MAY 2024

Augmentative & Alternative Communication (AAC) Allies:

Strategies for Effective Communication Partnerships

Children's Hospital Colorado
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Purpose

Train communication partners on how to support individuals who communicate with Augmentative and Alternative Communication (AAC)

Target Audience

Professionals in the areas of:

- speech-language pathology,
- occupational therapy,
- education,
- special education,
- behavioral therapy

As well as the important role of:

- caregivers
- community members who are interested in learning more about AAC

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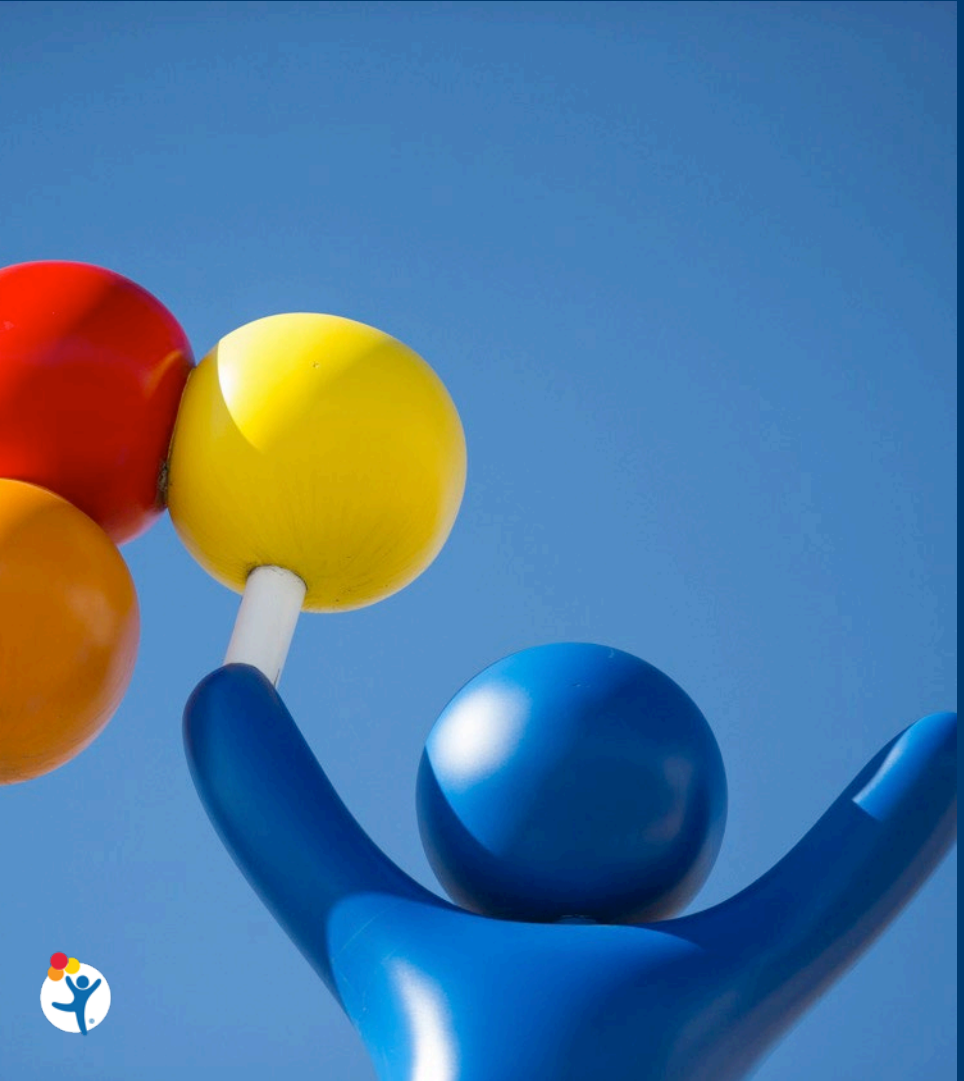
Program Organization

1. Foundational Knowledge
2. Implementation
3. Special Topics



ASHA CEU

- To earn credit, participants must pass with 80% or higher on a knowledge-based assessment.
- A certificate of attendance will be available after the conference.

ASHA CE APPROVED PROVIDER

Children's Hospital Colorado

Intermediate Level

1.35 ASHA CEUs

- This program is offered for 13.5 hours (1.35 ASHA CEUs; Intermediate Level; Professional).
- Attendees are expected to be present for the entire program. Individuals who are not present for the full program will not receive ASHA CEUs. No partial credit will be provided.

Foundational Knowledge: AAC Basics

AAC & Related Terms

Augmentative & Alternative Communication (AAC)

- The many ways we can communicate without spoken words
- “AAC includes all of the ways we share our ideas and feelings without talking.” –ASHA
- Speech Generating Device:
  - “Durable medical equipment that provides an individual who has a severe speech impairment with the ability to meet his or her functional speaking needs.” –Centers for Medicaid and Medicare

Augmentative & Alternative Communication (AAC)

Unaided

- Body Movements
- Facial Expression
- Visual
- Gestures
- Signs

Aided

- Objects
- Pictures/Drawings
- Symbols
- Orthography
- Electronic Devices
- Speech Generating Devices

Unaided Language

Body Movements

As described by Rowland, 2003:

- change in posture (stiffen body, twist, turn away)
- head movements (turn head away, pull back head, moves forward, bobs head)
- arm movements (bat arms, push or throw away)
- leg movements (stamp, kick)
- moves away from person or object
- whole body movement (lunge)

Unaided Language

Facial Expression

As described by Rowland, 2003:

- smile
- frown, grimmace

Unaided Language

Visual

As described by Rowland, 2003:

- Looking at person or item

Unaided Language

Gestures: Simple

As described by Rowland, 2003:

- arm/hand movements
- touches you
- pushes away object or person
- takes your hand
- reaches towards or tap

Unaided Language

Gestures: Conventional

As described by Rowland, 2003:

- gives unwanted item to you
- shakes head “no”
- beckons you to come
- holds hands up or out to you (for "up")
- nods head
- points

Unaided Language

Signs

- American Sign Language (ASL)
- Manual, Personal, or Home Signs

Ganz & Gilliland (2014) stress the benefits of learning sign in natural contexts, particularly for the Autism population.

Unaided Language

Benefits

- Always available
- Can be incredibly meaningful
- Excellent way to add to other forms of communication

Limitations

- In isolation, does not develop language
- May not be universally understood

Aided Language

Objects

Aided Language

Photos, Pictures & Drawings

- *Picture Exchange Communication System (PECS)*

Communication Books & Boards

Aided Language

Orthography

Aided Language

Electronic Devices

- Texting
- Emails
- Emojis
- Gifs

Aided Language

Speech Generating Devices

Aided Language

- *Benefits*
  - May be more permanent
  - Opportunity to develop language
  - May allow for more communication partners
- *Limitations*
  - May get lost, broken, lose charge
  - Requires training

Multimodal Communication

- Spoken Language
- Vocalizations
- Facial Expression
- Gestures
- Signs
- Guiding/Leading

- Objects
- Pictures/Photos
- Symbols
- Drawings
- Orthography
- Devices

Multimodal Communication

Calling out to a friend or family member

Multimodal Communication

Ask someone for directions

Multimodal Communication

Tell me about your trip

Speech Generating Device (SGD)

- *Voice*
- *Talkers*
- *Devices*

- *Refers to any machine that produces a voice*

Speech Generating Device (SGD)

When you are referencing the SGD, you may hear multiple names referred to the same system

The reason for so many names is because people often only remember either:

- Company
- Device
- App
- Vocabulary

For the purposes of this course, we may highlight systems but want to stress the importance of reducing bias, promoting individual needs, and recognizing the ever-changing world of technology.

Speech Generating Device (SGD)

Symbols: *visual representations of words/ideas*

- SymbolStix
- PCS – Picture Communication Symbols
- Minspeak

Speech Generating Device (SGD)

Orthography: written word

Speech Generating Device (SGD)

Layouts:

- **Grids**
- Visual scene displays
- Hybrid

Speech Generating Device (SGD)

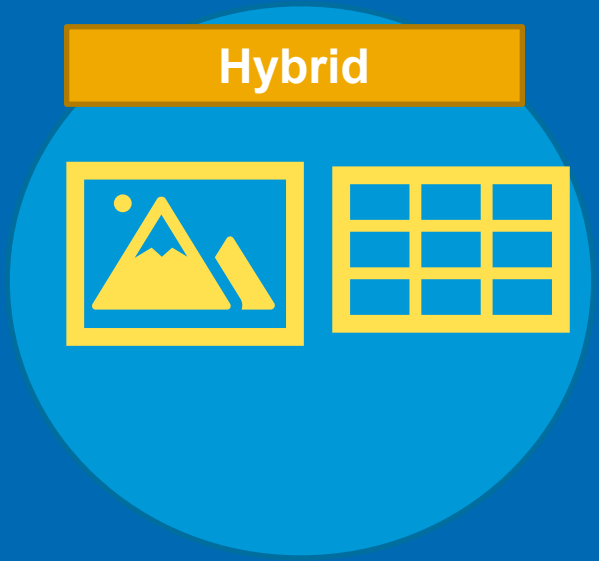
Layouts:

- Grids
- **Visual scene displays** (VSD): *Photo or drawing with "hotspots" or buttons created over the image. Example: a button over the laundry basket may say, "Its dirty!"*
- Hybrid

Speech Generating Device (SGD)

Layouts:

- Grids
- Visual scene displays
- **Hybrid**: *Combo of grid and VSD*



Speech Generating Device (SGD)

Displays:

- **Fixed/Static**: *Words and screen stay the same unless manually changed*
- Dynamic

Speech Generating Device (SGD)

Displays:

- Fixed/Static
- **Dynamic**: *Screen changes to allow more words*

Speech Generating Device (SGD)

Access: *How the person interacts with the device in order for it to operate*

- Direct selection: *Using a body part to directly interact with the screen*
- Indirect selection: *Using a body part to select a switch, joystick, activate head pointing or eye gaze*

Speech Generating Device (SGD)

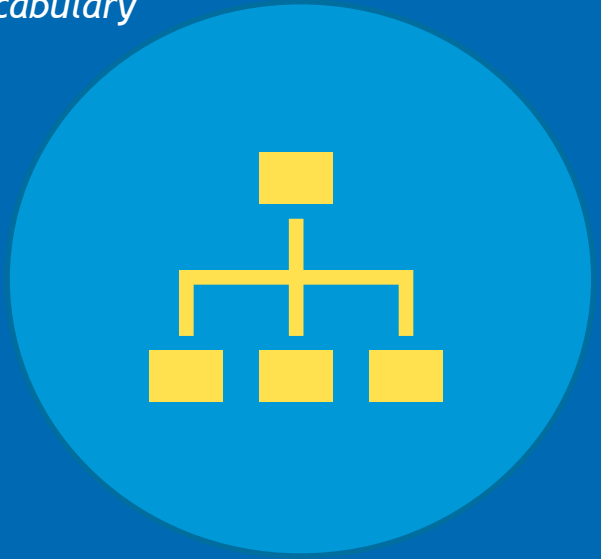
Voice Output: *Generation of speech*

- Digitized: *Recorded voice*
- Synthesized: *Computer generated voice such as Siri, Alexa*

Speech Generating Device (SGD)

Navigation

The buttons a person presses to get to the intended vocabulary



No navigation

LAMP Words for Life app

1-Hit

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Icon Sequencing

LAMP Words For Life app

Full Sequence

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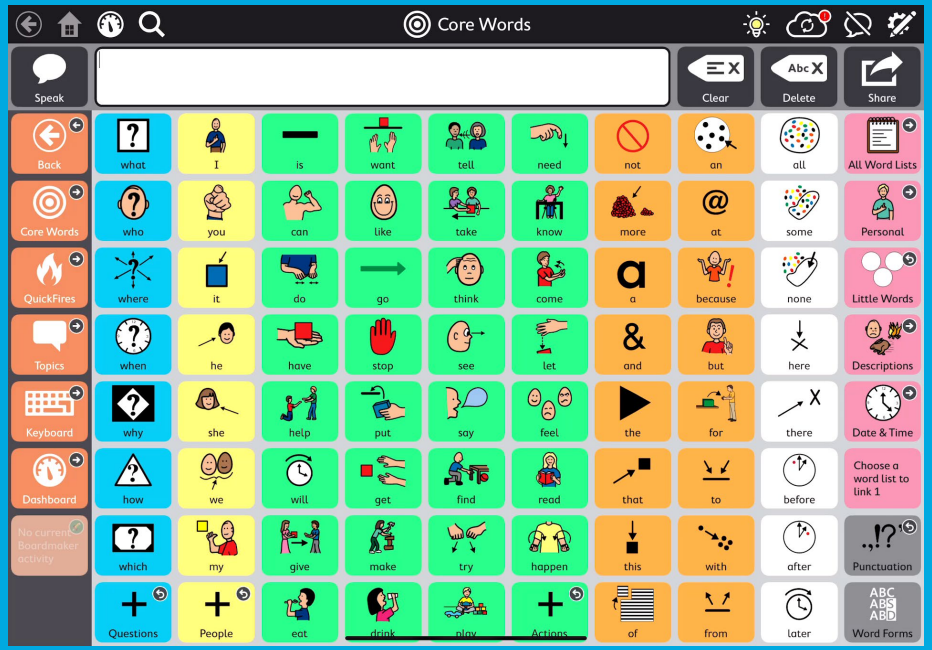
Categorical Navigation

TD Snap app

Core First 8x10



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Speech Generating Device (SGD)

Presumed Competence

- O'Neil and McCarthy (2018) defined it as, "an approach that assumes the communicator has significant untapped cognitive-linguistic capacities".

Presumed Potential

- Instead, O'Neil and McCarthy (2018) suggest a "thoughtful, evidence-based system selection to reveal each client's abilities and potential".

What does it look like?

Presumed Competence

- Robust vocabulary
- More than requesting
- Alphabet and Literacy

Presumed Potential

- Assessing visual, motor, and independent access to the system
- Pairing current communication attempts with language
- Meeting the individual where they are at to promote positive interactions
- Re-assess over time

Disclaimer about Terms

- Person First vs. Identity First
- Nonverbal vs. Nonspeaking
- Talker vs. Device vs. Voice

AAC Terminology Survey (2022)

	Unfamiliar terms More than 20% of AAC users don't know the term	Disliked terms More than 50% of AAC users don't like the term	Liked and used terms More than 50% of AAC users use or like the term
People who use AAC	• PWUAAC • PWCCN • People with CCN	• People with highly unintelligible speech • patients • consumers • support recipients	• AAC user • People • People who use AAC • Part-time AAC users • Full-time AAC users • Individuals • Users • Multimodal communicators
Devices used for AAC	• VOCA • SGD		• AAC device(s) • Device • Communication device • Tablet / iPad / Phone /computer

Retrieved from source

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Who Uses AAC?

Disclosures

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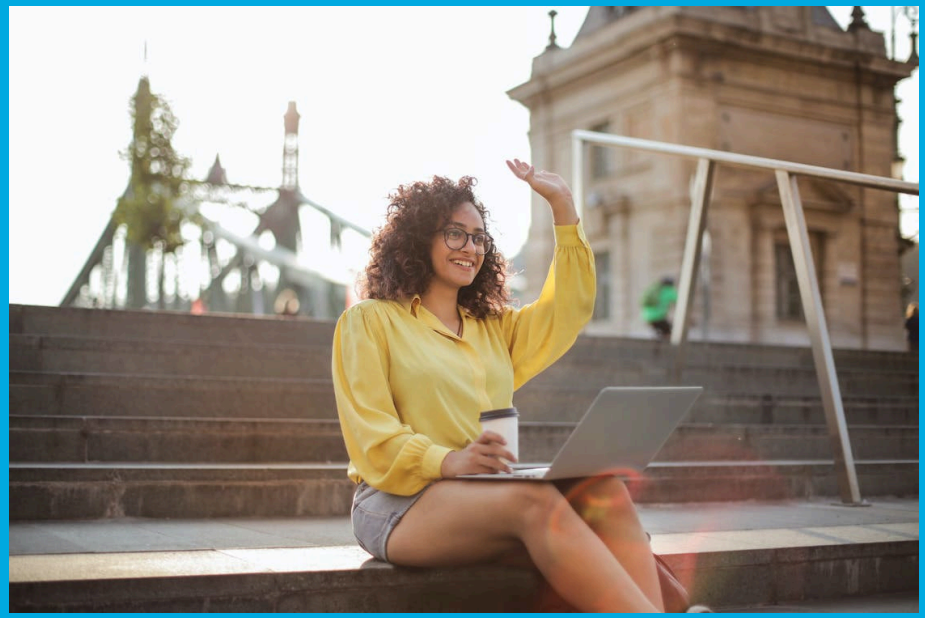
Who Uses AAC?

Everyone!

Unaided Communication

- Facial expressions
- Body posture
- Gestures
- Manual signs



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Aided Communication

- Communication board with symbols
- Computers
- Handheld devices
- Printed words

Image retrieved from Pexels

Diverse user base

- Individuals with various communication challenges

- Common diagnoses include:
  - Cerebral palsy
  - Autism spectrum disorder (ASD)
  - Down Syndrome
  - Childhood Apraxia of Speech
  - Traumatic brain injury

(Beukleman & Light, 2020)

Let’s meet some AAC users!

Image retrieved from Pexels

Meet Kate

- Down Syndrome
- Autism spectrum disorder

Figure 1. Image of a picture communication board. Adapted from "What is AAC? – Communication Matters" by https://www.communicationmatters.org.uk/what-is-aac/

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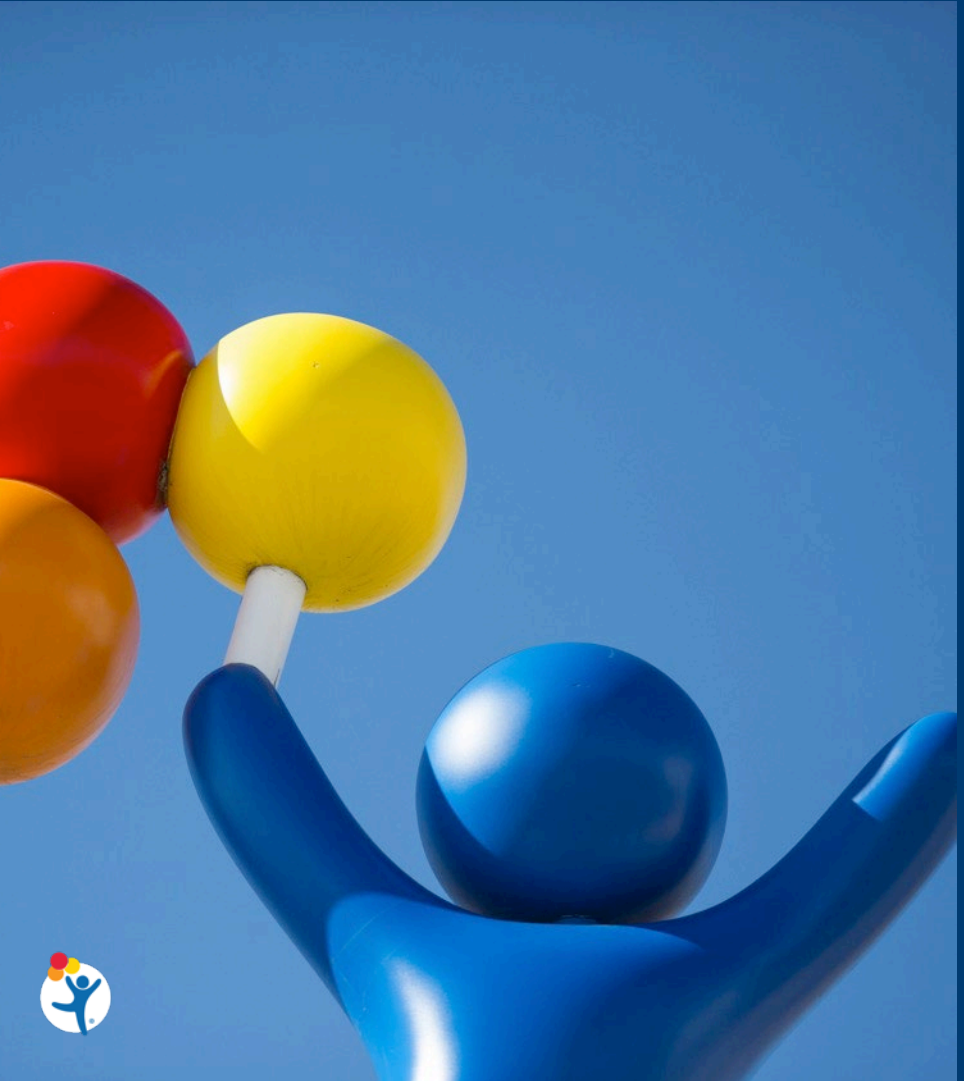
Meet Elijah

- Traumatic brain injury
- Temporary user

Image retrieved from Pexels

Meet Naomi

- Amyotrophic lateral sclerosis (ALS)
- Voice banking



Versatility in Usage

- Full-time
- Part-time
- Temporary

Not a one-size-fits-all approach

Conclusion

References

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Why Use AAC?

AAC for those with complex communication needs

- Supporting language development
- Diverse learning styles
- Participation
- Reducing communication frustration
- Social interactions
- Building independence

(Beukleman & Light, 2020)

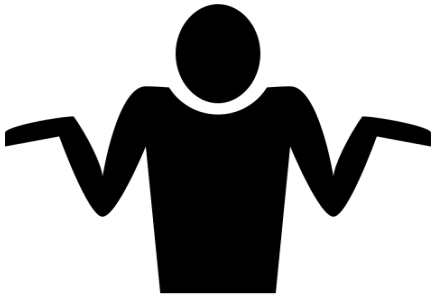
Communication is the cornerstone of human connection

Image retrieved from Pexels

Fosters a sense of autonomy and empowerment

Image retrieved from Pexels

AAC is flexible

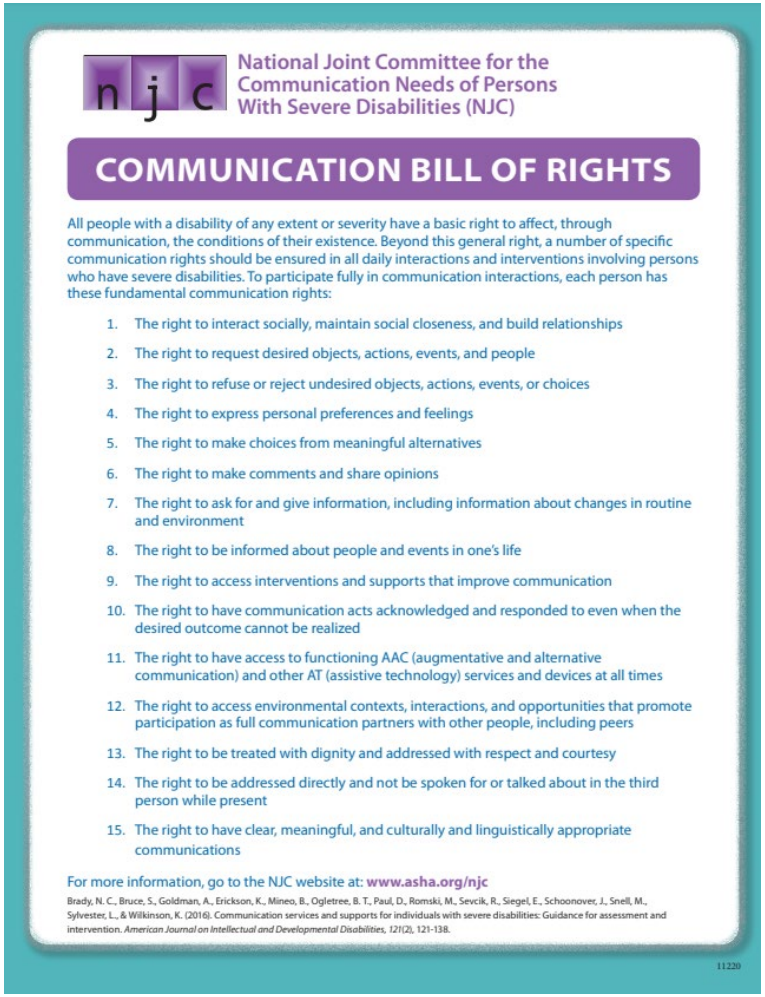


Promotes social inclusion

Image retrieved from Pexels

AAC in Education

Figure 1. Image of an educator modeling communication symbols in a classroom. Adapted from "AAC in action" by https://education.Indiana.edu/community/aac-in-action/index.html



National Joint Committee for the Communication Needs of Persons With Severe Disabilities (NJC)

COMMUNICATION BILL OF RIGHTS

All people with a disability of any extent or severity have a basic right to affect, through communication, the conditions of their existence. Beyond this general right, a number of specific communication rights should be ensured in all daily interactions and interventions involving persons who have severe disabilities. To participate fully in communication interactions, each person has these fundamental communication rights:

1. The right to interact socially, maintain social closeness, and build relationships
2. The right to request desired objects, actions, events, and people
3. The right to refuse or reject undesired objects, actions, events, or choices
4. The right to express personal preferences and feelings
5. The right to make choices from meaningful alternatives
6. The right to make comments and share opinions
7. The right to ask for and give information, including information about changes in routine and environment
8. The right to be informed about people and events in one's life
9. The right to access interventions and supports that improve communication
10. The right to have communication acts acknowledged and responded to even when the desired outcome cannot be realized
11. The right to have access to functioning AAC (augmentative and alternative communication) and other AT (assistive technology) services and devices at all times
12. The right to access environmental contexts, interactions, and opportunities that promote participation as full communication partners with other people, including peers
13. The right to be treated with dignity and addressed with respect and courtesy
14. The right to be addressed directly and not be spoken for or talked about in the third person while present
15. The right to have clear, meaningful, and culturally and linguistically appropriate communications

For more information, go to the NJC website at: **www.asha.org/njc**

Brady, N. C., Bruce, S., Goldman, A., Erickson, K., Mineo, B., Ogletree, B. T., Paul, D., Romski, M., Sevcik, R., Siegel, E., Schoonover, J., Snell, M., Sylvester, L., & Wilkinson, K. (2016). Communication services and supports for individuals with severe disabilities: Guidance for assessment and intervention. *American Journal on Intellectual and Developmental Disabilities, 121*(2), 121-138.

11220

Figure 2. Image of the communication bill of rights. Adapted from "Communication Bill of Rights" by https://asha.org/njc/communication-bill-of-rights/

Conclusion

References

AAC in action. (n.d.). School of Education. https://education.indiana.edu/community/aac-in-action/index.html

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Myths & Misconceptions

Myth #1: AAC is only for nonspeaking individuals

Myth #2: AAC is not needed for an individual that has some (or even a little) speech

Image retrieved from Pexels

Myth #3: AAC hinders speech development

- AAC does not impede speech; it can support and enhance it
  - Millar, Light, & Schlosser (2006)
  - Schlosser & Wendt (2008)
  - Hux et al. (2006)
  - Hux et al. (2010)
- Provides alternative means of communication, reducing frustration

Myth #4: AAC is a last resort

- AAC is most effective when introduced early
- Not a last resort but a proactive approach to support communication

Myth #5: AAC has prerequisites

- AAC systems are available and accessible to everyone who needs one and anybody who would benefit from AAC

Myth #6: Electronic speech generating devices are only for those with intact cognition

Figure 1. Image of a speech generating device. Adapted from "Texas Adaptive Communication Devices EyeTech EyeOn Elite" by https://staptx.com/es/products/eyetech-eyeon-elite-14-256gb-speech-generating-device

AAC Myth #7:

Children with complex communication needs must gradually climb the representational hierarchy of symbols

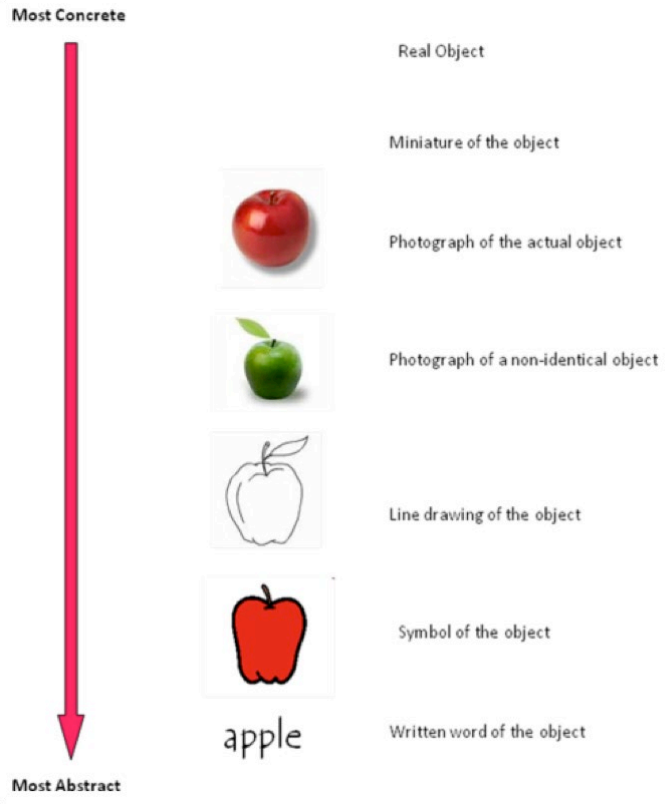

Figure 2. Symbolic development chart. Adapted from Integrated Treatment services. (2014, December 17). Integrated Treatment Services. https://www.integratedtreatmentservices.co.uk/our-approaches/speech-therapy-approaches/symbolic-development/

Conclusion

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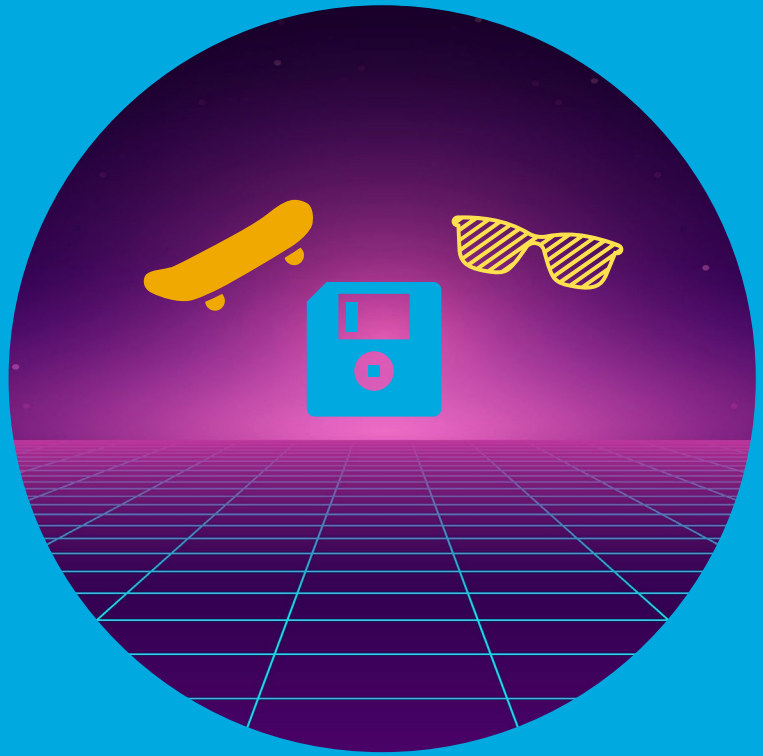
Participation Model

Background

- Candidacy Model
  - Individuals must demonstrate skillsets prior to the implementation of AAC
  - Skills would include levels of cognition, language, and sensorimotor abilities
- What did this look like in practice?
  - Can the individual answer yes/no questions?
  - Do they demonstrate understanding of symbols?
  - Can they reach for the tool?
- What was the result?
  - Fewer individuals received access to AAC tools because they couldn't prove that they could use it



Participation Model

1987: Rosenberg and Beukelman
2004: Recognized by ASHA
2013: Beukelman & Mirenda

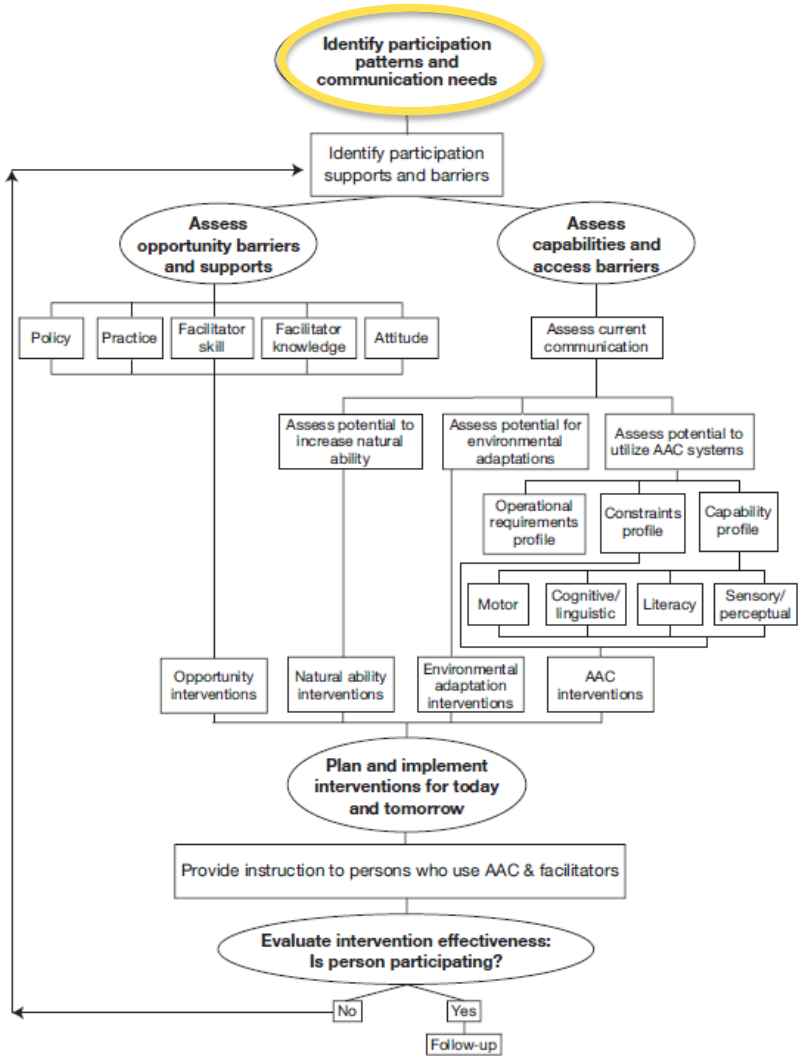
Technology alone does not make a competent communicator any more than a piano makes a musician, or a basketball and a hoop make an athlete.
(Beukelman & Light, 2020; pg. 11)

Participation Model

Assessment and tool for designing intervention

Recommended by ASHA for guiding SLPs in AAC assessment and intervention

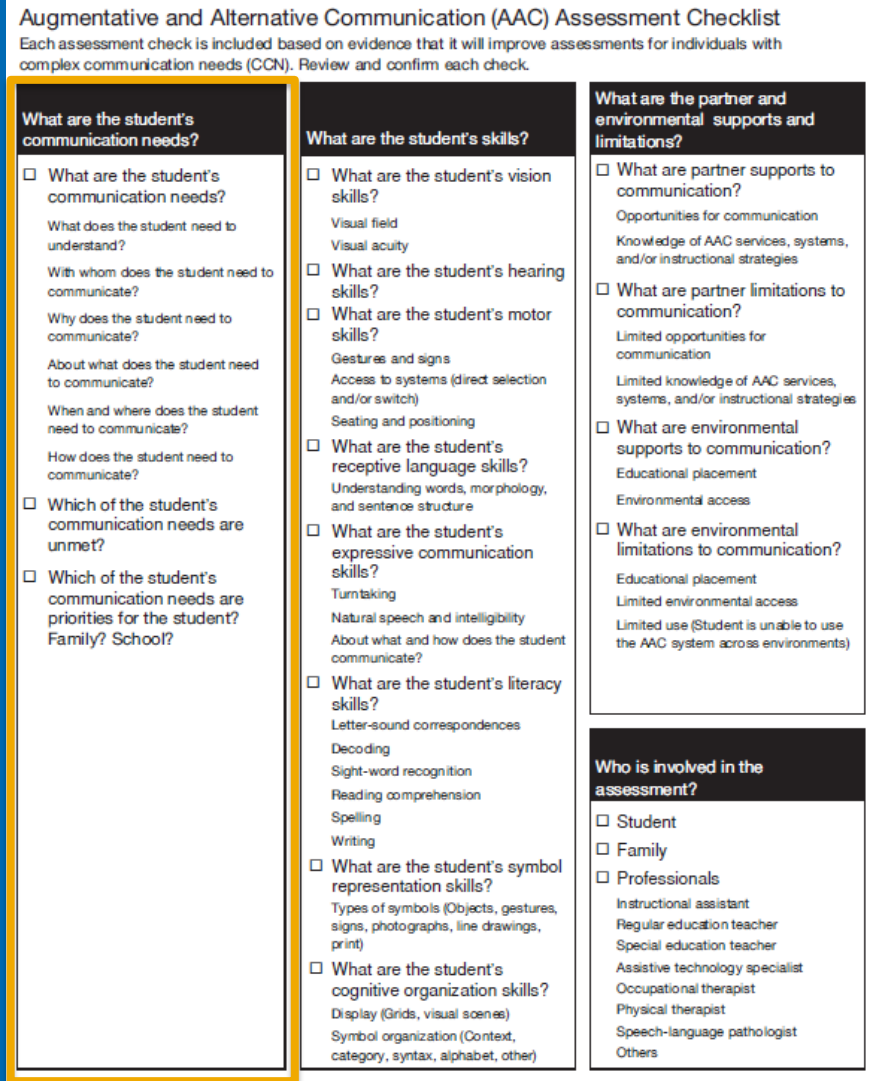
#1) identify participation patterns and communication needs



Berenguer, et al, 2022; Beukelman & Light, 2020, pg. 28-29.
Image retrieved from Beukelman & Light 2020.

AAC Assessment Checklist

- *Purpose:*
  - *Identify communication use and barriers*
- *When to use:*
  - *Self-reflective tool for providers*
  - *Interview tool for caregivers*
- *Alignment with* "identify participation patterns and communication needs"



Augmentative and Alternative Communication (AAC) Assessment Checklist

Each assessment check is included based on evidence that it will improve assessments for individuals with complex communication needs (CCN). Review and confirm each check.

What are the student's communication needs?

- ☐ What are the student's communication needs?
  - What does the student need to understand?
  - With whom does the student need to communicate?
  - Why does the student need to communicate?
  - About what does the student need to communicate?
  - When and where does the student need to communicate?
  - How does the student need to communicate?
- ☐ Which of the student's communication needs are unmet?
- ☐ Which of the student's communication needs are priorities for the student? Family? School?

What are the student's skills?

- ☐ What are the student's vision skills?
  - Visual field
  - Visual acuity
- ☐ What are the student's hearing skills?
- ☐ What are the student's motor skills?
  - Gestures and signs
  - Access to systems (direct selection and/or switch)
  - Seating and positioning
- ☐ What are the student's receptive language skills?
  - Understanding words, morphology, and sentence structure
- ☐ What are the student's expressive communication skills?
  - Turntaking
  - Natural speech and intelligibility
  - About what and how does the student communicate?
- ☐ What are the student's literacy skills?
  - Letter-sound correspondences
  - Decoding
  - Sight-word recognition
  - Reading comprehension
  - Spelling
  - Writing
- ☐ What are the student's symbol representation skills?
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What are the partner and environmental supports and limitations?

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Who is involved in the assessment?

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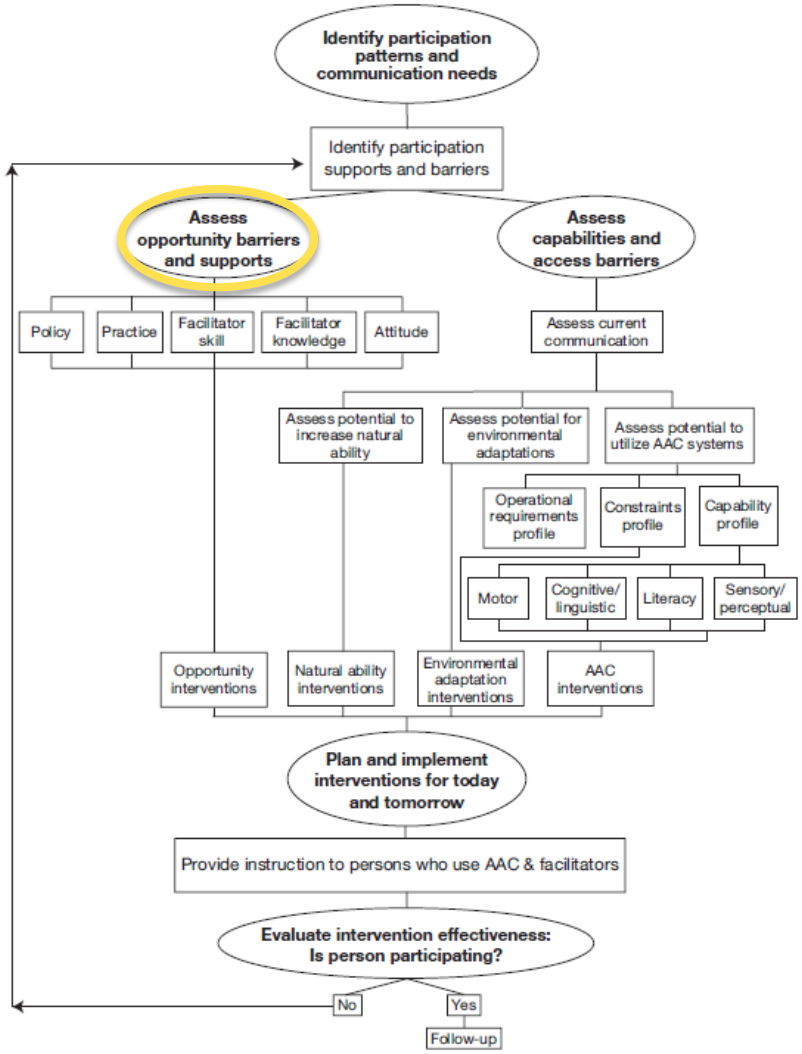
  - Assistive technology specialist
  - Occupational therapist
  - Physical therapist
  - Speech-language pathologist
  - Others

Image retrieved from Beukelman & Light, 2020, pg. 30.

Participation Model

#2) assessment of environmental supports and opportunity barriers



Berenguer, et al, 2022; Beukelman & Light, 2020, pg. 28-29.
Image retrieved from Beukelman & Light 2020.

AAC Assessment Checklist

- *Purpose:*
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- *When to use:*
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Image retrieved from Beukelman & Light, 2020, pg. 30.

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  - Gestures and signs
  - Access to systems (direct selection and/or switch)
  - Seating and positioning
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  - Understanding words, morphology, and sentence structure
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  - Turntaking
  - Natural speech and intelligibility
  - About what and how does the student communicate?
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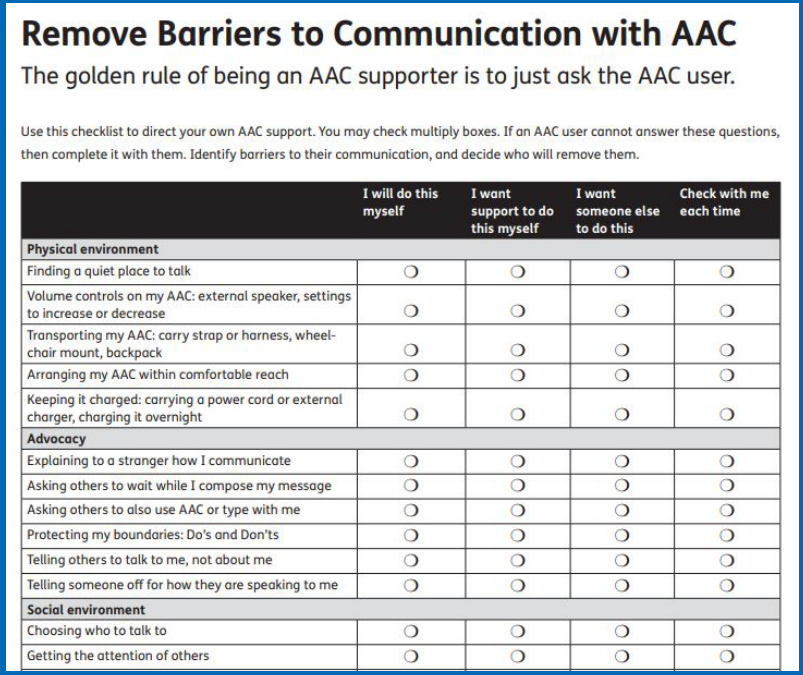
Additional Resource



Remove Barriers to Communication with AAC

The golden rule of being an AAC supporter is to just ask the AAC user.

