Visual Impairment and Deafblind Education Quarterly

Volume 64, Issue 2

The Voice and Vision of Special Education
Cover photo description: Image of four of the DVIDB Award Winners from the 2019 CEC Annual Convention and EXPO. Pictured from left to right: Rebecca Sheffield, Laura Bozeman, DeEtte Snyder, and Carady Holguin. Not pictured: Tara Brown-Ogilvie.
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Happy Spring! The Spring Issue of VIDBE-Q is focused on the amazing 2019 CEC Convention and EXPO in Indianapolis, Indiana. The CEC conference marks an annual event where colleagues across the field of special education can engage in great conversations, attend insightful presentations and workshops, and celebrate the work of those in the field. This issue aims to highlight some of many great individuals in the field of visual impairments and deafblindness from this year’s convention.

Kathleen Farrand, Ph.D.

Assistant Professor, Arizona State University,

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The spring issue begins by recognizing the five 2019 DVIDB award winners that have and continue to make a difference in the lives of those with visual impairments and deafblindness. A short biography of each is included to honor the great work of each award winner. Congratulations to 2019 DVIDB award winners!

Next, the issue provides four engaging articles written based off of four conference presentations from the field of visual impairments and/or deafblindness. The first article is by Dr. Molly Pasley and Lauralyn Randles who co-authored the DVIDB Showcase Presentation at the CEC Convention. Their article provides information about teenagers with visual impairments obtaining a driver’s license, driving requirements, programming, resources, and addressing the grief cycle for those who are unable to obtain a license. The following article is co-authored by Dr. Sarah Merimme, Kelly Brown, and Erin Marvin on a pilot study they conducted to promote student engagement during reading through partial symbols and story boxes. Next, Dr. Kristi Probst describes a collaborative model of intervener training to address the need for more qualified individuals who work with students who are deafblind. The issue concludes with an article by Carlie Rhoads with valuable information for those considering using constant time delay to teach braille to learners with low vision to read print.
For many of us, spring is taking its own sweet time to arrive. As the days slowly lengthen, we begin to see buds and small blossoms of color emerge from shivering trees. In many places, it is still too early to plant seeds but the chorus of frogs in the evening let us know the earth is tilting towards the sun, a change our students and colleagues feel in the rhythm of the school year.
In reflecting on our sharp and frosty convention in Indianapolis, there was a surprisingly good turnout despite the flight delays from the winter storms. In the midst of the bitter cold, was a hearty sense of community with our award winners and colleagues who traveled to share their insights in presentations and poster sessions. Our preconvention workshop on dance-based interventions included four fantastic presenters led by Dr. Cathy Nelson from the University of Utah. We hosted our business meeting and social at a beloved Bavarian restaurant, the Rathskeller, which looked like a stone castle in the midst of downtown. Over fondue and pretzels, we celebrated the consistent contribution of teachers like Carady Holguin and leaders in preparation like Dr. Laura Bozeman. We remembered the lives of Dr. Deborah Hatton, Dr. Sonny Summers, and Dr. Jan van Dijk by honoring those who continue their work.

In the midst of a snowy conference, I found myself warmed by passion of colleagues who shared their studies, their practice, and both low and high tech innovations to support students- an ethnographic study by Dr. Danene Fast, an app that promotes body awareness through yoga poses, and a great presentation on the literacy experiences of students who are deafblind. From our showcase on being “16 with No Wheels” by Molly Pasley and Lauralyn Randles to our DVIDB Community Forum which
included a dialogue about the specific needs of students with cortical visual impairment (CVI), thoughtful content and discussions were shared. Despite the winter bluster, we planted some seeds anyway. On April 10th, we are hosting a captioned webinar on “Tactile Based Stories and Symbols” presented by three dynamic collaborators from KY. It’s free to all DVIDB members and only 15 dollars for non-members. Please be sure to register and share this event with your networks: 
http://community.cec.sped.org/dvi/home. And this year, we will host two additional captioned webinars before hosting our 2020 convention in Portland, Oregon. Finally, the call for presentations is open for CEC’s convention in Portland, 2020. We have some exciting ideas coming online for preconvention and convention events in the Rose City. Stay tuned!

