THE BRIDGE SCHOOL

Summer Institute: CVI/AAC

This 2022 The Bridge School launched its first annual Summer Institute. The topic of this weeklong institute was CVI and AAC, so as part of our partnership with Dr. Christine Roman-Lantzy, internationally known expert on Cortical Visual Impairment (CVI), we put together a strong comprehensive program for professionals and families.

We believe in the importance of an Interprofessional Collaborative Practice Approach, which is of special importance when working with children who have CVI and use Augmentative and Alternative Communication (AAC), so for this institute we had 40 professionals ranging from Teachers of the Visually Impaired, Speech and Language Pathologist, Special Education Teachers, Psychologists, Occupational Therapists and Assistive Technologists who conformed interprofessional teams that worked with 10 students who have CVI and use AAC.

This interprofessional practice and collaborative work could be seen in the variety of areas of specialty of our speakers, while highlighting the high caliber, professionalism, dedication and expertise of each one of them. This year, we were honored to have the participation of the following speakers:

Aileen Arai has been a Special Educator for 27 years. She has been designing and supporting staff in implementing strategies that support students, parents, districts, and all members of a student's educational team in the development of curriculum within the Common Core State Standards for students with significant physical impairments who use AAC systems. Since 2012 she has been addressing intervention strategies and assessments as they relate to Cortical Visual Impairment protocols and tools developed by Dr. Christine Roman-Lantzy. She received The Perkins-Roman CVI Range Endorsement from The Perkins School for the Blind, an authorization that supports her evaluating a student's CVI for purposes of ongoing intervention.

Christine Roman-Lantzy is The former Director of Pediatric View in Pittsburgh Pennsylvania. She was the first CVI Project Leader for The American Printing House for the Blind. Christine provides workshops and consultations through CVI Resources and has had the honor to be invited to all parts of The United States and many countries outside The U.S. She is the author of *Cortical Visual Impairment: An Approach to Assessment and Intervention (2007, 2018)* which won The Bledsoe Award in 2008, and *Cortical Visual Impairment: Advanced Principles (2019).* She taught at The University of Pittsburgh and Marshall University Graduate College for a total of 17 years.

Christine Wright-Ott is an internationally known Occupational Therapist who specializes in research and development of assistive technology for children with complex communication needs and severe physical disabilities. She has been a consultant at The Bridge School for over 15 years where she integrated self-initiated mobility into the educational curriculum.

Christine was the principal investigator and designer of the KidWalk, Gobot and MiniBot Projects, while working at the former Rehabilitation Engineering Center at Stanford. She has worked at California Children's Service, Children's Hospital at Stanford and West Valley College High Tech Center. She is a frequent lecturer at international and national conferences and local universities. She has authored the chapter "Mobility" in previous and now the 7th Edition of the book, Occupational Therapy for Children.

Elisa Kingsbury is a Speech and language pathologist with over 25 years of experience providing school-based AAC services. Collaborated with and learned from children, families, and professionals at The Bridge School and in Berkeley, Alameda and Mt Diablo Unified School Districts. In her 19 years at Bridge School, she worked in the Elementary, Transition and Research programs and helped to develop the Preschool program adapting the Language-Focused Curriculum from the Language Acquisition Preschool at the University of Kansas.

Providing children with access to play, movement and language has been a joy for her. Working with a team to improve a child's communication outcomes and enhance their quality of life has been the most meaningful work she could imagine.

Gabriela Berlanga, is a Speech and Language Pathologist and is the founder and consultor for CATIC in Mexico city, current Associate Executive Director at the Bridge School and Vice-President for Conferences at ISAAC (The International Society for Augmentative and Alternative Communication).

Founder and member of the North American Alliance for Communication Access.

Consultant for the Special Education Technology Department @prende of the Ministry of Education in Mexico.

She has collaborated with Dr. Christine Roman-Lantzy since 2011 as part of CATIC's International Collaboration Program run by Dr. Sarah Blackstone.

The Enos family has a genuine love for the Bay Area. Anna and Joey proudly have deep family roots in the Bay Area that go back generations. After commuting for two years, the family recently moved from Oakland to San Mateo to be closer to the Bridge School. Anna majored in fine arts at UC Santa Cruz, and the year Sammy was born, Joey received his Masters of Fine Arts from UC Berkeley. With a background in art and music, Sammy's parents have always incorporated these modalities into all aspects of Sammy's life. His diagnosis of cerebral palsy and CVI made communication and education challenging. Yet, through his intense and early love for music and books, it was clear Sammy had an undeniable need to communicate and learn. At age 3, Sammy received an early intervention evaluation from AAC Specialist Judith Lunger-Bergh and reached out to the Bridge School. With the curriculum focus, specialization in AAC and CVI, the family knew that The Bridge School was the school Sammy needed to reach his full potential. Sammy has been at The Bridge School for three years. He is thriving in this fun, creative, and engaging environment.