Use this checklist to direct your own AAC support. You may check multiply boxes. If an AAC user cannot answer these questions, then complete it with them. Identify barriers to their communication, and decide who will remove them.

	I will do this myself	I want support to do this myself	I want someone else to do this	Check with me each time
Physical environment				
Finding a quiet place to talk	❍	❍	❍	❍
Volume controls on my AAC: external speaker, settings to increase or decrease	❍	❍	❍	❍
Transporting my AAC: carry strap or harness, wheel-chair mount, backpack	❍	❍	❍	❍
Arranging my AAC within comfortable reach	❍	❍	❍	❍
Keeping it charged: carrying a power cord or external charger, charging it overnight	❍	❍	❍	❍
Advocacy				
Explaining to a stranger how I communicate	❍	❍	❍	❍
Asking others to wait while I compose my message	❍	❍	❍	❍
Asking others to also use AAC or type with me	❍	❍	❍	❍
Protecting my boundaries: Do's and Don'ts	❍	❍	❍	❍
Telling others to talk to me, not about me	❍	❍	❍	❍
Telling someone off for how they are speaking to me	❍	❍	❍	❍
Social environment				
Choosing who to talk to	❍	❍	❍	❍
Getting the attention of others	❍	❍	❍	❍

Image retrieved from Hartmann, A., & Sheldon, E. (n.d.-b). *How to be an AAC supporter*. AssistiveWare. https://www.assistiveware.com/learn-aac/how-can-i-help-be-an-aac-supporter

Additional Resource

Person-Centred Communication Partner Checklist

Use this checklist to identify the key strategies that are most helpful for the AAC users and communication partners.

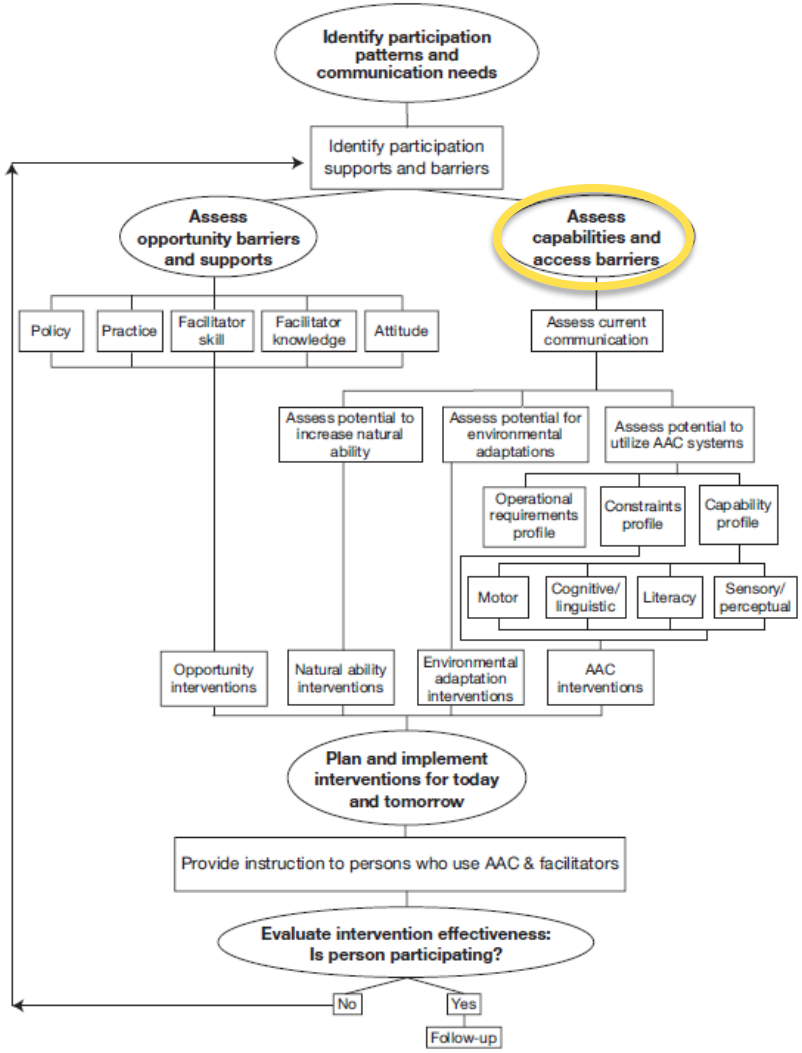
AAC users: fill in the first column to tell your communication partners what you want them to do or not do. For AAC users who cannot yet respond to the questions, use the final column to make observations about whether strategies appear to be helpful or not.

Strategy	AAC User			Was it helpful?		
	Yes	No	Just ask	Yes	Sometimes	No
Physical space						
Eliminate or reduce background noise, move to a quieter room or space.	❍	❍	❍	❍	❍	❍
Eliminate visual distractions, look for visually calm and simple environment.	❍	❍	❍	❍	❍	❍
Find table, with or without power outlet.	❍	❍	❍	❍	❍	❍
Sit at the same level as me.	❍	❍	❍	❍	❍	❍
Offer to move the conversation to text or email.	❍	❍	❍	❍	❍	❍
Approach me, gain my attention						
Approach and start speaking to me as you would to anyone else.	❍	❍	❍	❍	❍	❍
Approach but do not speak until you have a cue that it would be welcome (eg Colour Communication Badge).	❍	❍	❍	❍	❍	❍
Approach from front, invite eye contact or acknowledgement before speaking.	❍	❍	❍	❍	❍	❍
Approach and state your name before speaking ("Hi Anna, its Daniel.").	❍	❍	❍	❍	❍	❍
Speaking to me						
Speak as you would to anyone else.	❍	❍	❍	❍	❍	❍
Speak to me with AAC if possible.	❍	❍	❍	❍	❍	❍
Speak to me, not the people I am with.	❍	❍	❍	❍	❍	❍
When asking a question						

Image retrieved from Hartmann, A., & Sheldon, E. (n.d.-b). *How to be a respectful communication partner.* AssistiveWare. https://www.assistiveware.com/learn-aac/follow-their-lead-how-to-be-a-respectful-communication-partner

Participation Model

#3) assessment of the individual's capabilities and access barriers



Berenguer, et al, 2022; Beukelman & Light, 2020, pg. 28-29.
Image retrieved from Beukelman & Light 2020.

AAC Assessment Checklist

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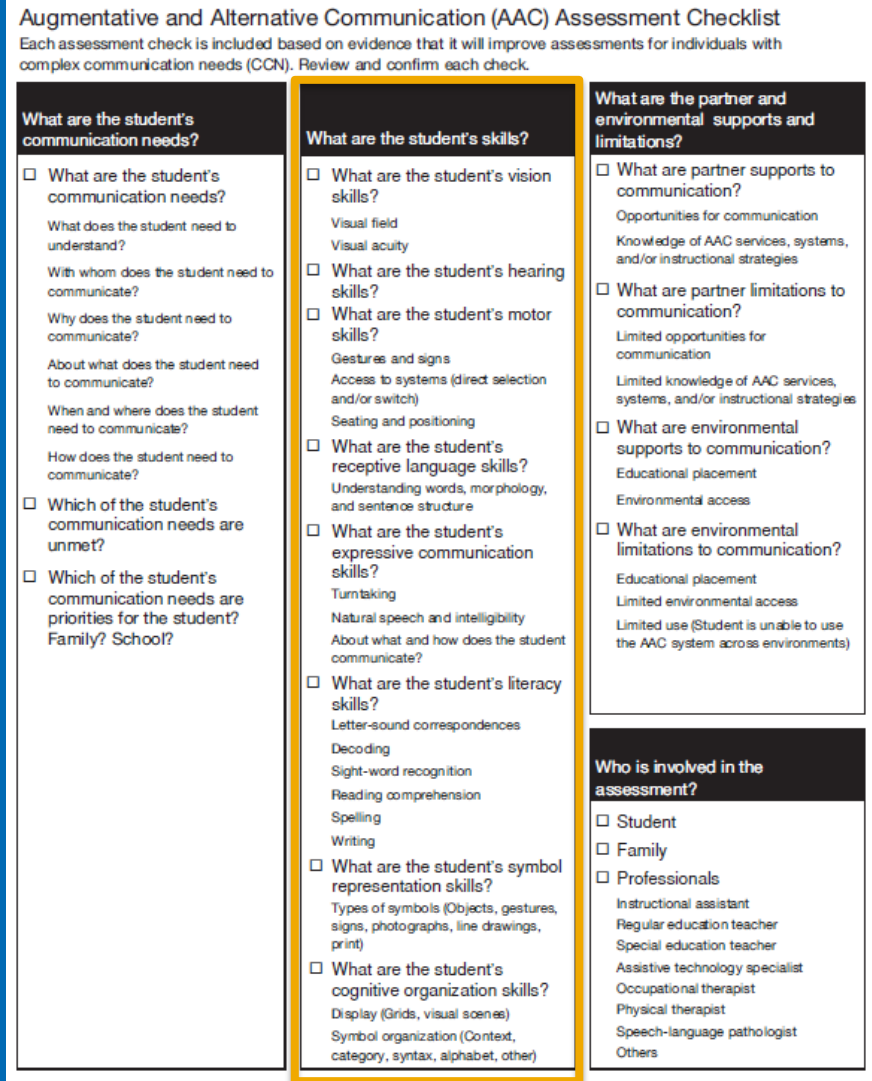

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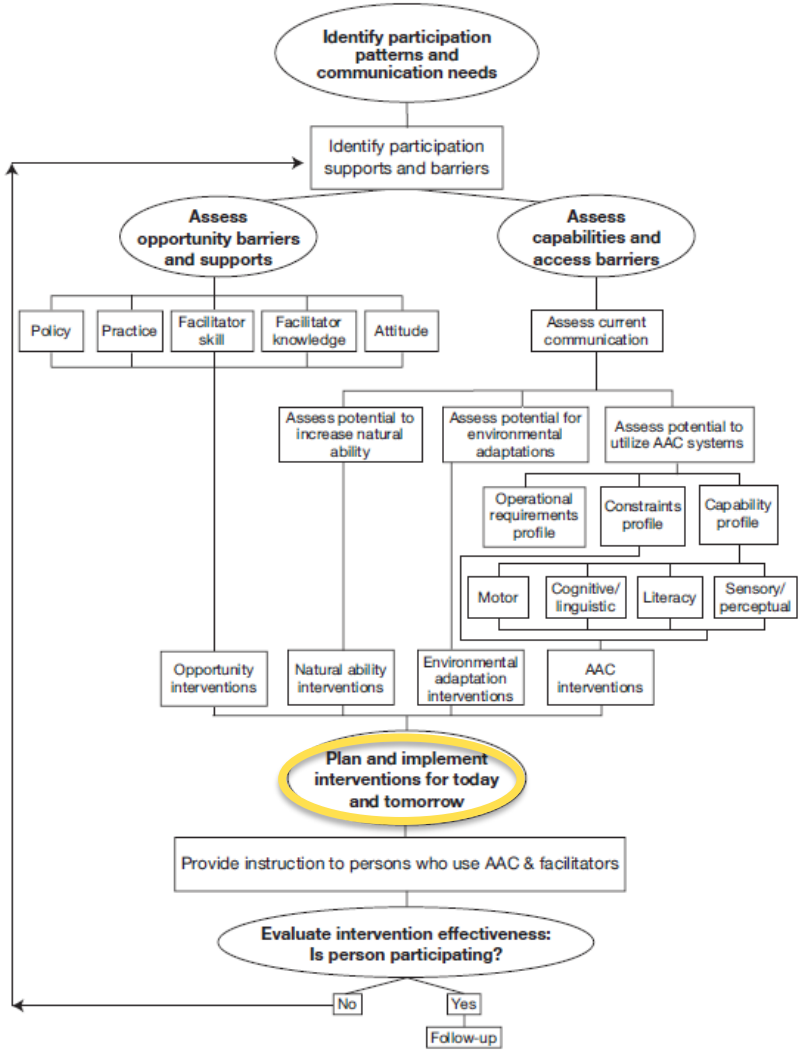
Image retrieved from Beukelman & Light, 2020, pg. 30.

Participation Model

#4) planning and implementation of intervention with the individual who requires AAC and the communication partners



Berenguer, et al, 2022; Beukelman & Light, 2020, pg. 28-29.
Image retrieved from Beukelman & Light 2020.

Takeaway:

The mere provision of an AAC system is not enough.

Thus, identification of actual or potential opportunity barriers is a critical component of the assessment process.

What does this mean for camp?

- Has the camper been provided sufficient aided language input to understand and use the targeted vocabulary (knowledge barrier)?
- Do I have a negative outlook on the camper's potential progress (attitude barrier)?
- Do I have the understanding and ability to use communication partner strategies to support the camper's learning (knowledge/skill barrier)?

What does this look like in real life?

- Does school prohibit the use of the child's device (policy/practice barrier?)

Beukelman & Light, 2020, pg. 42-45.

Takeaway:

The purpose of an AAC intervention is to facilitate ***meaningful communication*** and ***participation*** in daily life activities.

This means identifying meaningful needs and fostering a connection with the individual within activities.

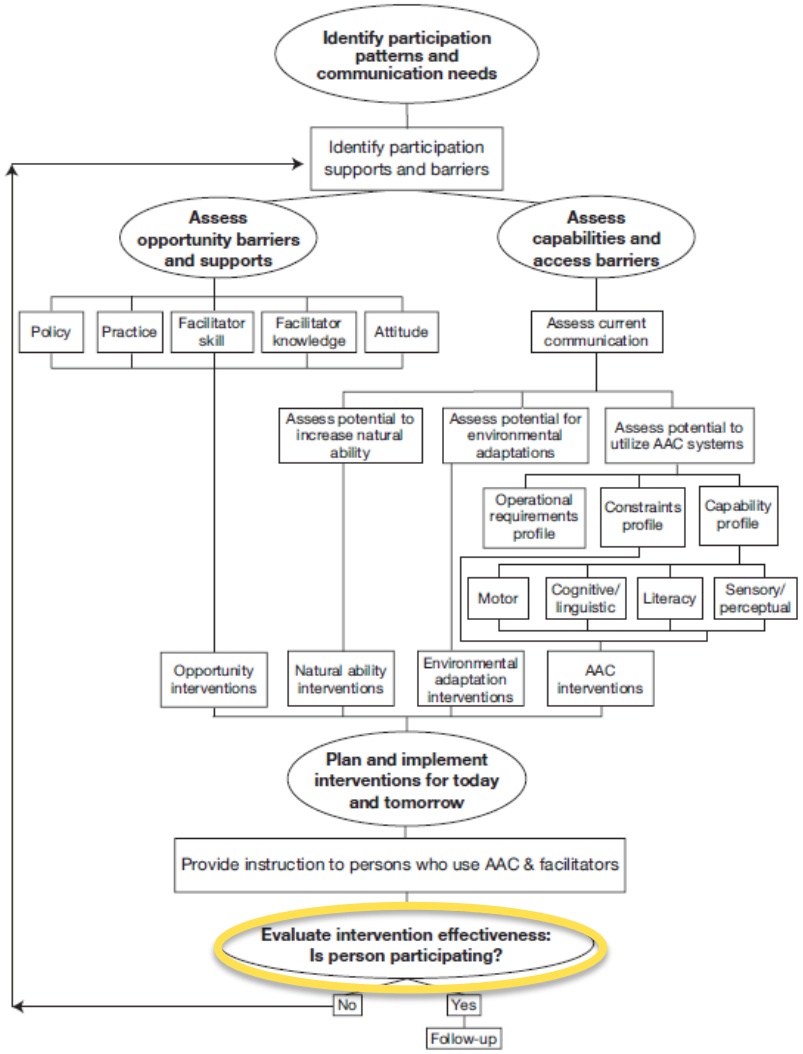
What does this mean for camp?

- Are you asking the camper to do something that they have never done before (knowledge barrier)?
- Does the camper have access to questions via single words or pre-stored phrases (communication needs)?
- Does the camper need someone to say, “say hi” (levels of support)?
- How does the camper interact with peers (assess participation patterns)?

Beukelman & Light, 2020, pg. 38-42.

Participation Model

#5) evaluation of the effectiveness of the intervention and follow-up as required



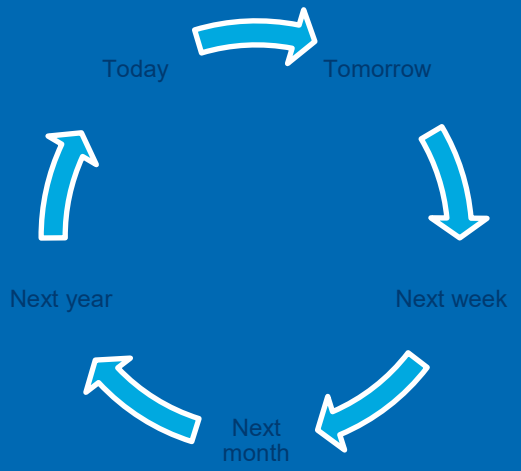
Berenguer, et al, 2022; Beukelman & Light, 2020, pg. 28-29.
Image retrieved from Beukelman & Light 2020.

Takeaway:

- Assessment is not a 1-time process.
- Assess to meet today's needs, then tomorrow's, and tomorrow's…
- Conduct initial assessment, explore changing contexts over time, follow-up for the future

What does that mean for camp?

- Assess your camper's needs, initially and ongoing throughout the week of camp.
    - What language do they need access to (communication needs)? Will they want to talk about camp after camp? Will this be easy to do?
    - Would the camper communicate easier in a quieter room (environmental supports)?
    - Does the camper's parents speak for them or interpret (opportunity barriers)?



Beukelman & Light, 2020, pg. 31-38.

Takeaway:

Everyone can communicate.

Everyone does communicate.

Everyone has something to say.

What does this mean?

- Am I honoring the individual's communication attempts (attitude barrier)?
- Am I acknowledging the individual's verbal communication?
- Am I adapting the environment to provide communication opportunities and or access to materials?
- Am I identifying the individual's abilities accurately?

Beukelman & Light, 2020, pg. 45-81

References

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Foundational Knowledge: Language Development & AAC

Communication Competencies

“Having a communication device doesn’t make you an effective communicator any more than having a piano makes you a musician.”

- Beukelman, 1991

Communication Competencies

Figure 1. Image of the components of the communication competencies. Adapted from "Northwest Augmentative Communication Society – Communicative Competence" by https://nwacs.info/blog/2021/8/communicative-competence

Linguistic Domain

- Efficiency in listening and communication
- Skills in language code of AAC system, including content, form, and use of symbols (Beukelman & Light, 2020).

Figure 3. Illustration of AAC Therapy. Adapted from "*What Does It Mean to Model without Expectation Using AAC?" by* Sparking Speech, 2023, https://sparkingspeech.com/2023/07/03/what-does-it-mean-to-model-without-expectation-using-aac/

Linguistic Domain – Goal Examples

Emergent: Learn to show preference for symbols that represent motivating items

Context-Dependent: Use nouns from common categories appropriately during daily activities

Independent: Use grammatical morphemes in daily activities

Retrieved from Pexels

Operational Domain

- Strategies and skills in the operation/production of AAC
- Skills for gestures, unaided communication, access to aided AAC systems, and navigation skills (Light & McNaughton, 2014).

Figure 4. Illustration of AAC modeling. Adapted from "*What Does It Mean to Model without Expectation Using AAC?" by* Sparking Speech, 2023, https://sparkingspeech.com/2023/07/03/what-does-it-mean-to-model-without-expectation-using-aac/

Operational Domain – Goal Examples

Emergent: Attend to the AAC system

Context-Dependent: Use a switch to initiate scanning on AAC system

Independent: Charge device or independently ask for assistance to charge

Retrieved from Pexels

Strategic Domain

- Overcoming limitations of AAC
- Developing strategies to overcome environmental barriers or restrictions (Light & McNaughton, 2014)

Figure 6. Illustration of AAC modeling with craft. Adapted from "What Does It Mean to Model without Expectation Using AAC?" by Sparking Speech, 2023, https://sparkingspeech.com/2023/08/14/aac-myths-uncovered-5-common-misconceptions/

Strategic Domain – Goal Examples

Emergent: Help user gain attention of a communication partner by touching anything on a SGD or though vocalizations/gestures

Context-Dependent: Help user with an introduction strategy with an unfamiliar communication partner

Independent: Help user pre-program for an upcoming presentation or conversation

Retrieved from Pexels

Social-Emotional Domain

- Relates to effective communication with others

- Requires sociolinguistic and sociorelational skills (Light & McNaughton, 2014).

Figure 5. Illustration of AAC modeling with craft. Adapted from "*What Does It Mean to Model without Expectation Using AAC?" by* Sparking Speech, 2023, https://sparkingspeech.com/2023/07/03/what-does-it-mean-to-model-without-expectation-using-aac/

Social-Emotional Domain – Goal Examples

Emergent: Help user engage in a short social exchange by making any selection

Context-Dependent: Help user match basic feelings to experiences during activities

Independent: Help user express humor

Image retrieved from Pexels

Psychosocial Domain

- Factors include motivation, attitude, confidence, resilience, barriers, and supports (Light, 2003)

- Importance of positive communication encounters for motivation (Light & McNaughton, 2014)

Figure 7. Children constructing a rocket. Adapted from "Good Peer Play at Age 3 Means Better Mental Health Down the Road" by Very Well Mind, 2022, https://www.verywellmind.com/playing-well-with-peers-means-better-mental-health-6272306

Psychosocial Domain – Goal Examples

- Consider intrinsic motivation by fostering positive experiences
- Promote a positive attitude toward AAC use
- Offer positive reinforcement
- Empower to self-advocate, develop coping strategies

Image retrieved from Pexels

Integrate Across Domains

- Interaction with various communication partners and across environments is crucial (Beukelman & Light, 2020).

Conclusion

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Light, J., & McNaughton, D. (2014). Communicative competence for individuals who require augmentative and alternative communication: A new definition for a new era of communication? Augmentative and Alternative Communication, 30(1), 118. https://doi.org/10.3109/07434618.2014.885080

Levels of Communicator

Understanding AAC User Diversity

- Individuals relying on AAC exhibit diverse expressive communication abilities
- Patricia Dowden's (1999) framework:
  - Emergent
  - Context-Dependent
  - Independent

"Every person, regardless of the severity of his/her disabilities, has the right…to communicate with others, express everyday preferences and exercise at least some control over his or her daily life. Each individual, therefore, should be given the chance, training, technology, respect and encouragement to do so."

- Bob Williams, Former US Deputy Assistant Secretary, AAC User

Image retrieved from Pexels

Emergent Communicators

- Primarily use non-symbolic modes (e.g., facial expressions, gestures)
- Limited symbolic expression
- Communicate the “here and now”
- Focus of interventions: Establishing reliable communication, moving towards symbolic expression, broadening interaction topics and partners

Context-Dependent Communicators

- Use reliable symbolic modes but limited to certain partners, topics, or contexts
- Challenges: Lack experience with AAC, limited vocabulary, unconventional communication strategies
- Interventions: Increase vocabulary access, build literacy, broaden communication partners and contexts

Image retrieved from Pexels

Independent Communicators

- Interact widely, literate, generate novel messages
- Skills: Adept at using various communication modes and strategies, spells “well enough”
- Intervention Goals: Rate enhancement, operational competencies, embracing new technologies

Image retrieved from Pexels

How does this relate to intervention?

Level of Communicator	Primary Goal
Emerging	Identify 1st method of symbolic communication
Context-Dependent	Expand vocabulary, partners, contexts
Independent	Individual's goals and desires for improved communication

(Dowden, 1999)

A quick note

- Think about the primary goals
  - Teach symbolic communication
  - Expand communicative contexts and partners
  - Explore user’s goals and desires for communication
  - Explore user’s goals and desires for communication, communicative efficiency

Conclusion

References

Blackstone, S. & Hunt Berg, M. (2012). Social Networks: A Communication Inventory for Individuals with Complex Communication Needs and their Communication Partners. Attainment Company.

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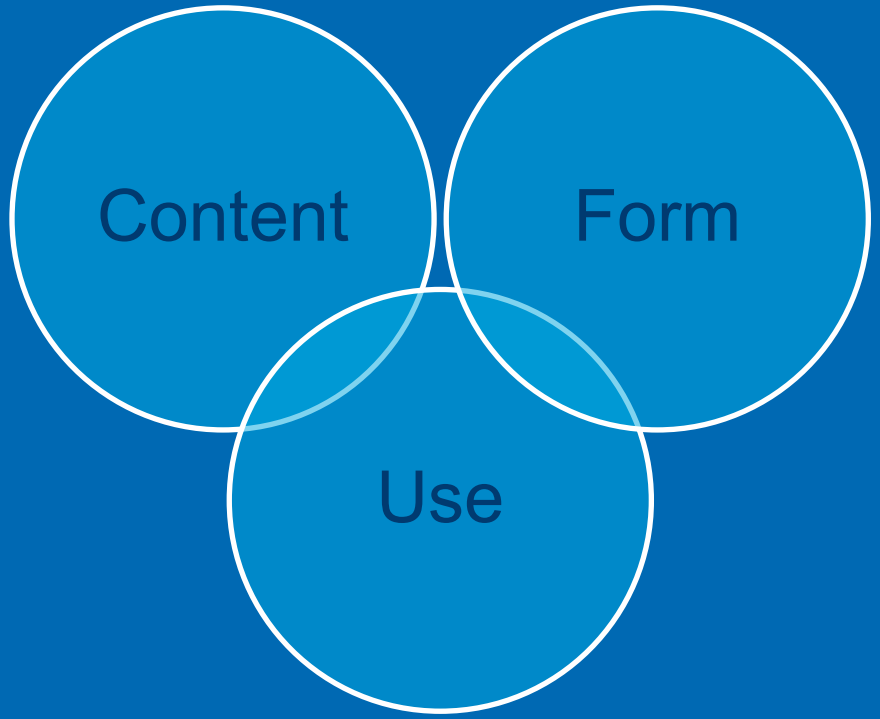
Language Development: Analytic Language Processor

Areas of Language



Content

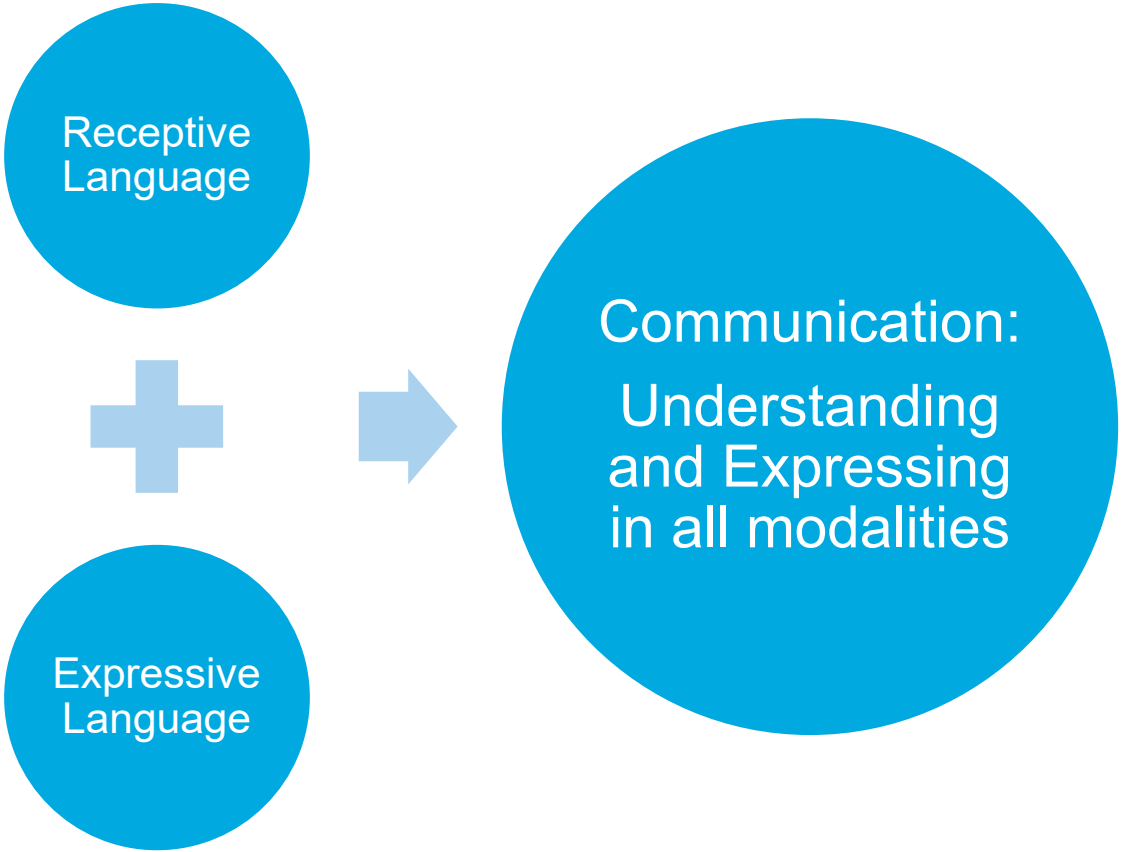
- **Semantics**: The meaning of words (vocabulary)

Form

- **Syntax**: The structure of language (grammar)
- **Morphology**: Adding units of meaning to change the word(tense, plurals, etc.)
- **Phonology**: How sounds in words change meaning

Use

- **Pragmatics**: The social use of language


Receptive Language
Expressive Language
Communication:
Understanding and Expressing in all modalities

Early Semantic Development

- Begins with single words
  - Children need multiple exposures of words in a variety of contexts before it becomes part of their lexicon
- Progresses to short phrases
  - This generally follows when a child has a vocabulary of their 1st 50 words
- Phrases become sentences
  - Early sentences may not match adult model grammatically
  - Word use includes a variety of word classes
    - Nouns, verbs, adjectives, exclamations, etc.
- As child produces longer utterances you should see corresponding receptive skills

The more experience and exposure that a child has with language, the greater their language development.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Paul H Brookes Publishing.

Picture from Freepik

Consider that by 18 months, babies have heard 4,380 hours of spoken language and we don't expect them to be fluent speakers. Yet, if AAC learners only see symbols modeled for communication twice weekly for 20-30 minutes, it will take 84 YEARS for them to have the same exposure to aided language as an 18 month old has to spoken language.

(Jane Korsten- QIAT Listerv 2011)

Later Semantic Development

- Vocabulary grows in size and complexity.
- Students learn subject specific vocabularies
- Other semantic categories:
  - Multi- meaning words
  - Homophones/Homonyms
  - Similie
  - Metaphors
  - Hyperbole
  - Idioms
  - Irony
  - Puns

Syntactic Development

Declarative Sentence Types

- Subject + Verb (me eat)
- Subject + Verb + Object (me eat cookie)
- Subject + Verb + Prepositional Phrase (me eat cookie at table)

Questions

- What, who, where develop first
- When, why, how develop later

Syntactic Development

Negatives

- May come at beginning
  - (No eat cookie)
- Then moves within sentence
  - (I not eat.)
- Then typical use.
  - (I don’t eat that.)

Imperatives

- Commands
- May start with single words in early language (Come!)

Exclamations

- May start early as well (uh oh!)

Phonological Development in AAC

Phonological skills provide the basis for literacy skills.

Early phonological skills:

- Rhyming
- Initial Sound
- Counting words in sentences
- Counting syllables in words
- Isolating sounds
- Blending sounds

Phonology in AAC

"On my on business."

Morphological Development

Considerations for adding morphemes to language modeling:

- Begin to add as child's semantic development contains a variety of word classes and adequate number of words in lexicon.
- Progress in developmental order.

TABLE 3.1
Grammatical morphemes acquired in early childhood.

Grammatical morpheme	Age (in months)	Example
Present progressive *-ing*	19–28	"Mommy eating"
Plural *-s*	27–30	"Baby shoes"
Preposition *in*	27–30	"Hat in box"
Preposition *on*	31–34	"Hat on chair"
Possessive *'s*	31–34	"Baby's ball"
Regular past tense *-ed*	43–46	"Kitty jumped"
Irregular past tense	43–46	"We ate."
Regular third person singular *-s*	43–46	"Mommy drives."
Articles *a, the, an*	43–46	"The car"
Contractible copula *be*	43–46	"She's happy."
Contractible auxiliary	47–50	"She's coming."
Uncontractible copula *be*	47–50	"We were here"
Uncontractible auxiliary	47–50	"She was coming"
Irregular third person	47–50	"She did it."

Source: From *Communication Sciences and Disorders: An Introduction* (p. 56), by L. M. Justice, 2006, Upper Saddle River, NJ: Merrill/Prentice Hall. Copyright 2006 by Pearson Education. Reprinted with permission. (Adapted from *A First Language: The Early Stages*, by R. Brown, 1973, Cambridge, MA: Harvard University Press.)

Pragmatic Development

From Dore's Speech Acts – early pragmatic skills

1. Labeling
2. Repeating
3. Answering
4. Requesting
5. Greeting
6. Protesting

Photo from: Freepik

Later Pragmatic Development

1. Turn-taking
2. Conversational repair
3. Topic maintenance
4. Topic extension
5. Topic termination
6. Conversational tones
7. Manners
8. Presupposition
9. Narrative skills

Photo from: Freepik

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Language Development: Gestalt Language Processor

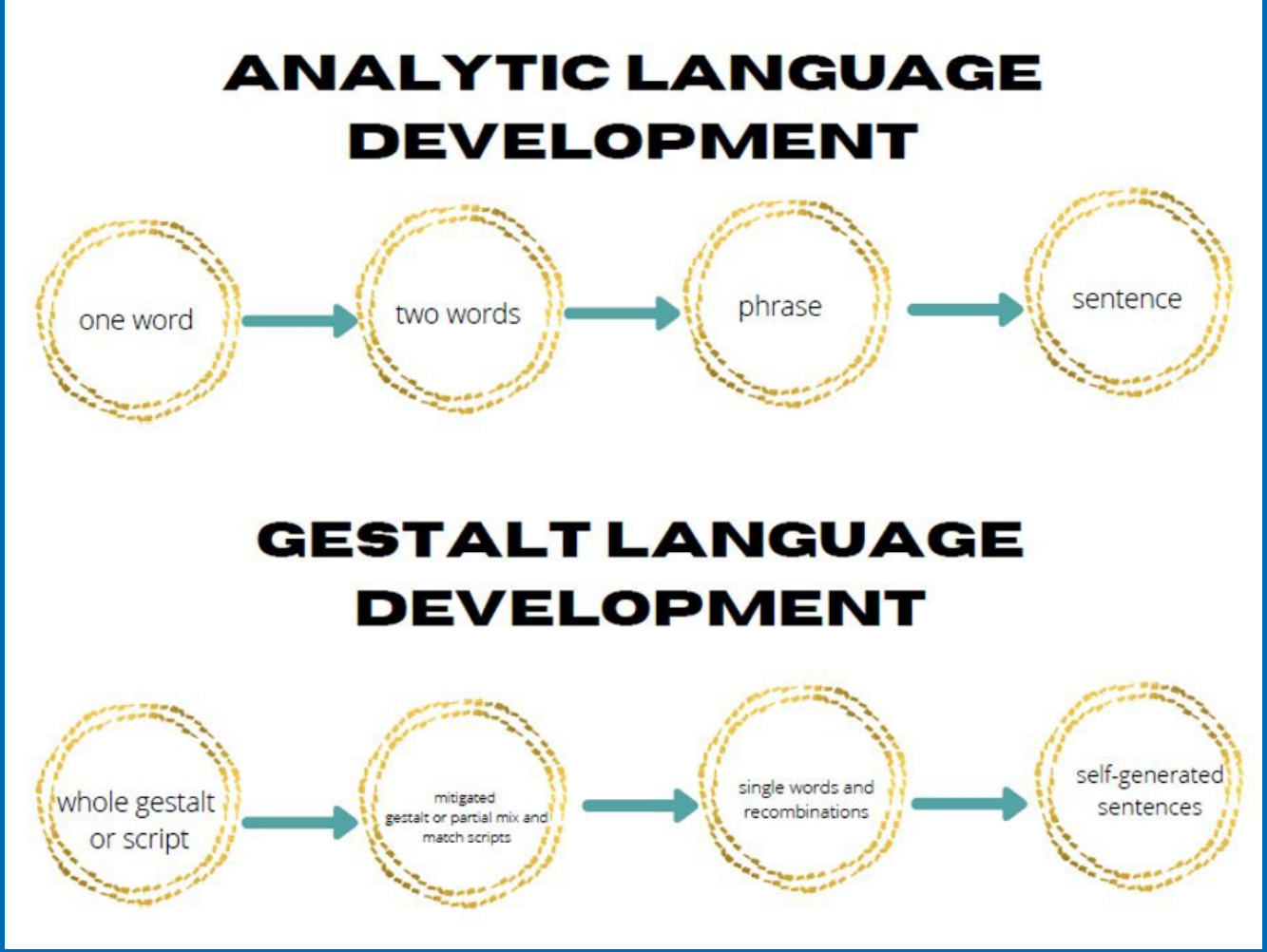
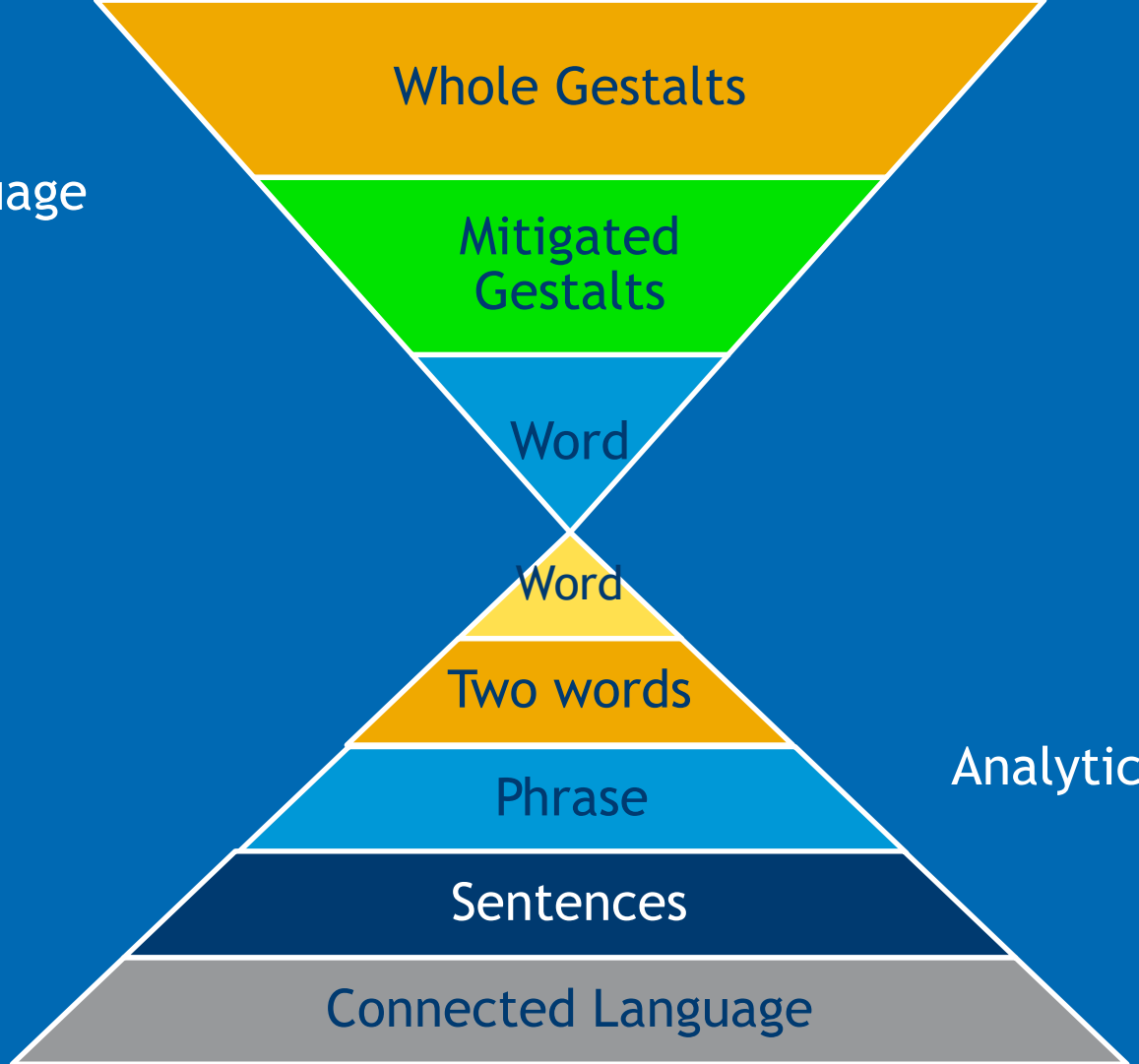


Figure 1. Analytic versus Gestalt Language Development. Meaningful Speech. https://www.meaningfulspeech.com/

Gestalt Language Development



Analytical Language

Identifying GLPs

- "Sing-songy" speech
- Preference to learn new phrases that are modeled in a musical way
- Immediate echolalia
- Delayed echolalia
- Language may be difficult to understand / sounds like babbling that follows the same melody
- Scripts or phrases used to communicate something outside of their literal meaning
- Pronoun reversal of "you"/"me," especially for phrases that they hear often
- Scripts used to describe previous highly emotional events

Be a detective!

1. Interview family
2. Listen and repeat
3. Collect language samples over time

Let’s watch this video…

Gestalt Stage	Example	How to support/AAC Considerations
Stage One – whole gestalt or script	"I see a brown bear." "Not again!" "Look at that!" "Happy birthday to you." "Chase is on the case!"	- Program preferred scripts on a page in the device - Do NOT delete or replace core words - Model stage one scripts that will be easy to mitigate later (e.g. let's, that's, I'm, etc.) - Repeat and acknowledge scripts
Stage Two – mitigated gestalts/mix and match	"[I see] + bird." "[Happy birthday] + [again]" "[Look at] + car!" "[Mommy] + on the case"	- Model mitigations of the child's existing gestalts - Can use single symbols to build script on device
Stage Three – single words and two words phrases	"red + truck" "dinosaur + game" "mommy + happy" "play"	- Model novel, two-word combinations - Grammar is not the focus (e.g. happy mommy, mommy happy)
Stage Four – beginning grammar	"Me + drive + fast" "Purple + dog + running"	- Variation is key

Stage One - Whole Gestalt/Script

"Wow!"

"Chase is on the case"

"I see a brown bear"

"Thank you for saving our lives, we are eternally grateful!"

Speech is often unclear…Why?

How to support stage one?

- Program preferred scripts on a page in the device
- Do NOT delete or replace core words
- Model stage one scripts that will be easy to mitigate (e.g. let’s, that’s, I’m, etc.)
- Repeat and acknowledge scripts

Topic: Custom 1

Speak

Clear

Delete

Back

Core Words

QuickFires

Topics

Keyboard

Mickey Mouse Clubhouse

Wheels on the bus

brush your teeth

Topic Words

I love kung fu

let's clean up

Supports

Baby Shark

sitting on the potty

hand washing

Fire truck

find something good

friends help each other

when you feel so mad

saying I'm sorry

QuickFires

Speak

Clear

Delete

Back

Core Words

QuickFires

Topics

Keyboard

Greetings & Social

Personal Needs

Let's play!

Hello

Ready set go!

Clean up!

Stop it!

Help me!

goodbye

No way

Look at that!

Tickle tax

squeeze me

Hooray!