We hope you will enjoy this Spring issue and that it will awaken new ideas for your practice. In the spirit of the season, don’t keep your ideas to yourself, but share them in the hopes of cross-pollinating what will help all students, families and educators thrive!
Thank You

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Allied Instructional Services
Tara, a former employee of the Helen Keller National Center, has enjoyed over 7 years of working with youth and adults who are deafblind. During that time, she served in a multitude of roles: support service provider, vision rehabilitation therapist, tactile sign language interpreter, and certified orientation and mobility specialist.
She is currently pursuing her Ph.D. at University of Northern Colorado in Special Education with an emphasis in deafblindness and focuses her studies on transition, adaptive orientation and mobility strategies, assistive technology, and communication access.

Tara has conducted qualitative research and presented internationally with Dr. Silvia Correa-Torres on personnel prep for orientation and mobility specialists working with students who are deafblind at the International Mobility Conference in Ireland and Deafblind International in Denmark (2017).

She has also provided in-services and presentations on adapting orientation mobility and transition services to better fit children, teens, and adults who are deafblind.

Tara is currently involved in several task forces related to deafblindness at the state and national level and volunteers her time to improve orientation and mobility, transition, and intervener services for students who are deafblind.
DeEtte Snyder is the state coordinator for birth to 3 services at the Washington State School for the Blind (WSSB). She received her Ph.D. in Special Education from the University of Northern Colorado in May 2018 and completed her dissertation with an analysis of the national database called Babies Count. She received two distinguished awards as a part of 2019 DVIDB Deborah D. Hatton Dissertation of the Year Award Indianapolis, IN.
her doctoral work; The Dean’s Citation of Excellence for Outstanding Student and Outstanding Dissertation.

For over 25 years DeEtte has been working with children aged birth to 5 with visual impairments, and their families, both as an educator and a program administrator. She is also an adjunct faculty member in the Visually Impaired Learner Program (VIL) and the Early Intervention/Early Childhood Special Education Program (EI/ECSE) at Portland State University, her alma mater for both her bachelor and master degrees. Her early experience was at the Foundation for Blind Children in Phoenix, AZ, but for the last 4 years she has worked for WSSB, building a program for early support for infants and toddlers with blindness/visual impairment and their families where one did not exist prior.

DeEtte lives in Vancouver, WA with her husband, Brett and beloved pup, Monkey. She loves to quilt and considers this hobby a reprieve from a busy professional travel schedule. She created an alternative qualitative data representation of Babies Count known as “The Babies Count Dissertation Quilt”. 
Carady Holguin is a Teacher for Students with Visual Impairments (TSVI) for USD 457 in Garden City, Kansas. She earned her degree in Elementary Education from Kansas State University in 2003. After graduation, she returned to Garden City and taught fifth grade for six years. During this time, she earned her ESOL endorsement from Fort Hays State University and Master’s Degree in Instruction and Curriculum Development.
from Newman University. In 2009, Carady transferred to third grade where she taught until May of 2016. In the fall of 2016 she transitioned to USD 457’s TSVI position and earned her Certificate in Sensory Disabilities from the University of Nebraska in 2017.

Carady strives to empower her students with knowledge and challenges them to work towards independence. She is an advocate for them, but always remembers the importance of teaching her students to advocate for themselves. She believes in and daily demonstrates the value of being a lifelong learner. Her dedication to her craft has helped instill a love of learning in her students. She maintains high expectations for each child and welcomes the daily challenges that come her way. Carady lives in Garden City with her husband, Lalo, and two children: Olivia and Hudson. She enjoys spending time at the lake, camping with her family, and working on various craft projects.
Tactile-Based stories can increase student engagement during whole-class reading groups featuring students with significant cognitive disabilities, including those with visual impairments. Whole and partial symbols can be incorporated into schedules and individualized education program goal assessments of students with cortical vision impairment to increase inclusion and self-determination. Presenters will share tips, examples, resources, and tools.

Date: April 10th, 2019
Time: 4:00 PM EST

Free to CEC: DVIDB members
Non-members- $15

Register Here:
http://community.cecsped.org/dvi/home
Rebecca Sheffield, Ph.D.

Rebecca Sheffield is a practicing TSVI in the U.S. Virgin Islands and a dedicated advocate for improving advocacy for people with vision loss. She continues to share and describe research, data, and statistics about Americans with vision loss. She holds a Ph.D. in Special Education from Texas Tech University and was a fellow in the National Leadership Consortium in Sensory Disabilities. Rebecca has experience teaching and supporting infants and students with visual impairments and their families as a certified Teacher of Students with Visual Impairments in Texas. She has had leadership roles within the World Blind Union and the International Council for Education of People with Visual Impairment and is an active member of the Association for the Education and Rehabilitation of the Blind and Visually Impaired. Her research interests center on the national and international implications of listening to people with visual impairments of all ages in order to study the extent to which policies, programs, and services improve the quality of life.
Laura Bozeman, Ph.D.