Lynn Elko is first and foremost a Mom. Her daughter, Emma, 20, began to benefit from CVI adaptations and interventions at age 15. After learning how profoundly CVI impacts everything in a child's world and witnessing Emma's life change after implanting intentional, strategic CVI interventions, Lynn became a fierce advocate for children with CVI and supporting their needs.

In previous iterations of her life, she was a VP of Production for an educational professional development company, working with organizations such as NASSP, NAESP and the Joseph P. Kennedy Jr. Foundation**,** and a social entrepreneur for which she received her Chamber's Businessperson of the Year award. She, along with 2 other CVI Moms, was honored with the Hall of Fame award in 2019 from the Pediatric Cortical Visual Impairment Society for spearheading the development of the PCVIS.vision website.

When Emma's life and medical needs are not shifting their family's axis, Emma and Lynn's collaborative efforts to make learning, life and communication accessible to her through a CVI adapted, custom AAC system can be found at See CVI, Speak AAC (@seeCVIspeakAAC).

Matt Tietjen is a certified teacher of students with visual impairments and an education consultant for the Bureau of Education and Services for the Blind (BESB).

He is a CVI specialist who has completed the 2 year CVI Leadership Institute as well as the Perkins-Roman CVI Endorsement.

He is a nationally and internationally recognized speaker.

Rebecca Matthews is a Speech Language Pathologist at The Bridge School. Received her M.S. In Speech Language and Hearing Sciences from San Francisco State University where she was a member of the Project Building Bridges grant specializing in AAC.
Did her school internship at The Bridge School and continued as a Clinical Fellow and eventually fully licensed SLP.
She works in the elementary classroom where she is a member of an interdisciplinary team and co teach alongside the special educator.

Sarah Blackstone is a world recognized SLP and AAC specialist.
Past president and fellow of ISAAC (The International Society for Augmentative and Alternative Communication).
Member of the Board of Directors of The Bridge School.
Director, CVI/AAC Project at The Bridge School.
Author: *Social Networks: A Communication Inventory for Individuals with CCN and their Community Partners, Patient Provider Communication: Roles for SLPs and other Health-care professionals*. "Retired": Augmentative Communication Inc., AAC-RERC, Berkeley Unified School District, Kennedy Institute/Johns Hopkins Medical School, Pittsburgh Rehabilitation Center.

Tara McCarty is a licensed speech language pathologist who worked in school-based settings for 7 years before returning to Penn State University to pursue doctoral studies. Tara's current research focuses on augmentative and alternative communication (AAC) design and intervention solutions for children with communication needs and cortical visual impairment (CVI).

Dr. Vicki Casella has been involved in the education of children and adults with special needs for over 55years. Her professional experience includes classroom and clinical teaching, public and private school administration, and university teaching and administration. She has taught at the University of Alabama, the University of Nevada, Reno, and San Francisco State University. While a professor in the Special Education Department at San Francisco State University, Dr. Casella initiated the first adaptive technology academic courses in the United States. Her areas of expertise were focused in teacher preparation in deaf/hard of hearing, learning and multiple disabilities and she was the Director of the Deaf and Hearing-Impaired Program. For the past 18 years she has served as the Executive Director of The Bridge School, a special school dedicated to ensuring that children with severe physical impairments and complex communication needs develop the education and communication the skills they need to become active participants in their communities and that the effective strategies employed at The Bridge School are disseminated throughout the national and international community.

TAKE AWAY PACKAGE

Name of student: Dakin Wessman
Parents: Jennifer and Brian Wessman
Grandmother: Kristin Palmer
Interprofessional Collaborative Team:
Amanda Hess, SLP.
Emily Nakamura, SLP.
Jill Collon, SLP
Radmila Colic-Popovich, AT
Adriana Macías, student
Erika Leverett, student

Dates:
June 12th – 17th 2022

Content

Disclaimer:
This document was created by the student's assigned interprofessional team at The Bridge School Summer Institute CVI/AAC. The team had access to the supervision of our Insitute´s presenters when requested, however as our staff was not part of the entire process, The Bridge School does not endorse the content of the information presented in this document.