I'm hungry

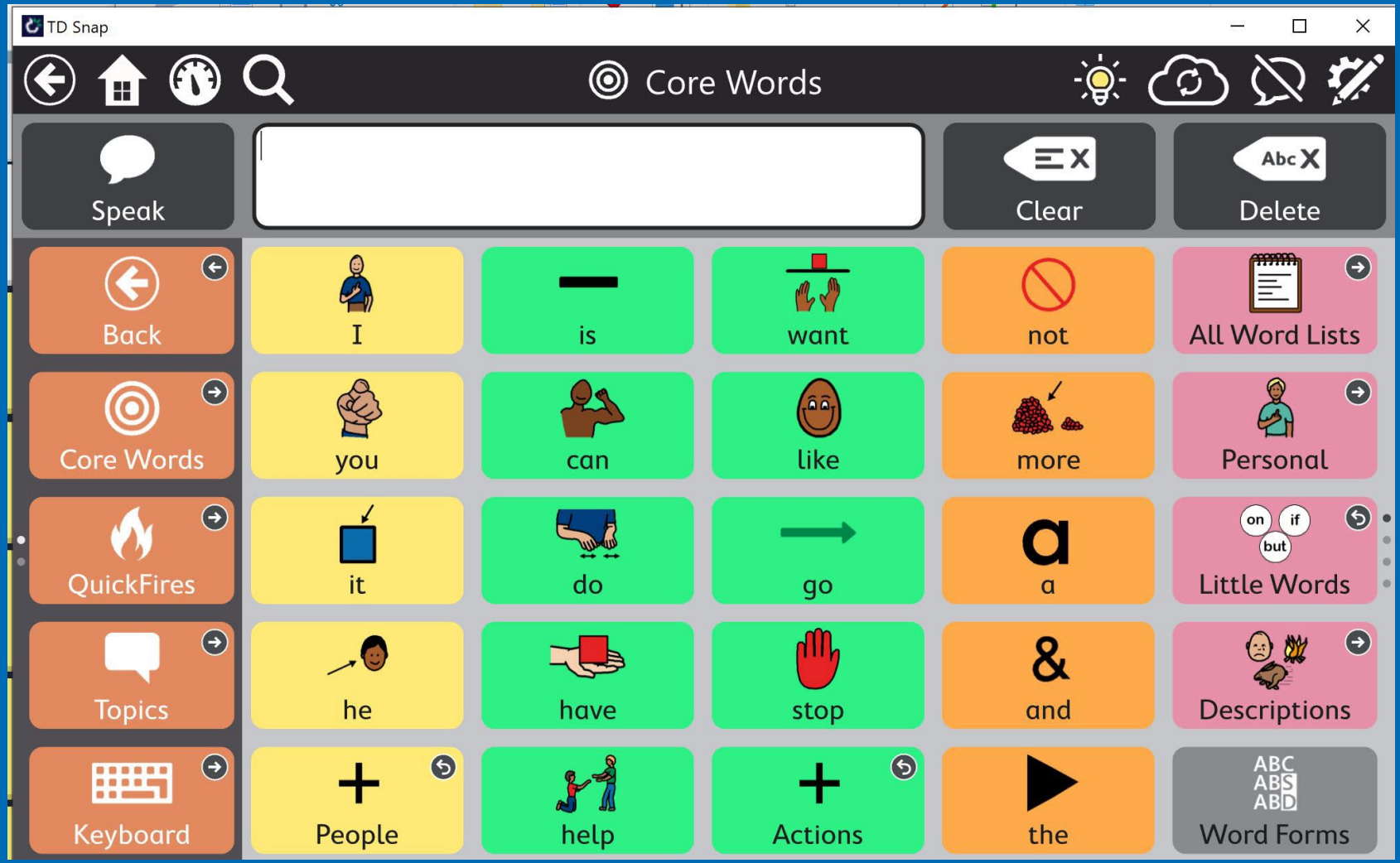
Oh no!

jump jump

Thank you

Sorry

Marching


TD Snap
Core Words
Speak
Clear
Delete
Back
Core Words
QuickFires
Topics
Keyboard
I
is
want
not
All Word Lists
you
can
like
more
Personal
it
do
go
a
on
if
but
Little Words
he
have
stop
and
Descriptions
People
help
Actions
the
ABC
ABS
ABD
Word Forms

Stage Two – Mitigated Gestalts

“[I see] + bird.”

“[Happy birthday] + [again]”
“[Look at] + car!”

“[Mommy] + [on the case]”

How to support stage two?

- Model mitigations of the child's existing gestalts (e.g. [Look] + a bus!, Mommy + [goes round and round!])

- Can use single symbols to build script on device

Let’s watch this video…

Stage Three – Single Words and Two Word Phrases

“Red + truck”

“Dinosaur + game”

“Mommy + happy”

“Play”

The magic stage… recognizing single words as a “unit”

How to support stage three?

- Model novel, two-word combinations
- Grammar is not the focus (e.g. happy mommy, mommy happy)

Stage Four - Beginning Grammar

“Me + drive + fast”

“Purple + dog + running”

We already know how to support this!

Let’s watch this video…

A note on “stuck” single words…

The end goal: generative, functional language!

AAC for Gestalt Language Processors

•Unmet communication needs? Always consider it. GLPs often don't have enough language to support their everyday communication.

•Visual supports are often key!

•Program phrases, record child or parent produced gestalts, & model navigation and use of message bar.

•DON'T change core page

Figure 4. Screenshot of LAMP 84 Full Vocabulary home page from PRC-Saltillo

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Foundational Knowledge: AAC & Vocabulary

Language Functions

Language Functions

- All the reasons *why* we communicate
- Types of Functions
  - Request
  - Gain Attention
  - Direct
  - Comment
  - Question
  - Share Information
  - And More!
- Why is this important?

Communication Matrix

Retrieved from: communication matrix

Level of Communicator	Primary Goal
Emerging	Identify 1st method of symbolic communication
Context-Dependent	Expand vocabulary, partners, contexts
Independent	Individual's goals and desires for improved communication

Request

- Reaching
- Taking/grabbing
- Joint attention, looking
- Nodding
- Vocalizing
- Objects
- Real picture
- Line drawing symbol
  - Want
  - Cookie
  - Marker

Agt. (2020, September 18). *Sofia Vergara NBC GIF by America's got talent - find & share on giphy*. GIPHY. https://giphy.com/gifs/agt-nbc-americas-got-talent-live-shows-SXC8b7L3wMtflay1On

Direct

- Pointing
- pantomiming
- Vocalizing
- Physical leads
- Objects
- Real picture
- Line drawing symbol
  - Fast
  - Pink
  - Up

Arnold yelling memes. quickmeme. (n.d.). http://www.quickmeme.com/Arnold-Yelling

officialASRoma. (2019, September 4). *Hand up champions league GIF by AS roma - find & share on giphy*. GIPHY. https://giphy.com/gifs/roma-football-soccer-3o6EQjJYDiz2NXR6Ny

Gain Attention

- Vocalizing
- Waving
- ”behaviors”
- Button
  - “I have something to say!”
- Real picture
- Line drawing symbol
  - Look
  - Mom
  - Come
- *speech generation is helpful!

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Refuse, Reject, Protest

- Gestures
- Pushing away
- ”behaviors”
  - Throwing, biting, pinching
- Looking/walking away
- Shaking head
- Vocalizing
- Line drawing symbol
  - Stop
  - No way
  - No

Little girl crying. Imgflip. (n.d.). https://imgflip.com/i/2q9dw9

Alwayssunny. (2021, August 24). *No way mac gif by it’s Always sunny in Philadelphia - find & share on giphy*. GIPHY. https://giphy.com/gifs/sunnyfxx-always-sunny-iasip-its-Atc9QCyWLGHgLZhHDp

Comment

- Facial expressions
- Vocalizing
- Real picture
- Line drawing symbol
  - Cool
  - Like

Giphy. (2023a, January 30). *Robert Downey Jr OK GIF - find & share on giphy*. GIPHY. https://giphy.com/gifs/thumbs-up-robert-downey-jr-smiling-diUKszNTUghVe

Social Routines

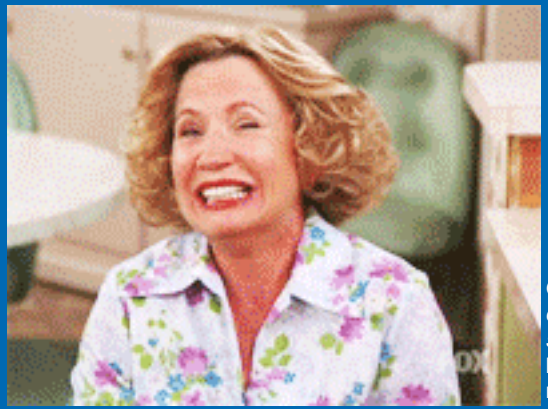
- Gestures/waving
- Nodding
- Vocalizing
- Line drawing symbol
  - Excuse me
  - Thank you
  - Hey there

Giphy. (2022a, November 21). *Tom Hanks hello gif - find & share on giphy*. GIPHY. https://giphy.com/gifs/hello-hi-wave-xT9IgG50Fb7Mi0prBC

Express Feelings

- Facial expressions/body movements
- Eye gaze
- Vocalizing, crying
- Objects
- Real picture
- Line drawing symbol
  - Tired
  - I’m scared
  - mad

Giphy. (2019, September 19). *Sad Lana Del Rey Gif - Find & share on giphy*. GIPHY. https://giphy.com/gifs/sad-lana-del-rey-please-5z2fwa90BkWOc



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Share/Give Information

- Pantomiming
- Pointing/gestures
- Objects
- Real picture
- Line drawing symbol
  - Know
  - Find
  - Think

Buddy the elf. Imgflip. (n.d.-a). https://imgflip.com/i/2oa2yh

Self advocating

- Reaching
- Pushing away
- Real picture
- Line drawing symbol
  - No
  - Stop
  - I’m making a message, please give me a moment

Cbc. (2022, August 29). *Canadian comedy GIF by CBC - Find & share on giphy*. GIPHY. https://giphy.com/gifs/cbc-funny-comedy-1AfbBjvEkG66H9keZ2

Seek Information

- Facial expressions
- Gestures
- Eye gaze
- Vocalizing
- Objects
- Real picture
- Line drawing symbol
  - Where
  - Who
  - What

Cbc. (2021, June 4). *Schitts Creek what GIF by CBC - Find & share on giphy*. GIPHY. https://giphy.com/gifs/cbc-schitts-creek-3d4PWIqF5g9Hqd6Q6O

Activity Planning Worksheet

Use this worksheet to help plan for your child's activities.

What is the activity?	*What communication function will you target?*	*What words will you target in order to practice that communication function?*	*What strategy will you use to help your child learn to use those words?*
Puzzle	Request Direct	Car Fast	*Model* *Sabotage*

References

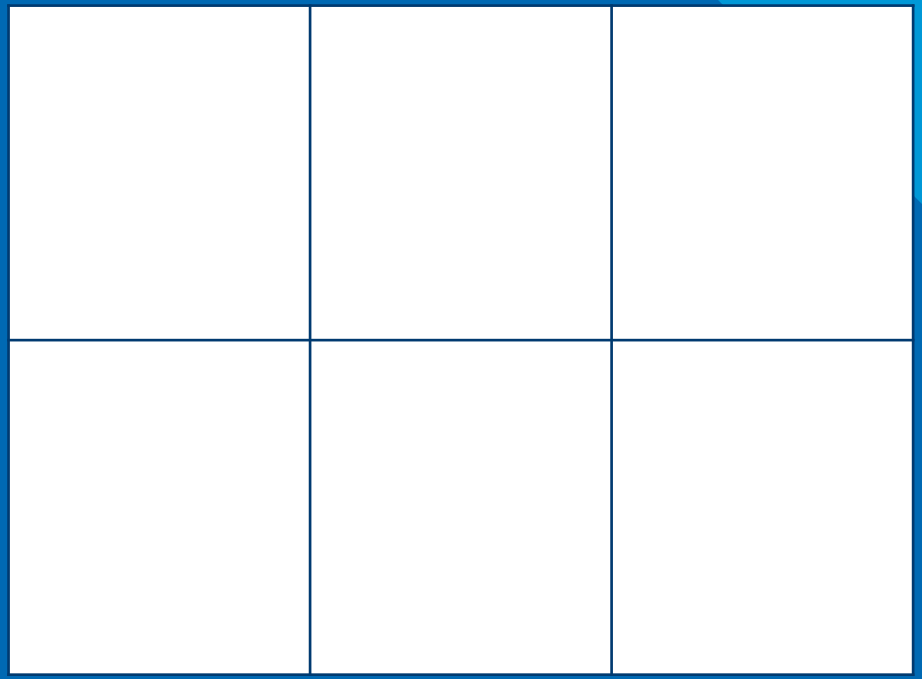
Beukelman, D. R., Mirenda, P., & Ball, L. J. (2013). *Augmentative & Alternative Communication: Supporting Children and adults with complex communication needs*. Paul H. Brookes Publishing Co.

Home Page - Communication Matrix. (n.d.). https://www.communicationmatrix.org/

Vocabulary:
Core, Fringe, & Personal Phrases

Self reflection:

If I only gave you 6 spots on your AAC device, what are the things you would include on your page?



My 6 messages

Go	Stop	More
Dog	Will	Excuse me

Robust AAC

- Core
- Fringe
- Functional words
- Phrases for speed/efficiency
- Grammar elements
- Keyboard
- Thousands of vocabulary words
- Ability to create novel utterances
- Customizable
- Room for growth

Robust AAC

LAMP WFL

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Robust AAC

LAMP WFL

TD Snap

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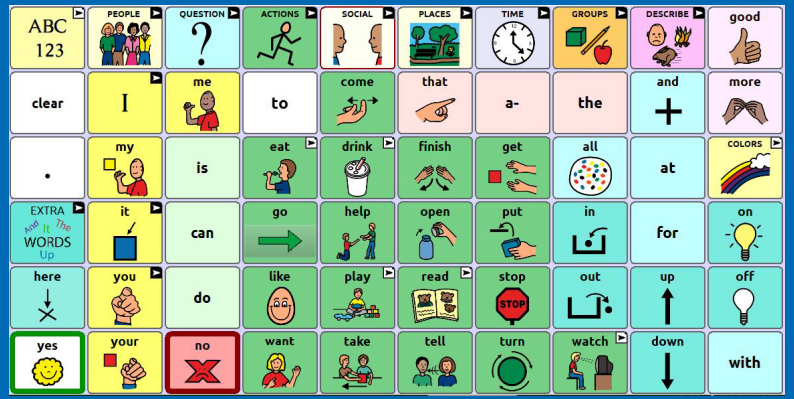
Robust AAC

LAMP WFL

TouchChat running WordPower



TD Snap

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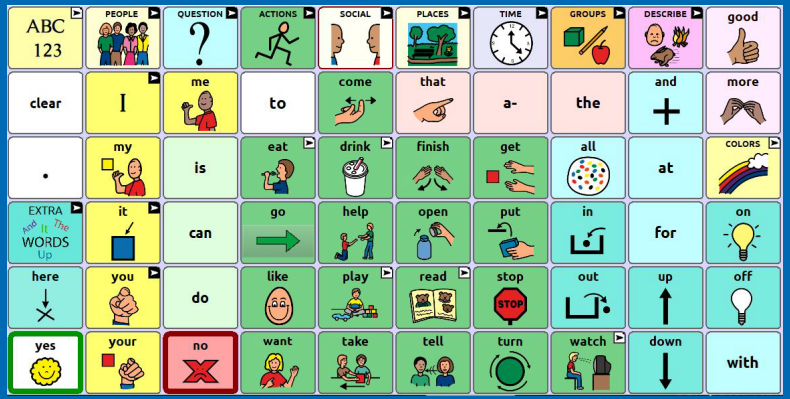
Robust AAC

LAMP WFL

TD Motor keyboard

TouchChat running WordPower



TD Snap

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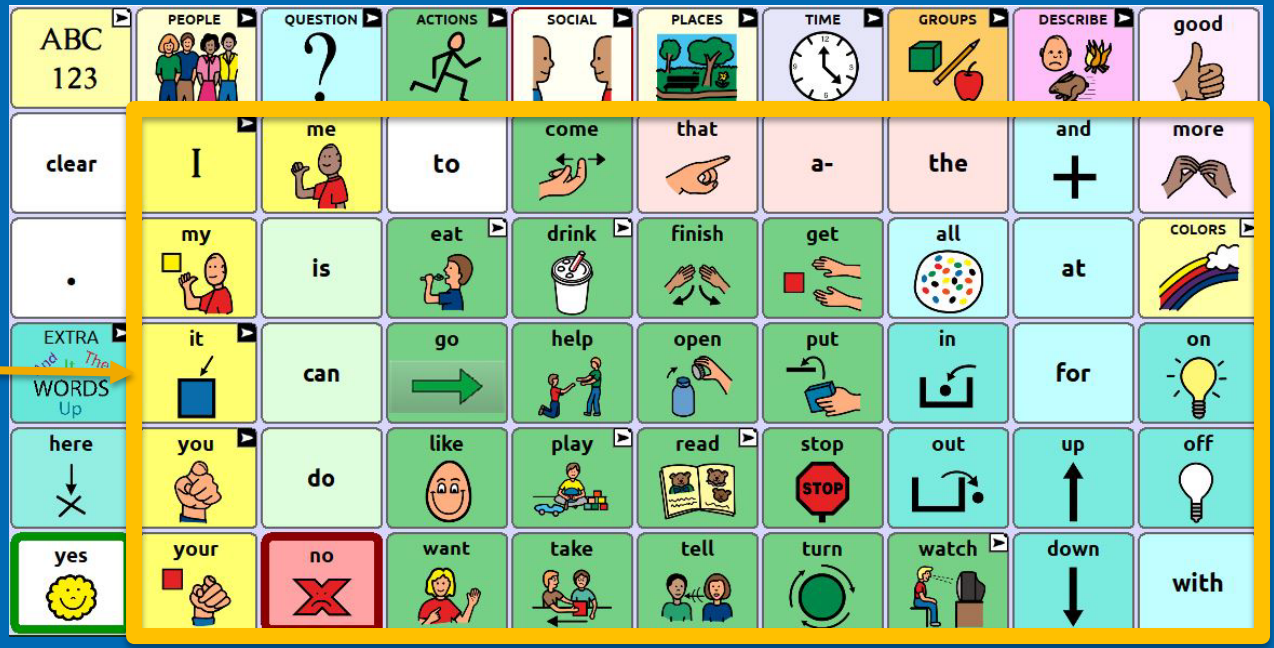
Core

- 80% of the words we use
- Verbs, adjectives, prepositions, pronouns
- I, you, it, stop, go, like, want etc!

Core Example: WordPower 60 with PCS

Core



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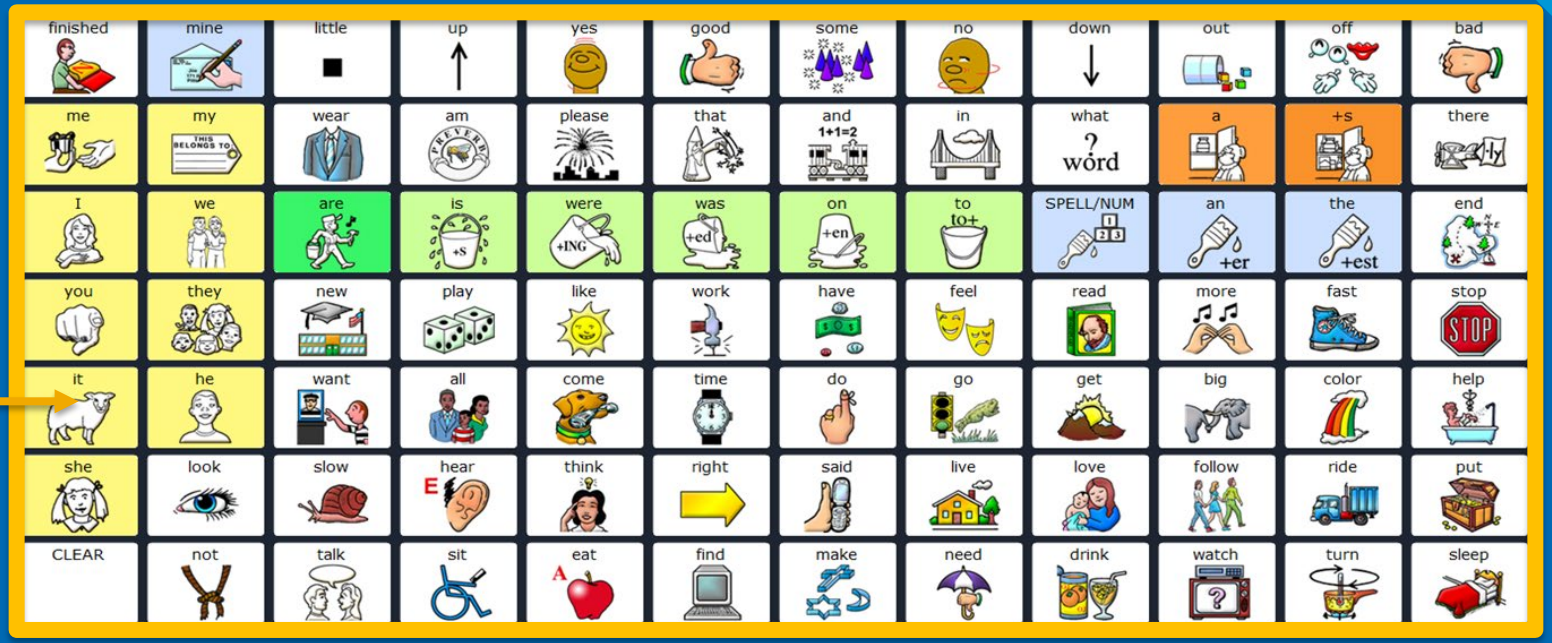
Core Example: LAMP Words for Life 84 Full

Core



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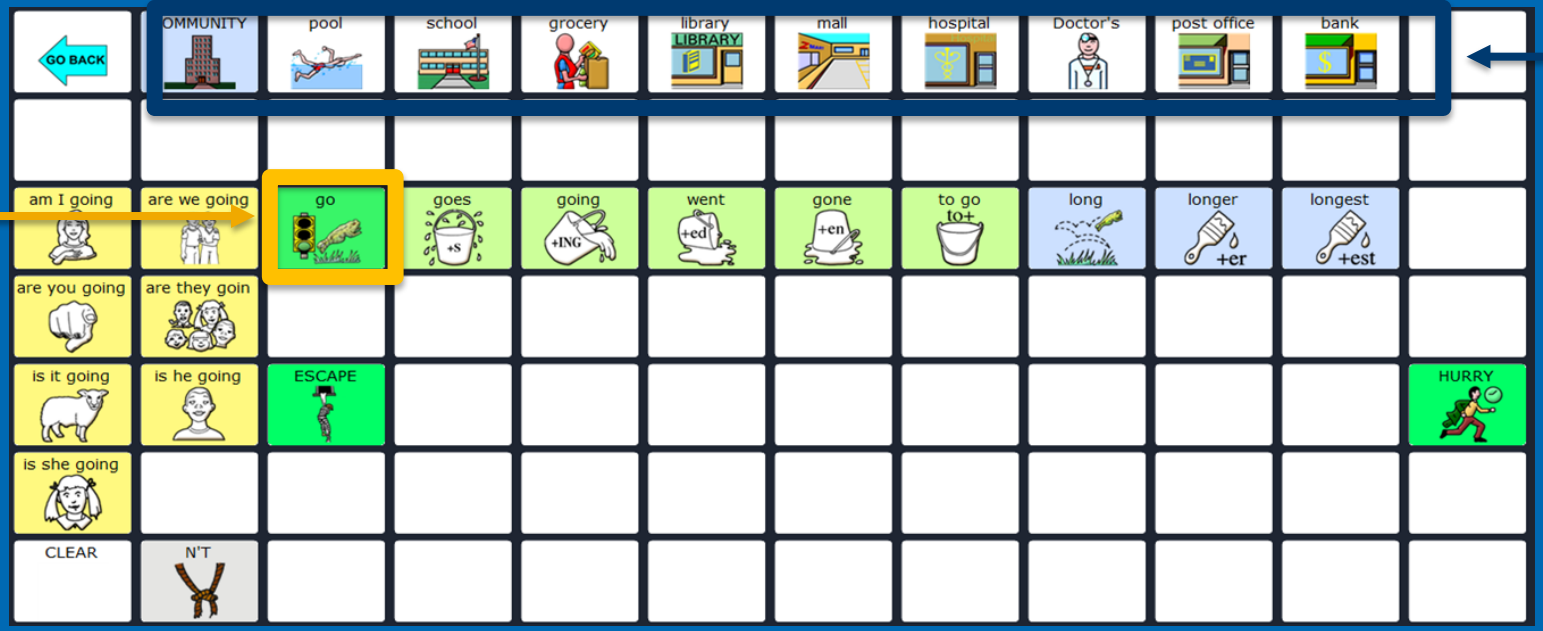
Core Example: LAMP Words for Life 84 Full



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Core Example: TD Snap 4x4

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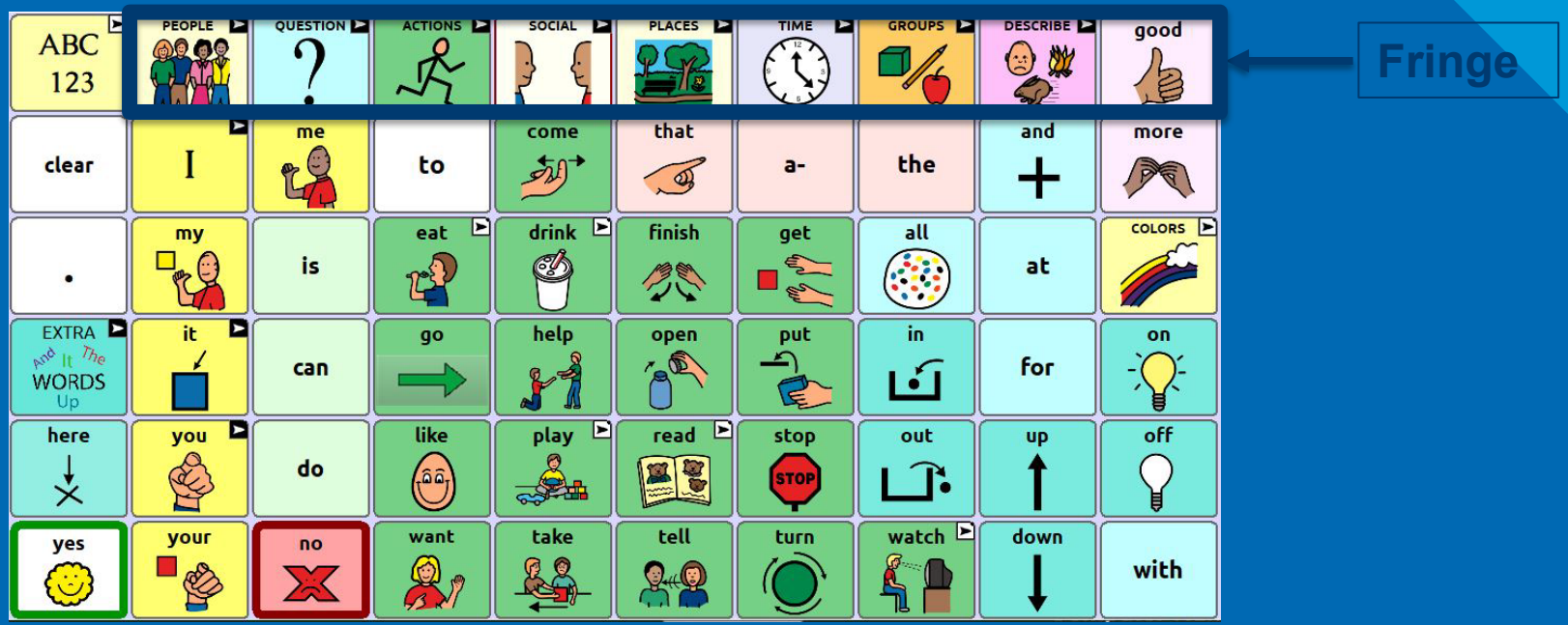
Fringe

- 20% of the words we use
- Nouns
- Cookie, hairbrush, soda, elephant, names, etc!

Fringe Example: WordPower 60 with PCS



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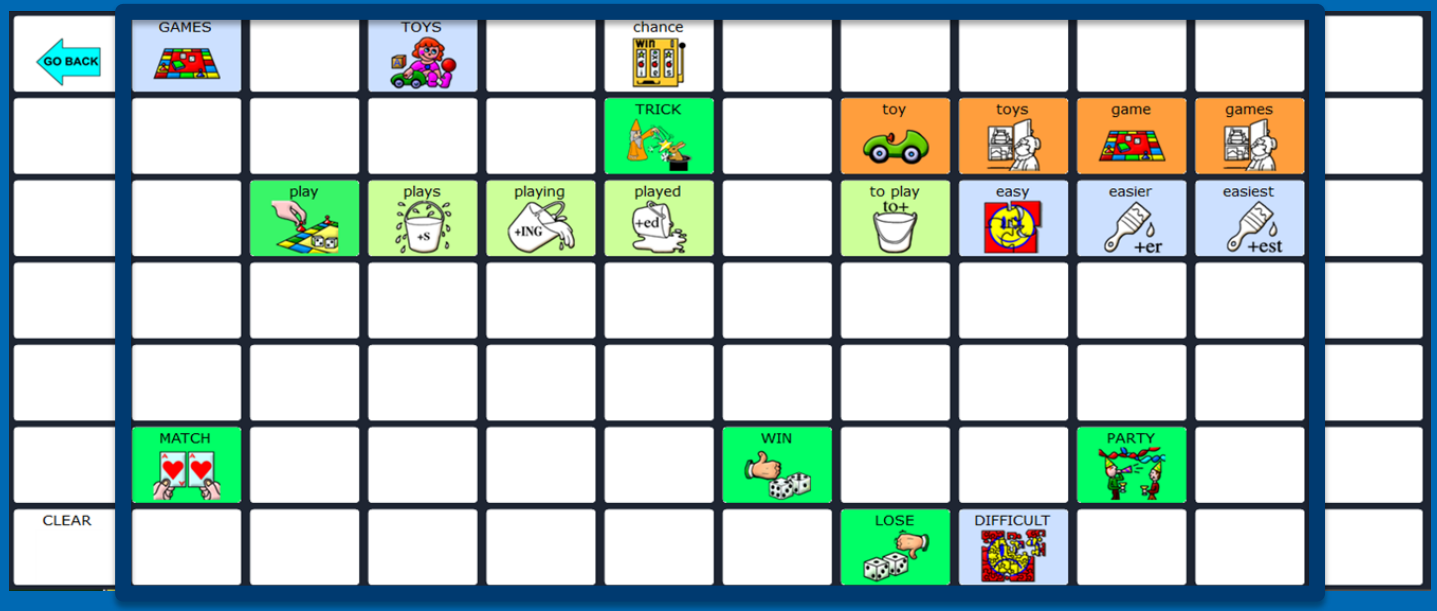
Fringe Example: LAMP Words for Life 84 Full



Fringe

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Fringe Example: TD Snap 4x4

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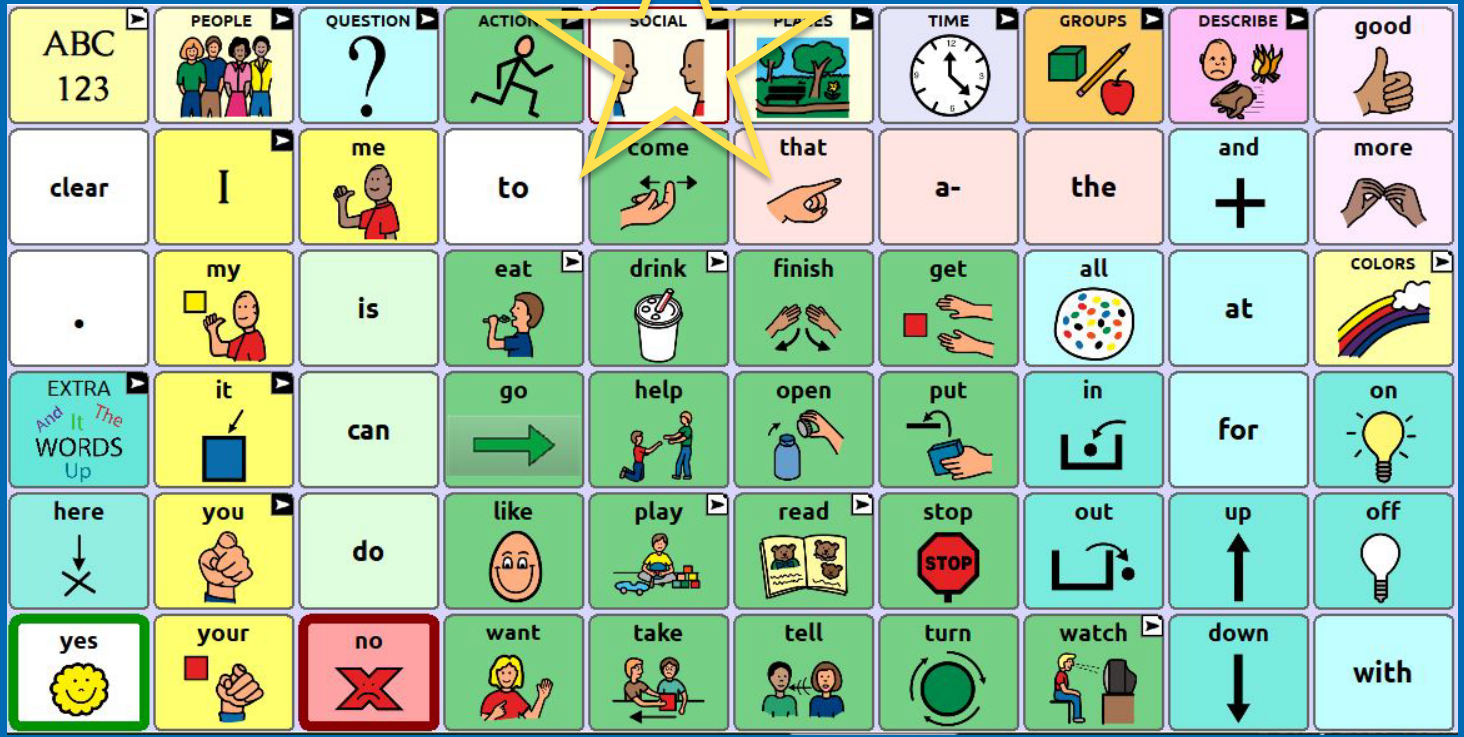
Functional words and phrases

- Words that are highly meaningful to your child
  - Example: TV shows, or characters from shows
- Gestalts
  - Example: Let’s go!
  - Remember not to take away single words, they will need them later!
- Phrases that might support your child's independence and reduce behaviors
  - Example: Can I take a 5-minute break in the bean bag chair?

Pre-programmed Phrases



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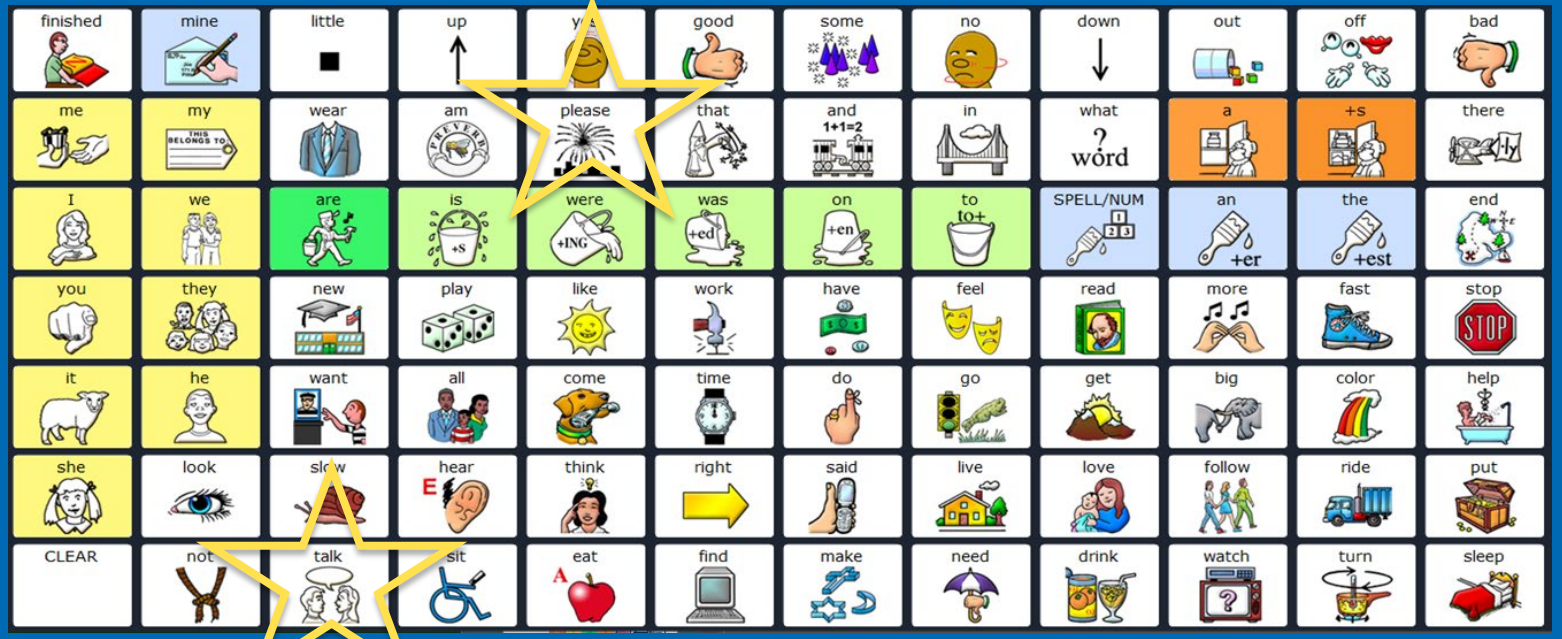
Phrases Example: WordPower 60 Basic SS Social Page



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Phrases Example: TD Snap 4x4

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Share core/fringe/phrases when working with play doh!

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Share core/fringe/phrases when at a birthday party!

Share core/fringe/phrases when skiing!

References

Beukelman, D. R., Mirenda, P., & Ball, L. J. (2013). *Augmentative & Alternative Communication: Supporting Children and adults with complex communication needs*. Paul H. Brookes Publishing Co.

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Implementation: Communication Partners & Strategies

Communication Partner: Definition & Role

Who is a communication partner?

Any person who listens to & responds to a person who uses or relies on AAC tools

ANYONE can be a communication partner!

Communication partners must develop several key skills to best support the AAC user

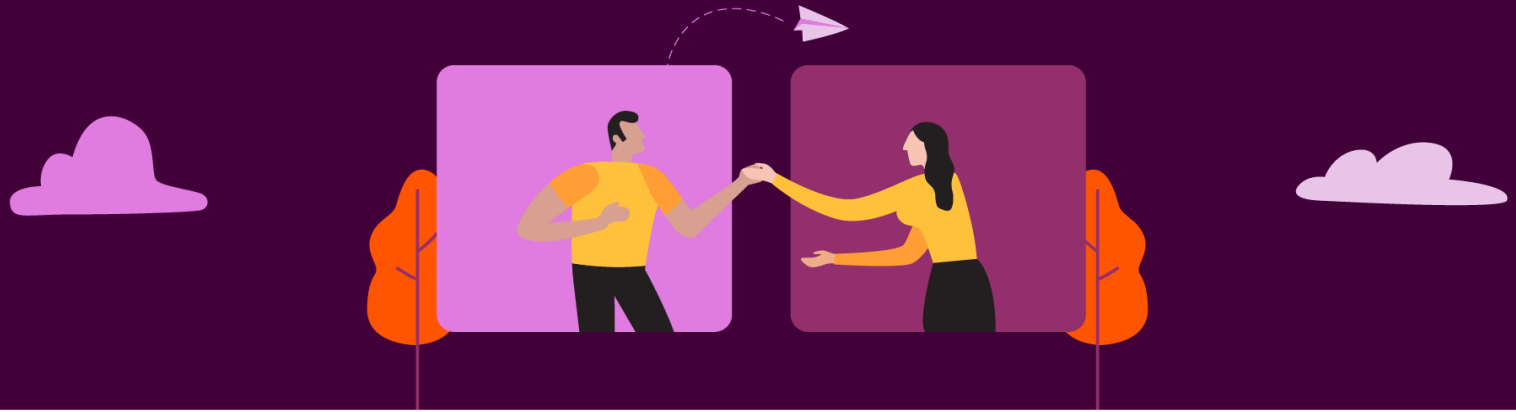
What do we know about NOVICE communication partners?

- Take the most turns
- Provide few opportunities
- Ask Yes/No questions
- Interrupt turns of AAC users
- Focus on technology vs. the person

What do we need to do?

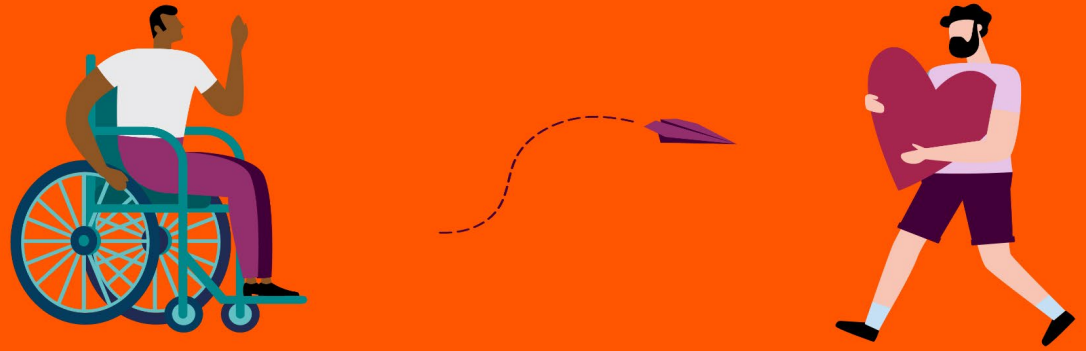
learn to better partners

AAC supporters do not speak for an AAC user. They simply help level the playing field so that AAC users can speak for themselves.



AssistiveWare

https://www.assistiveware.com/learn-aac/how-can-i-help-be-an-aac-supporter



All AAC users need to be supported in a way that is specific and personal to them. Good communication partners listen and ask about how they can support the AAC user better.

AssistiveWare

https://www.assistiveware.com/learn-aac/follow-their-lead-how-to-be-a-respectful-communication-partner

Key Values

- Presume competence
- Be flexible
- Be persistent & consistent
- Engaging real reasons to communicate
- Be patient & allow time
- Provide a balanced AAC system
- Make AAC tool always available
- Be respectful

Most important skills

- Learn how to model
- Make comments, instead of only questions
- Pause & wait
- Learn most helpful prompts/cues
- Consistent responding
- Accept all forms of communication

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Beukelman, D. R., & Light, J. C. (2020). *Augmentative & Alternative Communication Supporting Children and adults with complex communication needs*. Paul H. Brookes Publishing Co.