Laura Bozeman has a dual appointment in the School for Global Inclusion and Social Development (SGISD) and the College of Education and Human Development. Bozeman has a Ph.D. in Vision Impairment and Multiple Disabilities from the University of Texas at Austin, College of Education.

Bozeman entered the vision profession in 1974 as an Orientation & Mobility Specialist in Texas. Her research focuses on quality personnel preparation of highly qualified teachers within the low-incidence area of vision impairment. Bozeman promotes a regional model to sustain that preparation at the university level, both nationally and internationally. She has worked with all ages and has taught in the U.S. (mainland, Guam, American Samoa), and internationally in Taiwan, China, Australia, New Zealand, Saipan, and the Federated States of Micronesia.
In 2006, Bozeman moved to New England from New Zealand. She is now the director of the Vision Studies Program at UMass Boston, which is closely affiliated with the New England Regional Center for Vision Education (NERCVE). Bozeman teaches classes as well as directing the program. She also collaborates closely with NERCVE’s director, Robert McCulley, to ensure the Vision Studies Program’s sustainability and to make sure that its offerings are state of the art.

SGISD's Vision Studies Program is the only academic and professional training program in New England to prepare professionals who are uniquely qualified in visual impairment. It is affiliated with the Institute for Community Inclusion, the primary research and training institute of SGISD.

The Vision Studies program now offers three nationally recognized and professionally accredited graduate specializations in Vision Studies: Orientation and Mobility, Vision Rehabilitation Therapy, and state-licensed Teacher of Students with Visual Impairment. Bozeman is the main contact for students applying to all three tracks. In addition, she advises prospective students, as well as those currently in the Vision Studies Program.
Bozeman is the author of more than 30 articles on the subject of vision impairment. She has provided extensive training and presented at numerous workshops and conferences, both in the US and internationally. She has served on the executive board of many international associations and committees, and is involved at many levels of the professional organization in vision impairment, the Association for the Education and Rehabilitation of the Blind and Visually Impaired.
VIDBE-Q is looking for companies and organizations to advertise in 2019. Packages available to meet the needs of your organization or company.

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One of the major milestones in a teenager’s life is the ability to drive. It gives an adolescent higher standing among her peer group because she has greater independence and mobility (Sebald, 1983). In addition, many public high schools across the United States offer driver’s education courses as a course elective. This can be problematic for students who are visually impaired when the course is a required credit to graduate as is common in some rural and suburban districts in Illinois (Pasley, 2019). So how do orientation and mobility (O&M) specialists and teachers of students with visual impairments (TVIs) provide a new road map for independent travel when obtaining a driver’s license is not safe or desirable to the student or his/her family? Also, how do professionals help students and families navigate the cycle of grief when they encounter this rite of passage?
Driving Requirements

In our January presentation at CEC in Indianapolis, we began by examining the vision requirements to drive in various states in the Midwest. The purpose of this exercise was to demonstrate the variability, and in some cases, vagueness, of different states’ regulations. As a general finding, states typically agree that driving candidates need at least 20/40 visual acuity with best correction (Prevent Blindness, 2003). Each state has additional requirements pertaining to the field of vision, however, this varies greatly by state in description. The requirements for restricted licenses are primarily 20/70 visual acuity with a large variance for field of vision as well. Some states allow for bioptics, a telescope mounted to the lens of a pair of glasses (Huss & Corn, 2004), to be utilized for individuals applying for first-time licensure. Other states only allow for existing bioptic users to move into the state from a location that permits licensure using a bioptic or ban the use of bioptics altogether (Windsor, 2016).

Before the start of the presentation, we completed an informal poll of attendees to learn what methods of programming professionals use to teach students with visual impairments age 15 and older. As a disclaimer, we recognize that the concepts we present as being pertinent for transition-age youth with visual impairments will likely be introduced before the
student reaches 15. We chose to ask attendees what comprises their typical instruction for 15-year-olds with visual impairments because it is parallel to sighted adolescents learning to drive. In the following, we address pros and cons for each programming option.