COMMUNICATION FORMS AND FUNCTIONS

Communication Forms and Functions: Interview & Observational Worksheet

Child's Name: Dakin Informant: Parent (Jennifer) Date: 6/13/2022

Communicative Function	Sample Context	What child says/does	How communication partners respond
Request attention	Adult gives attention to another person	Dakin reaches out to Mom with his left hand, vocalizes (vowels - /e/, /a/), kicks legs; at home, activates BIGmack to say *come here*, like when siblings are all talking at once when he is at the dining room table.	Acknowledge Dakin's communication attempt. Provide verbal attention, touch his hand if he reaches out
Request affection	Adult approaches child when hurt	Touches hand, reaches out towards preferred person, like when Mom read a favorite story (*Pete the Cat*). Per parent report, Dakin puts his foot in his parent's lap if he wants his legs rubbed	Acknowledge Dakin's communication attempt. Give physical affection (e.g., touch hand) and verbal attention
Request assistance	Child needs help with task	Dakin vocalizes (vowels - /e/, /a/), like when he is walking in his gait trainer and gets stuck; activates BIGmack to say *come here*, like when he is at the dining room table and needs help.	Acknowledges Dakin's communication attempt, then provides assistance: for example, Mom will go to Dakin when she hears the BIGmack ("come here")
Request information	Child sees something or someone new	Unclear at this time.	Prepare Dakin for new environments by discussing what you will be doing/whom you will be seeing/where you will be going. Once there, label items and people in the environment. (e.g., "It's time for Language Arts. We are going to see Miss Brockmeyer. We are going to pick out a book to read.")
Request permission	Child wants to go outside	Unclear at this time.	Model language, like when Dakin is walking towards a closed door in his gait trainer (e.g., "Dakin, it looks like you want to go outside. Let's open the door. Let's go!")
Request peer interaction	Child sees another child using a favorite toy	Dakin vocalizes happily when, for example, his siblings are playing with instruments.	Include Dakin in the activity by getting closer to him and asking if he would like to join the activity
Request adult interaction	Tickle child and then pause	Reaches out, vocalizes (vowels - /e/, /a/)	Acknowledges Dakin's communication attempt. Give verbal attention

Request food or object	Wants object out of reach	Vocalizing at this time.	Acknowledges Dakin's communication attempt. Mom offers him choices of two real objects (e.g., "Do you want to read *Allegra* or eat Veggie Straws?")
Refusal	Offer him something he doesn't like	Dakin looks and/or turns away, stops responding to partner, like when he is offered food that is too hot or spicy.	Acknowledge Dakin's communication attempt. Offer a preferred alternative, like Reese's Cups
Protest	Needs to participate in task & doesn't want to	Vocalizes, turns away, looks away	Acknowledges Dakin's communication attempt. Stop non-preferred activity, when possible, and offer a preferred alternative (e.g., listen to music, read *Allegra*) or take a break.
Cessation	Wants to be finished with meal or task	Dakin looks and/or turns away, stops responding to partner	Acknowledge Dakin's communication attempt. Stop non-preferred activity, when possible, and offer a preferred alternative (e.g., listen to music, read *Pete the Cat*) or take a break.
Greetings	a familiar person arrives or is leaving	Reaches out to touch a person if they are familiar, come close to Dakin, and announce themselves, like when Dakin's Dad comes home and says, "Hi, it's Dad."	Acknowledges Dakin's communication attempt. Respond with a touch or high-five and verbal greeting.
Affirmation	Ask him if he wants a favorite food.	Dakin vocalizes (vowels - /e/, /a/), moves head back, produces verbal approximations ("yes,") clapping, like when Mom was reading one of his favorite books (*Allegra*)	Acknowledge Dakin's communication attempt. Continue with activity.
Comment: object	Sees an interesting person or object	Unclear at this time.	Parent provides language through example comments throughout Dakin's day, including what she believes he is thinking (e.g. "That pizza is hot!" or "I don't like that hat.")
Comment: action	Sees an interesting action	Unclear at this time.	Parent acknowledges Dakin's body language and gestures and attributes meaning by commenting (e.g. "I see you moving your body. I think that means you want to go."
Comment: mistake	Child accidentally spills or drops something	Unclear at this time – per parent report, Dakin does not yet appear to notice when something falls off of his tray, such as a cup.	Parent is working on bringing "mistake" to Dakin's attention, and bringing that object back into his visual field/acknowledging that object has disappeared