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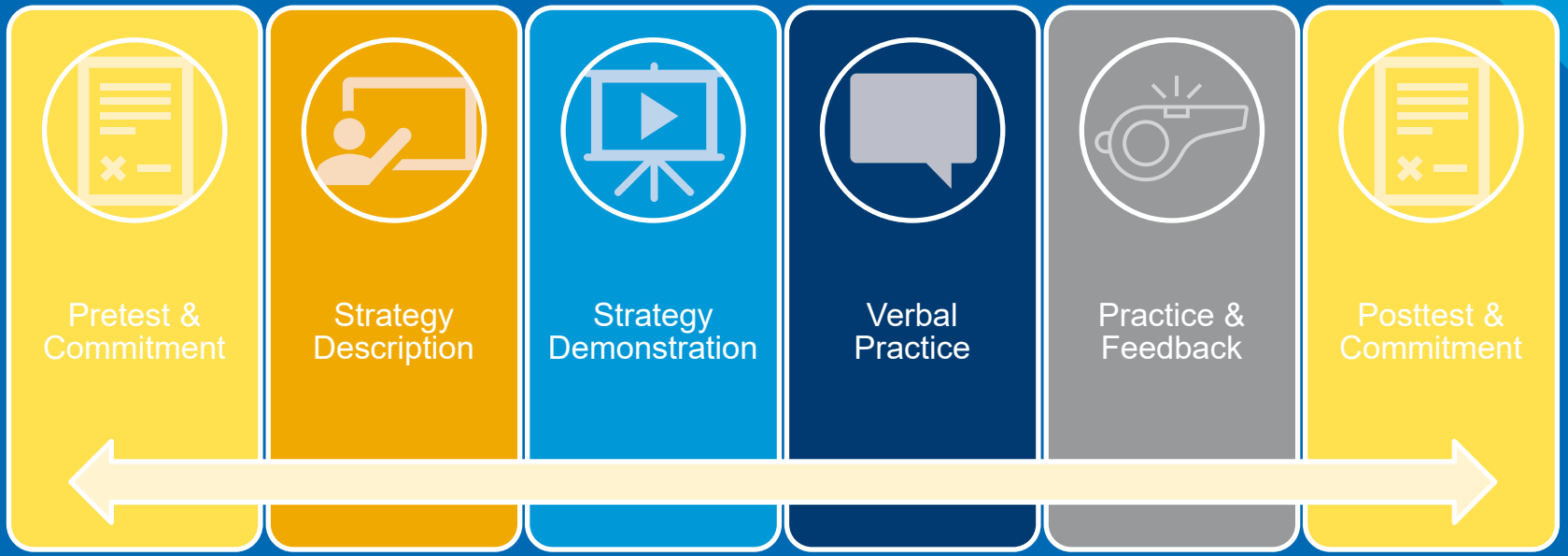
Communication Partner Strategies

8 Stages of Communication Partner Instruction



Jennifer Kent-Walsh & David Mcnaughton (2005) Communication Partner Instruction in AAC: Present Practices and Future Directions, Augmentative and Alternative Communication, 21:3, 195-204, DOI: 10.1080/07434610400006646

Communication Partner Strategies

1 Set-Up

2 Active

3 Extra

Communication Partner “Set-Up” Strategies

“mise en place”
meaning
“putting in place”

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kitchen chaos

Set Up Strategies

By taking a few moments to prepare ourselves, we set everyone up for success

“mise en place”
meaning
“putting in place”

communication
chaos

Set Up Strategies

By taking a few moments to prepare ourselves, we set everyone up for success

Motivation, Engagement, & Rapport

Day One : Goal One : BUILD RAPPORT

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Fun, Playful, and Engaging

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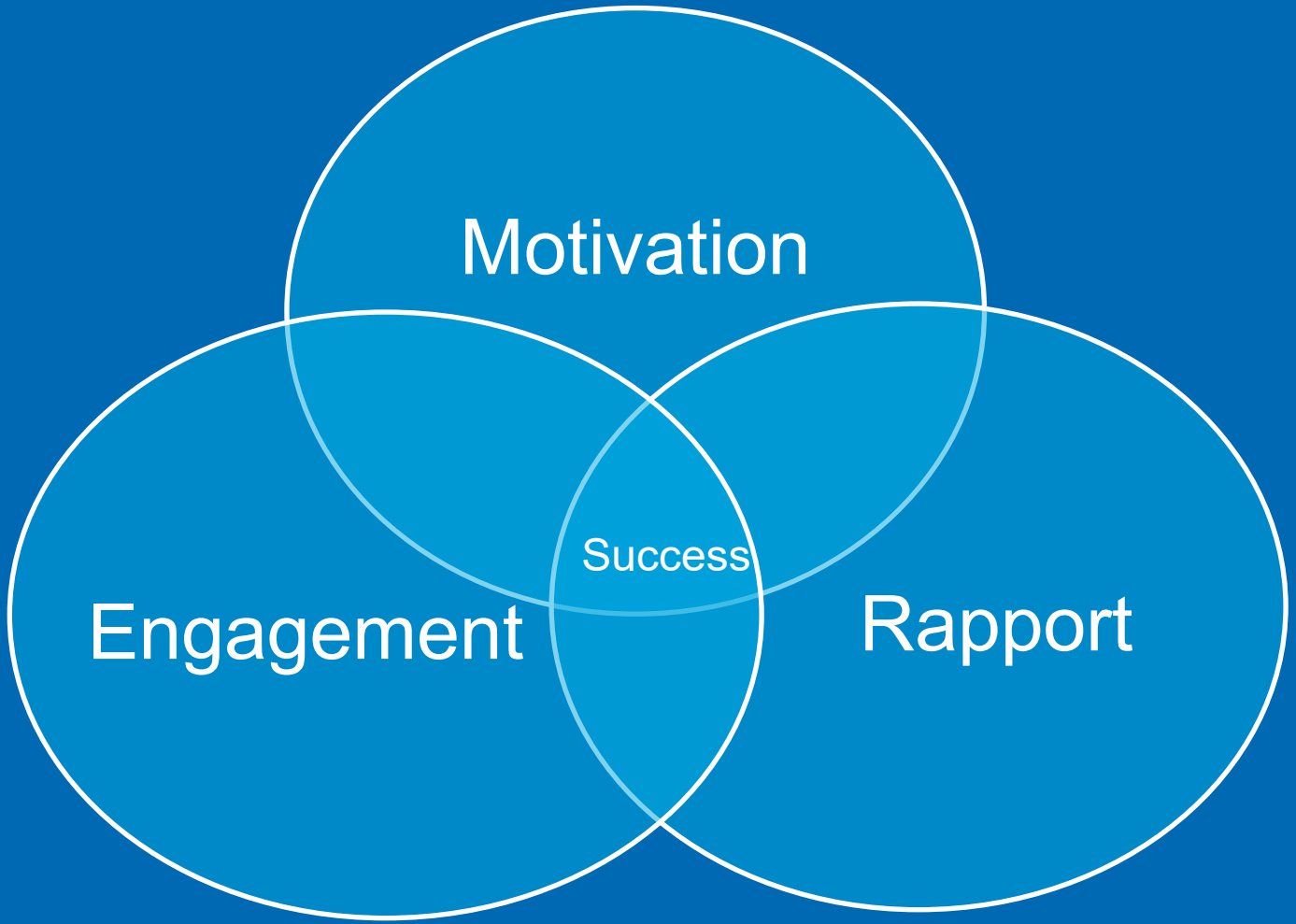
Motivation
Success
Engagement
Rapport

Special Interests / Fascinations

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Setting up the Environment

Set up Strategy

Organize & plan ahead:

- space
- materials
- people
- AAC tool

Free Access Environment

- Toys
- Entertainment
- Food
- Pets, people

Busy!

Independence to access vs. communication opportunity

Reference:

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Why think about it?

Increase language learning opportunities

- Provide a reason to communicate
- Active participation
- Self-advocacy
- Improve focus & attention

How its done

- Limit free access to preferred item/activity
- Place the desirable item within view, but out of reach
- Create an opportunity for teaching & learning communication

What it looks like

- Favorite toys/books in clear closed bin / on a high shelf
- Snacks on higher shelf in pantry / fridge in closed clear bin
- Guided Access feature on tablet/phone has timer
- Favorite person moves farther away
- AAC tool between m

Other Considerations

Distractions to learning :

- TV
- phone
- other toys
- pets
- other people

Reference:

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Cookie Caroline

Caroline just came home from karate.

Dad knows she always likes to have a cookie when she gets home.

How can he set up his environment for a communication opportunity?

Reference:

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Cocomelon Carrie

Carrie loves watching Cocomelon on grandpa's phone and can watch for hours!

Grandpa knows that when she brings him the phone she is asking for the show.

How can he set up his environment for a communication opportunity?

Reference:
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Social Sammy

Sammy just got home from school.

Dad knows he loves to give cuddles to the dog every day after school.

How can he set up his environment for a communication opportunity?

References

Beukelman, D. R., & Mirenda, P. (2013). Augmentative & alternative communication: Supporting children and adults with complex communication needs (4th ed.). Brookes.

Beukelman, D. R., & Light, J. C. (2020). *Augmentative & Alternative Communication Supporting Children and adults with complex communication needs*. Paul H. Brookes Publishing Co.

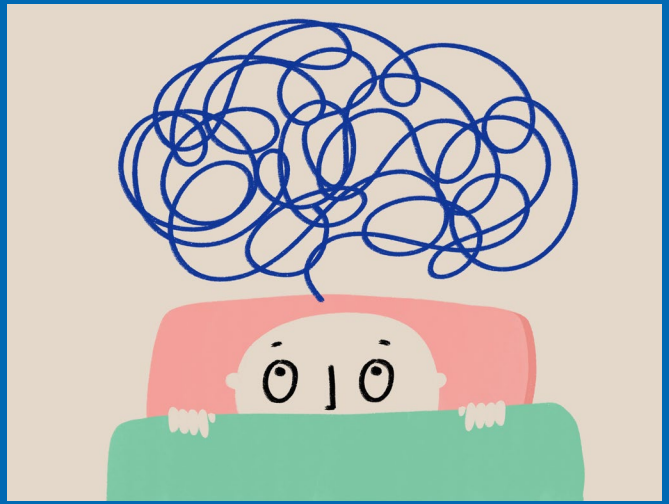
Visual Supports

What are Visual Supports?

Visual aids that promote:

understanding or ability to *communicate*

What visuals do YOU use every day
to be your BEST SELF?



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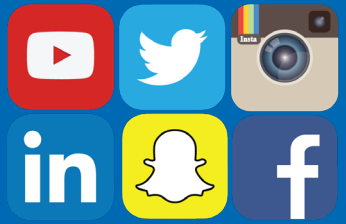
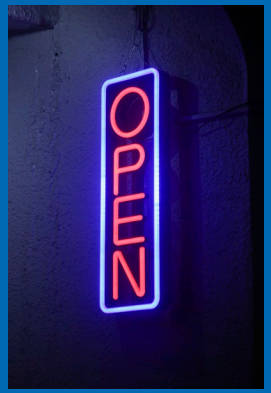
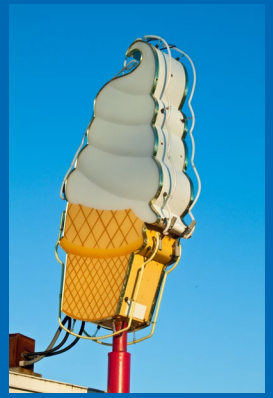
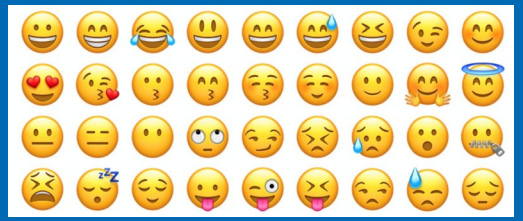
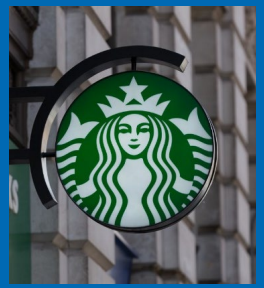
Lots or visuals everywhere











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Two uses for visuals

Receptive:

- Understanding
- Comprehension
- Knowing what to expect
- Remembering

Expressive:

- Communication
- Make choices
- Sharing yourself
- Advocating for yourself

Receptive

- Understanding
- Comprehension
- Knowing what to expect
- Remembering

What images help you *make sense* of your world?

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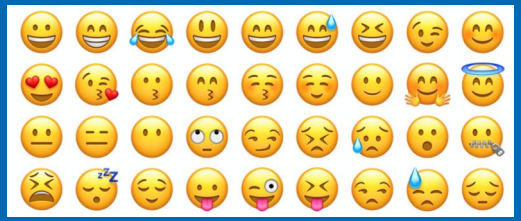
Expressive

- Communication
- Make choices
- Sharing yourself
- Advocating for yourself

What are visuals that help you EXPRESS yourself?



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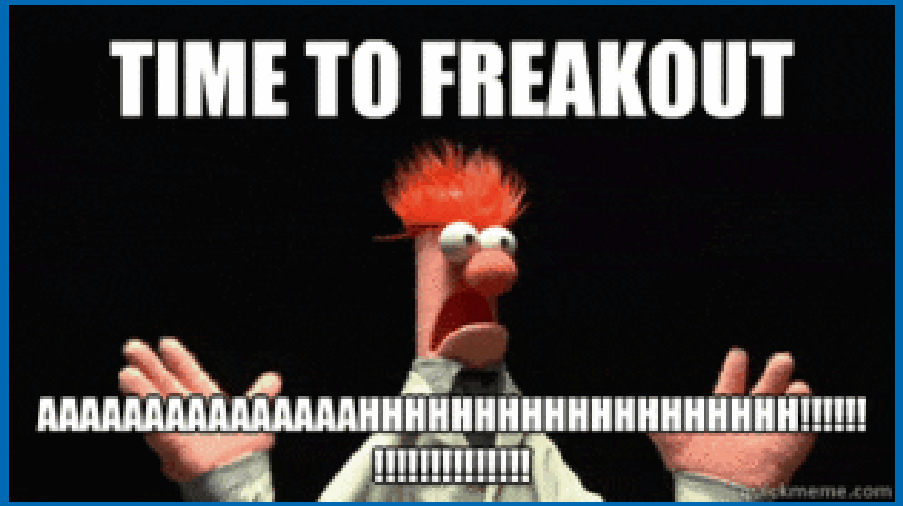
What if you didn't have any?



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Why use visual supports?

- enhances *understanding* of information
- improves ability to *interpret* or *clarify* verbal information
- provide *structure*

Visuals as a *teaching* tool:

- Temporary

Visuals as a *compensatory* tool:

- Long term, indefinite use

grocery store, TV, phones

Visuals in Environment:

n *understand* & may *spontaneously use* visuals naturally available to them

t looks like:

nging objects

nting to items, pictures, labels in store

nding in a location

egiver point/show to follow a direction

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Visuals in Environment

Benefits:

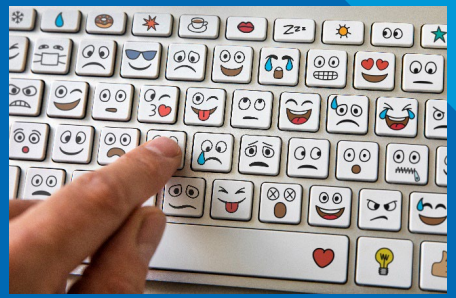
- No prep
- Spontaneous & intuitive

Drawbacks:

- Require prior knowledge
- Higher degree of interpretation
- Fewer communication partners
- Require interpreter
- Context must remain consistent

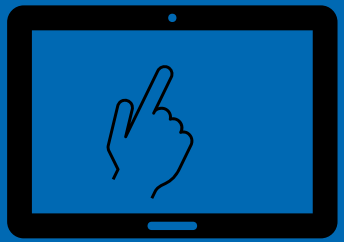
Intentional use of visuals: AAC

AAC, *aided* communication: visuals made ahead of time, more independent understanding/communication with a variety of people/places



What it looks like:

- Pointing to pictures on a menu
- Using a calendar (paper or digital)
- Using AAC tools: communication book, choice board, SGD
- Typing on a keyboard
- Texting on phone



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Intentional use of Visuals (AAC)

Benefits:

- Less or no interpretation required
- More communication partners
- More independent across settings

Drawbacks:

- Requires preparation
- Requires bringing/charging/maintaining the tool
- Less intuitive, requires some training to use

AAC: What does it look like?

Comprehension visual supports

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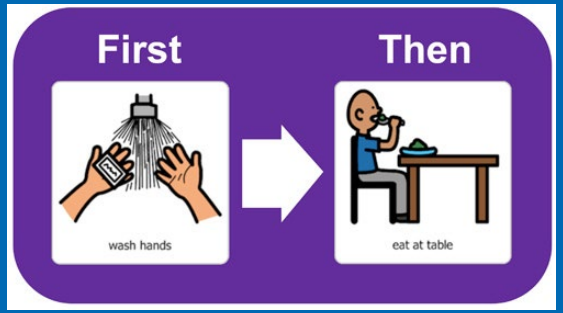
Comprehension visual supports



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Comprehension visual supports

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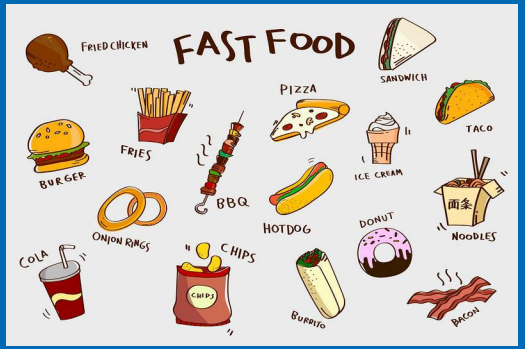
Expressive visual supports



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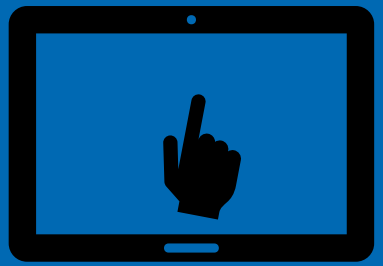
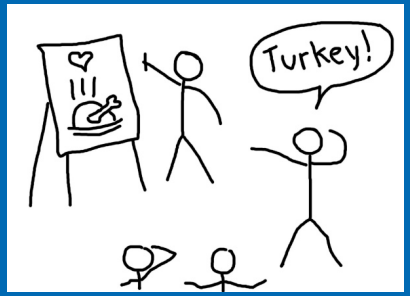
Expressive visual supports





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Social Narratives

What are Social Narratives or Social Stories?

- “A Social Narrative is used to describe a situation, skill, or concept in terms of relevant social cues, perspectives, and common responses in a specifically defined style and format.” (Gray, 1993)
  - Social narratives can increase receptive/ expressive language, executive functioning skills (or thinking about what comes next), and social awareness toward specific to a situation.
  - Social narratives can also help serve as behavioral supports, or model appropriate behaviors and decrease inappropriate behaviors.

We all like social stories!

- We want to know what kind of wedding we are invited to.
- Is it black tie, casual, or cocktail attire?

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What Should We Include in Social Narratives?

General:

- When
- Where
- Who is involved
- What to do in the situation (e.g., change in routine, what's expected)
- Why people behave in certain ways
- Describe what will happen at that particular event (Pierce, 2023)

Carol Gray's Version:

- Include descriptive and directive sentences.
- Descriptive sentences: State the facts, include thoughts and feelings of the person, and identify what others can do if help is needed.
- Directive sentences: Identify possible responses, gently direct behavior (Gray, 2018)

Social Narratives and AAC

- Social narratives are well researched around autism spectrum disorder; however, it is not as researched with other disabilities (Leaf et al., 2019b)
  - What does that mean?

- We can use the social narratives found on a specific situation and modify or adapt the activity to meet the needs of AAC users.
  - What does this look like?

TWT Camp Social Story

Camp is a place where you stay for a short time and do lots of new things.

Sometimes new and different things can be hard. This story will help everyone feel a little bit better about trying something new, like going to camp.

At camp, you will meet new people, sleep in a different bed, eat in a large room, and try new activities.

Camp is one week long. You can also count it by “sleeps”. You will sleep 5 nights at camp.

At this camp, all the campers use “talkers” or “devices” to communicate, just like you.

Before you come to camp, your parents will help you pack your bag to make sure you have everything you need. You will need sheets/pillowcase, lots of clothes, your favorite snack or toy.

And of course your talker or device!

You and your parents will drive to Easterseals camp, where they will introduce you to everyone and help you unpack your bag in your cabin.

TWT Camp Social Story Continued

At camp you will have a counselor. A counselor is someone who goes to all of your camp activities and helps you get ready in the morning and at night for bed. They will stay close to make sure you are safe.

You will also have someone to help you with your talker. This person will teach you new words, show you how to use the talker to chat with friends, and help you talk in really fun activities.

There is also a nurse at camp who will bring you any medicines you take and check on you if you get a scratch or tummy ache.

Everyone at camp sleeps in cabins. Cabins are rooms with lots of beds. The beds in cabins are also called bunk beds and are stacked on top of each other. You will sleep in a room with other campers and their counselors.

Everyone at camp eats in Jake's Place, which is the cafeteria. Chef Dave makes all the food and he has lots of help from friends. You will have breakfast, lunch, dinner, and a snack every day.

Each day at camp you will go to TWT activities and Camp activities. TWT activities will include relay races, making crafts, playing games, and talking to friends.

TWT Camp Social Story Continued

Each day at camp you will go to TWT activities and Camp activities. TWT activities will include relay races, making crafts, playing games, and talking to friends.

There are lots of different Camp activities.

You can go swimming

You can go rock climbing.

You can go zip lining.

You can make arts and crafts.

You can dress up.

You can go fishing.

You can go hiking.

On the last night, the big room is decorated like a party and fun music is played. Lots of people dance and sing to the music.

TWT Camp Social Story Continued

After 5 sleeps, your parents will come back to camp.

They will be so excited to see you and will want to hear all about your week at camp. You can use your talker or device to tell them your favorite memories.

There will be a video that shares lots of fun moments at camp.

After the video, you will put your bags in the car and you will go home with your family.

Camp is an awesome place and everyone is going to be so excited to see you when you get here!

Different Kinds of Communicators & Social Narratives

- Beginner / Emergent
  - Create simple stories that are needed to help with increasing appropriate behaviors or expectations.
  - Using extra visual supports, verbal cues, tactile cues to help the child.
  - Only give the child a few choices so that it's not as overwhelming

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Different Kinds of Communicators & Social Narratives

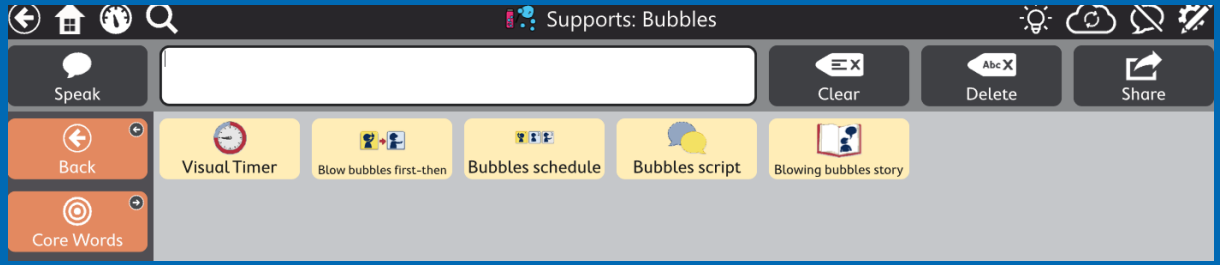
- Intermediate / Supported
    - Use the same or similar pictures from the child's device to help with literacy.
    - Keep stories short and simple

Different Kinds of Communicators & Social Narratives

- **Advanced/ Independent**
    - Can use longer stories and incorporate different kinds of stories (e.g., social interactions with others with a higher level problem)
    - You can ask more open ended questions about what the person would do

Tools within Devices that Can Help!

- TD Snap has behavioral and visual supports under each “topic” page. Although these are not considered social stories, they can serve as a behavioral support for children.
- You can also customize a social story under the “topics” page



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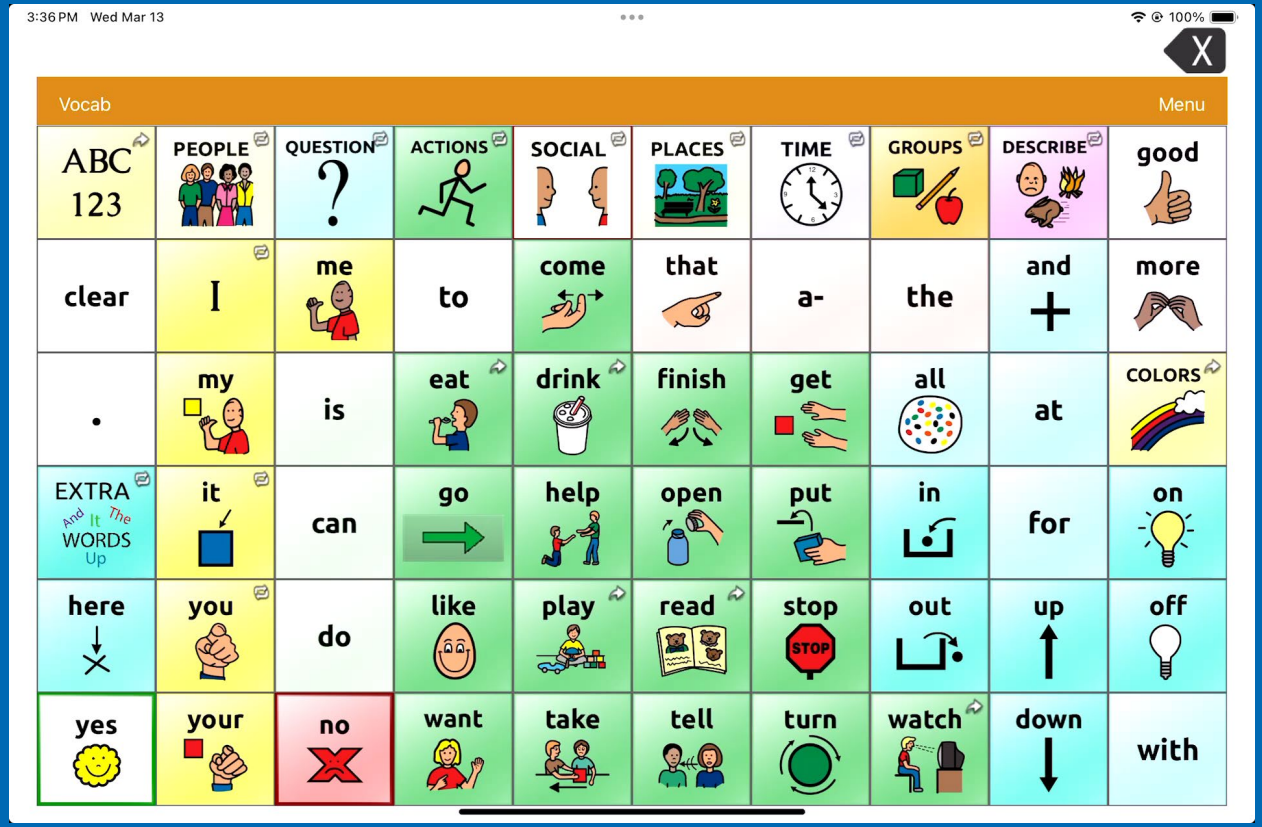
Tools within Devices that Can Help!

- You can create a “social narrative” within the TouchChat app. You can use visual supports within each step.

- You can also use it for social situations

- You can also use “social narratives” to talk about previous events.
    - This is a great way to incorporate literacy as well!



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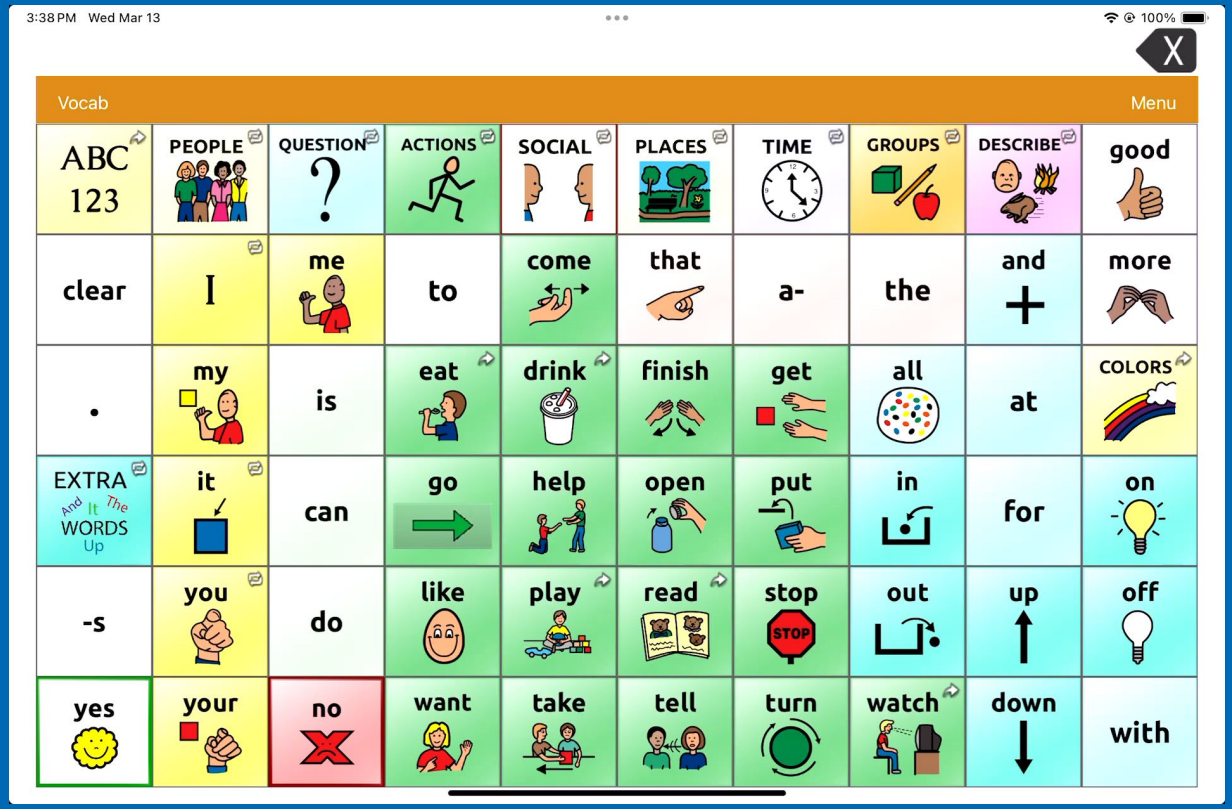

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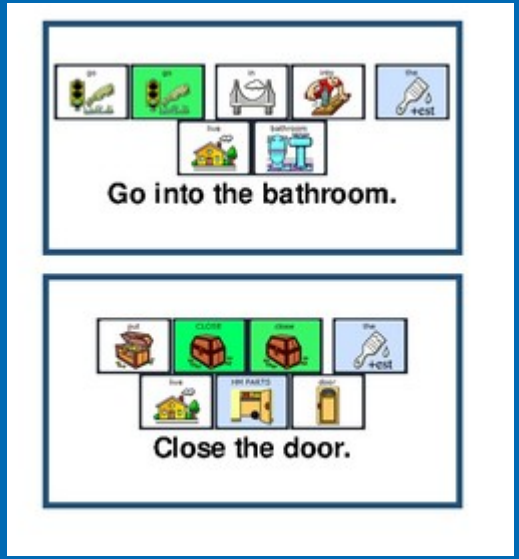
Tools within Devices that Can Help!

- Lamp WFL does not have a specific page for this, but you can copy the picture words from the computer (on Empower) and laminate a hard copy.

- You can customize specific social stories/ narratives on Unity (on the Accent only) under the “blank” pages (in pages or categories)



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Implementation: Communication Partners Strategies: Active & Extra

Communication Partner Strategies

“Active” & “Extra”

Active Strategies

Strategies we use while we are actively engaging with a communication partner

Just like in baking, we can mix with a spoon, spatula, whisk, or mixer. When supporting AAC users, we need to consider which strategy (or combination of strategies) will be the most effective/appropriate.

Extra Strategies

Some of these strategies are not always available, but when they are, it’s a great tool

Aided Language Stimulation/ Modeling

Aided Language Stimulation (Modeling)

Purpose: A way to teach your AAC user language

Definition: YOU show your AAC user how to say the word with a gesture, picture or device, just like you have always spoken to your device user.

Expectation: THEY (AAC user) does not have to do anything. They are learning.

Concept adapted from Gayle Porter and Gretchen Storm

Aided Language Stimulation (Modeling)

So, what does this mean for your AAC user?

We know your AAC user has difficulty speaking verbally.

- When we only speak to AAC users verbally, they miss out on seeing how we expect them to communicate.
- And then we get frustrated because they aren't using their AAC Systems!

By speaking using the device, we are showing them how to communicate and modeling the expectation.

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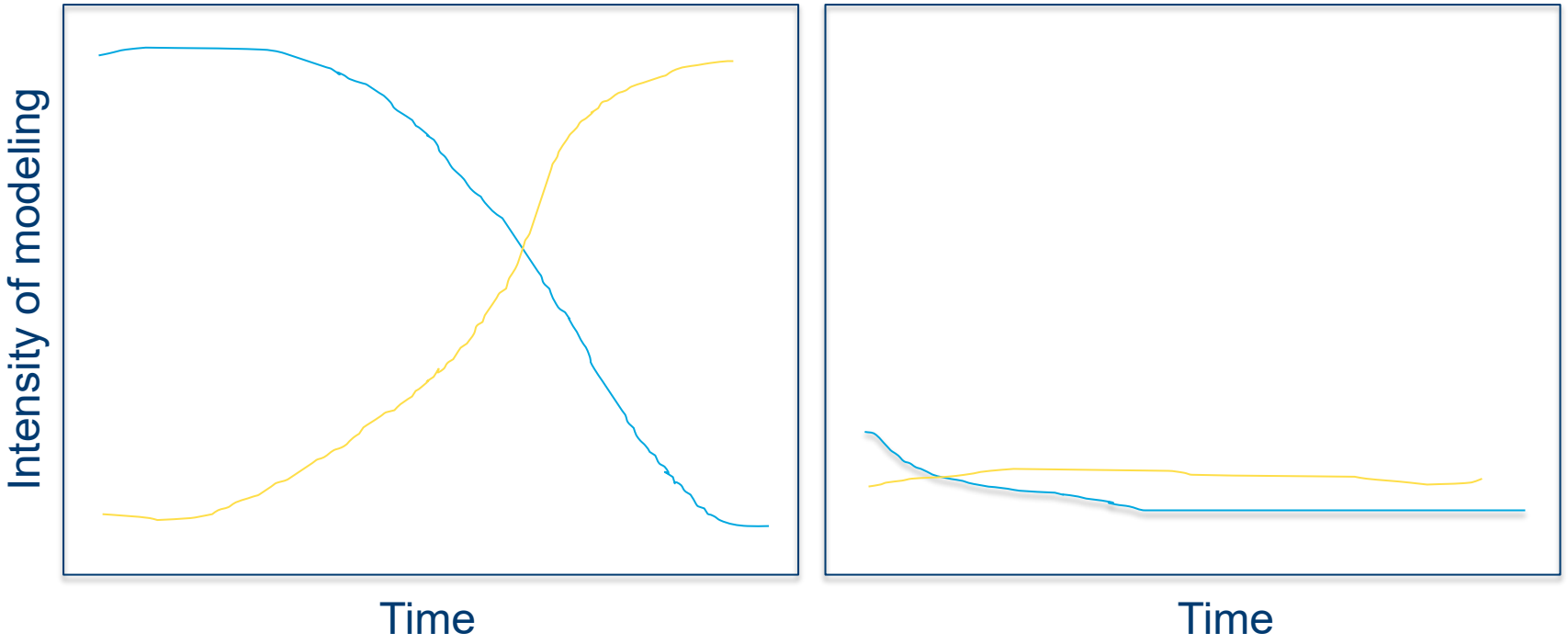
Communication Partner's Use of the Device

Device User's Use of the Device



Modeling as a Cue

After a lot of exposure, we can use modeling as a cue!

Model a specific phrase or word during an activity as a possible "turn" in a natural situation

- Target phrase: "Let's get it"
- Activity: Marble run
- **The communication partner models "Let's get it" twice while playing with the marble run to get the marble**
- On the third turn, the communication partner attempted visual cues for the phrase
- On the fourth turn, the communication partner provides some navigational support to the phrase

Modeling Without Expectation Recap

Use the device as you talk.

There is no expectation for your child to use the device.

Don't expect your child to automatically know where all the words are.

Additional Resources

- The AAC Coach
  https://www.theaaccoach.com/

- Project Core
  https://www.project-core.com/

References

Sennot, S.C., Light, J.C., & McNaughton, D. (2016). AAC modeling intervention research review. *Research and Practice for Persons with Severe Disabilities*, 41, 101-115.

Wait Time

Wait Time

AAC users need time to take their conversational turn, process what was said, think about what they want to say, and *then* create their message (AssistiveWare, 2015).

Wait Time

With wait time, Mathis, Sutherland, and McAuliffe (2011) found that:

1. AAC user is more likely to claim their turn
2. Respond with more words

They suggest providing a wait time up to 45 seconds can increase these outcomes!

Strategies for Wait Time

- Choose something silent to do
  - ABCs
  - Count to 30
  - Twist your ring 10 times
- Ask the AAC user if they prefer you to look at them while you wait or to look away
- Draw a reminder of what the question or statement was
  - Whiteboard feature in AAC apps can be helpful for this

References

Mathis, H., Sutherland, D., & McAuliffe, M. (2011). The effect of pause time upon the communicative interactions of young people who use augmentative and alternative communication. *International journal of speech-language pathology*, *13*(5), 411-421. https://doi.org/10.3109/17549507.2011.524709

Sabotage

Sabotage

- Put on our detective hat
- Think about what the child wants and prevent access from what they are seeking
- Sounds mean!!!
- Provide a highly motivating opportunity for communication!

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What you may have heard…

- communication temptations
- playful obstruction
- Invitation to join play
- Intrude
- CREATING AN OPPORTUNITY TO COMMUNICATE!!

Idea

Don’t automatically turn a page in the book

Idea

During an art project, only provide some of the necessary materials

Idea

Only give a few pieces of a favorite snack

Idea

Blow bubbles once, then wait…

Idea

Block the door when a child is trying to come in or leave

Idea

Put favorite toys in a hard to open box

Idea

Use the process of setting up and cleaning up a game/activity as an opportunity for communication

Idea

Put a child on a swing, but don’t push it

Idea

Block a child from going down the slide

Idea

Keep motivating items in sight, but of
of reach

Idea

Play a nonpreferred song or movie

Idea

Take advantage of natural opportunities…don’t automatically anticipate needs and help.

References

Jennifer Kent-Walsh, Kimberly A. Murza, Melissa D. Malani & Cathy Binger (2015) Effects of Communication Partner Instruction on the Communication of Individuals using AAC: A Meta-Analysis, Augmentative and Alternative Communication, 31:4, 271-284, DOI: 10.3109/07434618.2015.1052153

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Open Ended Questions

Questions

- Open ended questions: develops early, more powerful, more independent
  - WHAT
  - WHO
  - WHERE
  - WHEN
- Yes/No questions: the ability to demonstrate knowledge develops later
  - Requires more comprehension
  - Limits Language
  - More Dependent
  - Slow

What did I do this weekend?

You can only ask y/n questions

Did you watch a movie?

Did you cook?

Did you read a book?

Did you go somewhere?

Did you go out to eat?

Did you go to a movie?

Did you go to the mountains?

Did you fly on a plane?

Did you go somewhere hot?

Did you go to the beach?

Did you go with your family?

Use of Yes/No Questions

Requires comprehension

Limits Language

Places communicator is a highly dependent role

Slow

Y/N questions place a lot of pressure on the communication partner

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What did I do this weekend?

You can ask an open ended question

What did you do this weekend?

I went to Long Island for a lacrosse tournament for my son.

The Challenge:

Refrain from anticipating and predicting

Ask questions that allow and encourage many types of answers

Scaffold to provide success

Scaffold for Success

1. Means to communicate
2. Model
3. Support with Navigation
4. Provide Choices
5. Visual Cues & Verbal Cues

Open Ended Questions

References

Dollaghan, C. (2004). Evidence-based practice in communication disorders: What do we know, and when do we know it? *Journal of Communication Disorders, 37*(5), 391–400. https://doi.org/10.1016/j.jcomdis.2004.04.002.

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Offering Choices

Offering Choices

Why?

- Gives an AAC user more autonomy
- Concrete focus for interactions
- Loaded with motivational power

Retrieved from: Mediad Public Broadcasting

Offering Choices

- Think about how an AAC user expresses preferences (e.g. sounds, gestures, facial expressions, body movements, etc.) and then model what words they could use
  - "I see your smile. I think you LIKE this."
  - "I see you pushing it away. I think you DON'T LIKE this."
- Go beyond choosing objects!
  - People, activities, places, locations
- **Always give an out!**

Levels of Support

What is a prompt?

- A *cue* or *hint* meant to encourage the child to perform a desired behavior.
- Prompts help us learn
- Prompting used in all types of teaching, not just with AAC
- Prompt vs cue
  - Prompt is more direct
  - Cue is more indirect
  - Often used synonymously

A Note on Modeling

Modeling to expose AAC user to their vocabulary system

Vs

Modeling to support an AAC user's USE of their system

Least to most cueing hierarchy

Least to most and most to least

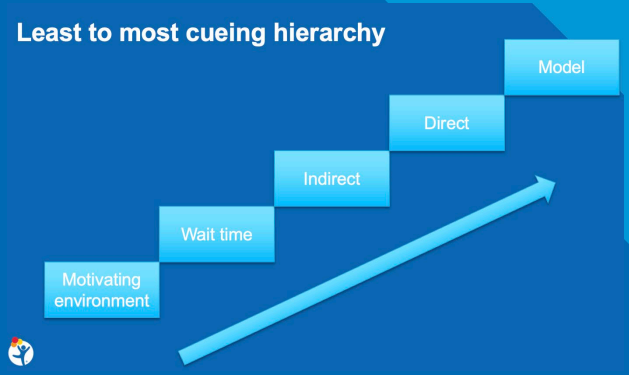
When to use least to most cueing?

- Independence
- Decrease prompt dependence
- Intrinsic motivation
- Naturalness
- Remember: compliance is not communication

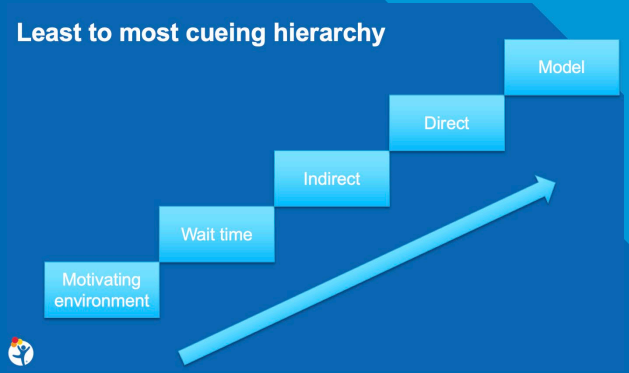
When to use most to least cueing?

- Brand new learning
- Errorless learning
- Often a go-to support at the start of assessments

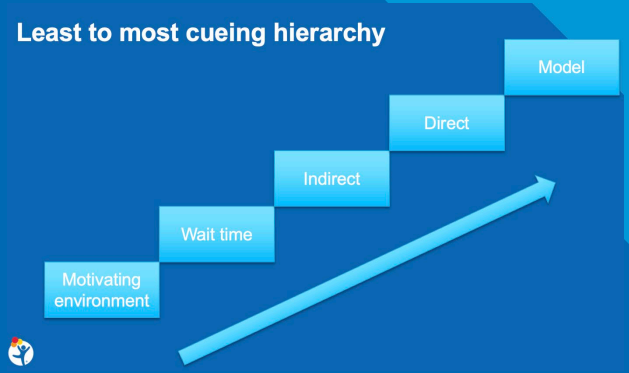
Wait time


Least to most cueing hierarchy
Model
Direct
Indirect
Wait time
Motivating environment

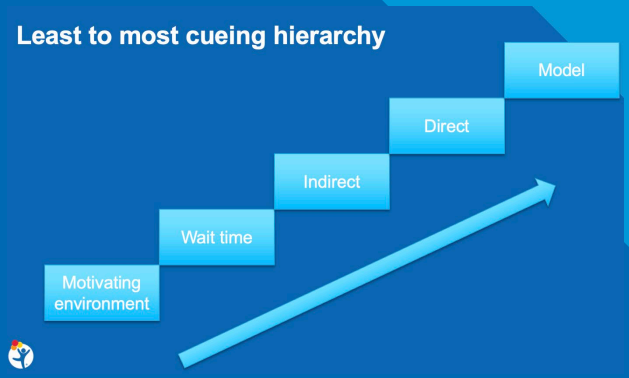
Indirect


Least to most cueing hierarchy
Model
Direct
Indirect
Wait time
Motivating environment

Direct


Least to most cueing hierarchy
Model
Direct
Indirect
Wait time
Motivating environment

Model


Least to most cueing hierarchy
Model
Direct
Indirect
Wait time
Motivating environment

Physical prompting

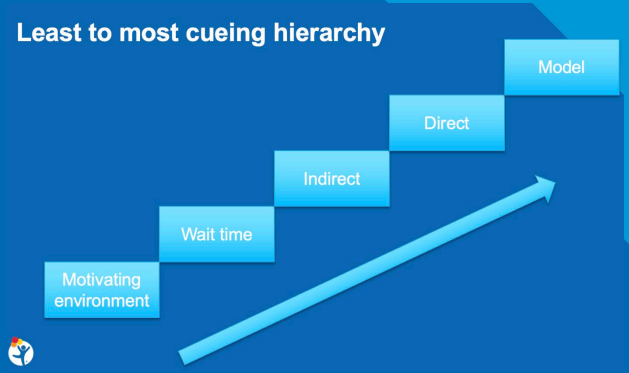
Giphy. (2019a, September 13). *Hurry up push GIF - find & share on giphy*. GIPHY. https://giphy.com/gifs/forever-dis-10bdHQaMWyDpRu

What is your goal?