**O&M stand alone programming.** When working with young adults with a visual impairment on safe and independent travel there can be more skills to cover than time available. O&M specialists provide students with focused and individualized instruction that is aimed to meet their short and long-term goals for life. For some students this may include extensive training on complex intersections, public transportation options, technology for travel, and community-based instruction. While we are trained to provide O&M instruction in these areas, we are not trained to instruct students on things like driver’s habits and cognitive load. These skills are typically the purview of the school’s driver’s education instructor.

**O&M with participation in traditional driver’s education.** Some O&M specialists, students, and families decide a student with a visual impairment will participate in the classroom portion of driver’s education as a means to acquire a different perspective and information about driver and passenger safety. Students learn the organization and layout of roads, meaning of road signs, and for those with vision on the borderline of
meeting their state’s vision requirements, receive the necessary instruction as a prerequisite for bioptic lens training. For those who are required to take the classroom portion of driver’s education for graduation credit, they may miss the important and relevant features of the class because they do not view it as important. The social-emotional implications for requiring a student with a visual impairment to partake in the classroom portion of driver’s ed. can also have long-lasting negative effects that may inhibit positive identity construction (e.g. reinforcing visual limitations, bullying; Pasley, 2019).

**O&M with other curricula.** Utilizing a nondriving curriculum in addition to traditional O&M instruction can provide a systematic approach to concepts specific to pedestrian travel and use of transit options. There are three curricula that are, or previously were, available. Each curriculum targets a different age group and driving history. This targeted approach to a specific age demographic and the variance in curricular format may make it difficult to find the appropriate option to meet your student’s individual needs.

**Finding Wheels.** Finding Wheels was written to address the unique travel needs of adolescents with visual impairments (Corn & Rosenblum, 2000). Some of the topics discussed include transportation options for
nondrivers and drivers with low vision and strategies for independence as a nondriver (e.g. budgeting and reciprocating). It is currently out of print; however, a new edition will be available in Summer 2019. The update will address advances in technology, ridesharing options, and driver’s education. The new version of *Finding Wheels* is written to the traveler, whereas the original required an O&M to provide instruction.

**Going Places.** *Going Places* is an online course available through the Hadley Institute for the Blind and Visually Impaired that was designed to address the specialized needs of individuals who previously had a driver’s license and are no longer eligible to drive due to vision loss (Hadley Institute, 2000). A number of O&M specialists have used this course as a way to cover some of the concepts outlined in *Finding Wheels* for students with the necessary technological prerequisite skills to complete an online course. It does, however, assume the participant has background knowledge as a former driver. According to the Hadley Institute website, it takes approximately five months to complete and is self-driven.

**Reclaiming Independence.** This dvd is sold through the American Printing House for the Blind (APH) and is aimed toward senior adults who have lost their ability to drive (APH, 2007). The video offers vignettes about new travel options, strategies for life with vision loss, and resources that
might be available to the client. While the resources may prove beneficial when working with young adults, the dvd is meant for those with driving experience.

**Addressing the Grief Cycle**

When families first find out about their child’s vision loss they begin to grieve. They grieve the loss of having a typical child who is able to engage in the same milestones as his sighted peers. As the child ages and is able to achieve milestones in a way that is unique to him/her, the family moves through the stages of grief (shock, anger, depression, bargaining, and acceptance; Kübler-Ross & Kessler, 2005). It is important to note that although researchers refer to the “stages” of grief, it is more of a circular cycle, not a linear path from shock to acceptance. Missed milestones, like the inability to obtain a permit or license, can cause families and students to return to other, previously experienced, stages within the grief cycle. This may also occur when peers or siblings obtain a driver’s license when the adolescent with a visual impairment is not eligible to do so. The professional’s role during this time is to empower the student with a visual impairment to help him realize he has alternate transportation options to driving a car. It is important to listen to student and family concerns and direct them to seek professional help if the issue of nondriving becomes
insurmountable. Supporting the student during this life stage may cause your lesson plan to change to meet his/her needs in the moment. Having purposeful lessons, such as taking the bus to the movie theater for an upcoming date, may help mitigate some of the social-emotional effects of nondriving for youth with visual impairments as they work through the grief cycle.

**Moving Forward**

We challenged our attendees and now you, the reader, to consider and potentially answer the following questions:

1. What are the most important parts of O&M instruction **leading up** to age 16?
2. What are the most important parts of O&M instruction **after** age 16?
3. If you had all the time in the world with your student, what would you include beyond street crossings, route planning, and transit options in O&M instruction?
4. What do we need, as a field, to ensure that nondriving students keep moving forward?
References
VIDBE-Q Summer Issue

Submit your article today!