Express humor	Adult laughs at something funny	Dakin finds some words and high pitched sounds funny, laughs at them, like when Grandma his reading a story in a funny way	Acknowledge that Dakin is sharing his feelings and label the emotion (e.g. "I hear you laughing. That is a funny sound!").. Choose songs or stories that include noises/words Dakin finds funny
Express confusion	Child is given an unfamiliar task	Stops responding, looks away, disengages with partner.	Acknowledge that Dakin is sharing his feelings and label the emotion (e.g. "I see you looking away, I think you are unsure of what is going on and may want to do something else."). Offer an alternative activity and/or make sure directions are clear and repeated as necessary.
Express fear	Child hears something frightening	Dakin jumps/startles with loud noises, like when hearing announcements in the airport.	Acknowledge Dakin's feelings. Explain what the sound was, comfort Dakin (e.g. I see that you jumped when you heard that loud noise. I think you feel scared. That noise came from the lawn mower."
Express frustration	Child is having difficulty with a task.	Chews on his hand, cries/makes noise, sits and waits, like when Dakin is in an unfamiliar environment that is loud/crowded (e.g., mall.)	Ensure that other needs are met first (e.g., if he is hungry, offer food); if all needs are met, offer music
Express anger	Child has to stop doing favorite activity.	Per parent report, Dakin kicks his legs if he is unhappy, like when someone tries to put on a hat.	Acknowledge his emotion (e.g., "I can see you don't like that hat on your head. I think you are feeling angry."), and remove the non-preferred item.
Express happiness	Child is doing a favorite activity	Dakin vocalizes (vowels - /e/, /a/), produces word approximations (*all right, yeah*), claps, moves his head back, taps his feet together, like when listening to someone read a favorite book.	Acknowledge that Dakin is sharing his feelings. Continue activity, give language (e.g., "I see you clapping your hands. Wow, you really like *Pete the Cat*, Dakin!")
Express sadness	Child experiences something sad.	Unclear at this time.	Acknowledge Dakin's emotions and provide language (e.g., "You seem sad about… Sometimes when I feel sad, I try… Should we try that together?")
Non-interactive comments	Utterances to direct own actions; echoed or routinized/habitual utterances to self	Vocalizes to himself, like when he is listening to music.	Comment (e.g., "It sounds like you like this song.") Share own experience.

(Based on Quill; 1995; form compiled by Mary Hunt-Berg; Ph. D.; CCC-SLP)

Forms and Functions Adapted by Mary Hunt-Berg from the work of Amy Weatherby (1995) and Kathleen Quill (1995) The Bridge School. AAC/CVI Summer Institute. (2022). The Bridge School.

Conclusions and comments:

Dakin currently communicates using primarily unaided body based modes like vocalizations, body movements and gestures. It is important to recognize these modes as well as supporting him with the acquisition of modes that will allow him to communicate with more communication partners and a more varied communicative functions.

CVI RANGE SCORE

Color: **.5** Dakin looked at multiple vibrant colors during the assessment. Noticed he attended to a field of 2… was able to look at both and then chose yellow after examining both. Dakin used the colors to find and track items in his visual field.

0: full blown characteristic, color is critical, single color
1: helps in no way, could use just black and white
.25: still a dominant color and some surrounding colors that are anchors
.5: color is important but others help. Parent might say there is no preferred color now
.75: rare occasion is color very necessary

Movement: To what extent is movement useful in capturing attention, and what degree could movement interfere with attention?

.25 Dakin did require some movement to gain attention in more complex situations. Could become a disruption. Distracting near, but not far away. Field ended at 2.5 feet. There really was movement in almost every situation. Really hard to isolate without auditory.

Visual Latency: More difficult to observe. Was latency there always, sometimes, or never?

.5 Were times of latency, 2-5 seconds, was inconsistent. Required movement during complexity tasks but attended to familiar items quickly.

Visual Field Preferences: **.5**. He can access ¾ areas but not consistently

0: only one sweet spot
1: all areas work

Visual Complexity: **.25** What do we have to do to the objects to make sure the child sees the object? Access characteristic.

Surface of object: Can see it and interpret it: **.25**
Array: How busy can the background be? **.25**
Sensory environment: **.25**
Human Face: Not just look at face, but also interpret: **.25**

Need for Light: Light is important to Dakin. **.25**

0: stares at light
1: light doesn't matter

Distance Viewing: Not the greatest that they can sometimes see (ex: firetruck) How far away before he saw something familiar? The distance that always always works. Less than 2.5 feet **.25**

Reflexes: Beginning, middle, and end of session- won't always be the same. Look for a trend. **.75**

Visual Novelty: Does this child show curiosity? Do they notice things in the room that we weren't showing them? Do they know salient features? Associated with how well the child can interpret what they see– the complexity of CVI. What do we have to do to help this child know what something is? Interpretation characteristic. **.25**

Visually Guided Reach: .5 Do they look away when they reach? Need more information– we know that he is able to reach and look, but we are not sure if he is maintaining that attention

0: Never look and find accidentally
1: looking while I reach and touch

For access to communication, Dakin requires:

- Backlighting
- A clutter-free display on device (i.e., as many as four real, color photographs and/or Roman Word Bubbling on words, on a black background)
- Auditory output
- Wait time
- Partner seated at Dakin's side (rather than in front of him, which would increase visual complexity)
- Implementation of other accommodations listed below during therapy sessions.

