Hands-on materials, or manipulatives, build a conceptual understanding of numerous mathematics skills. Concrete manipulatives not only support the student with visual impairments, but also assist students without visual impairments in understanding mathematical concepts. American Printing House for the Blind has math builder units available that can be used within the general education classroom to aid students with visual impairments understand difficult concepts and build number sense. The math builder units include: matching, sorting, and patterning skills; measurement and estimation; geometry; fractions, mixed numbers, and decimals; and data, collection, graphing, and probability-statistics.

The effective use of manipulatives allows students with visual impairments gain a thorough understanding of mathematics concepts being taught within the general education classroom.

Tactile graphics. Some survey respondents reported that they adapt the general education by utilizing tactile graphics (http://www.aph.org/tgil/). Teachers of the visually impaired have to teach students how to correctly read and interpret graphics. Students should be presented with tactile graphics that are created using BANA rules (http://www.brailleauthority.org/tg/web-manual/index.html). Using the BANA rules ensures consistency through all tactile graphics. This is important for

students with visual impairments so they make sense of what is being represented. When tactile graphics are implemented effectively, they enhance understanding of visual mathematical concepts for students with visual impairments.

Collaboration

It is imperative that TVIs and general educators work together to ensure that students with visual impairments meet educational milestones in mathematics. Each professional has their area of expertise and needs to collaborate with other educators in order to create the best experience for teaching mathematics to students with visual impairments. TVIs and general education math teachers should communicate ahead of time to confirm that the student has the necessary knowledge of specific braille math symbols before coming across them in the book. It is important the TVIs present students with Braille math work that is flawless using a variety of materials.

Conclusion

Although TVIs have mixed responses regarding level of preparation in Nemeth code, most are confident delivering mathematics instruction to students with visual impairments using this method. In addition, most TVIs felt

a combination of Nemeth Code and abacus should be used to teach math skills to students who are blind/visually impaired in the early grades. When used effectively, manipulatives and/or tactile graphics also allow students with visual impairments gain a thorough understanding of mathematics concepts being taught within the general education classroom. Finally, TVIs and general educators must collaborate efficiently so that students with visual impairments make necessary progress in mathematics.

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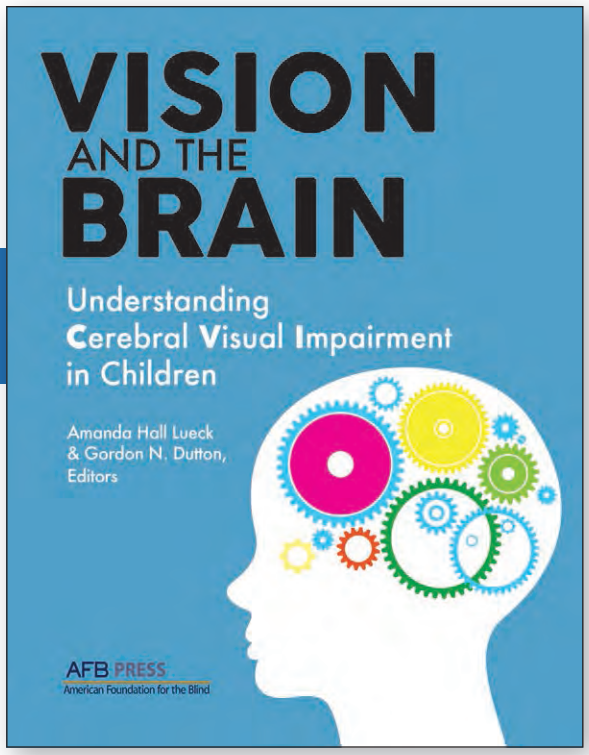
Vision and the Brain

Understanding Cerebral Visual Impairment in Children



Amanda Hall Lueck and Gordon N. Dutton, Editors

Cerebral visual impairment, also known as cortical visual impairment, has become the most common cause of visual impairment in children in the United States and the developed world. In *Vision and the Brain*, two eminent leading experts bring to bear the collected insights, comprehensive descriptions, and practice suggestions of a range of specialists to illuminate the complexities of vision loss related to brain injury and neurological causes and provide readers with approaches to assessment and intervention.

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Open Hands-Open Access Modules: Stories of Adoption for State Specific Purposes

Katie Humes, Washington Sensory Disabilities Services, khumes@psesd.org

Maurice Belote, California Deaf-Blind Services, mbelote@sfsu.edu

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It began as a network-based initiative to address a common challenge- the need for high quality training resources to support the roles of interveners for students who are deaf-blind (Parker, Malloy, Gense, & Killoran, 2013). While this is still the primary purpose of the Open Hands- Open Access (*OHOA*) Deaf-Blind Intervener Learning modules, this multi-media resource, developed by the National Center on Deaf-Blindness through partnership with state deaf-blind projects, parents, teachers, interveners and other community supporters, has become a useful tool for state partners to offer high quality outreach to diverse groups of learners in states.