Back to School Issue
Visual Impairment and Deafblind Education Quarterly

Email your manuscripts to Kathleen Farrand, editor
Kathleen.Farrand@asu.edu
The most significant challenge, by far, facing educators of all disciplines when it comes to students with co-occurring visual, hearing, and/or cognitive impairments is student engagement. How do we engage these students so that they are active participants in academic and vocational tasks, and active learners across the school day? After all, no matter how great the lesson, if they are not engaged, they are not learning. As a classroom teacher, speech language pathologist, and teacher of the visually impaired (TVI), we all worked with students with severe multiple disabilities, including visual impairments in our school setting. We all encountered the difficulty in keeping these students engaged. Often our students would fall asleep, hang their heads, or be looking around the room.
during instruction. We wanted to find a way to address their complex educational needs. Specifically, we were interested in improving engagement during our whole group reading instruction and making the school day more meaningful for these students.

Kelly Brown, our TVI, helped identify appropriate literacy and functional learning material needs for our students with Cortical Vision Impairment (CVI) by pointing us to the Learning Media Assessment portion of the Functional Vision and Learning Media Assessment that reflected “real objects”. We learned that there is a process for moving students from real objects, to partial real objects, to CVI friendly photos of the real objects, to line drawings, to commercially produced picture systems (i.e. Boardmaker). This is the Continuum of Symbol Systems. We first looked how to address our students’ daily needs and where they fell on this Continuum of Symbol System, to determine materials and then created them together as a team.

For example, we determined some activities students participated in every day, including using the restroom, eating lunch, and working on her IEP goals. We developed specific partial symbols representing these activities. For restroom, we cut off part of the changing pad so she was able to anticipate the activity of going to the restroom and being changed.
For her instructional time, we created a partial symbol using the same material from a work mat that we placed on her wheelchair or stander tray. For lunch, we made two partial symbols using a straw from a cup she drank from and part of a spoon. We also used these symbols during lunch by having her use eye gaze to select bite or drink rather than us assume knowing what she wanted. Again, this practice allowed our student to practice self-determination and choice making skills within the classroom.

Next, we wanted to find a way to increase student engagement during our whole class reading group. At that point, our reading group consisted of a short passage either developed by the teacher or found online. We read through the passage every day and took a comprehension test on the last day of the week. We differentiated the comprehension test to match the needs of our students so some had three, written answer choices, while some had two or three picture choices. You will see in the beginning research later in this article that for our target student with a visual impairment, she was rarely engaged during the thirty minute group session. We decided to try using story boxes with our students. Story boxes are simply when you pair text with objects.

The first attempt of this strategy in our classroom was over a reading passage on the Kentucky Derby that Sarah had written. During the first
read, we introduced a model of a horse, real mint, a real rose, a Derby fascinator, and a balloon as we read sentences about these objects, all of which are important to the Derby. The students were able to pass them around so they could get a better look, touch, and even smell each object. We observed the students being much more interactive and intrigued during this group session than without objects. Not only did it increase engagement, it was easy to do. Between the team, we had the items we chose to pair with the text around our home, which made it easy and free. All it took was a simple conversation of who would bring what to group.

During this time, Erin was participating in a reading academy, a course put on through a collaboration between our school district and a local university. One requirement was completing an inquiry study using some of the techniques learned in the class and implementing them with a group of students. Vocabulary building was one of the five pillars of literacy instruction that underpinned the class, so the natural choice for this project was to study the use of tactile items to build vocabulary in our specialized population. Before beginning the inquiry study, Erin searched for research in the fields of speech pathology, visual impairments, and education, and found no research on the efficacy of story boxes for building literacy skills in our population.
When designing the inquiry study, Erin used a reading group that contained three students with visual and cognitive impairments that met four times per week for 30-minutes. The same book was used for four sessions before moving on to a new book. Due to student absences, students got an average of 3.4 exposures to each book. Signs of engagement for each student were listed and tracked by having an additional adult present to use a chart and tally the observed signs. Video was used and analyzed later when no additional adult was available to collect live data. The charts below show the difference for each student in time of alert engagement as well as signs of engagement when using a standard text compared with text paired with tactile experiences (See Table 1 and 2).