Accommodations:

- PowerPoint books for introducing and teaching topics and information
    - Real color photographs with background removed on black background and salient features highlighted
        - Salient features dictionary (for consistent language across partners): https://cvicollaborative.wixsite.com/salientfeatures
    - Present one image at a time
- Clothing: dark, solid-color clothing (or wear a smock)
- Work in a quiet environment and limit distractions by decluttering his workspace (½ of black trifold in front of him to block classroom clutter)
- Present all materials within 12 inches of Dakin
- Place SGD slightly to the left (dominant hand)
- Use slant board
- Position his back to light source (e.g., windows, bright lights)
- Provide directions in a variety of modalities
- Repeat/rephrase responses of other students
- Reduce background noise
- Frequent vision breaks (dark room, access to music)
- Wait 60 seconds for Dakin to respond when asking questions

Consultation:

- Staff consultation with TVI (monthly)
- Staff consultation with AAC Facilitator (monthly)
- Dr. Christine Roman-Lantzy invited to IEP meetings and monthly team meetings

Modifications:

- Take classroom lessons and mirror them/modify them on Dakin's iPad.
- Possible modified curriculum (e.g., Unique Learning Systems)

Assessments to gather more information after implementation of CVI accommodations:

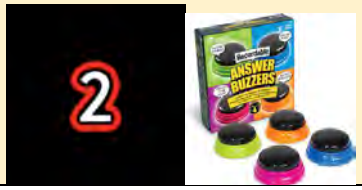
- Updated CVI Range annually (if possible by professional trained in CVI Range)
- Learning Media Assessment: Sensory Balance

CVI CHARACTERISTICS OBSERVATION NOTES

COLOR PREFERENCE: - favorite/highly preferred colors - multiple colors on a visual target - need for bright/saturated colors to anchor visual attention	-Red from a young age. Also yellow -red chewy -Did better with backlight on device with red writing/outlines -In car and fire truck came by and with the siren on he watched the truck go by the entire time it passed. - enjoys pete the cat books- bright colored images-yellow
NEED FOR MOVEMENT: - movement at near - movement at far - movement for complex or novel	-Held attention better on the iPad when reading a story than just a static book (also has to do with the backlighting of the iPad). -Mom reported that if there is movement that he is unsure about he will become upset. Example was walking with him in a new way, he would become upset. -He might notice movement without sound in 1-2 foot difference– not a huge difference when sound is involved. -Does respond to name when he hears it in the room. -Attends to switch toys that move when activated
VISUAL LATENCY: - specific length of time - latency with novel or complex targets or environments - when tired, stressed, overstimulated	- Delay when adult walked into right field- 10 seconds - When overstimulated, appears to be sending eyes toward areas of black. Chews on things when he is overstimulated. - When items presented in lower field- 30 second delay/ until light or sound is added to item
VISUAL FIELD PREFERENCES: - left - right - center - upper - lower	-Appears to be center during activity– stronger on his right side. Mom usually sits in front of him with a tray. - look in right upper, left upper, right center, left center - does not notice when things are dropped- no lower field vision- bumps into objects when walking in gait trainer - located light that was in right upper field
VISUAL COMPLEXITY: - array - target - sensory environment - faces	Faces: - Not looking at faces, looking more around people and at dark areas -Will look at you when you are in his face and using your voice. Ex: Dad walking through the door and walking past him will not be noticed. But can notice if dad comes right up to him and speaks. - reaches for face of familiar adults- mom Sensory environment: - looked away when book played music - when overhead lights were turned off and flashlight shined on book- he attended for longer time - looked away while mom read book or while music played - when adults were talking at table around him- he looked away and fiddled with straps and chewy -In general, does not steer. Runs into other people. Even struggles at home in the gait trainer. (unable to navigate gait trainer in home and will bump into large objects and walls) Target: - single colored- red chewy, cup - pete the cat book- solid color animals that are not complex Array: - able to look when 2 objects of solid color were presented

NEED FOR LIGHT - attraction to light, light gazing, "non purposeful gaze" - light to illuminate targets - backlighting e.g. on a screen/tablet	-Attracted more to light when rest of lights were turned off. Appeared to be looking towards a red dot on the corner of the ceiling, along with clinician's computer. -Digital, has light behind the screen - attended to book better with light shined on images in dark room - attends to ipad for longer period of time- for electronic books - attends to switch toys that light up - in gait trainer in dark room,, two lights set up and he can walk to the lights.
DISTANCE VIEWING: - near: up to 18" - 2 to 3 feet - 4-6, 6-8, 10, 10-20'	- Book held within 1 foot during activity - notice people when within 1 foot of him - attended to red light that was about 4-6 feet away from him
ATYPICAL VISUAL REFLEXIVES - blink to touch - blink to threat	-Blinks to touch -Will close his eyes in light
VISUAL NOVELTY: - only able to view familiar objects - novel objects that share [specific] characteristics with familiar - need for warm-up time - difficulty with novel environments	-Able to listen to and interact with familiar story, -knew when to touch items. -Parent reported that he will go for highly preferred items like the chewy, but won't notice something new that is presented. - enjoys listening to same book over and over again
VISUALLY GUIDED REACH: - Look-look away-reach - Look-reach-look away - Touch first, then look - Specific examples	-Look, look away, reach- turning page of book - when, other times was able to focus right away because he knew mom was going to guide his finger -Just started for reaching things that he might want. At school a lot of times he will reach for things once he runs into the wall/ comes to the stand still. At home if he is in the bike or stroller- he will reach for leaves usually when brought to that setting with his mom. - when trying to find chewy/drink on tray- he pats surface for it- does not look and reach for it

