





Visually Impaired	
<p>Learners with visual impairments may present differently and benefit from different environmental accommodations. Visual acuity is the learner’s visual clarity, which may be corrected with glasses. Field loss may affect a learner’s ability to see certain fields or areas of vision. Cortical Vision Impairment or CVI is when the eyes work fine but there is a disconnect or error within the brain due to damage with processing the signal from the eyes.</p> <p>Read more about CVI here:  <a href="http://literacyaccessonline.org/ttaconline/Events/SS2013/Durando_Power%20Point.pdf">→http://literacyaccessonline.org/ttaconline/Events/SS2013/Durando_Power%20Point.pdf</a></p>	 <p>Video What is CVI (26:00)  <a href="http://wvde.state.wv.us/player.php?m=m4&amp;vid=osp/cvi/cvi-overview">http://wvde.state.wv.us/player.php?m=m4&amp;vid=osp/cvi/cvi-overview</a></p>
CVI Accommodations	
<ul style="list-style-type: none"> <li>• Provide opportunities to use vision throughout the day. For example, use a bright red bowl for each meal. It becomes easier to see an object as they become more familiar with it.</li> <li>• Provide spaces that are free of distraction and visual clutter. If the environment is too visually complex, it can be difficult for the child to focus.</li> <li>• Reduce visual clutter by using target items that are bright, shiny, and highly saturated colors. Place target items against an all black background. Eliminate noise to allow the child to focus on seeing.</li> <li>• Provide appropriate wait time for a visual response. It may be necessary to wait several minutes before a response, especially when presenting unfamiliar objects</li> <li>• Keep it simple: Initially objects should only be one highly saturated color. Use of light, moving objects, or shiny objects that simulate movement may be easier to see.</li> <li>• Consider positioning: provide as much support as possible. Ensure the child can focus on vision, rather than holding up their neck or head. Ideal positioning is likely to vary among children.</li> </ul> <p>Read more about CVI and accommodations:  <a href="http://www.littlebearsees.org/what-is-cvi/">→ http://www.littlebearsees.org/what-is-cvi/</a></p>	 <p>Interview with Kristin (3:20)</p> <p>Part 1:  <a href="http://bit.ly/CVIPart1">http://bit.ly/CVIPart1</a> </p> <p>Part 2:  <a href="http://bit.ly/CVIPart2">http://bit.ly/CVIPart2</a> </p>

**Hard of Hearing & Deaf, Auditory Processing Deficit**

Learners, who have a hearing deficit whether classified as hard of hearing or deaf, may benefit from hearing amplification systems or use of ASL for means of communication. Individuals with auditory processing deficits often do not benefit from amplification, unless it is to amplify the speaker’s volume and decrease background noise. Use of visual supports, sign language, gestures, and written supports are common accommodations for all of these populations. Learners with weak receptive language skills also may benefit from the use of gestures/signs paired with verbal directions.

Read more about ASL (top 100 words), working with interpreters and resources for those with hearing deficits:

→ <http://bit.ly/100ASLWords>

Watch a video of some common signs you will see used around Camp:



<http://bit.ly/CampSignVideo>

**Auditory Processing Disorder (APD) and Accommodations**

What is Auditory Processing Disorder (APD)?

Auditory Processing Disorder is a neurological condition that affects the way the brain processes what is heard. Children with APD is able to process what is heard. Children with APD typically have normal hearing, but struggle to process and make meaning of sounds. Their ability to process sounds is greatly compromised when there is background noise.

What does it look like?

- Difficulty following oral directions
  - The tendency to appear forgetful
  - Difficulty speaking clearly in full sentences
  - Increased academic and behavioral problems
  - Increased distraction with background noises
  - Difficulties with phonics and learning to read
- <http://bit.ly/AudProcessingDisorder>

- Preferential seating: in the front of the room, away from distractions
- Modify the acoustic environment: close doors and windows to minimize outdoor noise.
- Use assistive technology: amplification systems such as a wireless FM system will reduce background noise and poor acoustics.
- Use visual supports to support comprehension, processing, and memory.
- Use simple, one-step directions
- Speak at a slightly slower rate with a slightly higher volume.
- Establish and maintain eye contact while speaking.