In addition, other anecdotal data came to light as well. After repeated exposures, the students began to exhibit signs of engagement upon hearing a word read aloud, even before being presented with an object. For example, when the sentence “there is candy in the basket” was read, students began moving mouths and licking lips, anticipating the taste of candy. They had learned the words! Even more significant, when watching the videos to record data, Erin noticed that as students were transitioning to the group, she always said “Are you ready to read?” By the third week of
the group, students started vocalizing and moving in response to that sentence, before any books or objects were presented. They had learned what it meant to read, and they had learned that they liked it. They were readers!

Table 1.

<table>
<thead>
<tr>
<th>Student</th>
<th>Average time of engagement with standard text</th>
<th>Average time of engagement with sensory stories</th>
</tr>
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<tr>
<td>BO</td>
<td>15% (4.5 min/30)</td>
<td>91% (18 min/20)</td>
</tr>
<tr>
<td>CP</td>
<td>40% (12 min/30)</td>
<td>94% (19 min/20)</td>
</tr>
<tr>
<td>KK</td>
<td>20% (6 min/30)</td>
<td>92% (18.5 min/20)</td>
</tr>
</tbody>
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Table 2.

<table>
<thead>
<tr>
<th>Student</th>
<th>Eye movement</th>
<th>Hand movement</th>
<th>Head movement</th>
<th>Active reach/retraction</th>
<th>Vocalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>BO-sensory</td>
<td>7</td>
<td>7.6</td>
<td>6.8</td>
<td>8.8</td>
<td>5.2</td>
</tr>
<tr>
<td>BO-standard</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CP-sensory</td>
<td>9.5</td>
<td>10</td>
<td>9</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>CP-standard</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>KK-sensory</td>
<td>13</td>
<td>7.6</td>
<td>8.7</td>
<td>6.3</td>
<td>6.7</td>
</tr>
<tr>
<td>KK-standard</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>3</td>
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</table>

Based on this research and experience, a sensory based reading group was created in one of the 2-5 grade classrooms and has been extremely successful for learners at a variety of levels. We have added two students with hearing impairments, and an educational interpreter to help meet their needs. Because of this input, all students and adults involved in the group have grown ASL vocabularies as well! We have seen students increase engagement and grow vocabulary, learn ASL, take standardized
reading assessments for the first time (Developmental Reading Assessment, DRA, is used by our district) and increase in reading level, grow the phonological skills necessary to become fluent readers, and even learn the advocacy skills to ask for supplementary aids as needed, such as using the iPad to magnify and illuminate text or a red edged card to help with keeping place while reading.

After presenting at the Council for Exceptional Children Conference in February, we started doing more research to see if there was literature and evidence-based studies out there on using story boxes with students with visual impairments. We were surprised to discover there was very little research on this, when there were many resources and ideas available to support creating Story Boxes. Clearly, we find this strategy to be extremely beneficial in increasing student engagement and growth in literacy skills for our students with complex needs including CVI. For this reason, we plan to complete a formal research study in the Fall. Until then, we hope to continue spreading the word and sharing our experience to those who are interested, and helping others begin to implement these powerful tools for student engagement in order to awaken the readers in their classrooms as well.
Join Our Facebook Family

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
Kristi M. Probst, Ed.D., National Center on Deaf-Blindness, Initiative Lead, Interveners & Qualified Personnel and Assessment, Planning, & Instruction, kristi.probst@hknc.org

Deaf-blindness

Deaf-blindness causes profound sensory deprivation, creating a "disability of access" to visual and auditory information about the environment (people, things, events) that is an obstacle to learning, communication, and development (Alsop, Robinson, Goehl, Lace, Belote, & Rodriguez-Gil, 2007). Without consistent and responsive specialized support, environmental information and concepts are distorted, incomplete, and confusing to children with deaf-blindness, who have limited or no means to predict events or communicate their needs. They struggle to learn from typical formative experiences that children with vision and hearing experience incidentally, and without a sense of safety and the ability to trust that others will respond to their needs, their readiness to learn is compromised.
Service Provision

As of December 1, 2017, there were 10,000 children and youth with combined vision and hearing loss being served in early intervention, early childhood special education (ECSE), and school age special education (SE) programs (National Center on Deaf-Blindness, 2018). While almost all early intervention takes place in the home, the majority (57%) of children and youth in ECSE and SE programs are served for some portion of the day in general early childhood settings or general education classrooms, often by professionals who are untrained or undertrained in deafblindness.