CVI/AAC SCHEDULE

Name: Dakin	Date: 6/16/22			
Activity	**Student Goal Communication Forms and Functions**	**AAC Tools, Strategies and Accommodations**	**CVI Accommodation (from The CVI Range Assessment)**	**Other (mobility, Tactile, Auditory, AT)**
Activity 1: Reading (General & Special Education)	Participate in classroom reading activity by using a repeated line Comment	-PowerPoint presentation with one image per slide of key elements of the book, such as characters or locations. Use real photographs (when possible) on a black background. Present PPT close to Dakin (at his workstation/desk, within 12 inches of him) using a tablet or laptop. -Review with Dakin before reading. Invite participation and comments, but do not require it. -Use recordable buttons to record repetitive phrases from books, as well as comments (e.g., "Lions are fast." or "I like the lion!" etc) after talking with Dakin about what he would like to say. 	- Reduce complexity of image on story by using backlit displays and real, color photographs - Reduce movement and sound in the environment - Highlight and teach salient features of objects related to story - One image per slide on black background - Present photographs centrally on slant board/angled and be within 12 inches of Dakin's face - Give 5-second wait time for Dakin to look before talking about image - Shine light on button to show him where it is located, if needed	- Seated in supported seating at desk or with tray - Provide quiet wait time
Activity 2: Math (Special Education)	- Greet peers - Take turns counting peers in the classroom	-PowerPoint presentation with one image per slide of students. Review who is at school before beginning activity.  -Use recordable buttons to record one number on each button. Buttons will have the number on it (with Roman Word Bubbling and a black background.) Then, Dakin can walk around the room to greet peers to confirm who is here. Afterwards, Dakin can walk around the room again to count his peers. 	- Present photographs centrally on slant board/angled and be within 12 inches of Dakin's face - Roman Word Bubbling of numbers on recordable buttons - Allow 5-second wait time when at peer to allow time for processing - One image per slide on black background - Reduce movement and sound in the environment - Give 5-second wait time for Dakin to look before talking about picture - Shine light on button to show him where it is located	-Walk in gait trainer with adult -Walk up to peer and tap on shoulder

Activity 3: Topics (Science – General/Special Education)	-Increase receptive vocabulary by identifying adjective pairs (e.g., wet/dry, hot/cold, big/little, fast/slow) related to science themes	-Choose adjective pairs based on the lesson. (e.g., *wet/dry* when teaching environments, *big/little* when teaching animals) -PowerPoint presentation with one adjective (with Roman Word Bubbling on a black background) per slide  -Incorporate sensory activities (e.g., using a mister to wet Dakin's hands to discuss wet vs. dry)	- Roman bubbling of any words that you are presenting - Reduce movement and sound in the environment - Teach salient features of objects related to topic - Present photographs centrally on slant board/angled and be within 12 inches of Dakin's face - Reduce movement and sound in the environment - Give 5 second wait time for Dakin to look before talking about image/word	- Seated in supported seating at desk or with tray - Provide quiet wait time

Roman-Lantzy, C. (2019). Cortical Visual Impairment: Advanced Principles. New York: APH Press.
The CVI/AAC Summer Institute, (2022). The Bridge School.

VLLCP FRAMEWORK ACTIVITY
-Vision, Language, Learning, Communication, Participation-

General Student Information

Child's Name: Dakin	Date: 6/15/2022
Phase: I II III	The CVI Range Assessment Score: 4-4.25
Team Members: E. Nakamura, J. Colon, E. Leverett, A. Macias, R. Colic-Popovich, A. Eiser Hess	

Activity

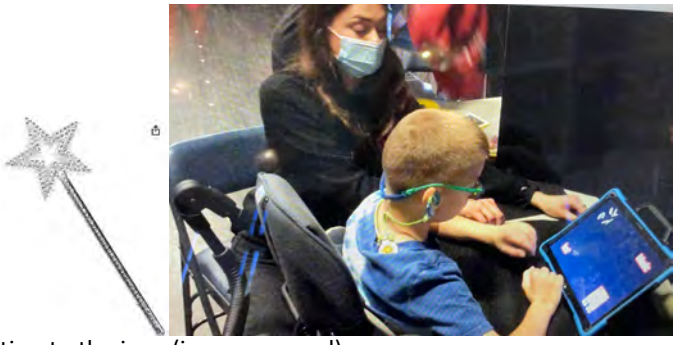
Pick 1 age-appropriate communicative area of need that could be supported with increased vision strategies and accommodations.