Giphy. (2017, September 20). *What do you want GIF - find & share on giphy*. GIPHY. https://giphy.com/gifs/girlfriend-eat-GDqDZOPSZJC00

Fading support

- Fade support ASAP
- Move up the hierarchy
- Be dynamic
  - One hard thing at a time: what is the intention of the moment?



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Video & Peer Modeling

Video Modeling

Delano (2007) defines “video modeling interventions [to] involve a child watching videotapes of positive examples of adults, peers, or him- or herself engaging in a behavior that is being taught.”

She concluded, “The positive outcomes of the studies reviewed in this article suggest that video modeling interventions are important tools for practitioners working with children with autism, but additional research is warranted.”

Video Model

Result

Peer Modeling

The demonstrate of the skill by a similarly aged individual to the client

- Peers in the classroom
- Siblings or cousins

Peer Modeling

You walk for a walk
You jump on

Your turn push blocks

References

Banda DR, Copple KS, Koul RK, Sancibrian SL, Bogschutz RJ. Video modelling interventions to teach spontaneous requesting using AAC devices to individuals with autism: a preliminary investigation. Disabil Rehabil. 2010;32(16):1364-72. doi: 10.3109/09638280903551525. PMID: 20465397.

Delano, M. E. (2007). Video Modeling Interventions for Individuals with Autism. Remedial and Special Education, 28(1), 33-42. https://doi.org/10.1177/07419325070280010401

Communication Partner Strategies:

Expansions & Extensions

Expansions and Recasting

- Take what child produces and then add more to it
- Keep the word order the same
- Add more grammatically correct utterance
- Add at just slightly above child's language level

- Example:
- Child: Ball go
- Adult: Ball goes fast

Extensions & Feedback

- Take what child produces and then add new information to it
- Keep keywords
- Add grammatically correct utterance
- Add at just slightly above child's language level
- New information should positively reflect on child's utterance
- Encourages commenting.

- Example:
- Child: Dog play.
- Adult: Dog is happy.
- Adult Dog likes you.

References

Owens, R., Jr. (2012). *Language Development: An Introduction* (9th ed.). Pearson.

Communication Partner Strategies:

Chaining

Chaining Defined

- "a behavior chain is a linked sequence of responses leading to a terminal outcome"

(Copper, Heron, & Heward, 2020, p. 558)

- Communication is the terminal outcome of chaining language.

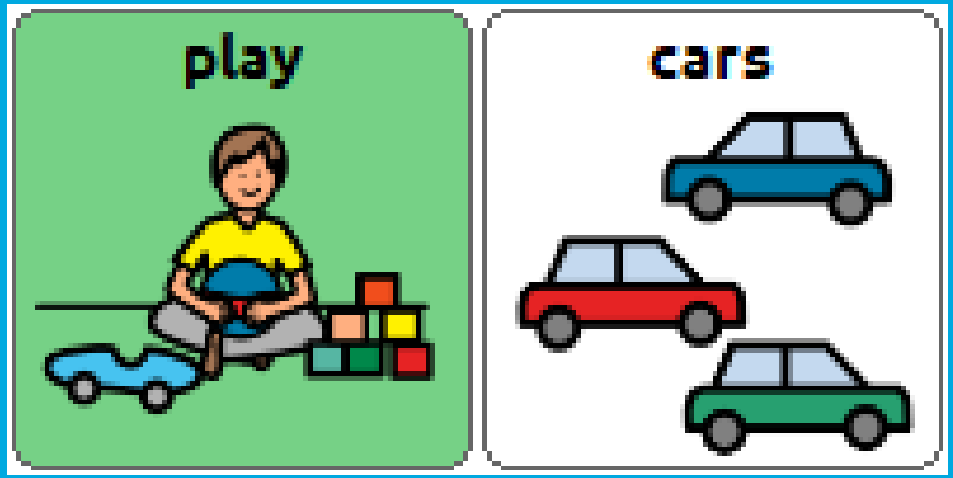
- There can be:
  - Forward chaining
  - Backward chaining
  - Total task chaining

Forward Chaining

1. Determine the target
2. Create the situation
3. Give positive reinforcement when initial step is taken
4. Model the rest of the sequence

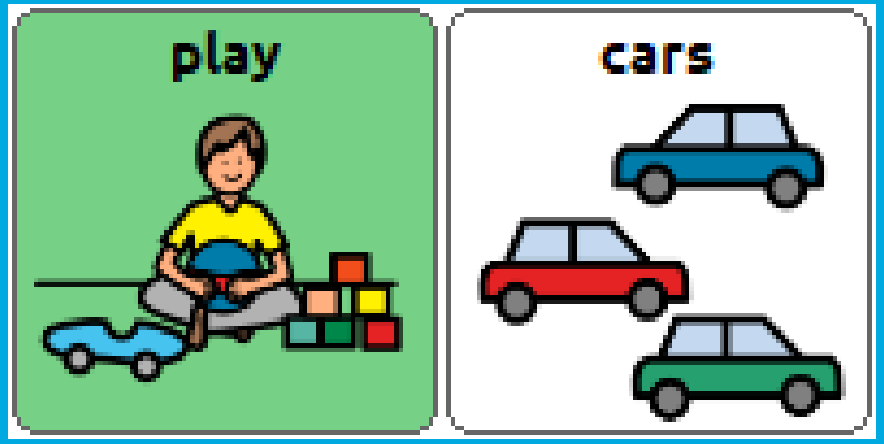
Backward Chaining

1. Determine the target
2. Create the situation
3. Begin the sequence by modeling through verbal speech and use of system
4. Give positive reinforcement when final step is taken



Total Task Chaining

1. Determine the target
2. Create the situation
3. Give appropriate support for each step of the sequence
4. Give positive reinforcement when final step is taken



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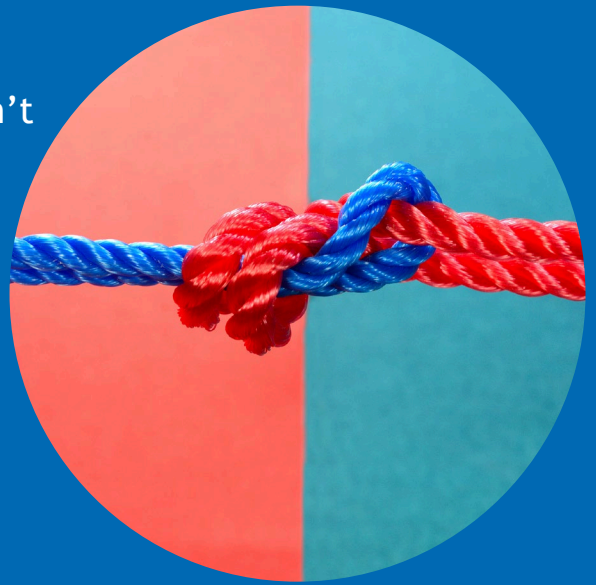
Contrastive Examples

Contrastive Examples

- Modeling + targeted vocabulary

- Like Offering Choices, suggest 2 choices
- Make your choices opposites or state what it is or isn't

- Example: Teaching "cool"
  - Hot or Cold?
  - Not warm



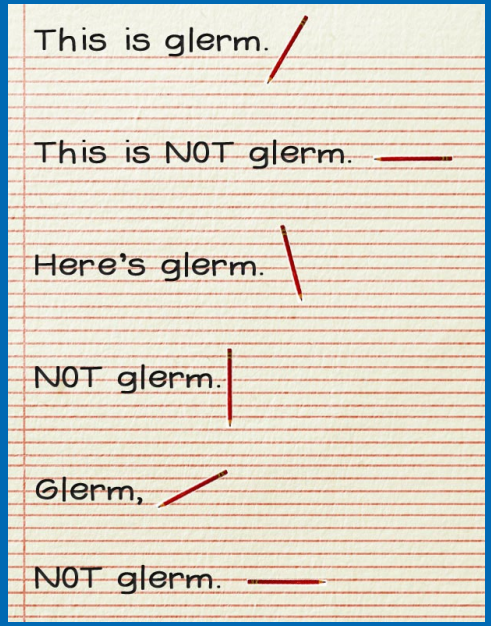
Contrastive Examples

Why use it?

- Vocabulary
- Syntax
- Communication Repairs
- Communication Functions
  - Commenting / Describing
  - Sharing Information / Opinions
  - Demonstrating Knowledge
- Literacy

Contrastive Examples

From Dr. Zangari's "glerm" example, we see how when provided both *positive and negative referents*, we can decipher that "glerm" relates to something diagonal.



Zangari, C. (2013, September 3). The PrAACtical Power of Contrast. *PrAACtical AAC*. https://praacticalaac.org/praactical/the-praactical-power-of-contrast/

Practice!

S’mores

It is hot.
It is not hard.
It is messy/sticky.
It is not clean.
We eat it.
We do not drink it.
We *might wear* it.

How else could you contrast to teach the word *s’mores*?

Practice!

Fog

It is light.
You can't touch it.
You see it early or late, but not all day.

How else could you contrast to teach the word *fog*?

Practice!

Singular vs Plurals

They have one tent.
They do not have two tents.
There are lots of trees.
There is one backpack.

How else could you contrast to teach the grammatical structure: plurals?

References

Binger, C., Maguire-Marshall, M., & Kent- Walsh, J. (2011). Using aided AAC models, recasts, and contrastive targets to teach grammatical morphemes to children who use AAC. Journal of Speech, Language, and Hearing Research, 54, 160–176. doi:10.1044/1092-4388(2010/09-0163)

Zangari, C. (2013, September 3). The PrAACtical Power of Contrast. *PrAACtical AAC*. https://praacticalaac.org/praactical/the-praactical-power-of-contrast/

Support with Navigation

Learning to use AAC Tools and Strategies

- It’s not magic
- It requires practice over time
- The map to vocabulary needs to be taught

We all rely on Maps!

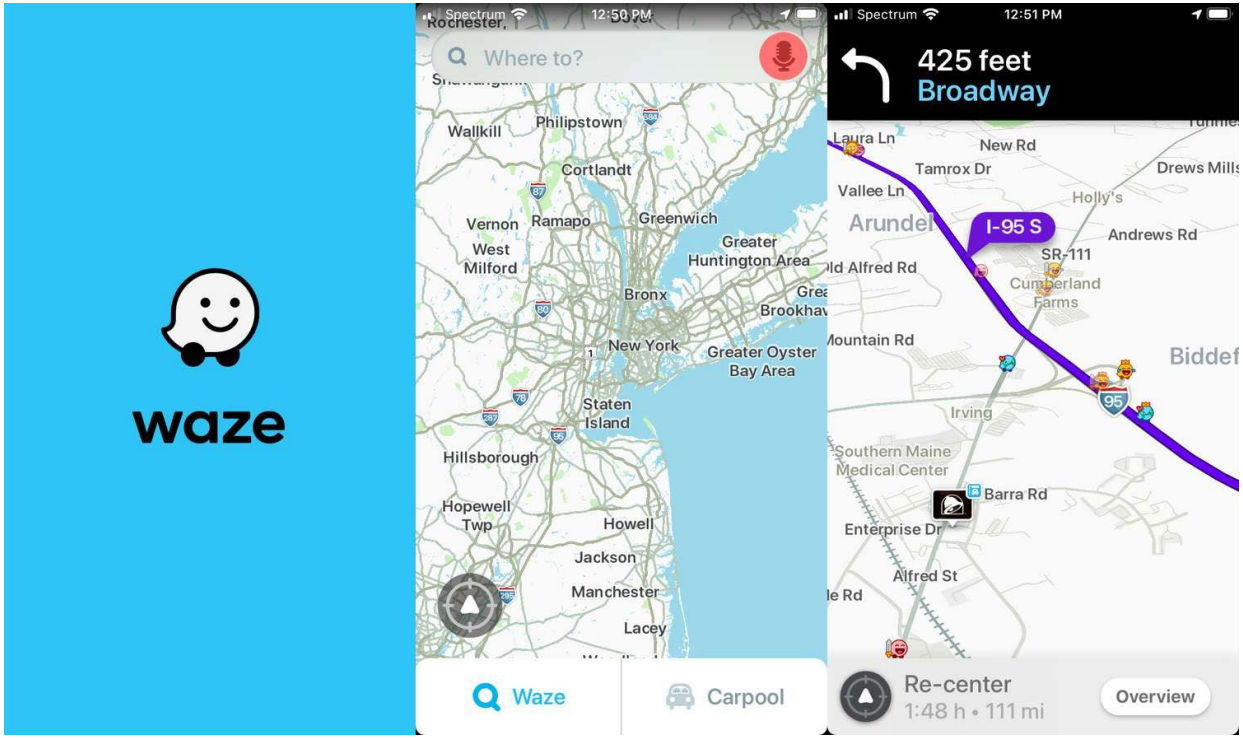


Photo by: https://www.lifewire.com/thmb/PHPDhfbwnAK-aKvxVIRkpQ-Jny4=/1500x0/filters:no_upscale():max_bytes(150000):strip_icc()/Waze-db755f508f42401282cbef722b7bd41e.jpg

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Strategies to teach Navigation

Model! Model! Model!

Verbalize your thought process

Provide choices

Verbal & Visual cues

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Know Your Goal

If the goal is navigation	• Use the strategies discussed • Gradually decrease cues
If the goal is not navigation (e.g., commenting, sharing information, etc.)	• Provide support with navigation to decrease the cognitive demands and increase efficiency with communication

References

Beukelman, D.R., & Mirenda, P. (2013). *Augmenttive and Alternative Communication: Supporting Childrens and Adults with Complex Communication Needs.* Baltimore, MD: Paul H. Brookes Publishing Co.

Special Topics: Vocabulary & Literacy

Vocabulary:
Descriptive Teaching

Descriptive vs. Referential Communication Strategies

A comparison of two teaching strategies and their relationship to high-quality AAC instruction.

Children's Hospital Colorado
Here, it's different.™

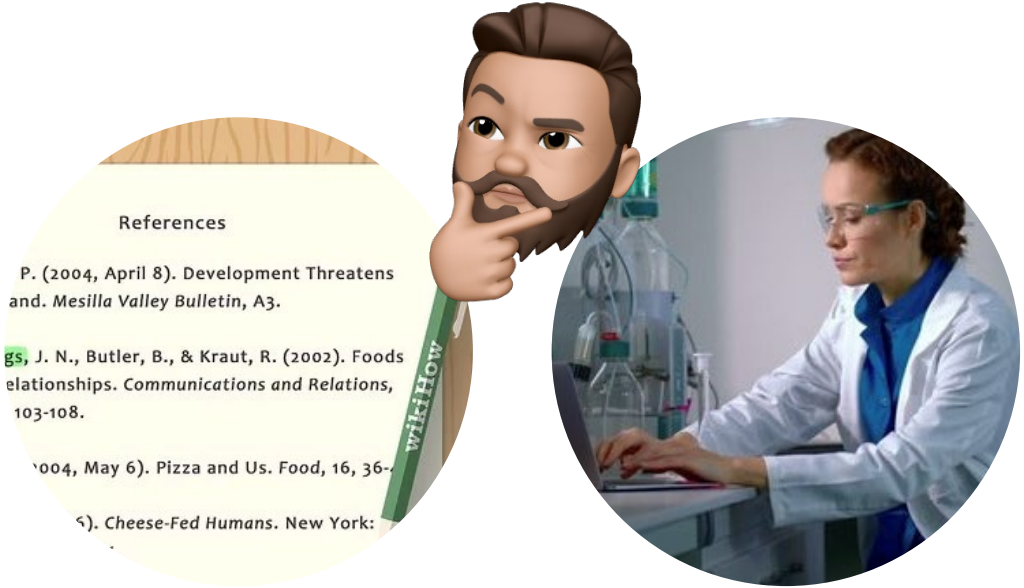
Definitions

What are we talking about?

REFERENTIAL

VS.

DESCRIPTIVE



Citations?

Scientific Research?

References

Not these kind of references...

Definitions

What are we talking about?

REFERENTIAL Communication

Labeling a referent.

VS.

DESCRIPTIVE Communication

Describing the referent.

Definitions

What are we talking about?

REFERENTIAL TEACHING

Teaching the student to *label* a referent.

VS.

DESCRIPTIVE TEACHING

Teaching the student to *describe* the referent.

Reference Defined:

Something for which a word stands

"This word means that object"

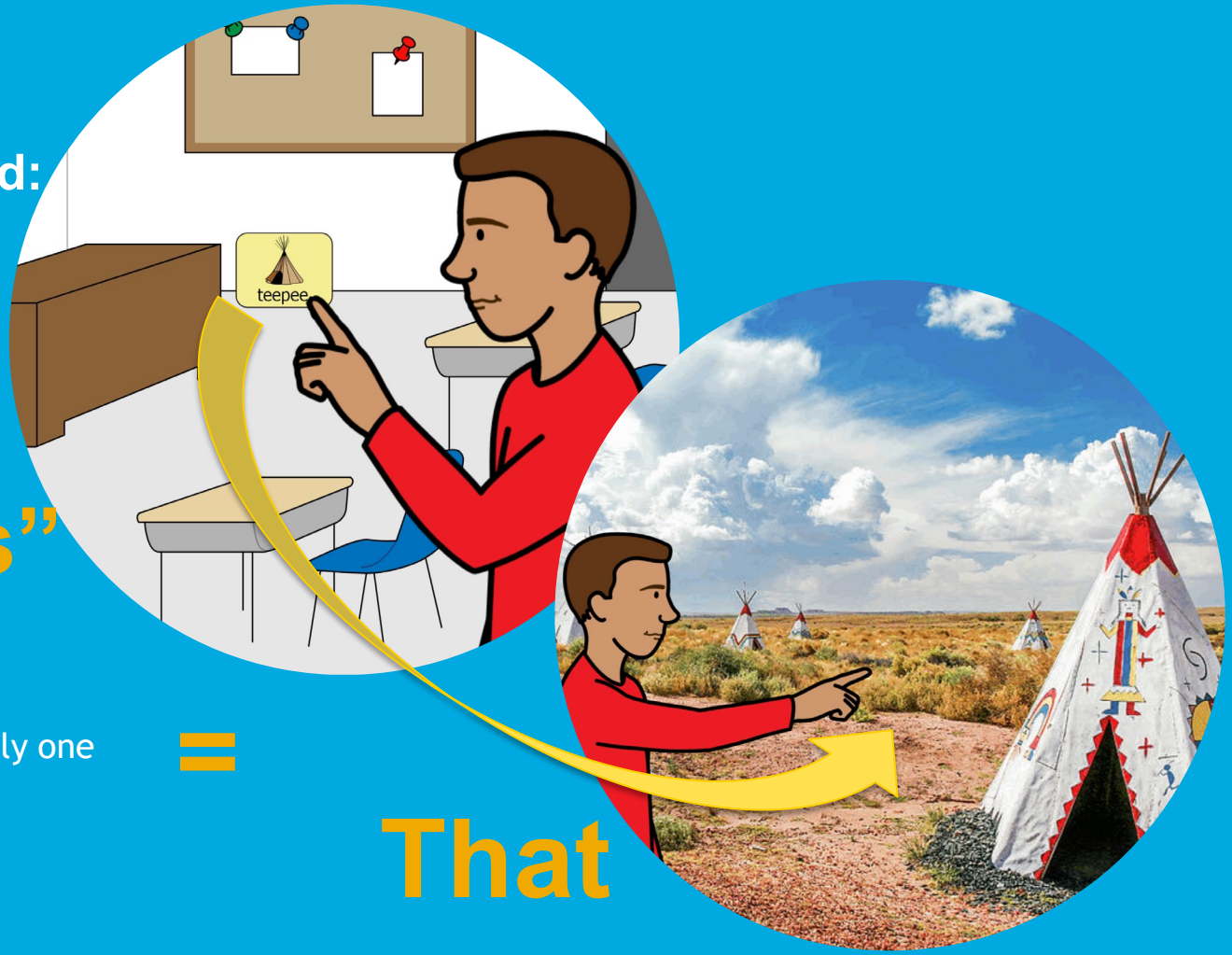
"This"

In AAC:

Labeling objects… typically one word:

"TEEPEE"

=



Description Defined:

A statement or account that describes [a thing or a concept].

In AAC:

Use of Core Words to descriptively talk about objects and concepts.

Typically more than one word:

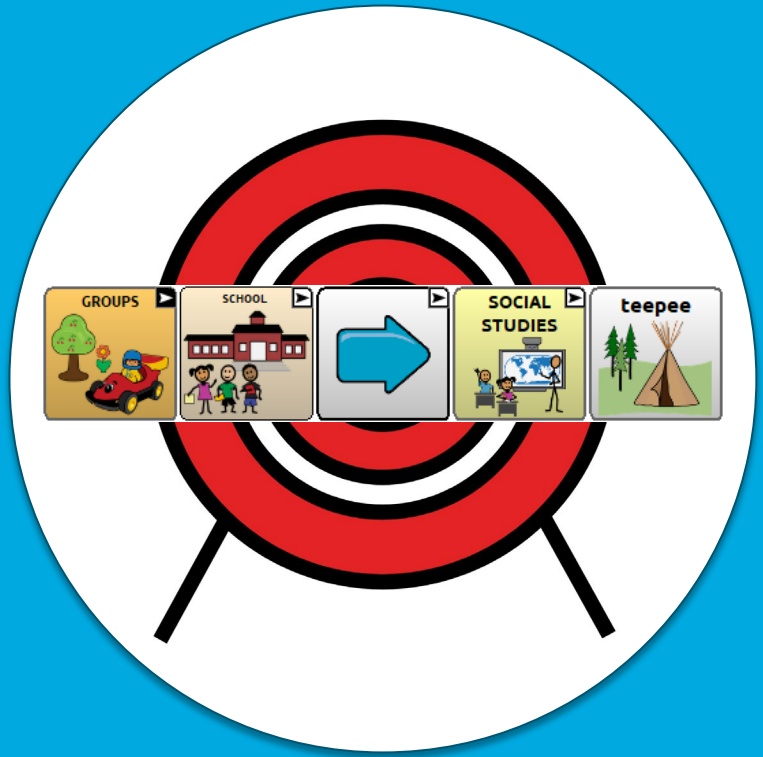
“Where they live.”

It’s a “This kind of that.”

Target Comparison

The Referential Target

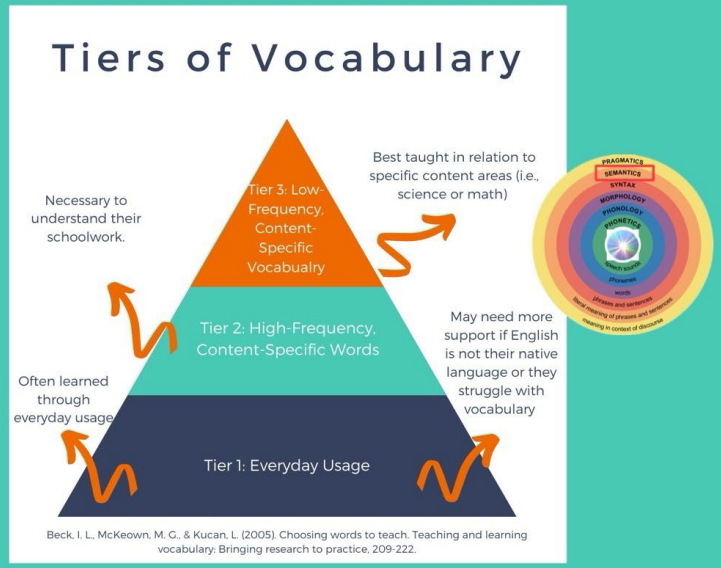
- Mostly specialized fringe words.
  - Possibly phrases… Gestalt Friendly.
- Primarily teaching a single yet complex motor plan
  - The Referential Path: longer sequence to get to each target.
  - Increased processing demands.
- Limited frequency
  - Only use with Social Studies
- Limited functionality
  - Labeling



The Descriptive Target

- Mostly generic core words.
  - Better fit for Analytic learners.
- Primarily teaching a multiple simple motor plans
  - The Descriptor Path: shorter sequence to get to each target.
  - Decreased processing demands.
- Highly frequent
  - Familiar targets and motor plans.
- Variety of functions
  - Labeling
  - Describing
  - Commenting
  - Supports any function where language can be used to execute the communication...

Level Comparison



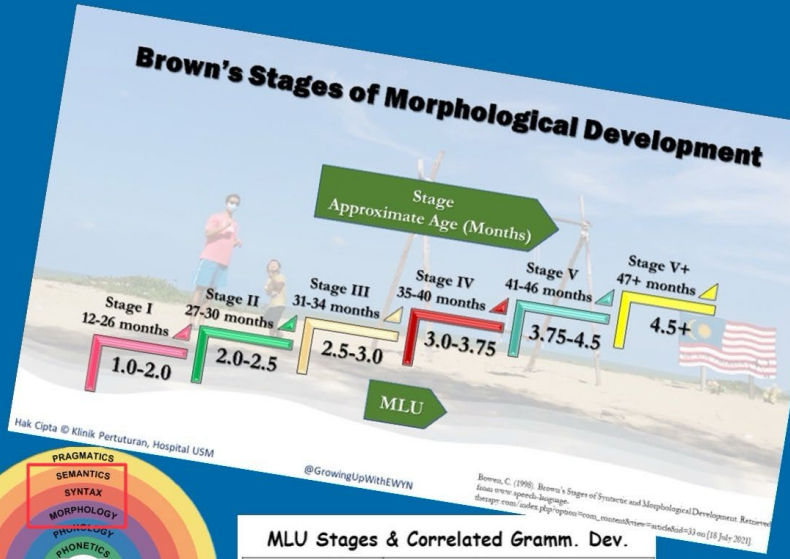
Referential Levels

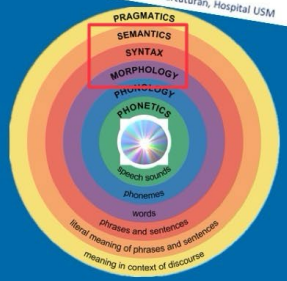
- Based on Vocabulary Instruction
  - Language Component: Semantics alone
- Traditional Vocabulary Tiers? (Beck, McKeown, & Omanson, 1987; Marzano, 2012)
- Incorporate Gestalts? (Blanc et al., 2023)
  - Stages 1 & 2 of Natural Language Acquisition?
- Semantic Complexity of Tiers 2 & 3?
  - Easy
  - Medium
  - Difficult
- Limited Functionality
  - Semantic content → specialized focus limited to labeling.
- Limited Frequency
  - Tier 2 and Tier 3 words are subject-specific

Descriptive Levels

- Based on Language Instruction
  - Language Components: Semantics, Syntax, Morphology
- Brown's Stages? (Brown, 1973)

- Naturally Analytical
  - Consider the impact for Gestalt Learners
  - Stages 4 – 6 of the NLA? (Blanc et al., 2023)
- Incorporate Semantic Complexity of Tiers 2 & 3? (Beck, McKeown, & Omanson, 1987)
  - Easy
  - Medium
  - Difficult
- Flexible Functionality
  - Labeling, information sharing
- Higher Frequency
  - Use of more Tier 1 and Tier 2 vocabulary





MLU Stages & Correlated Gramm. Dev.

Stage and MLU	Grammatical Characteristics
Stage 1 MLU = 1.01 - 1.99	**Single Word Utterances** **Semantic relations**
Stage 2 MLU = 2.00 - 2.49	**Expansion of Semantic Relations** Emergence of grammatical morphemes
Stage 3 MLU = 2.50 - 2.99	**Emergence of simple sentences** All sentence modalities established Gram. morphemes continue to grow
Stage 4 MLU = 3.00 - 3.74	**Emergence of Complex Sentences** Clausal and phrasal embedding
Stage 5 MLU = 3.75 - 4.5	**Emergence of Compound Sentences** Embedding and Conjoining

Considerations:

How do we implement for each individual AAC communicator?

Consider the current communication level…

- Communication Matrix
- Augmentative & Alternative Communication Profile (Kovacs, 2009 & 2021)
  - 4 Skill Areas: Operational, Linguistic, Social, Strategic
- Communicative Functions used
- Type of Processor
  - Gestalt/Analytical Processor?
  - If Gestalt, what stage? (Blanc et al., 2023)

- For a focus on requesting/protesting/social
  - Referential/Gestalt approach?
- For commenting/sharing information
  - Descriptive/Analytic approach?

- If they are a Gestalt Processor
  - What level of mitigating?

Also consider…

Can some fringe words become core?

"Teepee's are my life!!"

Let’s Practice!

How can we target common school curricula using descriptive communication strategies?

Science Class: “The Nature of Matter”

Referential Style:

Q: Name 3 states of matter.

A: solid, liquid, gas

Q: What is the effect of extreme cold on a liquid?

A: freezes/freezing

Descriptive Style:

Q: Describe something when it is a solid.

A: keep shape, hard, hard all the way through

Q: What does it mean for something to evaporate?

A: change, go from 1 way to another, go away

(Van Tatenhove, 2009)

Social Studies Class: “Famous Explorers”

Referential Style:

Q: Who discovered Florida?
A: Ponce de Leon

Q: Where did he land?
A: St. Augustin, Florida

Q: What does the legend say he was looking for?
A: gold and the fountain of youth

Descriptive Style:

Q: Why did Ponce de Leon get to name Florida?
A: get there first, first there, find it

Q: Why is St. Augustine important?
A: where went, where started looking around

Q: How successful was Ponce de Leon in his search for gold and the fountain of youth?
A: not find it, not there

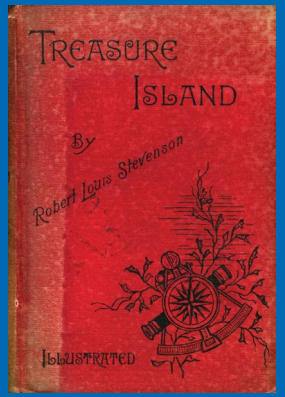
(Van Tatenhove, 2009)

Literature: “Treasure Island”

Referential Style:

Q: Who wrote Treasure Island?
A: Robert Louis Stevenson

Q: Who is the main character of the book?
A: Jim Hawkins



Descriptive Style:

Q: Where did Robert Louis Stevenson get his ideas for Treasure Island?

A: from real bad guys of that time, by working with step son

Q: How would you describe Jim Hawkins?
A: like you and me, a boy, not afraid

(Van Tatenhove, 2009)

BRAINSTORM!!!!

Referential Style:

Q:
A:

Q:
A:

Descriptive Style:

Q:
A:

Q:
A:

Teepee Reloaded!!

Description Style:

How else could we adjust this target descriptively?

Q: What is a Teepee?/
What is pictured here?

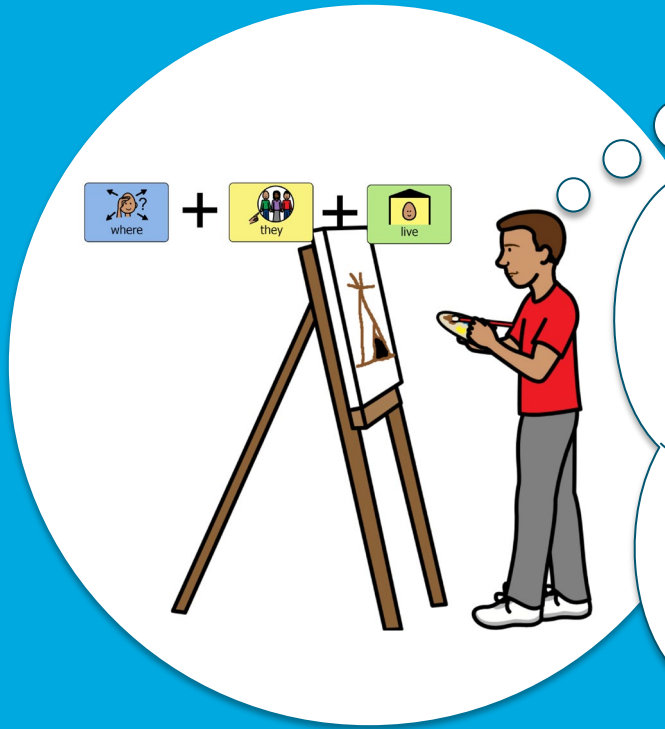
A: “Where they live.”

Q:

A:

Q:

A:



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Literacy and Complex Communication Needs

Objectives:

1. Participant will be able to define 4 components of the phonological hierarchy.

2. Participant will be able to describe 4 factors that are crucial for comprehension.

3. Participant will be able to use 3 comprehension strategies for ASD populations.

4. Participant will be able to apply 3 partner interaction strategies to increase literacy skills.

Questions

What type of instruction does a child require?

Comprehensive emergent vs. conventional literacy instruction

1. Does the student identify most of the letters of the alphabet, most of the time?
2. Is the student interested and engaged during shared reading?
3. Does the student have a means of communication and interaction?
4. Does the student understand that print has meaning?

(Erickson, Koppenhaver, & Cunningham, 2020)

Answers

- Four “yes” responses would indicate that a student is likely to be successful with the introduction of conventional literacy instruction.

- One or more “no” answers indicates the need for comprehensive emergent literacy instruction.

(Erickson, Koppenhaver, & Cunningham, 2020)

What is comprehensive emergent literacy?

The process includes varied experiences with:

- **Reading (and reading foundational skills)**
- **Writing**
- **Speaking**
- **Listening**
- **Language**

across all disciplines to comprehend and create text for effective communication with others in a variety of contexts.

(Erickson, Koppenhaver, & Cunningham, 2020)

The Bottom Line

- According to the United Nations Development Programme (2016), the global literacy rate for adults with disabilities is as low as 3 per cent, and only 1 per cent for women with disabilities.

- A variety of research and development efforts over the past two decades confirm that individuals with severe disabilities can learn to read and write.

- When individuals with severe disabilities are provided with access to comprehensive instruction, **they can develop conventional reading and writing skills.**

Erickson, K. A. (2017). Comprehensive literacy instruction, interprofessional collaborative practice, and students with severe disabilities. *American Journal of Speech Language Pathology, 26,* 193–205. doi:10.1044/2017_AJSLP-15-0067

Dialogic Reading Experiences

Shared Reading Experiences

Shared Writing Experiences

Pathways to Emergent Literacy

PEER

+

CROWD

Methods for Implementing Early Reading Experiences

Image from Shared Reading: Using Augmentative and Alternative Communication (AAC) with Project Core, 12/29/23 https://speakforyourself.org/shared-reading-using-augmentative-and-alternative-communication-aac-with-project-core/

PEER

Prompt the child to say something about the book or page.

- Ask the child a question about something on the page
- Have the child name an object on the page or talk about something in the story.

Evaluate the child's response.

- Is their answer correct? This will help you figure out what information you can add.

Expand the child's response by rephrasing or adding a little more information to it.

- If the child gave an incorrect answer, help him with the correct answer.

Repeat the child's response to make sure that the child has learned something from it.

- Have the child repeat your expansion.

CROWD

Completion

Have child complete a common word or phrase in the story.

This prompt is typically used in books with rhyming or repetitive phrases

Recall

Ask questions about what happened in a book they have already read.

Recall questions can also be asked at the end of a book to summarize the action or main point or at the beginning

Recall prompts can be used at the end and the beginning of a book a child has read before.

Recall prompts help children to understand a story's plot and to describe sequences of events.

Open-ended

Talk about what is happening in the pictures in the books.

https://shared.tarheelreader.org/shared/read/what-in-the-world-do-you-like-to-do

Wh- questions

Have child answer who, what, where, when, why, and how questions about the story and its pictures.

Distancing

Relate the pictures or words to child's experiences.

Conventional Literacy Instruction

1. Phonological Awareness

- **Rhyme Recognition**
  - Identification, then production
- **Sound Blending**
  - Syllables, then phonemes
- **Sound Segmentation**
  - Syllables, then phonemes

2. Letter/Sound Correspondence

- Frequently used letters
- Short vowels before long vowels

3. Decoding

- Single words
- Sentences

4. Comprehension

- Single words
- Sentences

It is recommended that you target each skill in order!

Phonological Awareness: Rhyme

Rhyme:
Identification then Production

Sound Blending:
Syllables then Phonemes

Sound Segmenting:
Syllables then Phonemes

Rhyme recognition:

- "Do these words rhyme? Cat/hat." "Yes."
- Do these words rhyme? Hat/pig." "No."

Rhyme production:

- "Which word rhymes with cat/hat/pat." (Show and label 3 different choices: pig, bat, lip). "Bat."

Phonological Awareness: Sound Blending

Rhyme:
Identification then Production

Sound Blending:
Syllables then Phonemes

Sound Segmenting:
Syllables then Phonemes

Syllable blending:

- "I'm going to say some words in a silly way. You figure out what I am saying. Tooth..(pause 1-2 seconds)…brush."

Phoneme blending:

- "I'm going to say a word slowly. You figure out what I am saying. "ssss (pause) ih (pause) ttt."

Phonological Awareness: Syllable Segmenting

Rhyme:
Identification then Production

Sound Blending:
Syllables then Phonemes

Sound Segmenting:
Syllables then Phonemes

Syllable segmentation:

- "How many claps/syllables are in this word: homework?" Clap-Clap. "2." "How many are in this word: fantastic." Clap-clap-clap. "3."

Syllable deletion:

- "Let's play the takeaway game. I'll say a word and then take away part of that word. You tell me what is left. What is 'sunshine' without the 'shine?'" "Sun."

Phonological Awareness: Sound Segmenting

Rhyme:

Identification then Production

Sound Blending:

Syllables then Phonemes

Sound Segmenting:

Syllables then Phonemes

Phoneme segmentation/isolation:

Initial sound: "What word starts with this sound: /b/. Pie, my, bye."

Phoneme deletion:

Initial sound: "Let's play another takeaway game. I will take away one sound from a word. What is 'cup' without the /k/?" "Up."

Phoneme manipulation:

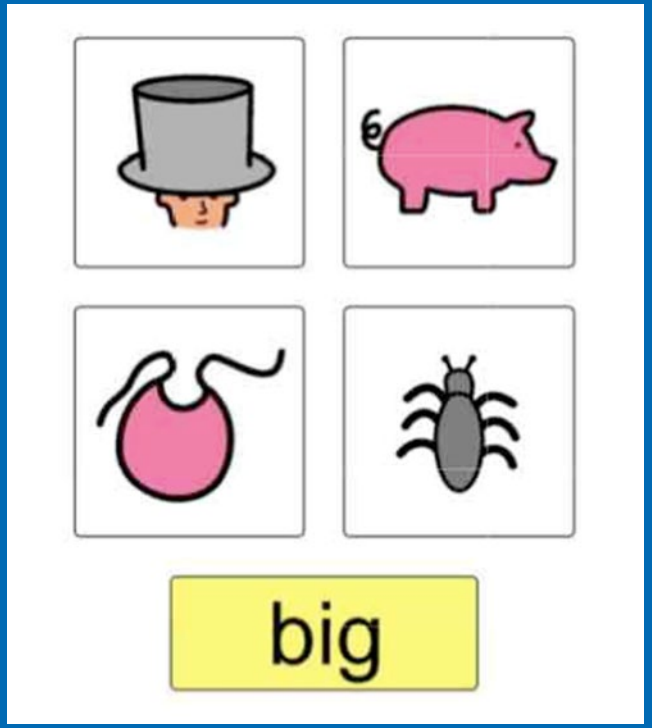
Initial sound: "Change the first sound in 'can' to /p/." "Pan."

*All above skills should also be practiced with final sounds, medial sounds, and clusters.

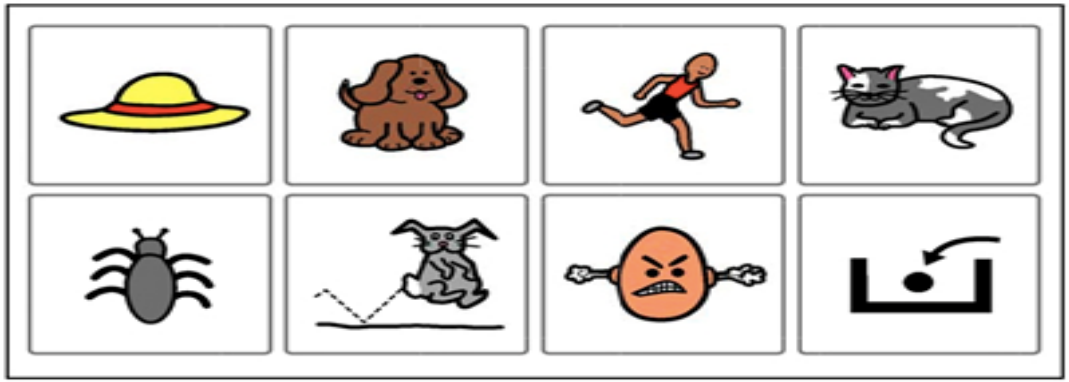
Letter Sound Correspondence

- Consonant letters first
  - Letters in name
  - Letters early in the alphabet
  - Commonly used letters (r. s. t. l. … etc)
- Vowels
  - Short Vowels first
  - Long vowels
  - Vowel teams
- Word Families
  - all
  - ind

Decoding – Single Words



Mark has a magic hat.

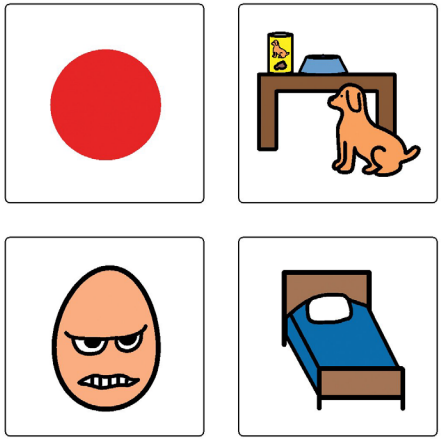


How can we target these skills for children with CCN?