Needs assessments of families and state deaf-blind project (SDBP) personnel conducted by the National Center on Deaf-Blindness (NCDB) in 2017, identified the provision of qualified personnel (e.g., interveners, early interventionists, teachers, related service providers, and paraeducators) for children and youth who are deaf-blind as a top priority. Fewer than 10% of children (approximately 700 in 38 of 54 states) on the National Child Count of Children and Youth Who Are Deaf-Blind are reported to receive intervener services (NCDB, 2018), suggesting there is a significant lack of trained interveners as well as limited recognition and acceptance of the role.
Interveners

Quality intervener services, when provided by a skilled intervener, can facilitate a child’s access to environmental information, support the development and use of communication, and promote social and emotional well-being (Alsop, Blaha, & Kloos, 2000). Interveners enable children to become aware of what is occurring around them, attach language and meaning to all experiences, minimize the effects of multisensory deprivation, and have control over their lives (Henderson & Killoran, 1995). In educational environments, intervener services are delivered by an individual, typically a paraeducator, who has obtained training in deaf-blindness and the process of intervention (National Consortium on Deaf-Blindness, 2013). Ideally, interveners work closely with the educational team and are supervised by teachers with expertise in deaf-blindness.

An intervener is not a teacher, an expert in deaf-blind education, or an individual who assumes primary responsibility for the student’s education nor is the provision of intervener services for a child who is deaf-blind a remedy for the educational challenges encountered with this population. Rather, intervener services are one of a variety of essential individualized supports that may be needed for children who are deaf-blind (National Consortium on Deaf-Blindness, 2012).
Intervener Training

Intervener training in the U.S. is provided by two online university programs and a number of SDBPs. Individuals who complete a program at Central Michigan University or Utah State University are eligible to apply for a National Intervener Credential offered through the National Resource Center for Paraeducators or a certificate via the National Intervener Certification E-Portfolio (NICE). Individuals trained by SDBPs have the option of pursuing NICE certification. Both the credential and the certification are based on competencies developed by the Council for Exceptional Children (CEC, 2015).

Intervener Training Pilot Project

In an effort to train interveners and build the capacity of SDBPs to offer intervener training using a collaborative model, NCDB created a one-time Intervener Training Pilot Project (ITTP) consisting of three courses of study tailored to meet the needs of cohorts of participants with different levels of prior experience and training (see Figure 1 for the basic framework). Each course of study used selected modules from the Open Hands, Open Access: Deaf-Blind Intervener Learning Modules (OHOA), synchronous meetings, and coaching provided by SDBP personnel. To ensure that the participants were learning and successfully applying the
intervener strategies, an expert in deaf-blindness hosted the modules (graded assignments, provided feedback, participated in discussion boards, etc.), held synchronous meetings (taught lessons to extend learning, facilitated discussions between participants, and provided support), and communicated with NCDB and the SDBPs about participant progress.

Twenty-one candidates from seven states participated, with the intention of pursuing national certification. Participating SDBPs were required to work closely with school districts and educational teams, and the intervener candidates from their states. Additionally, each SDBP worked collaboratively with NCDB, the module host, and each other. They were provided with information on coaching best practices identified in the professional literature and developed by NCDB. Intervener candidates could only participate if their SDBPs were involved.
Figure 1. Basic Framework of Intervener Training Pilot Project.

**Evaluation of the ITPP**

NCDB conducted an evaluation of the ITPP by asking participants to complete a survey. All SDBPs and 92% of interveners “agreed” or “strongly agreed” that the participants were better prepared to perform their jobs as interveners following completion of the program. The SDBP respondents listed the following as the most helpful parts of the program: use of the *OHOA Modules* as teaching tools, regular online collaborative meetings with other SDBP personnel, and interactions with their intervener.
participants. When asked the same questions, intervener participants responded that the most helpful elements were the *OHOA Modules*, assignments, and interactions with the host. There were two suggestions for improvements from the SDBPs -- to make it a longer process and provide instruction on methods of using distance technology for coaching and training interveners and education professionals. Overall, both state project and intervener participants reported a 100% satisfaction rate.

**Conclusion**

Providing options to train educational personnel can address the critical lack of knowledgeable staff who work with learners who are deaf-blind. The ITPP provided a framework for SDBPs to collaborate with one another as well as their local school districts to train future interveners. All materials developed for the program are available for anyone to use and adapt for their own training endeavors.