- Activity: Requesting object/activity in a field of 3 highly preferred objects (Veggie Straws, music, with one non-preferred item (hat) (4 total).

- Phrases or language used to motivate or prompt child's participation:
  - Introduce Dakin to each option individually (one at a time) by presenting the real object and modeling on Dakin's speech-generating device (e.g., "Here are your Veggie Straws," while showing him the Veggie Straws and pressing the Veggie Straws icon on his device.) Allow Dakin time to explore the object using different senses (e.g. touch).
  - Expectant Delay: wait up to 60 seconds after asking Dakin a question for him to respond – give him the full 60 seconds before asking again.
  - Simplify language, if needed. For example, providing a choice of two or asking a yes/no question: "Do you want to eat or to listen to music?", "It seems like you want to eat a snack. Is that what you would like to do?"
  - Indirect Verbal Cue, acknowledge body-based communicative attempts: "I hear you using your voice. I think you have something to say." You might then touch or tap Dakin's speech-generating device to draw his attention to it.
  - Verbal Prompt, used to acknowledge and respond to his communication attempts: "You are looking at *Pete the Cat*. I wonder if you would like to read that book. You can tell me with your talker or your voice if that's what you would like to do." or "Your turn!"
  - Honor his choice by providing him with the selected item. "You chose Pete the Cat. Here it is."
  - Do *not* use hand-over-hand to force a selection. If Dakin requires help reaching/accessing a specific word, offer to help by placing your hand under his hand/arm, and follow his physical lead.

Characteristics of the Child, Vision, Language & Communication		
Language and Communication	**Vision**	**AAC-CVI Intervention**
Use the Communication Forms & Functions worksheet to identify communication function to address for this activity: ● **Function:** Requesting object (letting mom know he is ready to eat/hungry, wants music, etc.) ● **Current form:** Vocalizes to Mom, which is interpreted as a "yes." ● **Form to be used**: SGD device- Dakin is beginning to look at 2D images	**Use The CVI Range Assessment to identify characteristics to be considered for this activity:** ● **Color:** Use red Roman bubbling for words on a black background o http://roman-word-bubbling.appspot.com/ ● **Movement:** using videos/electronic books to gain Dakin's attention, reduce nearby distractions ● **Light**: present items on backlit devices, such as on a tablet or computer screen (e.g., a PowerPoint), or present photos on a light box; use a flashlight (when needed) to draw attention to items that are not backlit (e.g., real objects); position his back to light source; near to natural overhead lighting, reduce excessive lighting (e.g. windows) ● **Latency:** Provide wait time of at least 60 seconds before repeating direction/question.	**Communication Partner Strategies:** **-Clothing**: dark, solid-color clothing (or wear a smock) -Provide quiet, clutter-free environment with minimal to moderate lighting (i.e., natural light, but not excessively bright light) **Consistently** model language salient features- https://pcvis.vision/educators-and-therapists/salient-features-and-comparative-thought/ and https://cvicollaborative.wixsite.com/salientfeatures Use consistent language strategies: simplify language (2- to 3-word phrases, if necessary) **Visual breaks** – allow Dakin to complete an activity using other senses (e.g., listening to music) after completing a potentially visually fatiguing activity **Environment:** -Ensure Dakin's workspace is **not** visually cluttered; can use a black trifold to block out excess visual and auditory information,

	• **Visual Field:** Images are presented in four corners on the SGD with adequate spacing between icons *without* outline/borders (or black border so border is not visible). SGD is placed centrally in front of him using a slant board and reposition as needed • **Complexity of object:** simple colored real photographs of objects • **Complexity of array:** 4 corners of the device, adequate spacing between items • **Complexity of environment:** Use black trifold in front of Dakin's work area/desk, quiet or low-level noise in environment when teaching new concepts and practicing skills; declutter the working area (e.g., if teaching fruit, present one fruit item at a time). Present items on a black table or black desk. • **Complexity of faces:** N/A • **Distance:** Instructional materials and SGD should always be within 12 inches of Dakin (he is unable to visually attend to items that are further than 2.5 feet from him.) • **Visually guided reach:** Place iPad in preferred location (closer to left hand) • **Novelty:** Teach vocabulary individually and within context when possible; introduce novel objects with multiple means of exploration (e.g., allow Dakin to touch the item, hear the object name). Teach salient features	especially while Dakin is learning something new **-Reduce noise** (e.g., not talking too much while he is completing a task) and movement -Tactile info: remove any distractors (e.g., bandana) **Materials:** -Slant board -Flashlight -Ocludder to isolate one icon at a time, if needed -Objects- single color or 2 colors -Photographs: 3 in. x 3 in. (or larger) real color photographs -Materials related to activity: preferred book, music, Veggie Straws, hat -Other: backlighting/ SGD device -Black trifold -Pete the Cat and His Magic Sunglasses video: https://www.youtube.com/watch?v=5k3lgST8R0g- -Page fluffers/turners to help turn the page independently **Physical (access considerations):** seated in adapted chair with tray on or at table