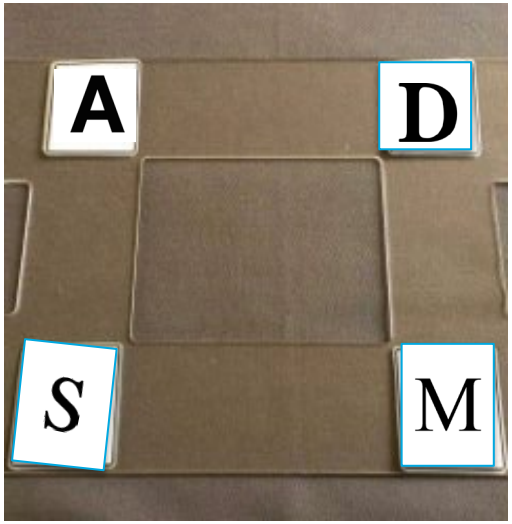
- Eliminate the need for oral response
- Provide alternative access
- Provide multiple opportunities for practice and carryover

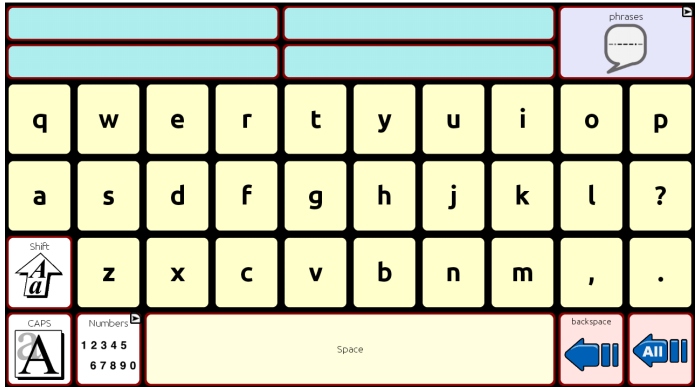
red
beg
bad
bed

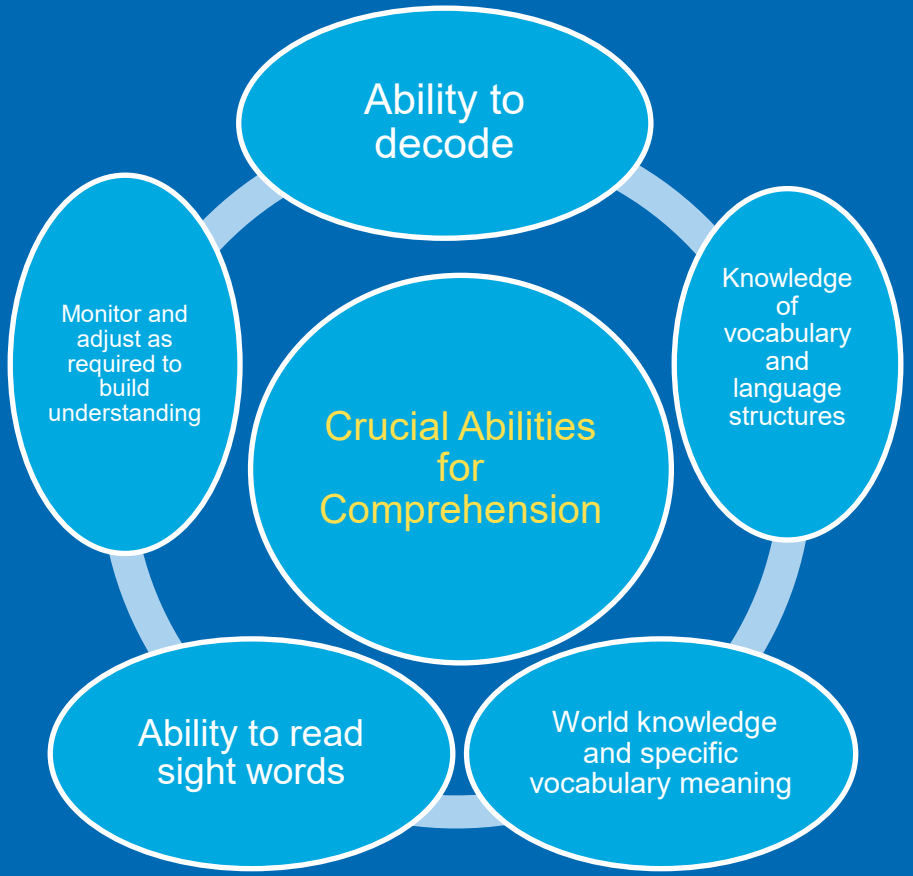
4



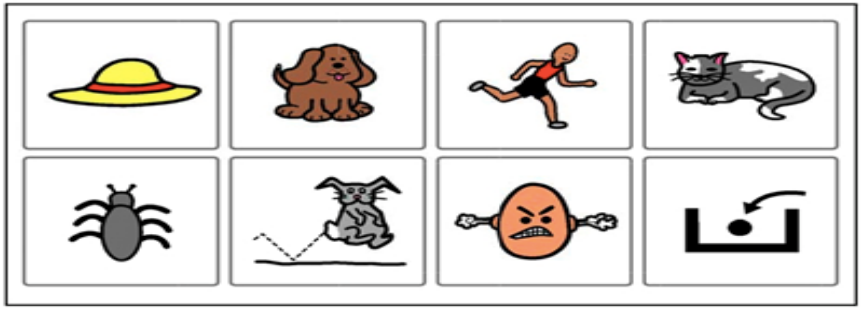
bed






Ability to decode
Knowledge of vocabulary and language structures
World knowledge and specific vocabulary meaning
Ability to read sight words
Monitor and adjust as required to build understanding
Crucial Abilities for Comprehension

Mark has a magic hat.



How can I help my child to understand what they are reading?

- Assess understanding of what was decoded ***frequently***
- Single Words: During storybook reading activity, pause during a sentence, point to a word, and the child can decode, comprehend, and point to the object in the book.

Zac has a hat.

Sentence level

- Present a simple written sentence with pictures that are slightly varied
  - The learner looks at each of the words in the sentence in the correct sequence and decodes the words or recognizes by sight
  - They then select the picture that illustrates the sentence
- Check comprehension by asking simple questions
  - Who is it about?
  - What does he have?

Swiss cheese readers!

Hyperlexia and Autism

- In early years, they are considered superstar readers!
  - Name all of the letters and decode books that are several (or more) years above expected grade level
  - May not be able to find rhyming words or tap out syllables, but educators don't usually become concerned because they can read so well!
- However around fourth grade, we see these hyperlexic students begin to fall behind their peers and reading is no longer a strength but a challenge….

WHY??

- Identify words primarily by memorization of visual patterns rather than relying on decoding individual phonemes
- Difficulty decoding nonfamiliar and/or complex words
- Limited vocabulary and difficulty understanding nonliteral language or double meaning words
  - “The dove dove into the water”

Comprehension Strategies for Readers with ASD

- Encourage shared book reading, especially at an early age!
- Facilitate purposeful reading
- Increase personal vocabulary
- Improve understanding of morphemes and overall language

Shared book reading is the foundation for developing comprehension AND it is also a social experience

First steps…

- Pick books of high interest and participate in shared book reading
- Encourage parents to read to their children every night
- Incorporate literacy goals in your treatment plan

What to look for…

- Rhyme
- Repeated text
- Interactive graphics
- Age appropriate topics/graphics
- Simple language
- ENTHUSIASM!

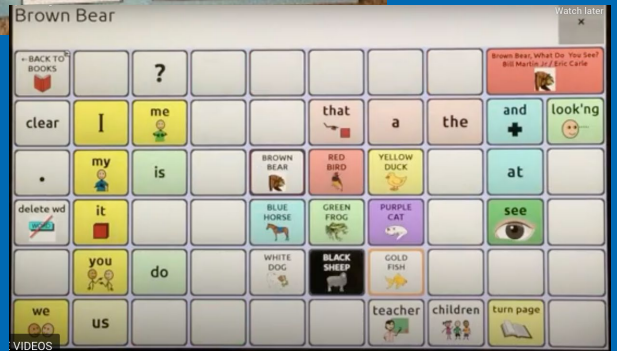
Lists of great books to use in RESOURCE section

Partner Interaction Strategies

Strategy	Description
Select appropriate book	Allow learner to choose age appropriate book of interest
Introduce the topic of the book	Encourage the learner to think about the topic of the book and discuss related experiences
Introduce new vocabulary	Explain new concepts and teach vocab with appropriate AAC method/symbols
Read the text of the book	Read each page of the book, tracking word by word with a finger
Wait expectantly	Focus attention on learner for 5-10 secs
Ask appropriate questions	Encourage learner to think about story
Model use of AAC and speech	While reading, select or sign the appropriate aid AAC symbol
Encourage the learner to retell story	If familiar with the story, pause and let learner retell parts of the story

Make the text accessible and interactive!

- Provide low tech communication boards with appropriate story vocabulary
  - Use displays that allow commenting and/or asking questions
  - Provide support for demonstration of comprehension
- Program SGD with vocabulary
- Use manipulatives
  - Story retell
  - Asking/answering questions
- Provide simple switches
  - “Turn the page”
  - Programmed with repetitive vocabulary
- Adapt books
  - Sheet protectors
  - Tactile parts
  - Englarged print



Build World Knowledge and Vocabulary

- Plan a session around a story and embed thematic vocabulary throughout the session
- Creates multiple opportunities for the child to be exposed and use new learned vocabulary!

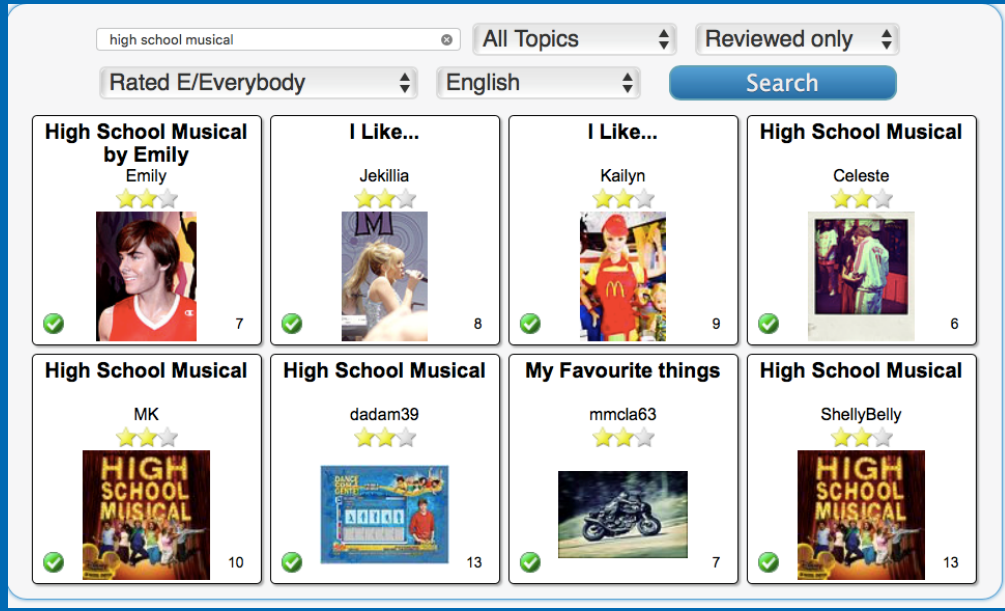
Theme	Book	Craft/Song	Gross Motor/Game	Fine Motor/Pretend play	Snack
Bears	We're Going On a Bear Hunt (ST) Brown Bear, Brown Bear What Do You See? (ST) Baby Bear, Baby Bear What Do You See? (ST) Polar Bear, Polar Bear What Do You See? (Laura) Bear Feels Scared (ST) Bear Wants More (ST)	Make bear masks	Look for bear paws in the hallways; social interactions Brown Bear, Panda Bear What Do You See? Game	Bear dress up (OT closet)	Teddy Grahams Bears (graham crackers; sliced large marshmallow nose/mouth, small marshmallows ears; chocolate chips eyes)

Resources!

Tar Heel Reader

- Collection of free, easy-to-read and accessible books on a WIDE range of topics
- Each book can be accessed by touch screens and switches
- You can create your own books using your own pictures to customize books

- Tar Heel Shared Reader



AAC Language Lab

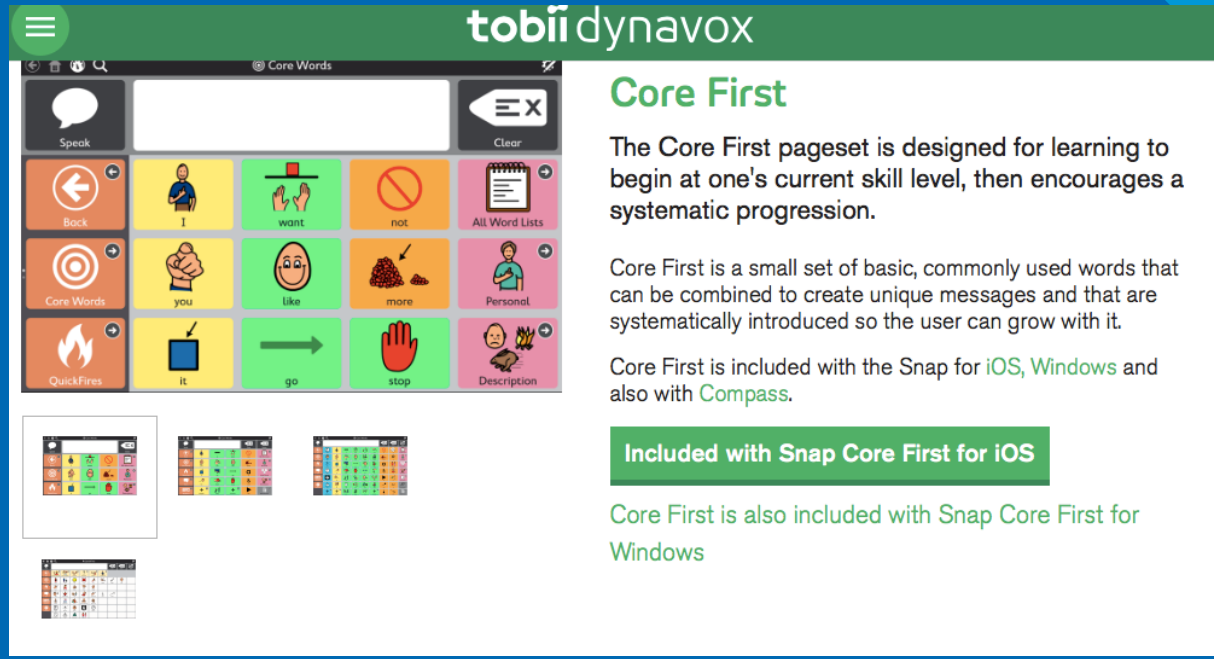
- Core books and Smart Charts (Unity & WFL)
- Activities
- 6 language stages
- AND… literacy curriculums
  - Getting Ready to Read (Unity & WFL)
    - Lesson plans
    - Word wall cards
    - Letter cards
    - Word cards

Accessible Literacy Learning (ALL) Program

- Evidence based curriculum created by Janice Light and David McNaughton
- Accessible via touch, eye gaze and scanning
- Available on Windows and iOS, as well as I-Series, I-110 and Indi
- Check it out on our AAC ipads!

Core First Books

- 36 simple core vocabulary books
- Each core word has a lesson plan and 3 books



Reading Avenue Through Boardmaker

https://goboardmaker.com/pages/reading-avenue

Support all your students in becoming readers with the only accessible and comprehensive foundational literacy curriculum. Delivered FREE with Boardmaker Online, Reading Avenue provides 3 differentiated levels for all beginners. It includes predictable daily lesson plans, visual schedules, and easy implementation supports so you can provide a year's worth of engaging, evidence-based instruction.

An accessible, all-inclusive, learn-to-read program for all students. Reading Avenue follows a path that builds foundational literacy skills with engaging topics and interactive instruction. Reading Avenue includes:

- 1,000 pre-made activities to teach reading, writing, letter & word sounds
- 120 books to build comprehension and vocabulary
- Boardmaker Student Center app for school and home access
- Printable lesson plans, parent letters, and communication supports for each unit

Look to Read from Smartbox

https://thinksmartbox.com/look-to-read/

Smartbox

Products | How to try | About | Training and Support | Contact us

Look to Read

Look to Read enables children with disabilities to enjoy books independently

Everyone can enjoy Look to Read as part of their literacy journey – whether you are just starting out or already have some literacy skills. Each book is fully accessible, with exciting content and learning activities to support you at every stage.

Try Look to Read

Help

Resources

Augmentative and Alternative Communication: Supporting Children and Adults with Complex Communication Needs. (2013). Paul H. Brookes Publishing Co.

Browder, D.M., Mims, P.J., Spooner, F., Ahlgrim-Delzell, L., & Lee, A. (2008) Teaching elementary students with multiple disabilities to participate in shared stories. *Research and Practice for Persons with Severe Disabilities*, 33, 3-12.

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Resources

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Special Topics: Neurodiversity

A Guide for Neurodiverse Informed Care

Terminology

Neurodiversity is the diversity of human minds, the infinite variation in neurocognitive functioning within our species.

When an individual or group of individuals diverges from the dominant societal standards of “normal” neurocognitive functioning, they don’t “have neurodiversity,” they’re neurodivergent

The Neurodiversity Movement is a social justice movement that seeks civil rights, equality, respect, and full societal inclusion for the neurodivergent

Retrieved from: https://aldinhe.ac.uk/networking/communities-of-practice/neurodiversity-inclusivity-community-of-practice/

Terminology

The neurodiversity paradigm is a specific perspective on neurodiversity – a perspective or approach that boils down to these fundamental principles

- Neurodiversity is a natural and valuable form of human diversity.
- There is no one “normal” or healthy type of brain or mind

For the purposes of this presentation, we will be referencing the **neurodiversity paradigm**

Retrieved from: https://play-spark.com

Change Is Hard…

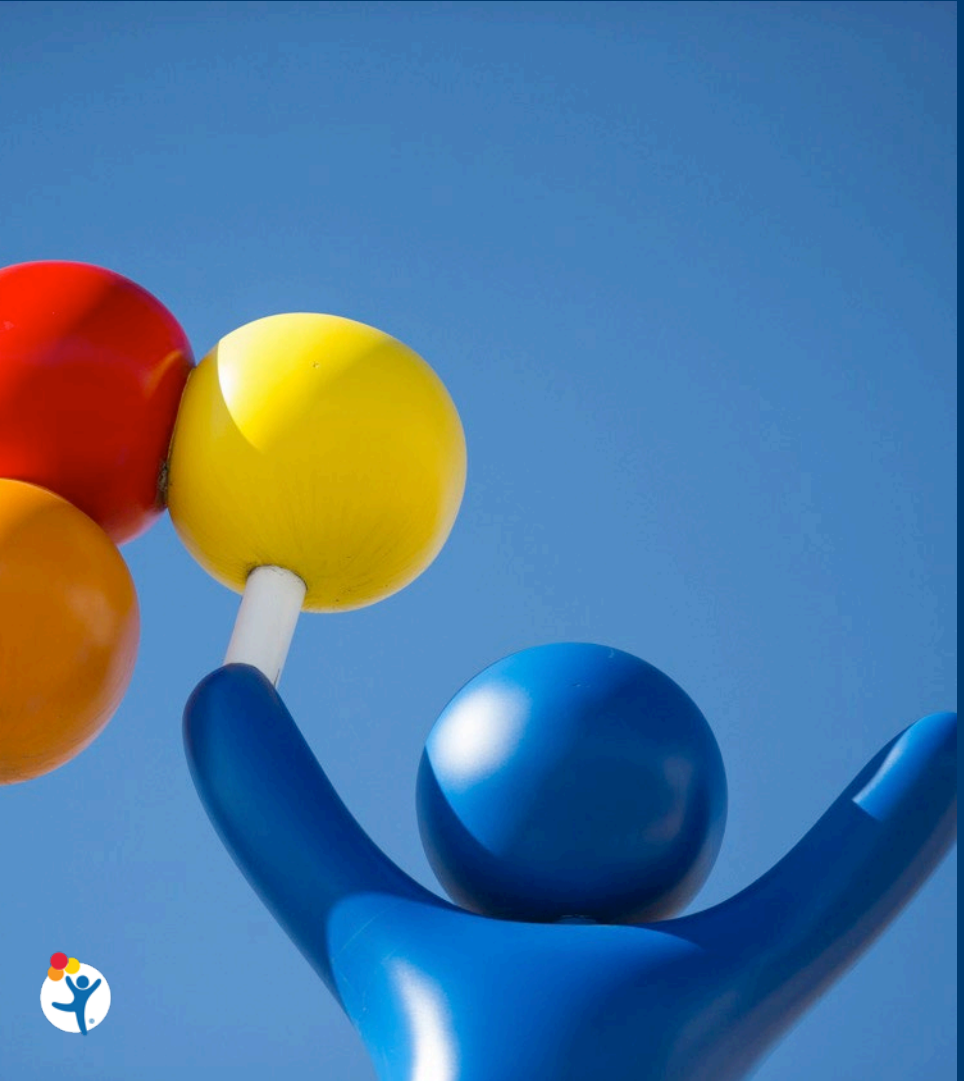
- **Challenge yourself to…**
  - ✓ Learn about what is "out there:" neurodiversity-affirming care, severe autism network, neurodiversity in the workplace, & adult diagnosis/reflection
- **Listen to and learn from…**
  - ✓ neurodivergent voices
  - ✓ "severe autism" voices
  - ✓ caregivers and parents
  - ✓ clinician perspectives
- **Engage in self-reflection & "unlearning"**
- **Practice with peers**
- **ALL while remembering it's a journey**

Retrieved from: https://shorturl.at/dfgmB

Self-Reflection Exercise

- What are our own biases about autism spectrum disorder (ASD) and other ND diagnoses?
- How has schooling/formal education/mentorship impacted you?
- How have our patients and families impacted your lens/journey?
- How does setting impact your lens?

Take a minute to reflect and note your answers to these questions



Consider Impact on Clinical Care

Consider how you are…

- Engaging with and collecting information from patients & caregivers
- Providing caregiver coaching & education
- Writing evaluations & goals
- Implementing child-led intervention
- Continuing the journey - taking the next steps

Engaging With and Collecting Information from Patients & Caregivers

How does the family identify with the child's diagnosis?

Meeting Caregivers "where they are“ by joining, validating, and educating…

"Tell me what autism (or other diagnosis) means to you...."

"Are there any books you've read, podcasts you've listened to, blogs you follow, or social media accounts that have impacted the way you identify with autism or the neurodiversity paradigm?”

"What do you wish therapists knew about your child/being a parent of a neurodivergent child?”

"Why are you coming for today’s appointment?"

"What matters most to you/your child/your family?"

Providing Caregiver Coaching & Education

Educating the family on the Spectrum of the Spectrum

The **medical model of disability** results from abnormalities and deficits in a person's body/brain

A problem to be FIXED

Neurodiversity affirming care refers to people having differences which are to be accepted and not something to be fixed in the context of recommendations or therapy planning (Chapman & Botha, 2023)

A naturally occurring DIFFERENCE that is viewed as a strength

Autism as a disability/medical model | Neurodiversity Informed Care | Neurodiversity Affirming Care

Neurodiversity informed care refers to resisting normalization, considering neurodivergent perspectives, understanding disablement as relational and recognizes the disability community and their sources of pride (Chapman & Botha, 2023)

A WHOLISTIC multi-faceted approach to intervention and understanding

Where are you on the "spectrum of ND care?"

Speaking with families and patients about…

- Why we need to identify strengths AND functional/clinical challenges
- What to expect when caregivers receive the evaluation
- How we will set meaningful goals TOGETHER!

Retrieved from: https://tinyurl.com/srfk6tsu

How to Talk About Other Services

How do you respond to questions about other interventions?

- We must be informed about what is available and marketed to families
- We must be respectful of parent choices
- Provide objective information (facts not feelings)
- Ask open-ended questions
- Provide a framework for caregivers to identify if a provider or service is a good fit for them and their child (how to be an informed consumer)

Let’s “Unlearn” Together

Take a moment to pause and practice your clinical response to the following scenarios. How might you respond to a caregiver sharing this information?

Scenario #1

Parent: “My child received a diagnosis of autism spectrum disorder.”

Scenario #2

Parent: "I don't feel comfortable with your referral for further assessment because I don't want someone trying to label my child."

Writing Evaluations & Goals

Guiding Principles for Report Language

The language we use is powerful!

✓ Strive to use objective language in front of the child

✓ Strive to model language to affirm the person and neutralize the characteristics

✓ Strive to validate the feelings of others

Affirming Terms & Objective Language

- differences in the use of
- child's skill is demonstrated differently
- preference for routines that feel safe or less overwhelming
- monotropic interest systems
- echolalia/gestalt language processing
- level of support

Pathologizing Terms

- but, however, despite, though
- marked impairment
- a lack of
- stereotyped language
- inadequate
- preoccupation with
- non-verbal
- low/high functioning
- normal

The Medical Model

Benefits

- Diagnosis/disability language may be necessary for insurance coverage
- May be more accessible for some families or preferred by some families

Limitations

- Assumption that autism spectrum disorder is negative, should be treated and maybe even cured
- May contribute to social stigma or negative perception of autism, isolate autistic individuals from each other

The Social Model

Benefits

- Preferred by many autistic adults
- Supports self-acceptance, which may improve mental health outcomes
- Supports collaboration among autistic individuals
- Supports self-advocacy

Limitations

- Medical diagnosis required to access specific services or resources
- Might not align with a family's own experience or beliefs/goals, especially early in the process (grieving?, "severe ASD"?)

Language Comparison

Medical Model

- Person-first language (“person with autism”)
- “Red flags”, “symptoms”
- “At risk for autism”
- “Co-morbid”
- Goals or observations assume baseline comparison to “typical”, “normal”, “appropriate”

Social Model

- Identify-first language (“autistic person”)
- “characteristics”, “features”, “traits”
- “Increased likelihood of autism”
- “Co-occurring”
- Goals and observations don’t measure against a neurotypical baseline, goals center around intrinsic motivation and safety for the individual

Evaluation Considerations: Language Use

Consider who is reading the report:

- How would you like to be described & explained?
- Consider the patient's perspective – what if they read your report in the near or distant future?
- Consider the caregiver's perspective – how does your report make them feel about their child's journey & future?

Evaluation Considerations: Standardized Testing Use

Pause to consider…

In our new reality, we must also recognize the limitations of assessing neurodivergent individuals with tests normed on a more neurotypical population.

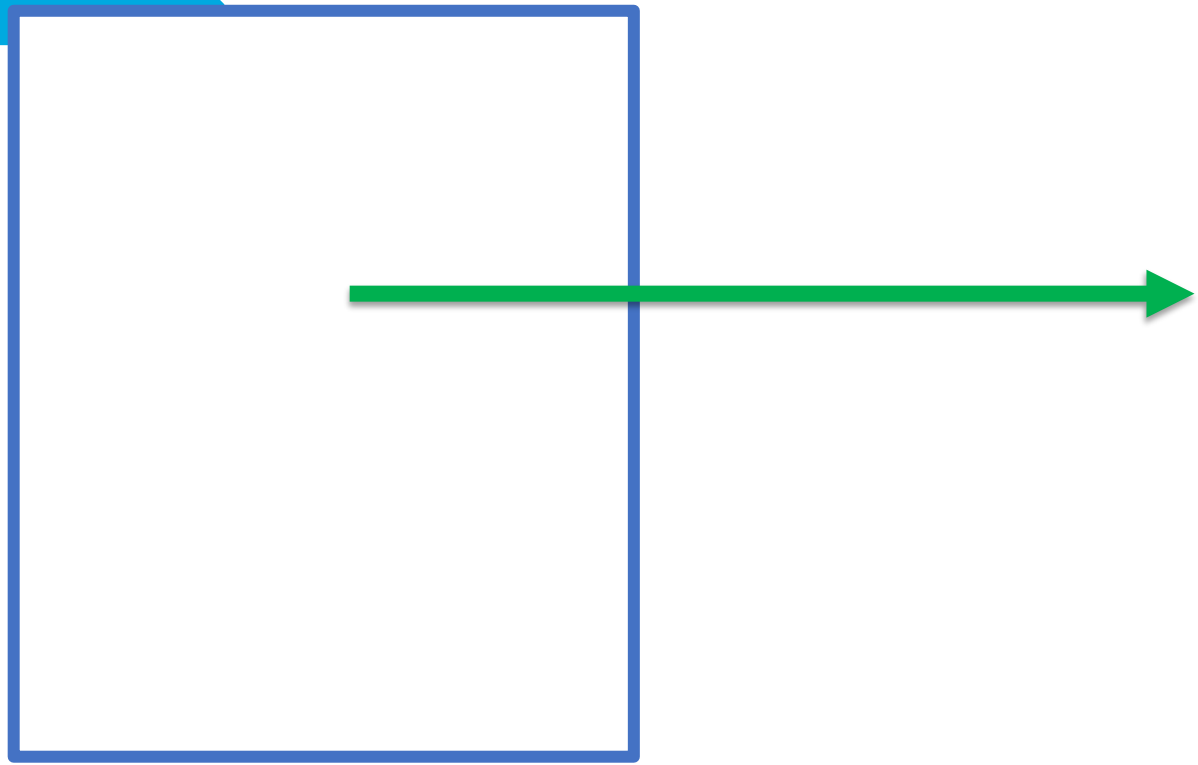
An example of that may be included in a write-up. "Reported scores are estimates as {child/patient} responded more consistently to play-based interventions with preferred toys."

What are some ways you can think of to assess patients who standardized testing may not be your best option/truly reflective of their skills?

Examples of Bias in Both Directions

"Jane's language was delayed for her age. She did not use spontaneous words, just memorized scripts. She could not even answer basic questions. She used specific vocabulary for types of planes, but only because planes are her restricted interest. Her play was repetitive and limited to lining up toys or repeating scripts. Jane did not demonstrate age-appropriate and more typical vocabulary and did not comply with standardized testing. She refused to listen to caregivers when they told her to stay seated and leave the cabinets alone. Her social skills were poor."

Examples of Bias in Both Directions



"Jane is an adorable, sweet, spunky child whose individuality sparkled through her precocious interest of Amelia Earhart. She left tasks that did not meet her needs. She showed very nice problem-solving and impressive persistence with tasks that would normally be very challenging for any child at this age, such as figuring out the child locks to enter supply cabinet."

Examples of Bias in Both Directions

"Jane's language was delayed for her age. She did not use spontaneous words, **just** memorized scripts. She could **not even** answer basic questions. She used specific vocabulary for types of planes, **but only because** planes are her **restricted** interest. Her play was repetitive and **limited to** lining up toys or repeating scripts. Jane did not demonstrate **age-appropriate** and **more typical** vocabulary and did not comply with standardized testing. She **refused** to listen to caregivers when they told her to stay seated and leave the cabinets alone. Her social skills were poor."

"Jane selected two airplanes, and lifted them up, saying "Amelia Earhart was the first female aviator to fly solo across the Atlantic Ocean". She then lined up the remaining vehicles by size and did not turn when clinician said her name or asked, "Which one is your favorite?". When clinician lifted a plane and said, "My propeller is broken", Jane turned her body toward the clinician and said, "Amelia Earhart was lost at sea", while looking at the plane in the clinician's hand. She then moved toward the cabinets and attempted to open them, pulling at the handle and child lock without looking at others or asking for assistance."

"Jane is an adorable, sweet, spunky child whose individuality sparkled through her precocious interest of Amelia Earhart. She left tasks that did not meet her needs. She showed very nice problem-solving and impressive persistence with tasks that would normally be very challenging for any child at this age, such as figuring out the child locks to enter supply cabinet."

Writing Goals

Goals around symbolic language might seem easier to write:

- Follow simple directions
- Understand words (point to named item)
- Select images or icons to request
- Produce words (or gestalts) across a variety of communication functions
- Create flexible, spontaneous phrases and sentences

Writing Goals

But what if symbolic language goals still feel a "long way" off?

- Our documentation should show progress with goals/objectives within 6-8 weeks

- If a patient isn't showing any change, we need to break down our goals/objectives into more attainable steps

Writing Goals

Goal ideas to consider:

- Shared space
- Showing enjoyment and engagement in routines/people games
- Foundational communication
  - Gestures
  - Eye gaze
  - Facial expression/body language
- Use of joint attention and imitation
- Initiation of routines/play schemas

While also considering the support provided and level of cuing

- no cuing
- familiar, predictable play routine
- direct gestural model
- direct verbal model
- intermittent verbal model
- peer modeling
- nonverbal cue (expectant look, wait time)

Implementing Child-Led Intervention

Self-Reflection Exercise

Exploring your own biases and expectations in therapy

- ✓ Do you feel that for a session to be successful that a child needs to “follow your plan?”
- ✓ Are you flexible with the materials that a patient uses in your session?
- ✓ Do you honor & encourage all communication, not just verbal language?
- ✓ Are you flexible with where they sit and how they move in your therapy space?
- ✓ Are you able to use play as the focus of therapy and not the reward for participating in a structured task?
- ✓ What makes a session feel successful?

Retrieved from: https://play-spark.com

Models of Intervention that "Fit"

Explore child-led and relationship-based interventions (including but not limited to)…

ICDL Home of DIRFloortime® (Floortime)

The Hanen Centre®
HELPING YOU HELP CHILDREN COMMUNICATE

ESDM

Retrieved from https://www.icdl.com/dir, https://www.esdm.co/, https://www.hanen.org/Home.aspx

Continuing the Journey: Next Steps

Next Steps

1. **Continuing to Explore**
    - Patient and family facing offerings through your program or workplace

2. **Therapist Education**
    - Continuing education & additional trainings to support your journey as an ND-informed clinician

Each provider is encouraged to assess and adjust based on personal experiences and feedback from our patients and families

Acknowledgements

This undertaking wouldn't be possible without the expertise, work, and support of our SLP/OT ASD leadership team at CHCO.

Amy Lowell, OT (SI/Autism Clinical Practice Specialist)
Jennifer Wood, SLP (Adolescent & Transition Programming Lead)
Jaime Chadek, SLP (Early Communicators Lead)
Cameron Kruis, SLP (Preschool & School-Age Lead)
Amy Frisbie, SLP (Associate Clinical Manager & former ASD Lead)
Julie Yaroni, OT (Social Emotional Team Lead)

This has been a passion project, with many hours of researching, brainstorming and "unlearning!"

Thank you!

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Autism Supports:

Creating & Maintaining Engagement Using Joint Attention & Sensory Social Routines

OBJECTIVES

1

Identify instructional priorities when interacting with and teaching autistic children and their parents/caregivers

2

Describe 3 evidence-based approaches designed for autistic children: Early Start Denver Model (ESDM)/ Help Is In Your Hands, The Hanen® Program, & The Learning Styles Profile©

3

Explain 2 engagement approaches including joint attention routines (JARs) & sensory social routines (SSRs) and learn how to create them

“Like evidence-based medicine, the selection of intervention approaches depends on the practitioners’ wisdom and knowledge about the specific goal, the characteristics of the child, priorities of the parents and child, and the practitioners’ own capacity to implement the practice given their context and resources. Such movement, from science to practice, is a clear challenge and also an important step for the field.”

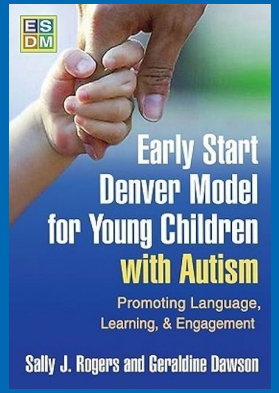
Steinbrenner, et al., 2020

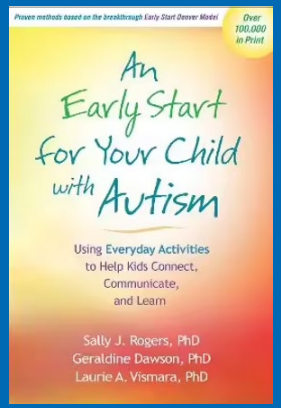
National Research Council (NRC)
Features of Effective Autism Interventions

- Entry into intervention services as early as possible
- Active engagement in intensive instruction (25 hours a week, 12 months per year)
- Repeated, planned teaching opportunities with sufficient individualized attention daily (JARs/SSRs)
- Systematically planned, developmentally appropriate activities aimed toward identified objectives
- Inclusion of a family component
- Ongoing assessment of a child's progress, with adjustments in programming at least every 3 months
- Specialized instruction in settings that permit ongoing interactions with neurotypical children

NRC Identifies 6 Autism Instructional Priorities

1. Functional, spontaneous communication
2. Social instruction (e.g., attending to other people, using social smiles, coordinating visual attention/eye gaze, using gestures and body language, imitating others, etc.) in various settings
3. Teaching of play skills, focusing on flexible use of toys and play with peers
4. Instruction leading to generalization and maintenance of cognitive goals in everyday social contexts and with a range of social partners
5. Positive approaches to address behavior
6. Functional academic skills, when appropriate





Early Start Denver Model (ESDM)

A developmental, behavioral, and interdisciplinary early intervention approach for young children (12-48 months), either suspected of having or diagnosed with autism.

- Sally Rogers & Geraldine Dawson
UC Davis Mind Institute, 1981

Retrieved from: https://rb.gy/7ix1i3, https://rb.gy/7cizq4

Early Start Denver Model (ESDM)

GOALS:

- ✓ To bring autistic toddlers inside the social circle of family life during most of their waking hours
- ✓ Teach the building blocks of social learning: imitation, joint attention, verbal & non-verbal communication
- ✓ Multiple & varied communicative opportunities inside joint attention routines (JARs) and sensory social routines (SSRs)
- ✓ 12-week intervention, certified clinical instructor

ASSESSMENT: ESDM Checklist

Receptive Language, Expressive Language, Social Interaction Fine/Gross Motor, Imitation, Cognition, Behavior, Play Skills, & Personal Independence
Eating, Grooming, Dressing, Chores

LEVELS:

Level 1: 9-18 Months
Level 2: 18-24 Months
Level 3: 24-36 Months
Level 4: 36-48 Months

Retrieved from: https://rb.gy/tmg6rn

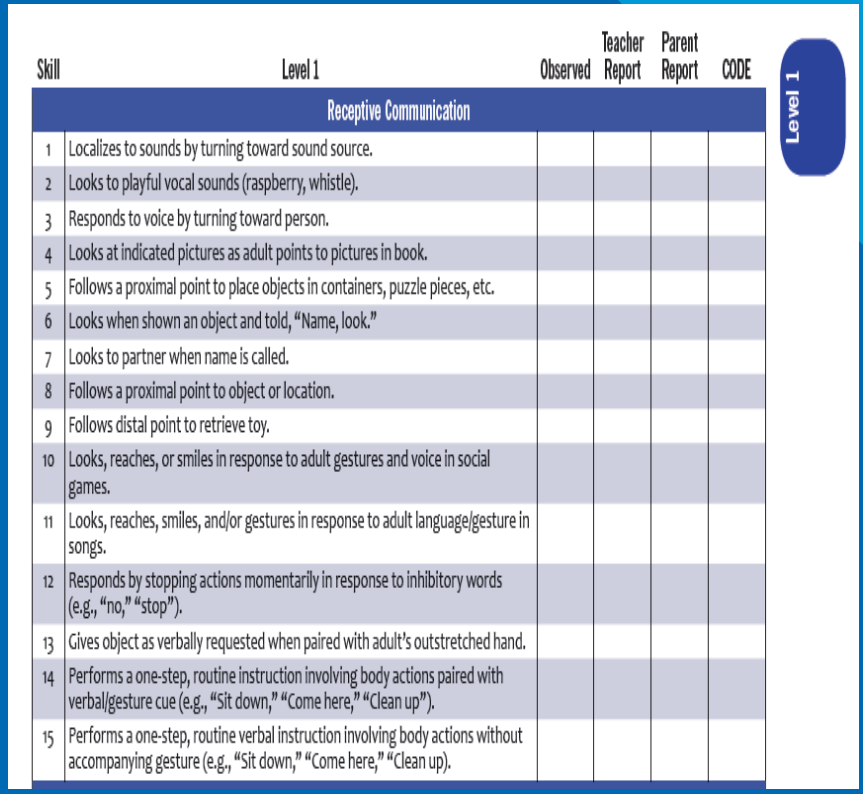
In ESDM, Parents are KEY!

- Autism is a social difference
  - ✓ Relationships with and within the family MUST be at the heart intervention
- Supporting relationships = supporting families
- Parents' preferences and priorities guide the team and the child's goals
- Prepares parents for a lifetime of decision-making and advocacy

Retrieved from: https://shorturl.at/dvzGY

ESDM Curriculum Checklist

- Criterion-referenced tool providing developmental sequences of every early childhood domain (8 total)
- 480 items organized into 4 levels
- Placement of items across levels reflects typical child development research and clinical experience
- ***Help Is In Your Hands***: A FREE website with 16 video modules to help parents add simple intervention practices to their everyday routines at home
  https://helpisinyourhands.org



Skill	Level 1	Observed	Teacher Report	Parent Report	CODE
	Receptive Communication				
1	Localizes to sounds by turning toward sound source.				
2	Looks to playful vocal sounds (raspberry, whistle).				
3	Responds to voice by turning toward person.				
4	Looks at indicated pictures as adult points to pictures in book.				
5	Follows a proximal point to place objects in containers, puzzle pieces, etc.				
6	Looks when shown an object and told, "Name, look."				
7	Looks to partner when name is called.				
8	Follows a proximal point to object or location.				
9	Follows distal point to retrieve toy.				
10	Looks, reaches, or smiles in response to adult gestures and voice in social games.				
11	Looks, reaches, smiles, and/or gestures in response to adult language/gesture in songs.				
12	Responds by stopping actions momentarily in response to inhibitory words (e.g., "no," "stop").				
13	Gives object as verbally requested when paired with adult's outstretched hand.				
14	Performs a one-step, routine instruction involving body actions paired with verbal/gesture cue (e.g., "Sit down," "Come here," "Clean up").				
15	Performs a one-step, routine verbal instruction involving body actions without accompanying gesture (e.g., "Sit down," "Come here," "Clean up).				

Level 1

Retrieved from: t.ly/jX5C3

Joint Attention Routines (JARs)

1	**Get Ready / Set-Up**	Child chooses the activity
2	**Develop Theme**	Get going with the activity, “get a hook,” work on objectives
3	**Elaboration**	Add new materials/language, model different actions, add more steps to the sequence
4	**Closing Transition**	Clean-up & start new activity that is the child’s choice

Joint Attention Routine (JAR)

Video Example #1

Joint Attention Routine (JAR) #1:
The Launch & Crash

- A platform swing was prepared as a slide
- A variety of materials to launch and knock over (e.g., pins, cars, cups) were nearby
- Clinician was positioned face-to-face and close enough to touch
- SGD was within reach and positioned on the slide between the child and the clinician for modeling and use

Get Ready, Set-up

- Child initiated the routine by rolling a bowling pin down the ramp
- One car was placed on top of the slide, followed by two more
- Clinician modeled target language, both vocally and w/SGD, as relevant to the routine and motivating to the child (e.g., Ready Set Go!)
- Repeated play actions, smiled and laughed with the child

Develop a Theme

- Clinician introduced new play materials: cars, cups
- Clinician added a new step to the routine: pushed cars up the slide, modeling it twice
- Clinician modeled new language both vocally and w/SGD: “Get more!” “Help!” “Whoa!”

Elaborate

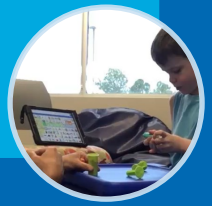
Joint Attention Routine (JAR)

Video Example #2

Joint Attention Routine (JAR) #2:
Playdoh: A Big, Huge, & Hot Volcano

Get Ready, Set-up

- Clinician was positioned face-to-face and close enough to touch
- Child was seated in a cube chair with ample table space
- SGD was within reach and positioned on the slide between the child and the clinician for modeling and use
- Clinician had own materials to include Playdoh and extruder tool

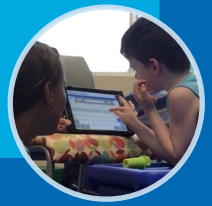


Develop a Theme

- Child initiated a volcanic eruption by putting Playdoh in the tool and counting down from 10
- Clinician imitated his play actions (e.g., shaking of the tool to create vibration on the table) and language
- Clinician modeled new language using speech and the child's SGD (e.g., big volcano)
- Clinician created repetitive "blast-off"

Elaborate

- Clinician introduced a new play step: throwing the lava in the air
- Clinician modeled new language: long/longest, hot/hottest
- Clinician showed child how to use the keyboard to spell and how to locate or "find a word" in the SGD
- Clinician introduced a new goal: literacy (e.g., spelling, phonemic/phonetic awareness)



Sensory Social Routines (SSRs)

Play with PEOPLE, not objects!

The more fun the child is having, the longer they will attend and interact, and…the more learning opportunities you can provide!

ESDM uses enjoyable play experiences to:

increase child's pleasure in social interactions	increase motivation to seek out social engagement and new ways to play

Sensory Social Routine (SSR) Video

Create & Maintain Engagement "Hook" Strategies

Step #1: Modify the Environment

Observe, Wait, and Listen

Step #2: Slowly engage by…

- Create the time and space to get used to you
- Get down on their level
- Imitate language and play and/or body actions
- Be helpful, do something to achieve their goal. *Remember, you're on the same team!*
- Use your own materials

Create & Maintain Engagement "Hook" Strategies

Step #3: Get the HOOK!

- Repeat what you say and do, offer opportunities, cue if you need to, keep it fun/keep it going (ROCK)
- Do the unexpected, make a mistake on purpose, let things go wrong
- Use anticipatory gestures
- Slow your body language and language down or speed it up
- Change your intonation. Go high. Go low. Sing a song or a say a song.