Read more about Auditory Processing Disorder (APD) and accommodations here:

→ <http://bit.ly/UnderstandingAPD>

**Sensory Processing Impairment**

Sensory processing (sometimes called "sensory integration" or SI) is a term that refers to the way the nervous system receives messages from the senses and turns them into appropriate motor and behavioral responses. It is important to know whether or not the child is under- or over-responsive to sensory input. Here are some ideas to help each type of child feel "just right":

- **Alerting Activities:** For the under-responsive child to get to "just right," some ideas include eating crunchy snacks, bouncing on a therapy ball, jumping on a trampoline, rolling, or spinning.
- **Calming Activities:** For the over-responsive child to get to "just right," some ideas include slow rhythmical rocking, slow swinging, hugging, cuddling, swaddling, using deep pressure input, or sucking hard candy.
- **Organizing Activities:** These activities help regulate the child's responses and can be used for under or over-responsiveness: chewy foods or heavy work/deep pressure input (pushing, pulling, hanging, carrying heavy objects, playing tug of war).

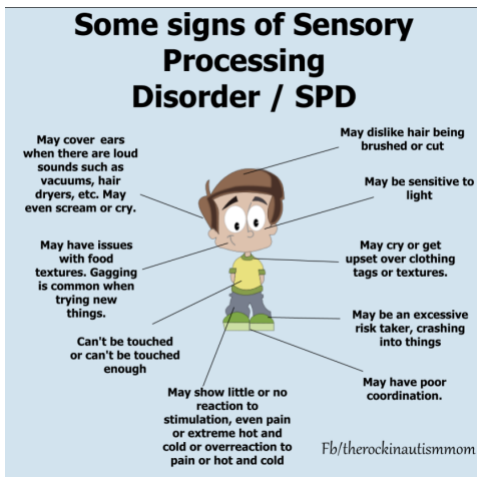


Sensory Processing through a Kids perspective (9:17)  
<http://bit.ly/SensoryProcessingChildView>

Read more about Sensory Processing:

➔ <http://bit.ly/KidsWithASD>

**Signs of Sensory Processing Disorder**



- May cover ears in response to loud noises
- May have difficulty with specific foods/food textures, resulting in restrictive diet.
- Sensitivity to touch: does not like to be touched OR may seek physical touch/sensory input.
- Children who seek sensory input/stimulation may take part in "risky" behavior, e.g. crashing into things for sensory input.
- Variable reactions to stimulation: May show limited or no reaction to pain, extreme hot/cold OR may overreact to stimulation.
- Clothing tags or specific textures may be over stimulating and cause the child to get upset.
- May have poor coordination.

**Physically Impaired**

Some students with severe physical impairments utilize wheelchairs (manual or motorized) and/or walker to move around the environment. There are a few wheelchair etiquette rules to remember. Matthew Luginbuhl, a Physical therapist goes over a few in the video linked below along with the importance of positioning and movement and its effects on attention and fatigue levels. Taking these factors into account please make adjustments to the environment to allow individuals who use wheelchairs access to all events and materials. Making sure there is ample space for wheelchairs at tables and around the room.



Interview with Matt (3:02)

<http://bit.ly/MattCampInterview>

**Considerations and Wheelchair Etiquette**



- Look at the child as a whole: Are they positioned comfortably? We want to control for discomfort and provide the least restrictive learning environment to allow the student to fully access academic materials.
- Establish eye contact and speak with the individual at eye-level.
- Make sure the student is positioned 90-90-90.
- Respect personal space: ask for consent to touch.
- Provide information about what you are planning to do with respect to movement. This allows the student to participate and help, as well as prepares them for what will happen next.
- Respect autonomy: Ask the student if they need help or how you can help, rather than immediately resorting to physical assistance.
- Provide appropriate wait time for responses or reactions.

## Bilingual

Bilingual Learners benefit from ELL strategies within the academic setting, including individuals who are bilingual and use AAC.

- Modeling language
- Rate of Speech and Wait time
- Use of Non-Linguistic cues (visual supports)
- Give verbal and written directions
- Check for understanding
- Encourage development of home language development



Read more about Bilingual AAC:

→ <http://praacticalaac.org/practical/practically-slps-hungry-for-bilingual-aac/>

→ Considerations for the Provision of Services to Bilingual Children Who Use Augmentative and Alternative Communication.

<http://informahealthcare.com/doi/abs/10.3109/07434618.2013.878751>

→ <http://bit.ly/AACLiteracyBilingualism>

## Bilingual and ELL Language Development Basics

Bilingual children and English Language Learners, typically demonstrate limited proficiency in both languages for a period of time. One way of understanding this typical outcome of a young bilingual child or English Language Learner is to think about a person needing 2 points for language proficiency. A monolingual person will score these two points in one language, however a bilingual person will score a 1 in both languages, looking delayed in both, but the two come together to add up to the 2 points, making the child a proficient bilingual speaker. In addition to this, children are expected to demonstrate processes typical of second-language learners at this phase, as described in the following section. These processes are considered normal, and should not be confused with a language disorder.