There are two ways to participate in *OHOA*: within hosted and un-

hosted modules. **Hosted** modules are led by a group of instructors who are available to facilitate each cohort's progress through the modules, including guiding online discussions, responding to questions, and commenting on submissions. Universal modules, which are **un-hosted**, can be accessed by anyone at any time by signing up for an account on the NCDB website. In the universal modules, participants go through the modules with others from throughout the U.S. and other countries but there isn't a host or instructor who responds to learning assignments. All *OHOA* module training, whether hosted or un-hosted, is provided at no cost to participants.

At the recent CEC Convention in San Diego, Katie, Maurice and Amy shared information about how State Deaf-Blind Project Partners have been able to use *OHOA* as one strategy for providing outreach and support to educational teams that serve students who are deaf-blind.

Katie Humes, Washington Sensory Disabilities Services (WSDS)

Through federal technical assistance funding, WSDS already offers a number of online webinars and has produced several accessible video clips that are provided as outreach to teams. WSDS decided to host cohorts of

learners using the *OHOA* modules because the resource was developed with a scope and sequence related to intervention for students who are deaf-blind. To begin, WSDS designed a flyer to advertise the first hosting session and to create a process for registration. Since September, 2013, WSDS has hosted 3 cohorts of learners with 172 people registering to view materials and 55 people completing modules. While this number may seem modest, it is important to remember that WSDS is serving a low incidence population. To put it into perspective, there are 245 children represented on the 2013 Washington child count. So far WSDS' participants represent a range of adult learners, including teachers, parents, interpreters, administrators, and paraprofessionals. Most of these roles have been represented in each of the three cohorts. All but a handful have been directly working with or living with a child or youth with deaf-blindness.

Throughout the hosting, WSDS project staff encouraged engagement by sending out Constant Contact emails with the WSDS logo, photos and info about WSDS including our website, Facebook page, and other online trainings. Many of the participants needed support to learn about Moodle, how

to use it, including how to submit assignments, and post on a discussion board. Module content has been useful for supporting parents in talking about their child's etiology and in supporting educational teams in using appropriate hand-under-hand approaches with students.

Maurice Belote, California Deaf-Blind Services (CDBS)

California is part of a three-state cooperative—with the state deaf-blind projects in Idaho and Montana—to provide hosted *OHOA* training. CDBS currently hosts cohorts of paraeducators, team members, and family members through the first eight *OHOA* modules. When participating in hosted modules with CDBS, university credit from the University of Montana is available (one unit per module) for a cost of $135 for up to four units.

According to Google Analytics, since September, 2013 there have been 512 new users from California, Idaho and Montana who have visited the *OHOA* modules. Fifty-six of these users have registered to be a part of three formally hosted cohorts. In general, CSDB staff has found that it is easier for people who are engaged in the modules to respond to discussion boards, rather than to download learning assignments and complete them. Hosting

modules using Moodle has been interesting with some adult learners who complete activities quickly and others who need a great deal of support or reminders to make progress. Other discoveries that have been shared from these hosting experiences include giving learners more contexts for pictures and videos within learning assignments. For example, in one learning activity, an example is shown where a student with deaf-blindness needed more support from a teacher. Some learners needed more explicit guidance from CSDB staff to explain that the goal of the assignment and that making suggestions to improve support for the student in the video was permissible. This type of feedback has been helpful to NCDB in making revisions and improvement to *OHOA*.

Amy Parker, National Center on Deaf-Blindness (NCDB)

Overall, state partners who have adopted the *OHOA* modules continue to find ways to tailor them to fit the unique needs of learners. Consistently, state partners share that there is a definite learning curve for many in learning to use Moodle. In response to this need, NCDB developed a Welcome and Orientation module to support all learners in using the Moodle tools, including

discussion boards, quizzes, and embedded slide shows, for learning. Using a 5-point Likert scale, 95.7% of a sample of 745 users reported that they learned new information from the *OHOA* modules. All network partners agree that using *OHOA*, as with any online resource, cannot replace the need for onsite technical assistance and individualized support for teams. However, many are finding that *OHOA* may be used to supplement outreach and technical assistance to diverse regions in a state.

The following eight *OHOA* modules are now available for universal registration through the NCDB website. Another ten modules are currently being field-tested and eight more are in development this spring/summer. When the project is completed in 2016, *OHOA* will consist of a total of 26 modules which align with the Council for Exceptional Children's *Specialization Knowledge and Skill Set for Paraeducators Who Are Interveners for Individuals with Deaf-Blindness* (CEC, 2009).

Module 1: An Overview of Deaf-Blindness and Instructional Strategies
Module 2: The Sensory System, the Brain, and Learning
Module 3: The Role of the Intervener in Educational Settings

Module 4: Building Trusted Relationships and Positive Self-Image

Module 5: Availability for Learning

Module 6: Understanding Communication Principles

Module 7: Emergent Communication

Module 8: Progressing from Non-Symbolic to Symbolic Communication and Complex Language

For general information about *OHOA*, go to: https://nationaldb.org/ohoa

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OPEN HANDS, OPEN ACCESS

DEAF-BLIND INTERVENER LEARNING MODULES

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The Future at Their Fingertips: Promising Practices in Literacy Instruction for Braille Readers

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What is fluency? Fluency is defined as the ability to read text accurately, quickly and with proper expression. When fluent readers read, they recognize words automatically and gain meaning from what they read. Fluency is important because it forms the bridge between word recognition and comprehension. Fluency development is critical for all students, including those with visual impairments. It is important that teachers of the visually impaired utilize effective practices that will support the braille user's development of reading fluency. Many fluency-building strategies shown to be successful with print readers can be adapted for braille. Below are games and hands-on activities that can be used with both braille readers and their sighted peers. Using reading activities that can be easily implemented within the general education classroom will not only aid with fluency development, but may also enhance students' social skills.