Teaching Language the ESDM Way

Language models are always developmentally and pragmatically matched to the child's level

- First develop repertoire of sounds
- Move from sounds to words
- Move from imitated to spontaneous words
- Build multi-word utterances
- Management of cue/prompt timing is critical with autistic children. Give a language model immediately with positive affect and fun!

Retrieved from: https://shorturl.at/fqEN9, https://shorturl.at/glyBD
https://shorturl.at/efjvZ, https://shorturl.at/ghsSZ

OK…

But what about when speech just doesn't seem to be coming along?

ESDM AAC Decision Tree

ESDM suggests 24 weeks of treatment, then check for 5-10 spoken word and/or sign approximations

IF YES? Continue with ESDM Checklist & Target Objectives Written

IF NO? Gestalt Language Processor?
PROMPT?
Picture Visual Supports? PEC?
Speech Generating Device?

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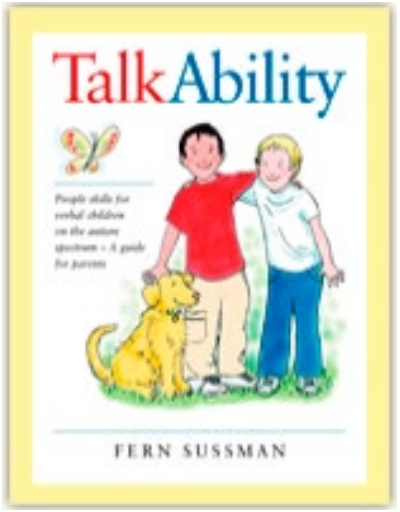
Autism Supports:
The Hanen® Program

More Than Words ®

- ✓ A parent education series designed for autistic children ages of 18 months and 5-years-old who are speaking or non-speaking (AAC included)
- ✓ ***Goals***: Joint attention and connection, imitation, play, and language development
- ✓ ***Parents will learn*** *what motivates their child, how to set achievable goals, how to make interactions last longer, tips for using pictures to help their child understand, and tips for play development and peer play interaction*

TalkAbility™



- ✓ For parents of speaking, autistic children, ages 4-7
- ✓ ***GOALS***: Self-advocacy, tuning in to their and other's thoughts and feelings, understanding non-verbal messages, and perspective-taking
- ✓ ***Parents will learn*** how to help their child…
  - "Tune-in" to their and others' thoughts and feelings
  - Encourage their child to pay attention to the social messages people send non-verbally
  - How to help their child understand perspective-taking while advocating for their wants
  - Ways to help their child interact with others and make friends

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Autism Supports: Learning Styles Profile™ (LSP)

- Patrick Rydell, Ed.D., CCC-SLP

Learning Styles Profile (LSP)

THE GOAL

"LOOK UP, LOOK AROUND!"

✓ Supporting autistic children to learn from people as their primary source of information

"WHO IS DOING THE THINKING?"

✓ Teaching children to use their skills to learn engage in meaningful social interactions

✓ To encourage autistic children to observe the social game plan. to find out what's going on, and to decide how and when to join it

LEARNING STYLE COMPONENTS

- Object vs. People
- Learns Through Social Modeling/Demonstration & Rehearsal
- Attains Social Cues from Multiple Partners
- Flexibility with Different Objects/Activities/People,
- Shared Control of Play
- Interaction Style,
- Symbolic/Verbal Communication
- Executive Function
- Distance Learning
- Transitions

Retrieved from: https://rb.gy/zkyj20

Learning Styles Profile (LSP)

- Initially, we reduce the amount of verbal language to increase focus on social attention
- Skills are modeled and demonstrated repetitively to allow child to create and join in a social game plan and to discover value in learning from others
- Once awareness skills are firmly established, using this more natural approach, LSP helps children:
  - ✓ Add and expand verbal language
  - ✓ Enhance social interaction skills

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Adapting Activities for Individuals

Considerations with Adapting

Child / Person using AAC

- Age
- Linguistic Background
- Years of experience with the device
- Cognitive level
- Gestalt vs analytic language processor
- Access
- Preferences
- Diagnosis
- Behavior
- Physical needs and abilities

Devices are different

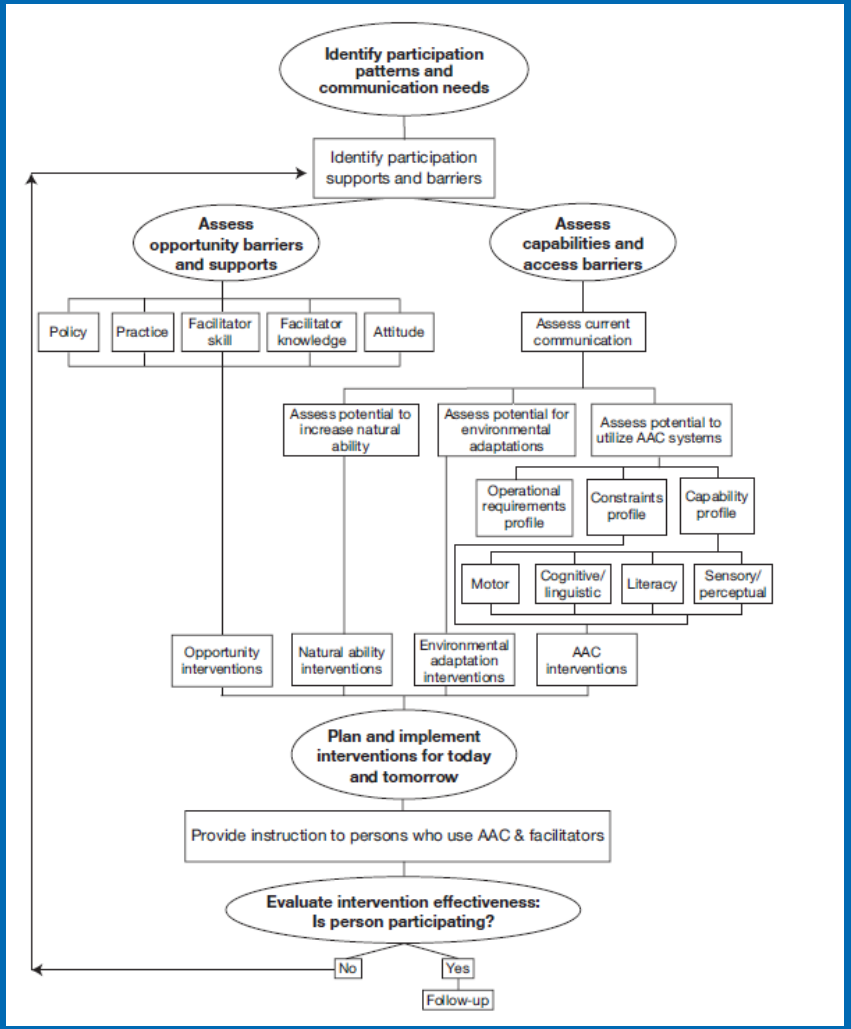
- Manufacturer
- Level of Technology
- Voice Output
- Speaker
- Size
- Layout
  Encoding
- Symbols

To Start…

Think about a child that you've worked with in the past, and think about or write down 5-10 different attributes that are unique about them

These *can* be:

- **Hobbies** (e.g., passion for horseback riding, listening or making music, etc.)
- **Preferences** (e.g., favorite shows, liking to spin toys)
- **Sensory Profile** (e.g., don't like certain sounds or textures, regulation increases with swinging)
- **Motor Abilities** (e.g., walks without assistance, uses a wheelchair)
- **Motivators** (e.g., responds well to routines, responds well to verbal praise)
- **Behaviors** (e.g., cries when is frustrated, avoids a task)



Beukelman & Light, 2020, pg. 28-29.

Emerging Communicator

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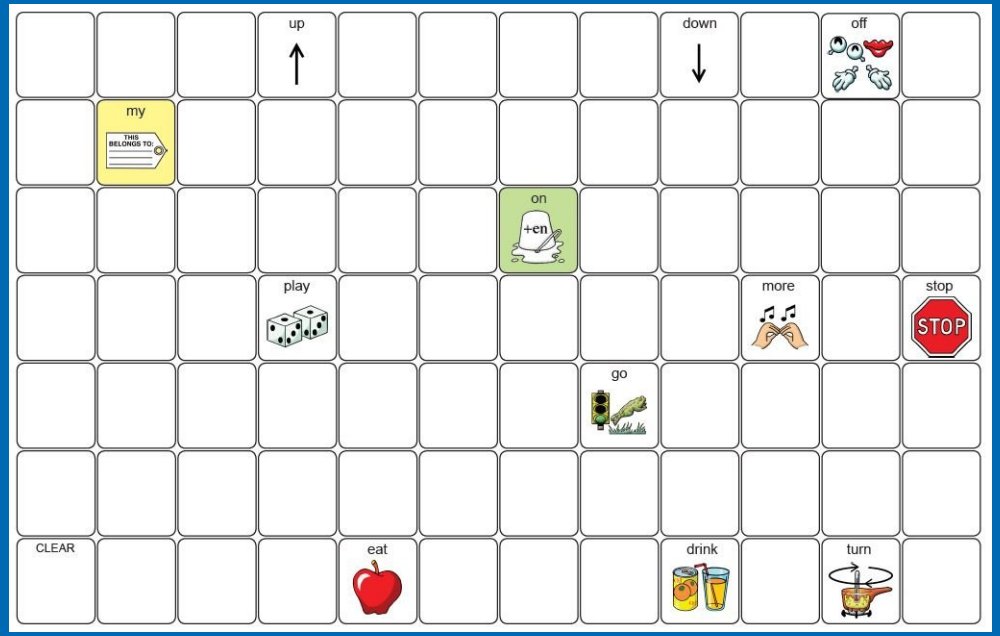
Emerging Communicator



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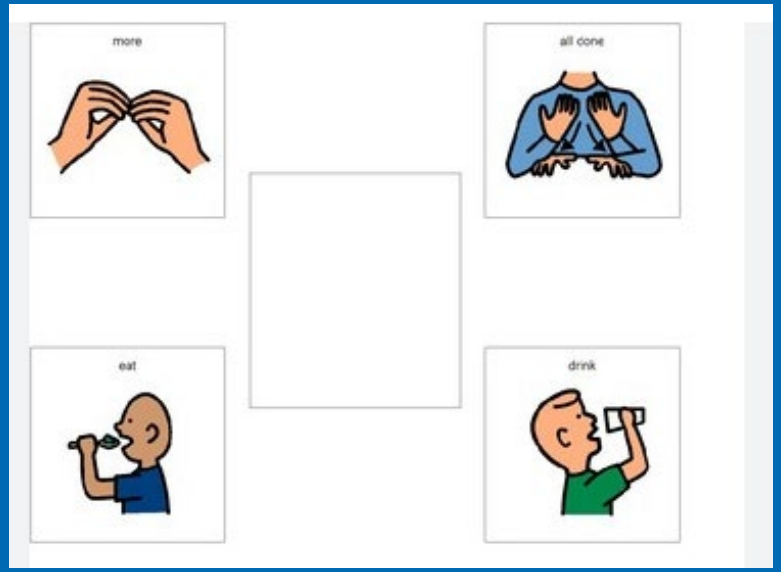

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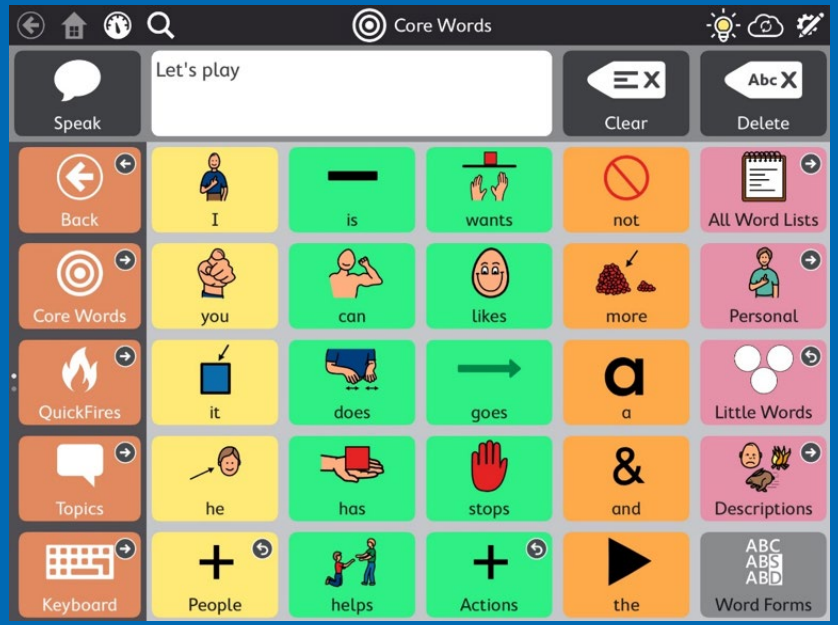
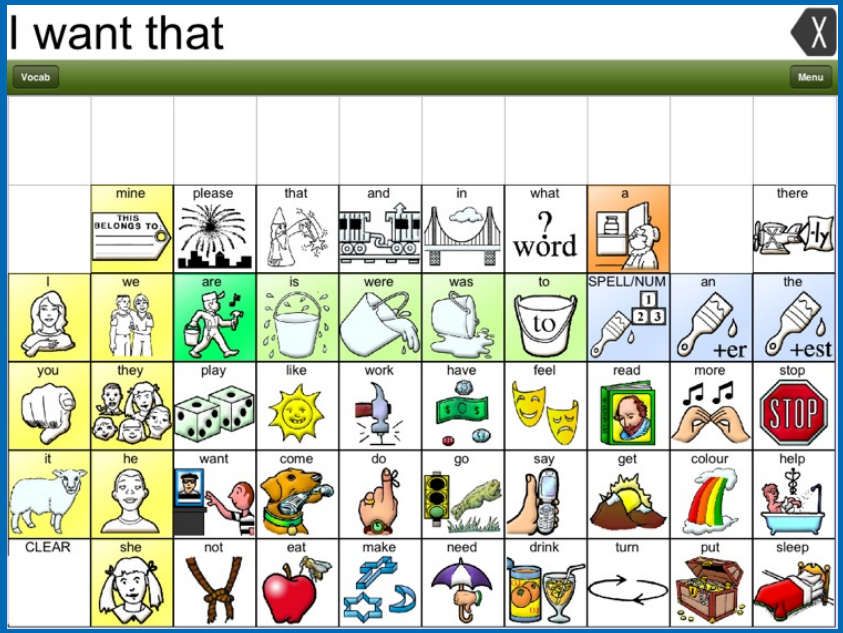
Supported Communicator

Supported Communicator





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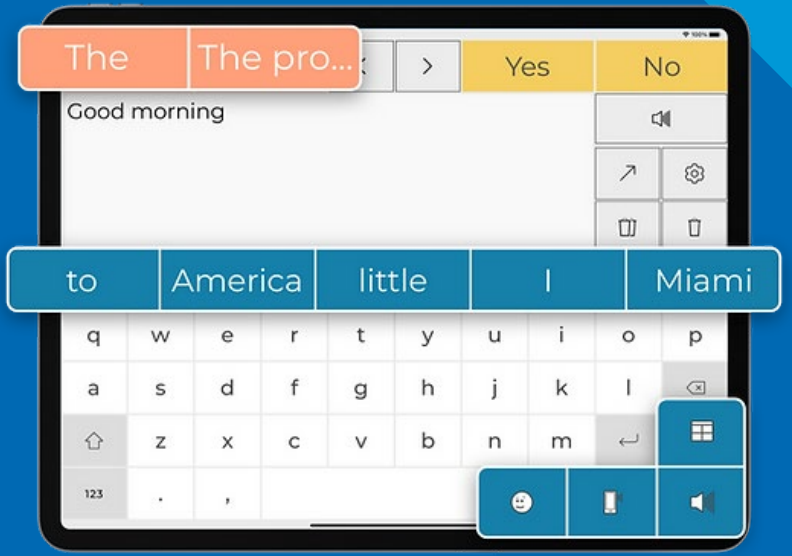
Independent Communicator



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Independent Communicator

“Remove Barriers to AAC”

	I will do this myself	I want support to do this myself	I want someone else to do this	Check with me each time
Physical environment				
Finding a quiet place to talk	❍	❍	❍	❍
Volume controls on my AAC: external speaker, settings to increase or decrease	❍	❍	❍	❍
Transporting my AAC: carry strap or harness, wheel-chair mount, backpack	❍	❍	❍	❍
Arranging my AAC within comfortable reach	❍	❍	❍	❍
Keeping it charged: carrying a power cord or external charger, charging it overnight	❍	❍	❍	❍
Advocacy				
Explaining to a stranger how I communicate	❍	❍	❍	❍
Asking others to wait while I compose my message	❍	❍	❍	❍
Asking others to also use AAC or type with me	❍	❍	❍	❍
Protecting my boundaries: Do’s and Don’ts	❍	❍	❍	❍
Telling others to talk to me, not about me	❍	❍	❍	❍
Telling someone off for how they are speaking to me	❍	❍	❍	❍
Social environment				
Choosing who to talk to	❍	❍	❍	❍
Getting the attention of others	❍	❍	❍	❍
Greeting others	❍	❍	❍	❍
Responding to the greetings of others	❍	❍	❍	❍
Setting the topic of conversation	❍	❍	❍	❍
Asking questions of others	❍	❍	❍	❍
Replying to questions of others	❍	❍	❍	❍
Ending the conversation	❍	❍	❍	❍
Group environments				
Getting the attention of whoever is in charge	❍	❍	❍	❍
Raising the volume to shout	❍	❍	❍	❍
Reducing the volume to whisper	❍	❍	❍	❍
Showing the message rather than broadcasting it with volume	❍	❍	❍	❍
Making sure I have my turn to contribute to group discussions and conversations	❍	❍	❍	❍

Image Retrieved: www.assistiveware.com. (n.d.). *Remove Barriers to Communication with AAC.* https://download.assistiveware.com/aac/1.3-remove-barriers-to-communication-checklist.pdf

Independent Communicator

“Remove Barriers to AAC”

Planned environments, like medical appointments				
Deciding what questions to ask	❍	❍	❍	❍
Deciding what concerns or symptoms to share	❍	❍	❍	❍
Deciding if my questions have all been answered	❍	❍	❍	❍
Sharing my decisions or answers	❍	❍	❍	❍
Clarifying my decisions or answers	❍	❍	❍	❍
Preparing “scripts” ahead of time, possibly with fill-in-the-blanks	❍	❍	❍	❍
My AAC itself				
Sharing my contact information	❍	❍	❍	❍
Selecting my digital voice	❍	❍	❍	❍
Adding new words or phrases	❍	❍	❍	❍
Selecting my back-up system	❍	❍	❍	❍
Deciding which communication method (AAC, gestures, words, etc) to use, when	❍	❍	❍	❍
Deciding to change my AAC system	❍	❍	❍	❍
Deciding when to use my AAC system	❍	❍	❍	❍
Deciding when not to use my AAC system	❍	❍	❍	❍
Checking my message history	❍	❍	❍	❍

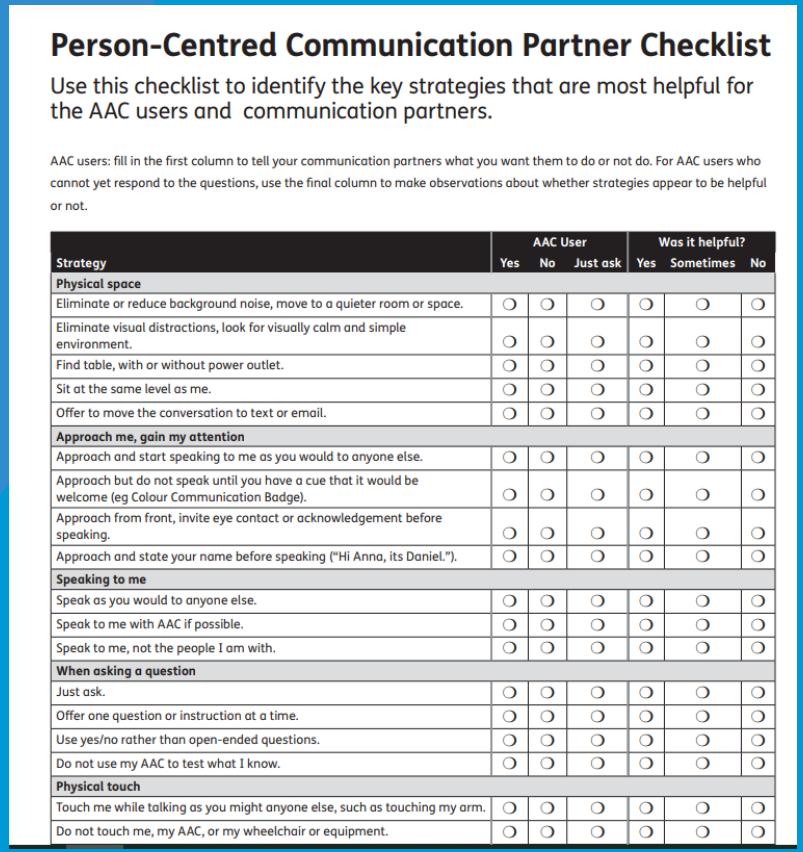
If an AAC user is still learning to answer these questions, consider support strategies or educational goals that teach them to direct their AAC support over time.

For more information: **www.assistiveware.com/aac-supporter**

Image Retrieved: www.assistiveware.com. (n.d.). *Remove Barriers to Communication with AAC*. https://download.assistiveware.com/aac/1.3-remove-barriers-to-communication-checklist.pdf

Independent Communicator

“Person-Centered Communication Partner Checklist”



Person-Centred Communication Partner Checklist

Use this checklist to identify the key strategies that are most helpful for the AAC users and communication partners.

AAC users: fill in the first column to tell your communication partners what you want them to do or not do. For AAC users who cannot yet respond to the questions, use the final column to make observations about whether strategies appear to be helpful or not.

Strategy	AAC User			Was it helpful?		
	Yes	No	Just ask	Yes	Sometimes	No
Physical space						
Eliminate or reduce background noise, move to a quieter room or space.	❍	❍	❍	❍	❍	❍
Eliminate visual distractions, look for visually calm and simple environment.	❍	❍	❍	❍	❍	❍
Find table, with or without power outlet.	❍	❍	❍	❍	❍	❍
Sit at the same level as me.	❍	❍	❍	❍	❍	❍
Offer to move the conversation to text or email.	❍	❍	❍	❍	❍	❍
Approach me, gain my attention						
Approach and start speaking to me as you would to anyone else.	❍	❍	❍	❍	❍	❍
Approach but do not speak until you have a cue that it would be welcome (eg Colour Communication Badge).	❍	❍	❍	❍	❍	❍
Approach from front, invite eye contact or acknowledgement before speaking.	❍	❍	❍	❍	❍	❍
Approach and state your name before speaking (“Hi Anna, its Daniel.”).	❍	❍	❍	❍	❍	❍
Speaking to me						
Speak as you would to anyone else.	❍	❍	❍	❍	❍	❍
Speak to me with AAC if possible.	❍	❍	❍	❍	❍	❍
Speak to me, not the people I am with.	❍	❍	❍	❍	❍	❍
When asking a question						
Just ask.	❍	❍	❍	❍	❍	❍
Offer one question or instruction at a time.	❍	❍	❍	❍	❍	❍
Use yes/no rather than open-ended questions.	❍	❍	❍	❍	❍	❍
Do not use my AAC to test what I know.	❍	❍	❍	❍	❍	❍
Physical touch						
Touch me while talking as you might anyone else, such as touching my arm.	❍	❍	❍	❍	❍	❍
Do not touch me, my AAC, or my wheelchair or equipment.	❍	❍	❍	❍	❍	❍

AssistiveWare. (n.d.). *Person-Centred Communication Partner Checklist*. https://download.assistiveware.com/aac/1.6-person-centred-communication-partner-checklist.pdf

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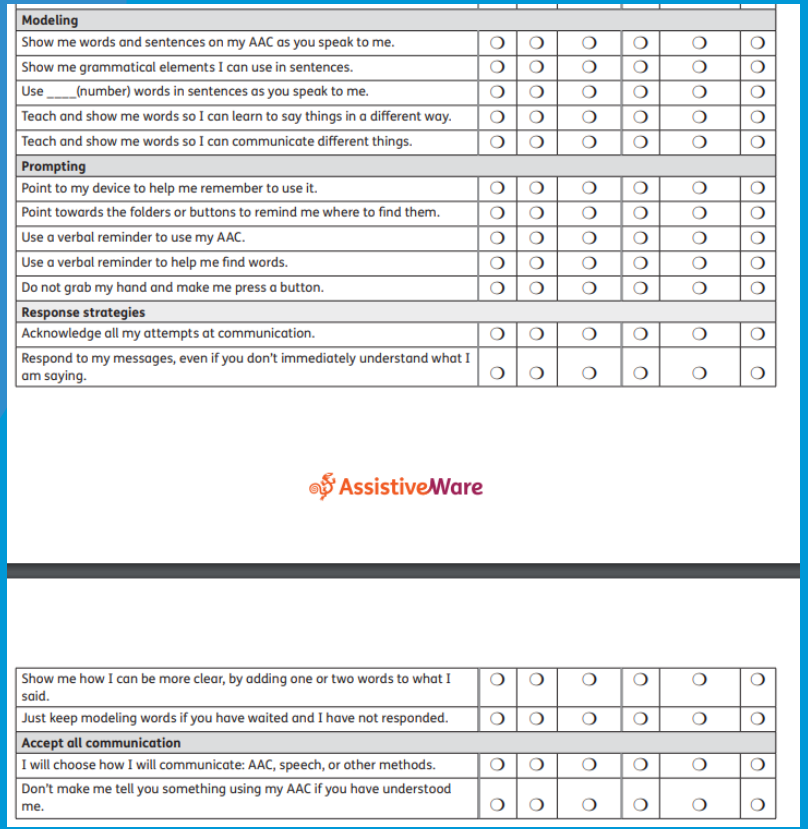
"Person-Centered Communication Partner Checklist"



Modeling						
Show me words and sentences on my AAC as you speak to me.	❍	❍	❍	❍	❍	❍
Show me grammatical elements I can use in sentences.	❍	❍	❍	❍	❍	❍
Use ____(number) words in sentences as you speak to me.	❍	❍	❍	❍	❍	❍
Teach and show me words so I can learn to say things in a different way.	❍	❍	❍	❍	❍	❍
Teach and show me words so I can communicate different things.	❍	❍	❍	❍	❍	❍
Prompting						
Point to my device to help me remember to use it.	❍	❍	❍	❍	❍	❍
Point towards the folders or buttons to remind me where to find them.	❍	❍	❍	❍	❍	❍
Use a verbal reminder to use my AAC.	❍	❍	❍	❍	❍	❍
Use a verbal reminder to help me find words.	❍	❍	❍	❍	❍	❍
Do not grab my hand and make me press a button.	❍	❍	❍	❍	❍	❍
Response strategies						
Acknowledge all my attempts at communication.	❍	❍	❍	❍	❍	❍
Respond to my messages, even if you don't immediately understand what I am saying.	❍	❍	❍	❍	❍	❍

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Show me how I can be more clear, by adding one or two words to what I said.	❍	❍	❍	❍	❍	❍
Just keep modeling words if you have waited and I have not responded.	❍	❍	❍	❍	❍	❍
Accept all communication						
I will choose how I will communicate: AAC, speech, or other methods.	❍	❍	❍	❍	❍	❍
Don't make me tell you something using my AAC if you have understood me.	❍	❍	❍	❍	❍	❍

Image Retrieved: AssistiveWare. (n.d.). *Person-Centred Communication Partner Checklist*. https://download.assistiveware.com/aac/1.6-person-centred-communication-partner-checklist.pdf

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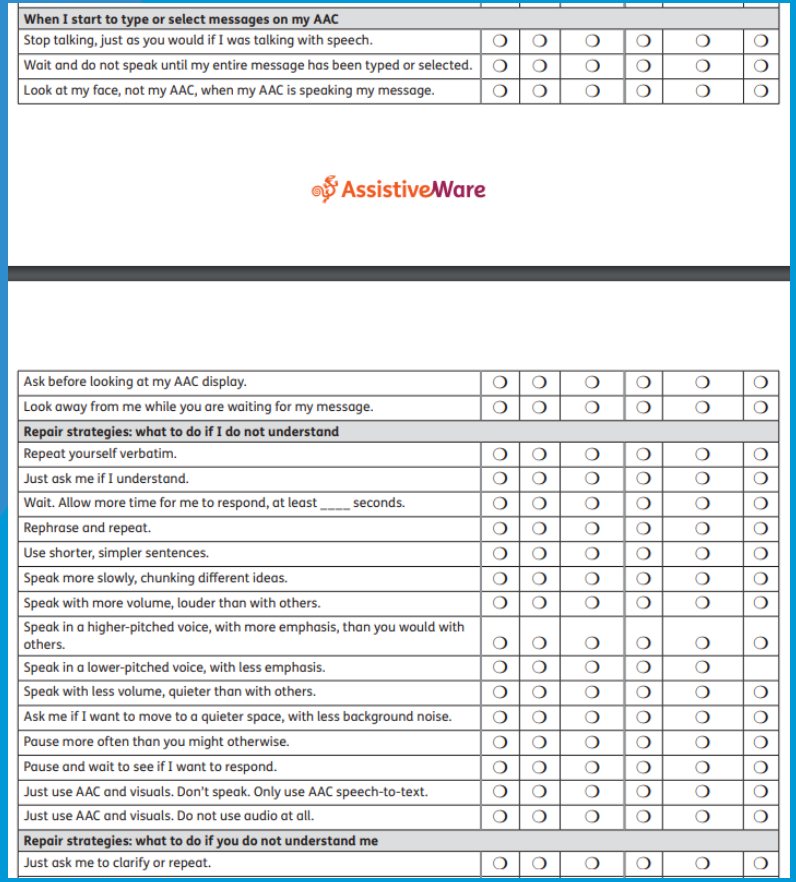

When I start to type or select messages on my AAC						
Stop talking, just as you would if I was talking with speech.	❍	❍	❍	❍	❍	❍
Wait and do not speak until my entire message has been typed or selected.	❍	❍	❍	❍	❍	❍
Look at my face, not my AAC, when my AAC is speaking my message.	❍	❍	❍	❍	❍	❍

AssistiveWare

Ask before looking at my AAC display.	❍	❍	❍	❍	❍	❍
Look away from me while you are waiting for my message.	❍	❍	❍	❍	❍	❍
Repair strategies: what to do if I do not understand						
Repeat yourself verbatim.	❍	❍	❍	❍	❍	❍
Just ask me if I understand.	❍	❍	❍	❍	❍	❍
Wait. Allow more time for me to respond, at least ____ seconds.	❍	❍	❍	❍	❍	❍
Rephrase and repeat.	❍	❍	❍	❍	❍	❍
Use shorter, simpler sentences.	❍	❍	❍	❍	❍	❍
Speak more slowly, chunking different ideas.	❍	❍	❍	❍	❍	❍
Speak with more volume, louder than with others.	❍	❍	❍	❍	❍	❍
Speak in a higher-pitched voice, with more emphasis, than you would with others.	❍	❍	❍	❍	❍	❍
Speak in a lower-pitched voice, with less emphasis.	❍	❍	❍	❍	❍	
Speak with less volume, quieter than with others.	❍	❍	❍	❍	❍	❍
Ask me if I want to move to a quieter space, with less background noise.	❍	❍	❍	❍	❍	❍
Pause more often than you might otherwise.	❍	❍	❍	❍	❍	❍
Pause and wait to see if I want to respond.	❍	❍	❍	❍	❍	❍
Just use AAC and visuals. Don't speak. Only use AAC speech-to-text.	❍	❍	❍	❍	❍	❍
Just use AAC and visuals. Do not use audio at all.	❍	❍	❍	❍	❍	❍
Repair strategies: what to do if you do not understand me						
Just ask me to clarify or repeat.	❍	❍	❍	❍	❍	❍

Image Retrieved: AssistiveWare. (n.d.). *Person-Centred Communication Partner Checklist*. https://download.assistiveware.com/aac/1.6-person-centred-communication-partner-checklist.pdf

What to Consider About the Activity

Demands

- Physical demands (fine and gross motor)
- Linguistic demands
- Cognitive demands
- Time constraints

Opportunities

- Communication opportunities
- Interaction opportunities
- Fun
- Linguistic/literacy opportunities

What to Consider About the Activity

Purpose

- Goal of the activity (e.g., sensory bin filled with camp related items)
- Communicative functions
- How this relates to the user's personal goals
- Compliance vs Connection

Barriers and Adaptations

- Physical
- Cognitive
- Linguistic
- Communication partners

Let's Practice- Camp Edition!

We know you can't wait to apply all this knowledge!

Children's Hospital Colorado
Here, it's different.™

Case Study #1

T is a 8 year old autistic boy who directly selects on a NovaChat 8 device using Word Power 60 with a gestalt option and about 25 buttons showing per page. T loves vehicles and dinosaurs. He often refuses to participate in therapist-led activities, as he will hide under tables and chairs and "shut down." He does not like loud or unexpected noises.

Case Study #1- Goals

- *T will comment within session activities using his SGD 3x per session given moderate verbal and visual cues across 3 sessions.*

- *T will refuse or reject an item or activity using his SGD given moderate verbal and visual cues 3x across 3 sessions.*

- T will direct session activities using his SGD in 3/4 presented opportunities given moderate verbal and visual cues across 3 sessions.

At camp, T is participating in the photo booth activity. There are dress up clothes, face paint, and polaroid cameras. In therapy at CHCO, he often refuses to participate if it is therapist leads. T often participates more when there is movement and child lead.

Purpose *Goal of the activity* *Communication Functions*	Opportunities *Example utterances of engagement*	Demands / Barriers *What other skills are needed beyond the communication?*	Adaptations and Neurodiversity Implementation *How do we modify to support our child and meet them where they're at?*

Purpose	Opportunities	Demands / Barriers	Adaptations and Neurodiversity Implementation
Target goals of: - Commenting - Protesting - Directing	- Commenting: "like/don't like“ - Protesting: "stop/all done/finish“ - Directing: "more/want" while pointing	- Attending to a therapist led activity - ADL’s (dressing or putting on costume) - Noise/ flash from cameras	- Turn ADL’s into a game (e.g., have T pick out his outfit and create an obstacle course/ running activity to put on the costume) - Less structure from the therapist - Allow child to make a choice between two preferred items (e.g., face paint and camera) - Offer to have him take pictures vs be in the picture if he doesn’t like the flash.

Case Study #2

K is a 12 year old girl who has a diagnosis of a degenerative condition that causes global decline. She is mobile, but gets fatigued easily and needs an adaptive stroller for long distances. She has seizures but they are mostly controlled with medication. K tries to speak, but there has been a decline in verbal speech, and she has a severe stutter and dysarthria. She is using a custom 25 location on Tobii Dynovax Snap + Core with her voice recordings. She has a keyguard, but doesn't use it. Her iPad is unlocked and has access to TD Snap and other apps. K has CVI and wears glasses. Vision is declining, and so is fine motor and attention toward the device. K loves playing simple turn taking games, socializing with others, and playing with her dolls. K has some behaviors such as eloping and throwing things when she is frustrated.

Case Study #2- Goals

- K will utilize her speech generating device to clarify / repair her intended spoken message in 5 opportunities over 2 sessions.

- K will activate five previously recorded messages on her speech generating device in order to practice using her legacy/recorded messages in 2 contexts.

- K will ask questions using her speech generating device to gain information 3x in a session over 3 therapy sessions.

At camp, K is participating in the sensory bin activity. There are 3 different themed sensory bins: animals, space, and nature. How are we going to use this activity and adapt it for K's goals?

Purpose *Goal of the activity* *Communication Functions*	Opportunities *Example utterances of engagement*	Demands / Barriers *What other skills are needed beyond the communication?*	Adaptations and Neurodiversity Implementation *How do we modify to support our child and meet them where they're at?*

Purpose *Goal of the activity Communication Functions*	Opportunities *Example utterances of engagement*	Demands/Barriers *What other skills are needed beyond the communication?*	Adaptations and Neurodiversity Implementation *How do we modify to support our child and meet them where they're at?*
Target goals of: - Repair strategies - Ask questions - Share information	-Repair/ Clarify: Use SGD if her dysfluencies are drawn out, or if she is having word finding difficulty with all communication functions. -Ask questions: think about programming functional questions that can be helpful within that particular activity/ all activities. (e.g., "what are we going to do", "where are we going", "how do you play") -Share information: Pre-program phrases that K might be motivated to share about the activity.	- Verbal, but very difficult to understand. - Vision - Keyguard - Literacy - Communication partner may not be familiar with her system since it's so customized (compared to regular TD Snap)	- We need to make sure she wears her glasses. - Ask parents to bring it to camp and make sure it is on guided access so that she doesn't have access to other apps. - Use pacing strategies to help support speech since she is motivated to speak

Case Study #3

M is a 15 year old girl with Rett Syndrome. She cannot use her hands at all and uses a wheelchair. She is using an **Accent** 1400 with eye gaze with a custom Unity 36 Sequenced Vocabulary. She has CVI, and has trouble accessing the left side of the device at times (depending on lighting/ CVI). The device is mounted to her wheel chair. M loves to share information and enjoys being around other peers.

Case Study #3- Goals

- *M will use 2 word utterances* to direct, request and protest *within session activities using his SGD 3x per session given moderate verbal and visual cues across 3 sessions.*

- *M will use the "turn off eye gaze" feature or indicate that she wants a break using his SGD given moderate verbal and visual cues 3x across 3 sessions.*

- M will share information session activities using his SGD in 3/4 presented opportunities given moderate verbal and visual cues across 3 sessions.

At camp, M is participating in the literacy relay races. There are scooters with ropes attached to them so that kids can scoot and match the letters to their names by finding the letters around the room.

Purpose *Goal of the activity* *Communication Functions*	Opportunities *Example utterances of engagement*	Demands / Barriers *What other skills are needed beyond the communication?*	Adaptations and Neurodiversity Implementation *How do we modify to support our child and meet them where they're at?*

Purpose *Goal of the activity Communication Functions*	Opportunities *Example utterances of engagement*	Demands / Barriers *What other skills are needed beyond the communication?*	Adaptations and Neurodiversity Implementation *How do we modify to support our child and meet them where they're at?*
Target goals of: - Operational competency (e.g., turning off eye gaze feature/ asking for a break) - Communication Functions (requesting, directing, protesting) - Sharing information	• Directing "push down" or "go down" the ramp • Asking for help/ self advocating • Requesting for specific letter • Sharing information using pre-programmed phrases about favorite activity at camp so far.	• Physical limitations in wheelchair • Fine motor limitations • Vision/ CVI • Profile constraints (e.g., difficulty accessing left side of the screen at times)	• Ask her if she wants to go in the scooter or stay in her chair • Customize device to have more important buttons or buttons that M uses more frequently on the right side of the screen • Use keyboard on Accent 1400 or use an E-tran low tech board to make letter choices.

Despite the type of communicator, every child is different and unique, and should be valued as so.

There is no “lesson plan” for life. Our therapy sessions and daily interactions should reflect that: they should ***be spontaneous***, ***flexible***, ***rewarding***, ***and engaging*** based on current needs.

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Special Topics: Working with Key Stakeholders

Interviewing the Caregiver

Why it is important?

The caregiver is likely:

- most **consistent**
- **meaningful**
- **valuable** person in the life of your patient

Anticipating Amy

How is your child's communication?

Just fine! I always know what he wants. I don't have concerns.

Anticipating Amy

Wait what?!
I'm worried about *how independent* his communication is.

Now what?!

Worried Wendy

How is your child's communication?

Well, he's still not saying words. When will he speak?

Worried Wendy

Welp! Mom seems *worried*.

I'm also worried her child's other communication efforts are *not being celebrated*.
I don't know the answer!

Now what?!

On Surface vs. Go Deep

Get the BEST information

- Informal interview /conversation
- Complete *with* family
- Use interpreter
- LISTEN, validate & build rapport

Check your bias!

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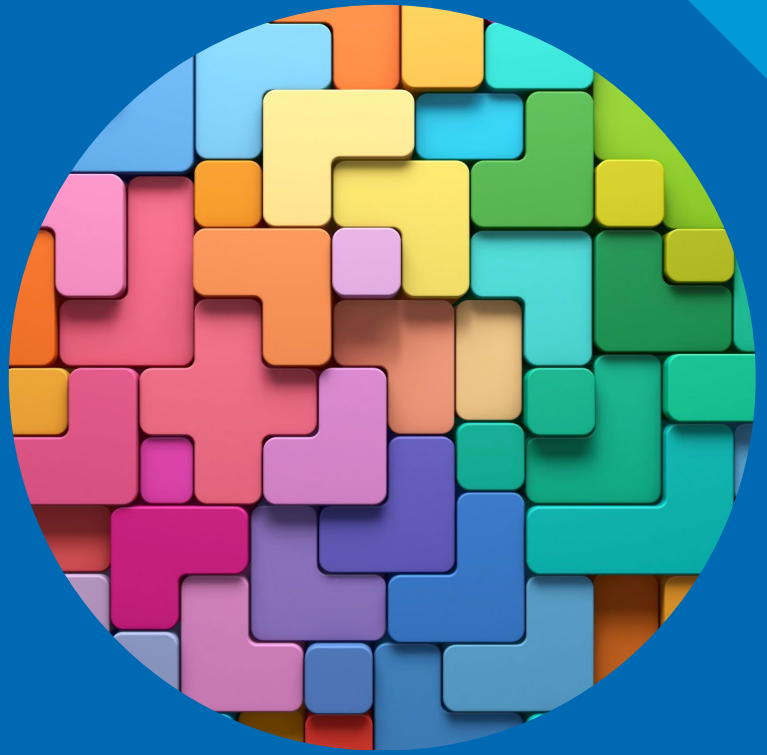
Factors to Consider

- Sociocultural factors
- Education & literacy
- Home dynamic
- level of “buy-in” toward AAC
- What’s most important to this family!
- Family strengths and barriers



Ideas worth exploring

Child Focus:

- What are child's strengths?
- What caregiver is proud of about their child
- How do they describe their child
- What is motivating & fun to the child

Medical History:

- Other relevant diagnoses
- Vision (glasses, adherence)
- Hearing (hearing aid)
- Feeding Skills
- Early developmental milestones (hand use, sitting, walking)

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Ideas worth exploring

Family Context:

- home routine
- stakeholders (therapies, school, family, community)
- community (expended family, friends, other parents of children with unique learning needs)
- How do caregivers like to learn and practice new skills
- Priorities: Family's capacity to take on learning something new now

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Ideas worth exploring:

Communication skills:

- current means of communication (aided/unaided)
- what does the child spontaneously communicate about
- words/ideas/concepts the child knows and/or communicates about
- what helps the child learn or understand
- familiar communication partners vs. less familiar
- Are there times the child is not understood?
- What happens then?
- What has been tried in the past
- what helped or didn't and WHY?

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Ideas worth exploring

Future Vision:

- What situations does the caregiver wish the child could participate in better
- vision toward the future (short, long term)

Thoughts & feelings around AAC:

- What they already knows about AAC
- What they are curious or worried about

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Anticipating Amy: surface level

How is your child's communication?

Just fine! I always know what he wants. I don't have concerns.

Anticipating Amy: deeper dive

How is your child's communication?

How wonderful that you know him so well! Can you tell me more about how he let's you know …

Hmm, I wonder what it looks like with a less familiar caregiver?

Just fine! I always know what he wants. I don't have concerns.

Anticipating Amy

Oh wow!
This person is curious and kind, really taking the time to get to know us!
I feel safe to be little more vulnerable

Worried Wendy : surface level

How is your child's communication?

Well, he's still not saying words. When will he speak?

Worried Wendy : deeper dive

How is your child's communication?

ahh, thank you for sharing that with me.

Maybe we can figure this out together, can you tell me a bit more about what you've already tried …

Well, he still not saying words. When will he speak?

Worried Wendy

She seems caring and genuine.
Its nice to feel heard and less lonely in what feels heavy for me.
Maybe I can share more and try new things.