Interview with Ashley (4:49)

Part 1:

<http://bit.ly/AshelyBilingual1>

Part 2:

<http://bit.ly/AshelyBilingual2>



## Graduate Student Boot Camp: Module 10

### **Application Information: Special Populations and Adaptations, Case Studies**

Normal Processes in Language Development	
1.	<p><u>Silent Period</u> Children often demonstrate what is known as the silent period when first exposed to a second language. During this period, children (much like infants who “listen” for up to two years prior to attempting their first words) put their focus on listening and comprehension. This silent period typically lasts longer in younger children. It is not uncommon for preschoolers to be relatively silent for a year or more.</p>
2.	<p><u>Interference</u> It is not uncommon for children who are acquiring a new language to make errors in their primary language or in the new language based on the interference or transfer of rules from one language to the other. For example, in Spanish, "esta casa es más grande" means "this house is bigger." However, a literal translation would be "this house is more bigger." A Spanish-speaking child who said, "this house is more bigger" would be manifesting transfer from Spanish to English. This is considered typical of a child with a language difference, not a language disorder.</p>
3.	<p><u>Code switching</u> It is a very common phenomenon for bilingual speakers across the world to use code switching, which involves using multiple languages within phrases or conversations. It is typical for speakers of more than one language to have areas of vocabulary or concept areas that are more firmly or fully developed in one language than another and they utilize all the languages at their disposal to best convey their thoughts. Adult bilingual speakers will develop an awareness of the language or languages spoken by their conversational partner and reflect this in their language use; however, children take longer to develop this and may use the mixing of languages even when a partner does not know one. For example, a Spanish speaker might say, "Me gustaría a dance!" ("I'd like to dance!").</p>
4.	<p><u>Language Loss</u> At times, children who are beginning to learn a new language experience language loss. They can lose skills in their first language if it is not supported and encouraged to grow. This phenomenon known as subtractive bilingualism can be cognitively and linguistically detrimental to children's learning and to their family lives (especially if the parents speak only the L1 and no English). Ideally, children should experience additive bilingualism, where they learn English while their first language and culture are maintained and reinforced. In an English only classroom environment, children are likely to focus his energy primarily on developing his English fluency, vocabulary, concepts and literacy. There is no structure in place to reinforce Spanish language skills, where their conceptual-linguistic foundations exist. Building on the Spanish language foundations will allow for English concepts to develop more fully, however, without the continued growth of the primary language, both languages often appear delayed or disordered</p>
5.	<p><u>The BICS-CALP Gap</u> Children exposed to multiple languages sequentially (one first, then another at age 3 or later) often develop first what is called Basic Interpersonal Communication Skills (BICS) in the second language, which are the skills needed to use in everyday conversation; and then later master Cognitive Academic Language Proficiency (CALP), which is the complex language of education and learning. Developing the language of academics (CALP) takes 5-7 years to develop in a typically developing child. Children may develop BICS that leads teachers and other professionals to perceive them as proficient speakers of English, however their limited abilities in CALP will lead to decreased performance on language based testing, often leading to false identification as a language disordered or learning disabled student.</p>

**Case Study 1: Andy**

Background:

Andy is a ten year old boy with a diagnosis of autism, apraxia, and global cognitive delay. He is a total communicator, as he expresses himself through verbal language, gesture, facial expression, Prentke Romich’s Vantage Lite, and a low tech communication book that mirrors his high tech system. Andrew relies primarily on verbal language, however, he is a competent device user and seeks out his device independently to support his verbal language and repair communication breakdowns. Andrew uses his device primarily during structured activities, where he works on expanding length of utterance and using more complex language. During structured tasks, he requires various levels of prompting to generate sentences that are grammatically correct.

Andy is responsive to clinician modeling and will imitate utterances generated by the clinician following limited exposure. During structure and unstructured activities, communication partners should model complex language, as this will be expected of Andy. Although the goal is often generation of longer, more complex utterances, it is important to let Andy know what he is working on to raise awareness of his productions and improve his ability to independently self-correct. During activities, Andy requires intermittent point prompts and occasional verbal prompts (e.g. phonemic cues, semantic cues) to direct him to task, include less frequently used vocabulary, select appropriate verb tenses, or to remind him of vocabulary locations.

Adapting an Activity: Pizza Making



Andy participated in an activity where he “built a pizza” containing vegetables, frogs, fish, etc. During this activity, the clinician and Andrew asked questions to learn about each other’s likes/dislikes and determine which items to include on the pizza.