The Sight Word Parking Lot provides students with an engaging way to practice word recognition skills. This activity can be played with a teacher and a student or used in centers where students play with each other. Students with or without visual impairments can benefit from the Sight Word Parking Lot. This activity has the student "park" a toy car in a parking space matching a particular word provided by the teacher. Teachers select several high frequency words students are likely to encounter in the texts they are reading and write and/or braille these items around the edge of a board. The game gives the student multiple exposures to the same words, which helps to build speed and confidence in recognizing high frequency words. This activity could be easily adapted to provide additional practice with contractions, letter recognition, or even numerals.

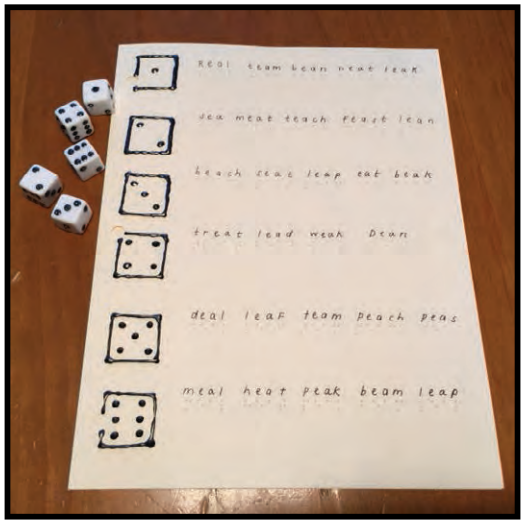
Materials Needed: a white board, puffy paint, marker, book laminate for braille labels, and a few small cars.

Lego Word Family Buildings are a great way to encourage a student to recognize patterns in words to increase fluency while reading. This activity will help students begin to read by grouping sets of letters within a word. During this activity the teacher should mix up and set out the blocks and encourage the student to put the blocks that rhyme together in the same stack building a word family. This activity can be played with all types of learners the braille will accommodate students with visual impairments while the large print is great for students with low vision. The teacher can allow the students to work independently, with a partner, or in guided practice.

Materials Needed: Legos Mega Blocks, a marker, and clear laminate for the braille labels.

The Roll and Read activity is great for increasing reading accuracy and fluency. Students read and re-read six sentences or word sets on a sheet prepared by the teacher. The student rolls the dice and reads the item that corresponds with the number on the sheet. This activity can be made using word family sets such as the “ea” pattern, vowel patterns such as the short “i”, or high frequency words. The teacher can work on the activity as a one-on-one guided practice with the student, or students can work in pairs, taking turns rolling the dice and reading the corresponding sentence or word. The print and the braille on the Roll and Read sheet allow all types of learners to participate in the activity.

Materials Needed: Braille paper, puffy paint, and dice.



The Word Family Spinners activity will help students to recognize patterns among words, which will increase the student's word recognition accuracy and support fluent reading. The teacher should first have the student read the ending written on the rectangular piece. Initially, the teacher and the student should work together, adding the beginning sounds written on the wheel. Later, the student can work independently or with a classmate to complete the activity. The teacher can make many spinners for different word families and build the student's confidence while reading and having fun. The large print and braille on the word family spinner makes this activity appropriate for all types of learners in the classroom.

Materials Needed: Card stock paper, clear laminate for the braille, marker, and a paper fastener.

These activities support reading fluency development by improving students' word recognition skills. This is important because readers with poor or inaccurate word recognition will need to allocate more cognitive resources to decoding words and, in turn, have less resources available to devote to understanding what they read. Many children with visual impairments demonstrate poor fluency with correspondingly low levels of comprehension skill (Corn, et al., 2002; Trent & Truan, 1997; Wormsley, 1996). Without appropriate interventions, young struggling braille readers may develop chronic problems with reading fluency which, in turn, may discourage these children from reading because it is laborious, resulting in reduced reading practice and a cycle of ongoing underachievement (Barlow-Brown & Connelly, 2002; Forster, 2009).

The strategies above can help motivate students with visual impairments to read because they are highly interactive. Other recommendations for enhancing reading fluency for users of Braille include the use of high interest reading materials, guided, repeated oral reading of

text, and encouraging the student to go back and reread to self-correct word identification errors. In addition, the TVI should explain new words and concepts encountered in the text through the use of real objects and concrete experiences whenever possible. Implementing these principles along with interactive practice activities will give students with visual impairments new opportunities to grow as readers.

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