The ITPP concluded in June 2018. Since that time, the SDBPs have been working with their intervener candidates to begin the NICE process. It is anticipated that all will pursue certification, increasing the number of trained interveners across the US.
References


Retrieved from


http://interveners.nationaldb.org/

There is limited research related to effective literacy-based interventions for students with low vision who read print, or dual-media learners. To date, data have not been gathered on the characteristics of children with low vision who are receiving dual-media instruction or on the number of children who are visually impaired who are learning only braille or are receiving instruction and materials in two media. As a result, we cannot be sure how many dual-media learners exist, but we do know that they are present in school systems and require specialized instruction in both braille and print. Although a portion of students with low vision can and do learn to read efficiently and comfortably in print, braille, or a combination of print and braille, their successes have not been as readily shared as those who seem to struggle with single or dual-media. Thus, we currently...
have very little information on successful students who are dual-media learners. Literacy is of the utmost importance and one of the major educational goals is to establish literacy for all students, so it is imperative that we correctly identify a student’s best reading and writing media, regardless of whether it is single media, just braille or print, or dual-media.

**Constant Time Delay: An Effective Literacy Intervention**

Given the imperative need for literacy instruction, evidence-based interventions are needed and one great example of a solid literacy intervention for students with visual impairments, and especially dual-media learners, is constant time delay, or CTD. A research study was conducted at Vanderbilt University to increase the percentage of correctly-identified braille contractions through three demonstrations of effect and across four participants; essentially, the research team used CTD to teach the braille contractions to the students, and it was proven effective for all four students, all of whom were dual-media learners making the transition from print to braille (see Figures 1 and 2 for examples of the data from the study). This research builds upon previous studies conducted by Hooper, Ivy, and Hatton (2014), Ivy, Guerra, and Hatton (2017), Ivy and Hooper (2015), and Wilcox (2014). All of these were studies that examined the
effectiveness of using CTD to teach students with visual impairments either braille words or braille contractions. All studies were found to be effective.

**How to Use Constant Time Delay**

Constant time delay (CTD) is a systematic prompting procedure that uses explicit teaching of sight words (or braille words/contractions) on flashcards. A screening is used to get a list of unknown target words (usually 15-20 words). The chosen list is then divided into word sets that are taught separately (usually a targeted 3 or 4 word sets when teaching brand new words or contractions). The person implementing the intervention presents the flashcard and pairs it with the instructional cue (i.e., “Read the word”). The instructional cue is followed by the model prompt (i.e., “This word is dog”). First, there is a 0-second delay between instructional cue and model prompt, which is when the actual teaching of the word or contraction occurs. The “time delay” gets introduced in subsequent sessions, when you are trying to have your student actually read the word or contraction. The aforementioned studies typically used a 5-second delay, but you can choose a time delay that is most appropriate for your student and his/her cognitive processing needs.

A great aspect of CTD is the simplistic nature of the intervention. It is a quick intervention, usually lasting roughly between five and ten minutes,
which means it can be used as a supplemental tool for literacy as well as a consistent exercise to either introduce new braille words/contractions or reinforce ones already learned. It is versatile and works with a wide variety of populations of students with visual impairments including students with additional disabilities and students who are dual-media learners.

**Implications and Conclusion**

The most recent study documented the effectiveness of CTD to increase knowledge of correctly-identified braille contractions in dual-media learners and as a result, educational practitioners—including teachers of students with visual impairments (TVIs)—could consider CTD to be an effective method of teaching the braille code to their dual-media students. These findings are especially valuable for students with adventitious or degenerative losses who need to learn the braille code quickly and accurately. In general, CTD is potentially feasible to implement in a variety of settings, time efficient, straightforward, and has been shown to generalize to other settings. Additionally, CTD can be paired with other activities and used in a variety of settings. We are also able to use this intervention to promote overall literacy in dual-media learners as well as other students with visual impairments. Finally, given the simple steps of CTD, it is an intervention that allows for collaborative opportunities among
teachers, family members, and other non-braille readers. So, if you are looking to infuse some braille literacy skills into your daily routine with your students, think about giving CTD a try; it is a promising practice that can potentially improve students’ literacy outcomes.

Figure 1. Graph of unprompted correct (closed circle) and prompted correct (open circle) responses for Alice. Break in treatment (17 days) is marked with two diagonal lines on the x-axis.
Figure 2. Graph of unprompted correct (closed circle) and prompted correct (open circle) responses for Mary. Break in treatment (24 days) is marked with two diagonal lines on the x-axis.
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