The following goals were addressed:

1. *Andrew will use total communication device to generate grammatically correct 5-7 word sentences in 7 out of 10 opportunities with faded support.*
2. *Andrew will use total communication to generate grammatically correct wh- and interrogative questions in 7 out of 10 opportunities with faded prompts.*

The focus of this activity was generating questions, however, grammatical features such as articles, possessive pronouns, and prepositions were targeted. During the activity, Andy and the clinician took turns asking questions about pizza toppings. Questions included “Do you like (food item)?” and “Do you want (food item) on your/the pizza. As previously mentioned, Andy has been working on including the articles “a” and “the” in his utterances and determining which is appropriate in a given context.

**Language Stages by Prentke Romich’s Language Lab**

Stage	MLU Range*	Skills	Examples
Stage 4	3.0-3.75	<ul style="list-style-type: none"> <li>• Learning grammar and sentence structure</li> <li>• Asking wh-and interrogative questions</li> <li>• Using negatives and irregular past tense</li> <li>• Starting to use possessive’s, adjectives</li> <li>• Starting to use “is” and “are” correctly</li> </ul>	<ul style="list-style-type: none"> <li>• What is it?</li> <li>• He told daddy</li> <li>• Doggy’s toy</li> <li>• I saw it</li> <li>• Mommy’s car</li> </ul>
Stage 5	3.75-4.5	<ul style="list-style-type: none"> <li>• Using possessive’s</li> <li>• Using 3<sup>rd</sup> person present</li> <li>• Using regular past tense</li> <li>• Using articles “a” and “the”</li> </ul>	<ul style="list-style-type: none"> <li>• That is a cat</li> <li>• She is going in</li> <li>• She threw it</li> <li>• Daddy play the game</li> </ul>

Prentke Romich offers evidence-based language stages for AAC users that closely align with the stages of typical language development. Andy’s current skills most closely align with Stage 5, although he continues to develop and practice independent use of skills in Stage 4. With support, he generates up to 5-7 word sentences, however, these sentences may initially lack appropriate syntactic structure, some grammatical markers (“a” and “the”) and adjectives without prompting.

**Case Study 2: Tristin**

Background:

Tristin is a six year old boy with autism. He expresses himself through gesture, some vocalizations, facial expression, and use of Prentke Romich’s Accent 800. He has strong communicative intent, and makes wants and needs known through gesture and physical means, including pointing and pushing/pulling. Using his device, he generates up to 4-word utterances with varying levels of support related to task engagement. When device use is paired with highly preferred activities (iPad, computer), Tristin utilizes his device to demonstrate his knowledge of concepts (e.g. “It is a circle”, “She feels sad”), describe what he sees (e.g. “I see a \_\_\_”), and ask questions (“What’s that?”). He is responsive to various levels of prompting, and demonstrates excellent motor memory, as he is able to recall previously learned vocabulary. He often requires redirection by pointing to the device or the first icon he is expected to select. He is attentive to clinician model, which provides an example of appropriate language for a given activity and encourages Tristin to use his device to generate similar utterances.

During less reinforcing activities (e.g. coloring pictures and generating related sentences), Tristin requires more assistance participating and accessing his device. During less preferred activities, it is helpful to encourage Tristin to direct behavior using his device as appropriate (e.g. “you color it”, “you do it”) or express disinterest and request help or a break (e.g. “I don’t like it”, “I need help”, “I need a break”), to provide access to language and empower Tristin while reducing work demand.

Adapting an Activity: Pizza Making



Tristin “built a pizza” with vegetables, frogs, fish, etc. During this activity, the clinician and Tristin asked questions including “Do you want (food item)?” and “Do you like (food item)?”

The following goals were addressed:

*1. Tristin will use his AAC device to protest using 1-3 word phrases such as “no more”, “I don’t like”, “not want” in 7 out of 10 opportunities with faded prompts.*

In response to “Do you want?” questions, Tristin often nodded yes, or was prompted to use his device to express “I don’t like” or “not want” when he was observed to push items away.

*2. Tristin will expand his use of verbs, modifiers and prepositions using 2-3 word phrases in 7 out of 10 opportunities with faded prompts.*

Following clinician model, Tristin generated utterances including “Put it on” or “Put on tomato” with point prompts for navigation to different food categories.

*3. Tristin will generate simple S-V-O sentences in 7 out of 10 opportunities with faded prompts.*

Tristin generated sentences including “I want (food item)” and “I like (food item).” He generated “I want” independently and required point prompts for “I like” and navigation to food items.