Communication Tools Plan how child will express these functions? For example, activate a switch to play a message	Strategies and Accommodations to Support Communication using AAC Tools (add pictures)
No Tech (body-based) - Dakin might reach for his speech-generating device, vocalize, or clap his hands to indicate interest in an activity or item. - He might look away or turn away to indicate his lack of interest in an item. - Dakin can choose from 2 real objects to make a choice by reaching for the object he wants	Labeling objects when presented one at a time, shine light or move object to grab his attention (if not visually attending to object) Provide wait time after options are presented
Low-tech(non-electronic): - Print photos of items to present on a light box or on PowerPoint	Labeling photographs when presented one at a time 
High-tech (electronic): - Dakin is accessing NovaChat (dedicated device) using direct selection - He primarily uses his left hand to access his device	Spacing between buttons; black background; real photographs only, or word labels only ; Roman bubbling around images/labels; auditory output; positioned strategically with the kickstand; keyguard on; no border around icons, icons 2 in. x 2 in. or bigger; try a glove with a cutout for a pointer finger only; bring  attention to the icon (i.e use a wand)
Supports for language comprehension - Introduce objects and teach locations on device	When teaching comprehension of objects, introduce one object at a time, present a real object when possible (when possible), model options on Dakin's speech-generating device.

ACTION PLAN

Goals established by his mother:

1. Implement strategies learned at the institute for vision and AAC into one activity at home upon return. Plan to incorporate communication into meal time routine. Plan to use multi modal communication, but progress to meaningful use of SGD for this one activity at home.

-Will need to start with object identification
-Progress to teaching salient features
-Progress to presenting 2D picture on backlit device
-Progress to presenting multiple 2D pictures on backlit device
-Progress to Dakin selecting on backlit device
-Progress to meaningful selection on device
-Will need to problem solve along the way and reach out for expert advice if we are not making progress

2. Bring "action plan" items back to home therapy team and school team and advocate for meaningfully incorporating CVI/AAC schedule into school day. Start with 2 points in the day at school to have CVI/AAC schedule fully implemented so all needs and strategies are addressed.

ADDITIONAL RESOURCES

The Bridge School CVI Webinar Series
https://cvi.bridgeschool.org/webinars/

PRC Keyguards:
https://store.prc-saltillo.com/keyguards-touchguides

Custom keyguards:
https://www.keyguardat.com/

Roman Word Bubbling for text:
https://roman-word-bubbling.appspot.com/
Red bubbling around pictures:
Do it in PowerPoint: double click on the picture, click on "Effects", then "Glow" options….set the "Transparency" option to 0, and choose the red color

Magic Wand, or something similar to bring attention to icons on the AAC:
https://www.amazon.com/dp/B08D3XTSLY/ref=sspa_dk_detail_5?psc=1&pf_rd_p=3be1c5b9-5b41-4830-a902-fa8556c19eb5&pf_rd_r=YV9DDDPVYS06FASDKP84&pd_rd_wg=NGsfh&pd_rd_w=ChuD5&content-id=amzn1.sym.3be1c5b9-5b41-4830-a902-fa8556c19eb5&pd_rd_r=dd18d9a2-ffc8-4280-9a78-3ae459a81581&s=toys-and-games&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUExRzVLUkZLTEIwNUVVJmVuY3J5cHRlZElkPUEwODg0NjUwM003VFhJMTlMMkRLOCZlbmNyeXB0ZWRBZElkPUEwNjgxNjc5MlUzVjVOVVNQSVpJMCZ3aWRnZXROYW1lPXNwX2RldGFpbCZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=

Literature and Research:

- *Cortical Visual Impairment Advanced Principles* by Christine Roman-Lantzy
- *Sensory Balance: An Approach to Learning Media Planning for Students with CVI* by Christine Roman-Lantzy and Matt Tietjen

Free choice board app
(lite version is free and will work, the full version is $1.99):
https://apps.apple.com/us/app/choiceboardcreatorlite/id1172621557

Recordable buttons:

- Position strategically in the classroom for quick communication (put on the door to say "It's recess time!" when Daking pushes it)

https://www.amazon.com/Learning-Resources-Recordable-Answer-Buzzers/dp/B00HT5HBMO/ref=sr_1_7?crid=3IC1R0LJWYSB8&keywords=recordable+buttons&qid=1655489038&sprefix=recordable+buttons%2Caps%2C442&sr=8-7