**Language Stages by Prentke Romich’s Language Lab**

Stage	MLU Range*	Skills	Examples
Stage 2	1.5-2.5	<ul style="list-style-type: none"> <li>Using 2-3 word phrases to: direct another’s behavior, express negatives, make requests</li> <li>Combining words to make more meaningful phrases</li> </ul>	<ul style="list-style-type: none"> <li>No go</li> <li>Go more</li> <li>Need help</li> </ul>
Stage 3	2.5-3.0	<ul style="list-style-type: none"> <li>Using meaningful word order</li> <li>Using progressing –ing</li> <li>Using plural –s</li> <li>Beginning to use basic prepositions (in, on)</li> <li>Most often using 2-3 word phrases</li> </ul>	<ul style="list-style-type: none"> <li>Go in</li> <li>My books</li> <li>Want more on</li> <li>No going</li> <li>Mommy dancing</li> </ul>

Prentke Romich offers evidence-based language stages for AAC users that closely align with the stages of typical language development. Tristin’s current skills most closely align with Stage 2 emerging Stage 3, as he is able to generate up to three word meaningful utterances with increased independence. With support, he uses basic morphemes (e.g. plural –s) and some prepositions. He has demonstrated the ability to direct another’s behavior and make requests independently, with support still needed to express negatives and more complex morpheme use (e.g. present progressive –ing).



**Case Study 2: Isaiah**

Background:

Isaiah is a 14 year old boy with cerebral palsy. He uses verbal language, head switches, and an iPad with Proloquo2Go using the scanning feature. His switches are attached to the headrest of his wheelchair, where he selects his right switch to scan through options, and his left switch to select vocabulary. Isaiah primarily communicates verbally, however, he is often difficult to understand without the support of context or a familiar communication partner. When Isaiah communicates something that requires significant interpretation, it is helpful to direct him to his device/assist him in locating target vocabulary to increase his knowledge of vocabulary locations.

Isaiah has uses total communication to generate complex utterances and complete writing assignments. Still, due to his access method, it is difficult for him to navigate his device and explore vocabulary locations. It is important to work on increasing Isaiah’s knowledge of his device during structured activities, expose him to new vocabulary, and learn about device organization with limited demands placed on him.

When using his device, Isaiah occasionally requires physical prompts to select page vocabulary. For example, when he navigates to a new page, he often selects his scanning switch rather than his selecting switch. Communication partners can provide light physical prompts (e.g. blocking his head from the scanning switch and directing him to his left choosing switch) to eliminate the error pattern. Isaiah also benefits from verbal prompts when locating vocabulary (e.g. “That word is at the bottom of your page” or “It sounds like we need an action word”).

Adapting an Activity: Pizza Making



Isaiah “built a pizza” containing vegetables, frogs, fish, etc. During this activity, the clinician and Isaiah asked questions (e.g. “Do you like [food item]?”) and commented on various food items using his “Chat” page, which contains positive and negative comments (e.g. “Gross”, “Crazy”, “I don’t like it”, “I like it”, etc.).

The following goals were addressed:

*1. Isaiah will ask questions (what, where, when) to gain information in 4/5 opportunities with faded prompts.*

Isaiah used total communication to participate in this activity. He used his “Social Questions” page under both the “Chat” folder or “Questions” folder, which contains sentences starters such as “Do you like \_\_\_?”, “What’s your favorite \_\_\_?”, etc. By creating pages with sentence/question starters, Isaiah can communicate more efficiently, as he does not need to navigate to each individual word to generate a complete question. After selecting the question starter, Isaiah usually filled in the food item verbally. If the clinician could not understand his verbal, he was directed to his “Food” folder to clarify his message.

*2. Isaiah will use total communication to comment and participate in social exchanges in 4/5 4/5 opportunities with faded prompts with adults and peers.*

Isaiah used his positive and negative comments page to participate in social exchanges and comment on the variety of different toppings on his pizza.

**Language Stages by Prentke Romich’s Language Lab**

Stage	MLU Range*	Skills	Examples
Stage 6	4.5+	<ul style="list-style-type: none"> <li>• Using correct grammar and word order</li> <li>• Increasing complexity of output</li> <li>• Using conjunctions</li> <li>• Using reflexive and indefinite pronouns</li> </ul>	<ul style="list-style-type: none"> <li>• No go</li> <li>• It broke because it fell</li> <li>• I hurt myself</li> <li>• Everybody will go</li> </ul>

Prentke Romich offers evidence-based language stages for AAC users that closely align with the stages of typical language development through the AAC Language Lab. Isaiah’s current skills most closely align with Language Stage 6, as he has demonstrated understanding and production of complex language using total communication. Still, due to unintelligible speech and increased navigation demands due to switch access, Isaiah inconsistently generates complex, grammatically correct utterances despite his ability to do so. He requires significant encouragement and prompting, as well as clear task expectations, to access his device to generate more complex language and compose written assignments.