Interviewing skills

- Be patient with yourself
- No two interviews are the same
- Feelings create connection
- Write down examples

References

https://praacticalaac.org/?s=caregiver+interview

Gloria Soto & Betty Yu (2014) Consideration for the Provision of Services to Bilingual Children Who Use Augmentative and Alternative Communication, Augmentative and Alternative Communication, 30:1, 83-92, DOI: 10.3109/07434618.2013.878751

Collaborating with Caregiver and Stakeholders

Collaborating

- joining forces
- coming together
- cooperating
- teaming up

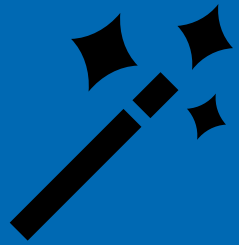
What does it look like?

- Determine what *each person* brings to the team
- Everyone can have an *idea* & *input*
- *Plan*, *communicate* & *reflect* together

Rethink the “expert”

Expert mindset:

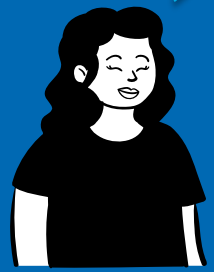
- knows the most
- is the best resource
- only implementer
- will come up with best results



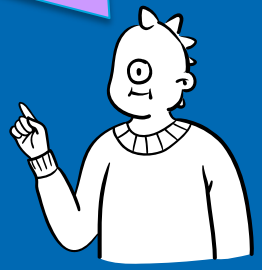
Reality: no ONE person knows everything
& can DO everything alone

Expert model

Whatever you think is best.



I agree, I have been doing this for a 1,000,000 years and I know everything and can do it all by myself!



Build Capacity

Increasing the *number* and *types* of people who can implement high quality AAC supports

Why does it matter?

- more daily opportunities to practice
- more meaningful inclusion with others
- more likely to generalize
- Better long-term outcomes

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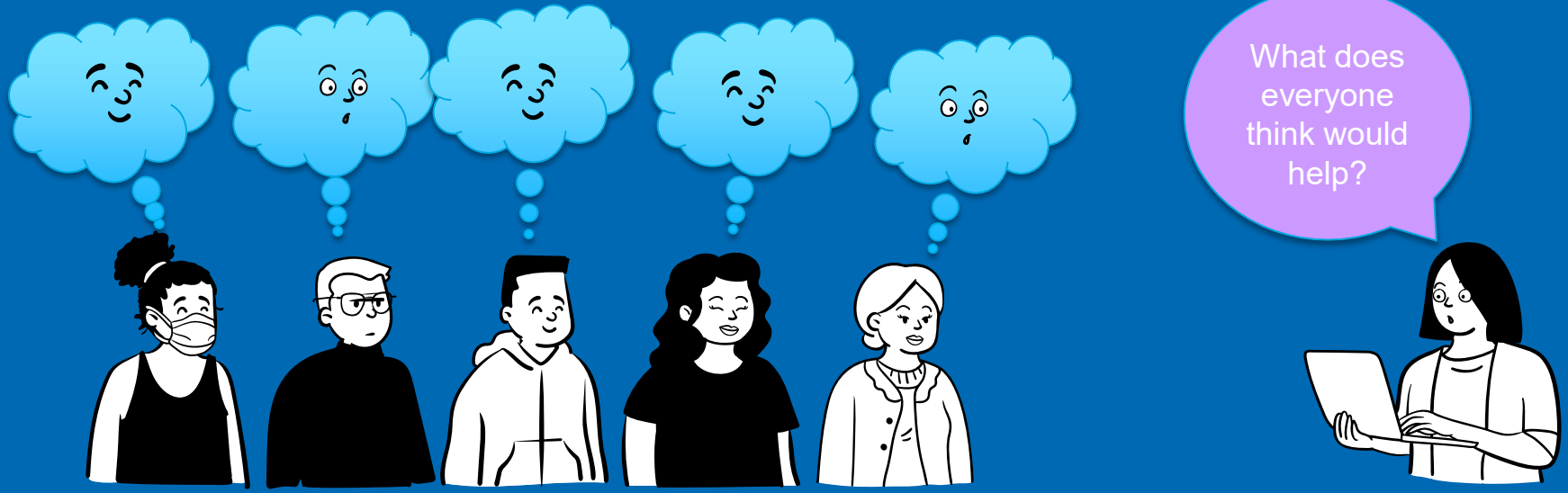
Who is on the team?

EVERYONE!

Start with a caregiver interview to get clues:

- Parents
- Siblings
- Other involved family
- Community
- School / Private SLP
- OT / PT
- Educators
- Administration
- Peers at school

Team Model



Team Model : who's interested?

Most impactful actions

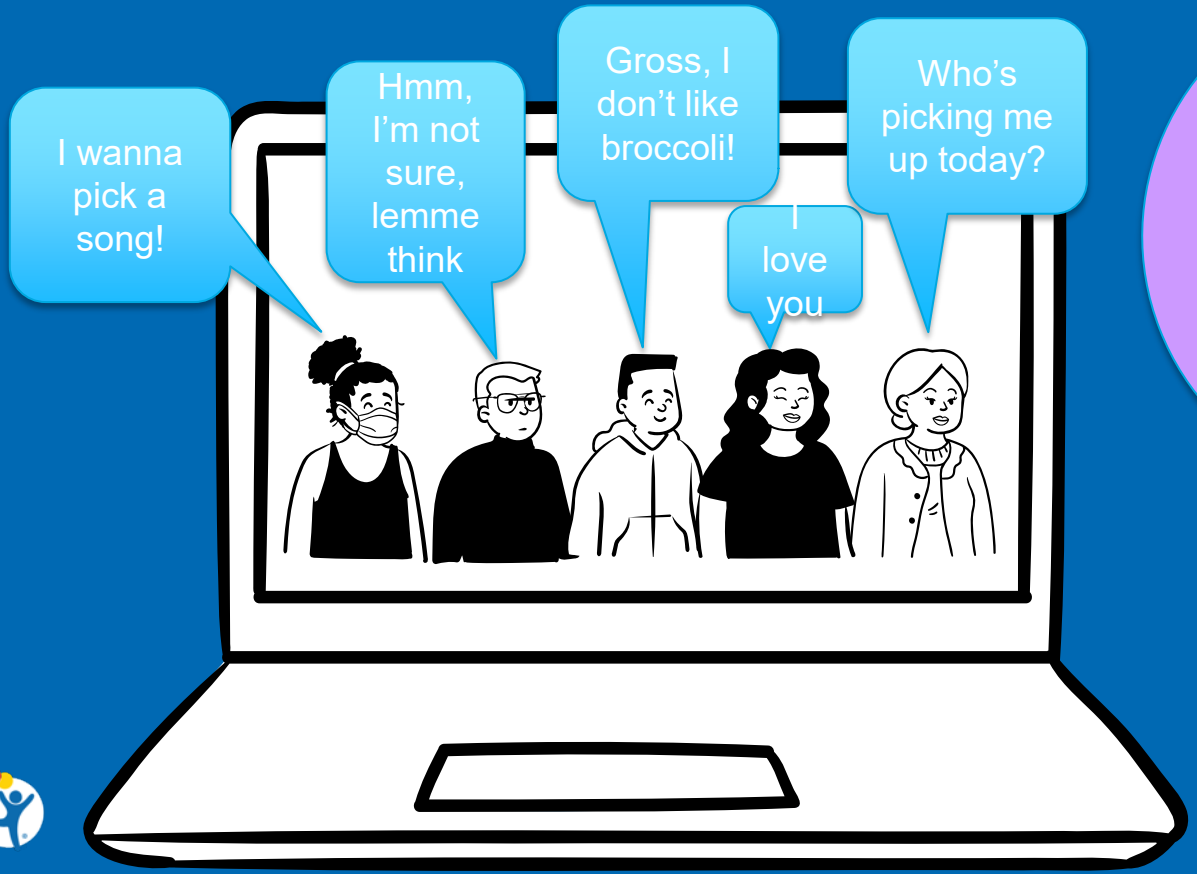
- Joint Planning:
  - Make people feel heard
  - What are their ideas?

- Inclusive Practices:
  - What can this look like across all places, relationships & activities?
  - How can others work to ensure meaningful inclusion?

- Co-treatment sessions:
  - AAC expert provides mentorship for team members via observation, practice and reflection

Joint Planning

Meaningful Inclusive Practices



What do you think better communication might look like in your context?

What do other kids get to say?

Mentorship

Let's set up a time so I can take a look at that with you!
If its not on the AAC device maybe we can get creative.

Loop back

He’s doing great with …
I’m having a hard time with …

What went well?
What should we change?

Where to start

- *Reach out* to each stakeholder & determine their collaborative interest
- Make each person feel *heard* & *important*
- Determine best way to *meet as a team* to make a plan: virtual, e-mail, in-person)
- opportunities to *observe* you & get a chance to have hands on practice
- Lead the team in *discussing* what meaningful inclusion may look like in *their area of expertise*
- *Loop back* with each stakeholder to review & reflect

References

Beukelman, D. R., & Mirenda, P. (2013). Augmentative & alternative communication: Supporting children and adults with complex communication needs (4th ed.). Brookes.

Kent-Walsh, J., & McNaughton, D. (2005). Communication partner instruction in AAC: Present practices and future directions. Augmentative and Alternative Communication, 21(3), 195–204. https://doi.org/10.1080/07434610400006646

https://praacticalaac.org/praactical/how-i-do-it-aac-in-general-education-incorporating-peer-modeling/

Special Topics: AAC & Access Considerations

Sensory Integration Basics Related to Augmentative Alternative Communication (AAC)

Nicole Korte, MS, OTR/L

Lauren DeValk, MS, OTR/L

Children's Hospital Colorado
Here, it's different.™

What is Sensory Integration?

Sensory Integration is the organization of sensations for use.

Adaptive responses

- *Adaptive responses* are how people deal with sensations in a useful way.
- *Adaptive responses* are necessary for daily activities such as getting dressed, playing on the playground, reading, and of course using a communication device!

Sensations that tell us what is coming from outside the body:

- Sight
- Sound
- Taste
- Smell
- Touch

Sight

- Retina of the eye is a receptor that is sensitive to light waves in the environment.
- Children who have difficulty with vision may be bothered by light, have trouble finding an object when it is part of a group of other things, or become distressed in unusual visual environments.
- Visual perception vs. visual reactivity

LOOK (VISUAL INPUT):

_ open window shades after a boring movie in a classroom

_ watch a fireplace

_ watch fish tank

_ watch sunset / sunrise

_ watch "oil and water" toys

* How do you react to:

_ dim lighting

_ fluorescent lighting

_ sunlight through bedroom window when sleeping

_ rose colored room

_ a "cluttered desk" when needing to concentrate

Sound

- Auditory receptors are in the inner ear
- Children who have difficulty with hearing may respond negatively to loud noises, be bothered by ordinary household sounds, or like to cause certain sounds to happen over and over again.

LISTEN (AUDITORY INPUT):

listen to Classical Music

listen to Hard Rock

* How do you react to:

_ scratch on a chalkboard

listen to others "hum"

work in "quiet" room

work in "noisy" room

sing or talk to self

_ "squeak" of a mechanical pencil

_ fire siren

_ waking to an unusual noise

_ dog barking (almost constantly)

Taste

- The tongue provides information about whether an item is sweet, sour, bitter, or salty.
- Children who have difficulty with taste may like to taste nonfood items or gag at the thought of an unappealing food.

PUT SOMETHING IN YOUR MOUTH (ORAL MOTOR INPUT): .

. drink a milkshake
_ crunch or suck on ice pieces
. tongue in cheek movements
. "chew" on pencil / pen
. chew on coffee swizzle sticks
. take slow deep breaths
. suck, lick, bite on your lips or the inside of your cheeks
. drink carbonated drink
. eat a cold popsicle
. eat a pickle
_ chew gum
_ crunch on nuts / pretzels / chips
_ bite on nails / cuticle
_ eat popcorn / cut up vegetables
_ eat chips and a spicy dip
_ chew on buttons, sweatshirt strings or collars
_ whistle while you work
_ drink coffee / tea (caffeinated)
_ drink hot cocoa or warm milk

Smell

- Smell is processed directly through the limbic system and does not have to travel through the brain stem channels.
- Children who have difficulty with smell may show distress at certain smells or ignore or not notice strong odors. Children who have difficulty with smell may show distress at certain smells or ignore or not notice strong odors.

Touch

- Sensory information is received from receptors in the skin.
- First sensory system to develop in the womb. Very important for overall neural organization.
- Children who have difficulty with touch may have difficulty with tags in shirts, may not like light touch, may want to touch everything, or may put things in their mouths.
- Touch perception versus reactivity.

TOUCH (TACTILE INPUT):

_ twist own hair
_ move keys or coins in pocket with your hand
_ cool shower
_ warm bath
_ receive a massage
_ pet a dog or cat
_ drum fingers or pencil on table
_ rub gently on skin / clothes
_ sit with crossed legs and bounce one slightly
_ Other:

* Fidget with the following:

_ a straw
_ paper clips
_ cuticle / nails
_pencil/ pen
_ earring or necklace
_ phone cord while talking
_ put fingers near mouth, eye, or nose
other:

Sensations that tell us where the body is in space:

Proprioceptive Sense

Vestibular Sense

Proprioceptive Sense

- Position and Movement
- Sensory information is received through receptors in the joints and muscles with movement and heavy work. The information travels up the spinal cord to the brain stem and the cerebellum. This sense helps with body awareness and knowing where the body is in space.
- Children who have difficulty with the proprioceptive sense may crash into things, use heavy pressure on a crayon, or have poor body awareness and bump into things.

Vestibular sense

- Detects gravity, head movement; governs your sense of balance
- Sensory information is received through the inner ear and then interpreted in the brain.
- Children with under-responsive vestibular systems want to be on the move by jumping, spinning, and running. Children with over-responsive vestibular systems may be scared of movement such as using swings.

MOVE (VESTIBULAR / PROPRIOCEPTIVE INPUT):

_ rock in a rocking chair
_ shift or "squirm" in a chair
_ push chair back on 2 legs
_ aerobic exercise
_ isometrics / lift weights
_ rock own body slightly
_ scrub kitchen floor
_ roll neck and head slowly

__ run / jog
_ ride bike
_ tap toe, heel or foot
_ dance
_ tap pencil / pen
_ yard work
_ stretch / shake body parts

Sensations that tell us what is going on inside the body

Visceral sense

Visceral sense

- Interoceptive sense
- Works to regulate body temperature, emotional awareness, hunger and thirst, the digestive system, and bowel and bladder functioning.
- Children with difficulty with the interoceptive sense may have difficulty maintaining a consistent level of arousal, maintaining body temperature, and learning toileting skills.

- *Sensory Processing Disorder or Sensory Integration Dysfunction affects at least 1 in 20 people.*
- Sensory Processing Disorder is a condition that exists when sensory signals don't get organized into appropriate responses.

References:

- **Sensational Kids: Hope and Help for Children with Sensory Processing Disorder (SPD) (Revised Edition, 2014)** by Lucy Jane Miller
- **No Longer A SECRET: Unique Common Sense Strategies for Children with Sensory or Motor Challenges (2011)** by Doreit Bialer and Lucy Jane Miller
- **Sensory Integration and the Child 25th Anniversary Edition (2005)** by A. Jean Ayres
- **The Out-of-Sync Child (2006)** by Carol Stock Kranowitz
- **"How Does Your Engine Run?" A Leader's Guide to The Alert Program for Self-Regulation (1996)** by Mary Sue Williams and Sherry Shellenberger
- **The Zones of Regulation (2011)** by Leah Kuypers

Case Study

Frank is a 9-year-old boy who attends a breakfast group to work on using his communication device. The group meets at 8:00 on Monday mornings and Frank has difficulty being alert and awake enough in the mornings to greet his friends or ask for what he needs, although he has been observed to complete these tasks independently using his device. He often yawns, puts his head on his wheelchair tray, and closes his eyes.

Think of 3 ways that you could help Frank become alert enough to participate in group.

Case Study

Joey is an 8-year-old boy who attends a small reading group at school. He uses his communication device to answer reading comprehension questions. Joey squints when he comes into brightly lit rooms, covers his ears when he hears loud noises, and seems to work best in quiet, structured spaces with fewer people and distractions.

Think of 3 accommodations that can be used in Joey's classroom setting to help him do his best work.

Case Study

Ann is a 4-year-old girl who is attending a speech/occupational therapy session to work on improving independence with using a communication device as well as play skills and activities of daily living. She has trouble focusing and attending to use her device, and often starts out the treatment session by jumping, climbing on the tables in the waiting room, and running around the room.

Think of 3 calming activities for Ann.

Cortical Visual Impairment and Augmentative Alternative Communication

Nicole Korte, MS, OTR/L
Lauren DeValk, MS, OTR/L

Children's Hospital Colorado
Here, it's different.™

What is Cortical Visual Impairment?

- Visual impairment that occurs due to a brain injury.
- Caused by damage to the visual centers of the brain. Interferes with the communication between the brain and the eyes.
- Not a physical problem with the eye.

Causes of Cortical Visual Impairment

1. Asphyxia and Neonatal Encephalopathy
2. Intraventricular Hemorrhage
3. White matter damage and Periventricular Leukomalacia
4. Cerebral Vascular Accident (stroke)
5. Infection
6. Structural Abnormalities
7. Metabolic Conditions
8. Genetic and Chromosomal Disorders
9. Acquired CVI: Traumatic Brain Injury, Hypoxia

10 Visual and Behavioral Characteristics

1. Color preference and attraction to color (Often RED and YELLOW)
2. Attraction to movement (swaying versus still balloon)
3. Visual latency (delayed response when looking at objects)
4. Difficulty with visual complexity
5. Need for light
6. Difficulty with distance viewing
7. Visual field preferences (often peripheral)
8. Protective blink response delayed
9. Preference for familiar objects
10. Impaired visually guided reach (difficult to look and reach at the same time). Children will look away and then reach for the object.

So what does that mean for AAC?

Accommodations

- Use child's favorite colors for backgrounds, objects, and outlines
- Consider favorite colors when creating pages on a communication device

Accommodations

- Use movement
- Consider that dynamic screen devices may be easier to see than photos or pictures

Accommodations

- Visual Warm-up period, wait time

Simple

Visual Clutter

Accommodations

- Simple photos
- Consider backgrounds and visual clutter
- Eliminate visual distractions
- Slant board may help

Accommodations

- Use flashlight to illuminate objects (object choices, BIGmack, switches)
- Position child with back towards the window.

Accommodations

- During assessment, use familiar objects.
- Consider possible lower visual-field deficits.
- Present objects close versus far away.

Functional Vision Assessment: The CVI Range

Ratings for all 10 CVI characteristics (Color preference, need for movement, visual latency, visual field preferences, visual complexity, need for light, distance viewing, atypical visual reflexes, visual novelty, absence of visually guided reach)

- Phase I, Range 0-3: Building visual behavior
- Phase II, Range 3-7: Integrating vision with function
- Phase III, Range 7-10: Refinement of remaining CVI characteristics

CVI Range Clusters

Ten-point scale of visual functioning:

- 1-2: Student functions with minimal visual response
- 3-4: Student functions with more consistent visual response ***Can consider eye gaze for communication at level 4.
- 5-6: Student uses vision for functional tasks
- 7-8: Student demonstrates visual curiosity
- 9-10: Student spontaneously uses vision for most functional activities at a level approaching near typical.

CVI Progress Chart

CVI Resolution Chart

Figure 6.5 CVI O&M Resolution Chart
From *Cortical Visual Impairment: An Approach to Assessment and Intervention*, by Christine Roman-Lantzy, copyright © 2007, AFB Press, New York. All rights reserved. This page may be reproduced for educational use only.

	Phase I: Building Visual Behavior — Level I Environmental Considerations		**Phase II: Integrating Vision with Function — Level II Environmental Considerations**		**Phase III: Resolution of CVI Characteristics — Level II Environmental Considerations**
CVI Characteristics	**Range 1-2 (0)**	**Range 3-4 (.25)**	**Range 5-6 (.50)**	**Range 7-8 (.75)**	**Range 9-10 (1)**
Color Preferences	Single color environmental features may be attended to in near space	Strong single-color preference persists	Objects or environmental features that have 2-3 colors may now be attended to within 4-6 feet	More colors and high-contrast areas may elicit visual attention	Safe travel is not dependent on color cues

Prognosis

- CVI can improve with appropriate intervention.
- Dr. Roman-Lantzy: With motivated parents, 97% went from Phase I to Phase III in an average of 3.7 years.
- Teachers of the visually impaired (TVI) are knowledgeable about CVI and can help with assessment and intervention strategies. Encourage parents to contact a vision specialist.

References

Little Bear Sees, www.littlebearsees.org

Roman-Lantzy, C. (2018). *Cortical visual impairment: An approach to assessment and intervention*. New York, NY: AFB Press, American Foundation for the Blind.

Alternative Access:

What is it?

Why do it?

How to teach It?

Learning Outcomes

1. Identify 4 alternative access methods
2. Explain 1 vs 2 step scanning
3. Explain different scan patterns
4. Knowledge of programming strategies
5. Knowledge of cueing strategies

Direct Access

Tools & Access Settings to Support Direct Access

Keyguard

Touchguide

Stylus (modified)

https://praacticalaac.org/praactical/make-it-praactical-diy-customizable-stylus/

Dwell Time

Release Time

Auditory Fishing

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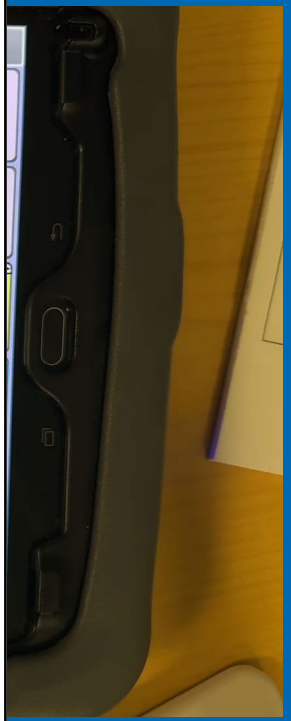

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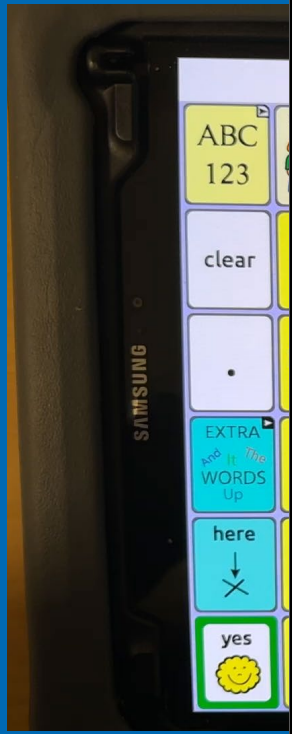

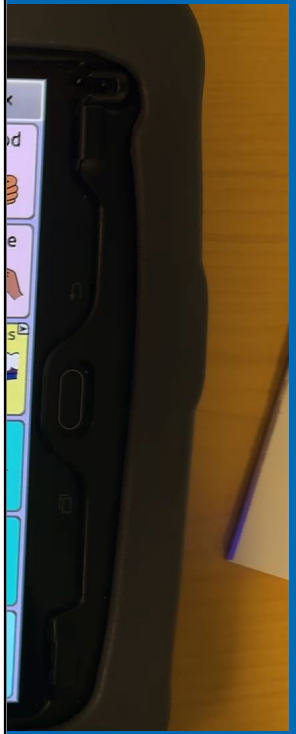

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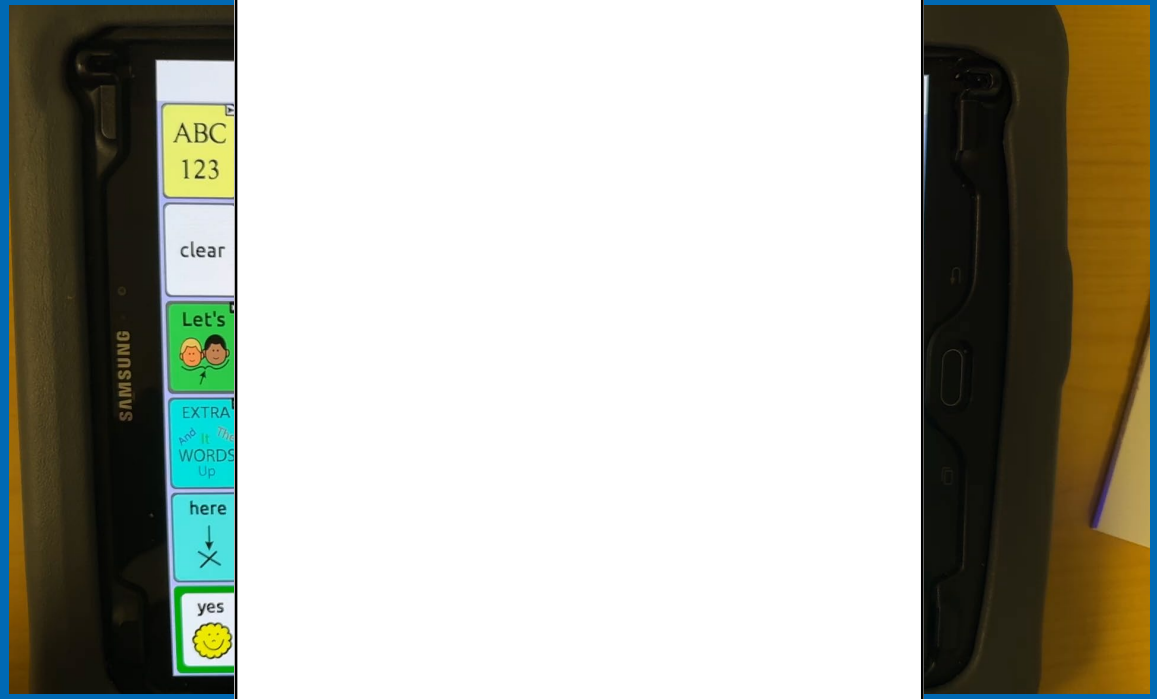

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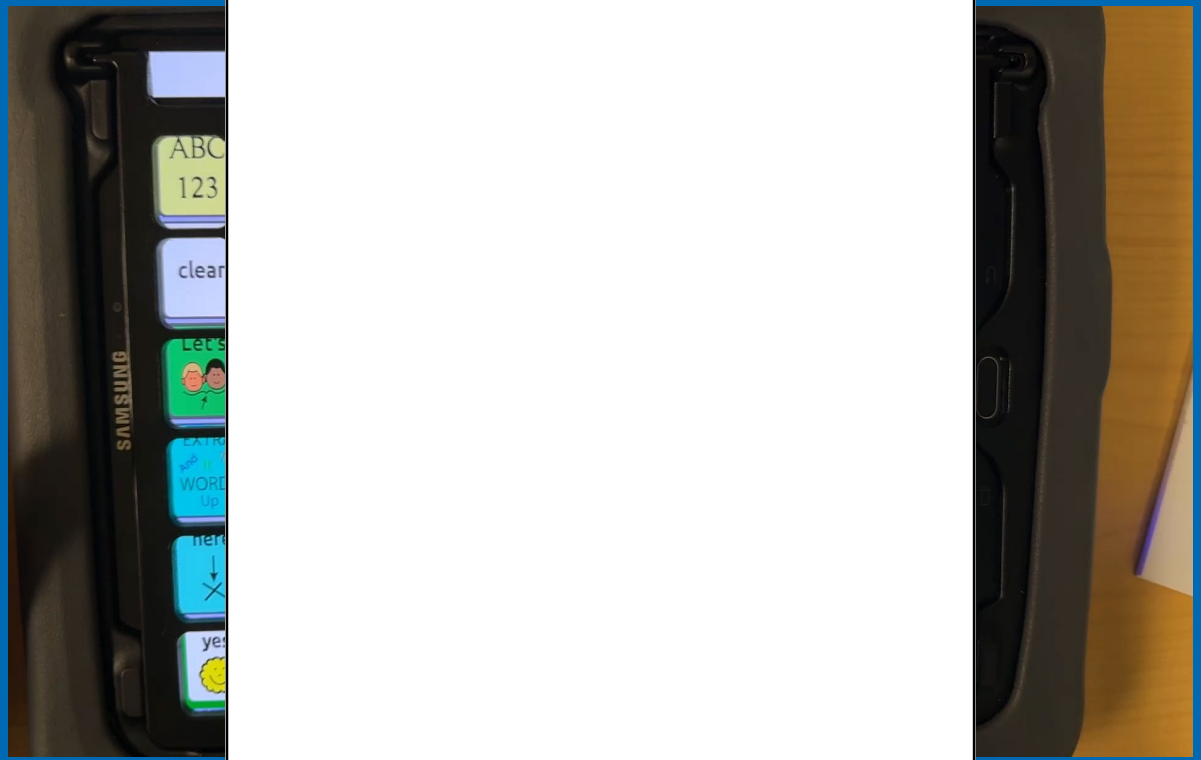
Audit guard



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Alternative Direct Access

EYE GAZE

HEAD

Head Tracking vs. Eye Gaze

Head Tracking

The head mouse fits on top of devices and connects through the USB port (Tobii I Series, Accent Series, Winslate);

Silver sticker that goes on the forehead or glasses

Need refined head control

iPad - uses face recognition technology (TouchChat (touchchatapp.com)

Eye Gaze

Works **in conjunction with eyes**

Calibrate the device to patient's eyes

Not dependent on head movement

Just because a patient can see, does not mean eye gaze will be successful!

Head Tracking

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Where to Start

- E-tran boards
- Look to Learn
- Timocco

This Photo by Communication Matters

This Photo by Talk to Me Technologies

Mouse Emulation
(joystick, track ball)

This Photo by CC BY-SA

Joystick, Trackpad, Etc.

Need to consider fine motor control

This Photo by Talk to Me Technologies

This Photo by Talk to Me Technologies

Scanning

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What is Scanning?

"Scanning is an option when a communicator can only point to, or reliably make contact with, one or two discrete targets. Scanning refers to the process whereby a person or device sequentially presents choices or groups of choices to the communicator, who signals when the desired item is reached."

Treviranus and Roberts, 2004

Why?

Balance language potential versus physical access capabilities

Scanning

- Consider the motor, and communication needs of the individual foremost
- Operationally complex and extremely slow, but requires minimal physical control
- Requires specific training for: anticipation, waiting, accurate activation, release
- Goal: to develop speed and accuracy

Photo by: https://i.ytimg.com/vi/w-sxeiJdkyQ/maxresdefault.jpg

Single switch Scanning: Things to Consider

- Timing
- Attention
- Only need 1 switch site (decreased motor demand)

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2 switch Scanning: Things to consider

- Need 2 reliable switch sites (increased motor demand)
- Fatigue and consequence of repeated movements
- Decrease in timing and attention skills

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This Photo by Message in a Drawing

Switch Assessment

Establish Appropriate seating and positioning.
This should be done while collaborating with and occupational and physical therapist.

Explore cognitive and motor needs and skills (reflex patterns, course of disability)

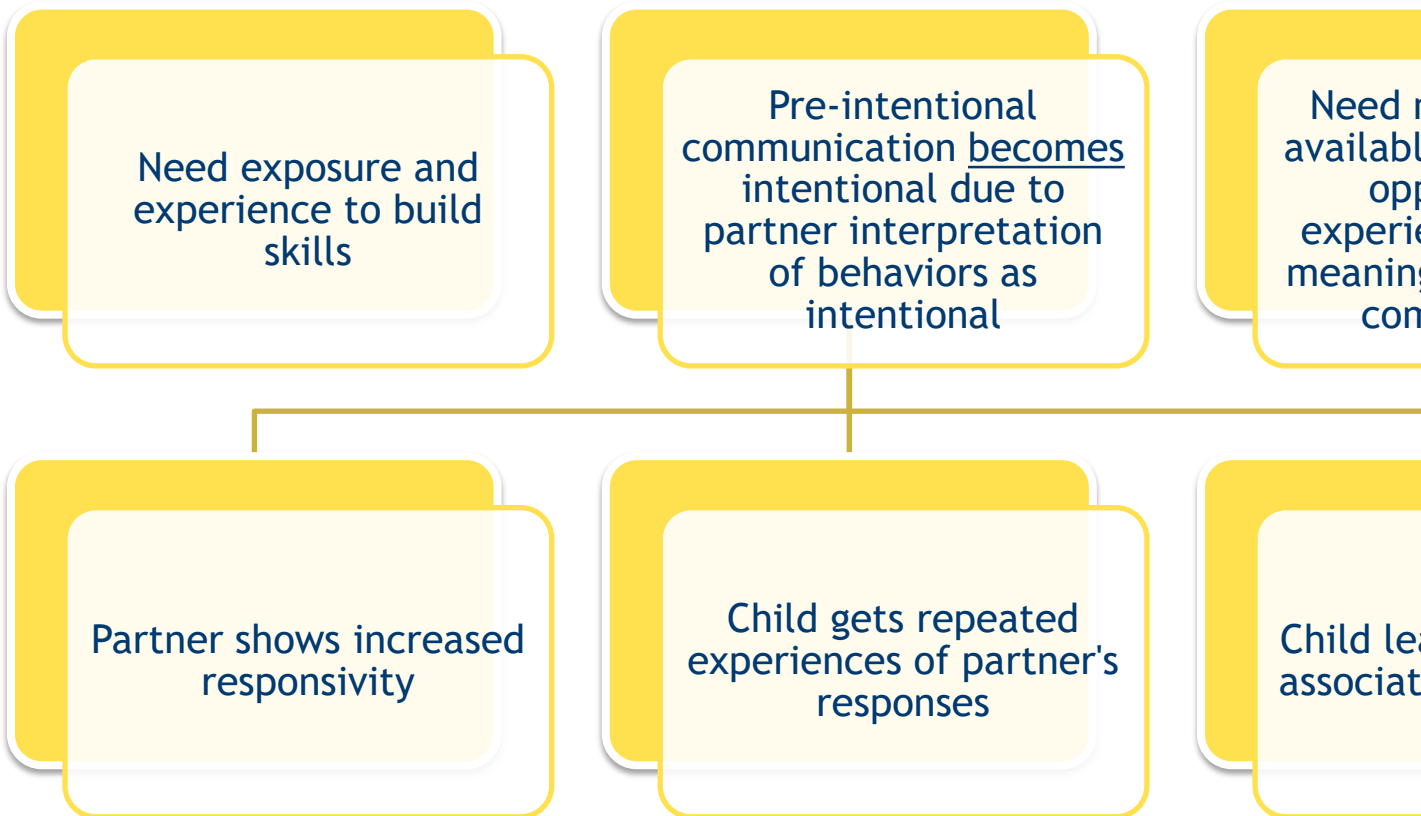
Explore multiple switch sites (importance of “economy of effort).

Explore various types of switches (mechanical, proximity, etc.)

This Photo by SimplySpecialEd.com

This Photo by Innovative Assistive Technology

There are NO Prerequisite Skills for Communication!



Cause effect for play and environmental control

This Photo by Enabling Devices

This Photo by Adaptive Tech Solutions

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Cause effect for participation

Cause effect for communication

Partner Assisted Scanning

- Preview 2-4 choices: modality will depend on the needs of the individual (verbal, visual, tactile)
- Present the same choices with a delay between each choice: the amount of time between choices with depend on the individual
- Instruct the individual to respond upon hearing, seeing, and/or feeling the desired item. Response will depend on the individual; however typically working towards switch access
- If the equipment is available, connect a switch to a single message communicator with generic speech output - "That's it"
- Provide an out:
  - When making a choice – *"Something Different"*
  - When being asked to demonstrate knowledge - *"I don't know"*

Partner Assisted Auditory Scanning

Common Scanning Patterns: Based on amount of vocabulary

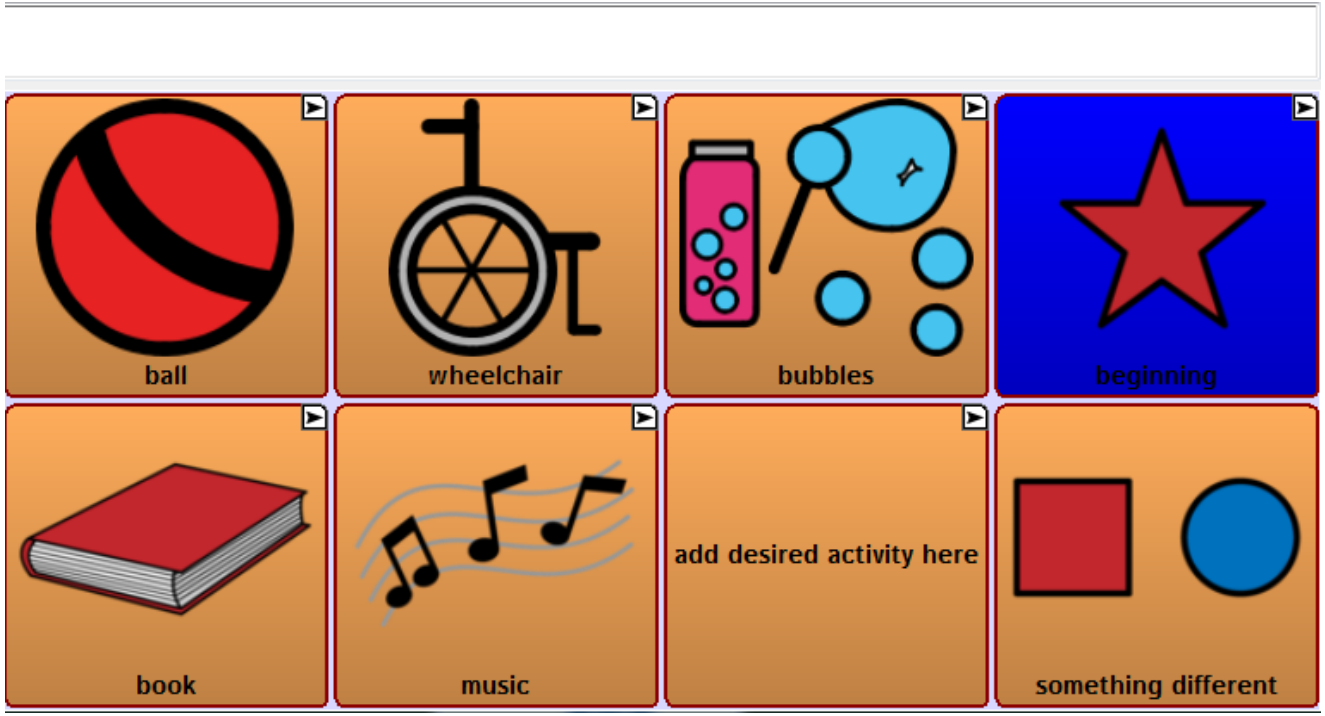
1. linear
2. Row column
3. Block
4. Custom

Linear Scanning

Going to your kitchen pantry

This Photo by CC BY-NC-ND

Linear Scanning



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Row Column

Going to the grocery store

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Row Column Scanning

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Block Scanning

Going to Target

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Vocabulary

Generative vs. Phrase Based

Ideally has both!

Consider necessity of more phrases for efficient communication of frequently used social phrases

Gestalt Language Processing

Analytic versus Gestalt

With gestalt language processers, consider benefits of:

- Use of phrases
- Use of digitized speech
- Use of movie/tv/song clips

Programming Strategies

- Social scripts (no fail)
- Social scripts with choices embedded
- When sharing information, end it with a question to facilitate more interaction (e.g., “I went to the mountains this weekend. What did you do?”)
- Use navigation to guide social interaction
- Auditory cues to teach vocabulary (use label versus message due to timing)
- Turn on zoom feature to increase visual attention
- Use message output to teach navigation (e.g., “Let’s go…..”)
- Keep programming consistent (menu/home button always in the same location)
- Preprogram strategies for advocacy, communication breakdown, and the ability to efficiently share information
- Increase use of generic language for greater flexibility

Cueing Strategies

Will vary based on the child's needs

- Interpret child's intent
- Co-construct the message (re-cast/expand)
- Use verbal cues "Listen for *comments*"
- Assist with navigation
  - To teach language mapping
  - To decrease motor demands
  - To ensure successful communication
- Increase expectations for message expansion
  - Natural consequences (e.g., "Tell me more about it")
  - Open ended questions
  - Increase wait time
  - Use sabotage (i.e., play stupid) to coax more language

Summary: Key Principal

Seating and positioning are imperative

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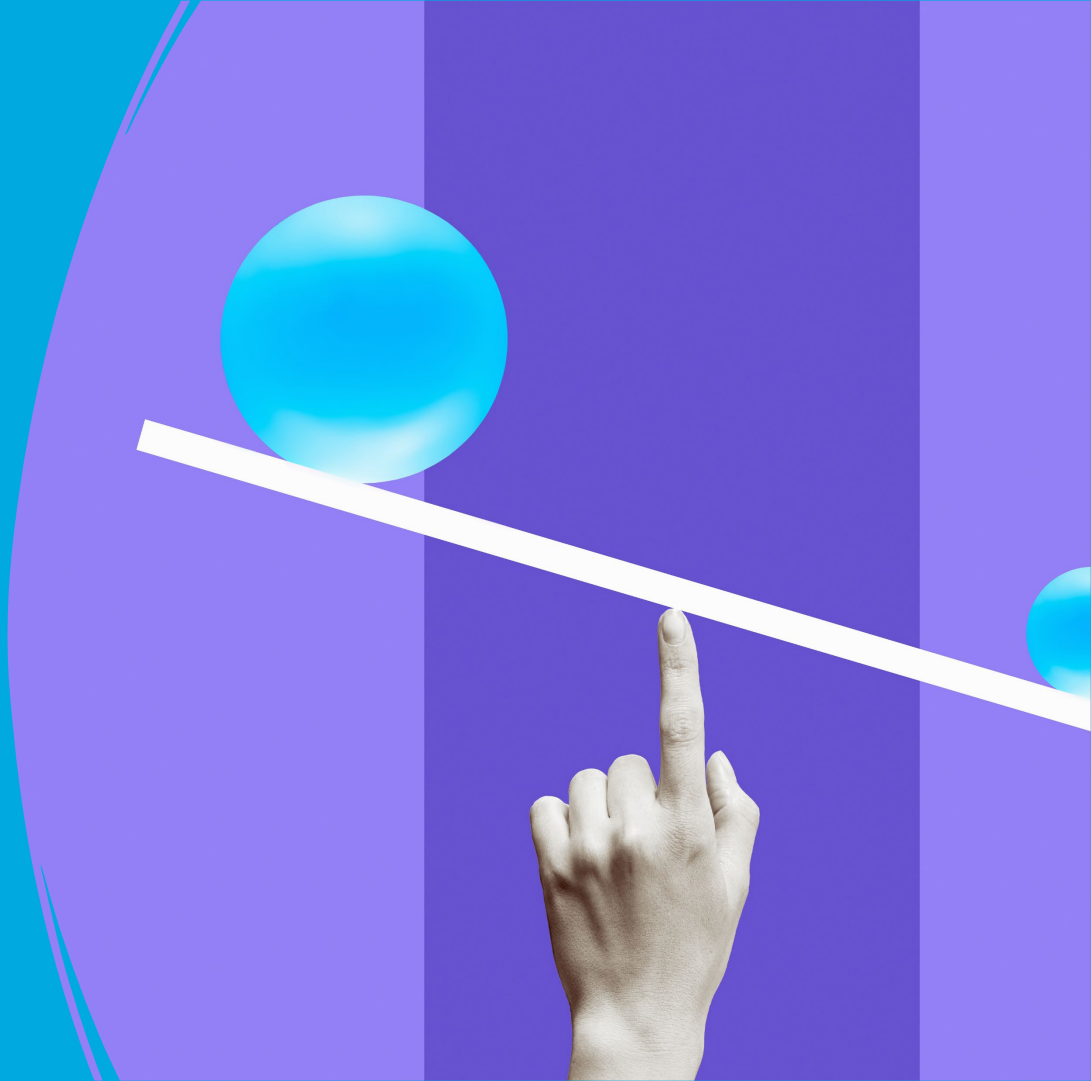
Summary: Key Principal

Consider the imbalance of motor skills relative to language potential



Summary: Key Principal

Re-evaluate language potential and message efficiency on a frequent basis

Summary: Key Principals

Always be thinking about where you're going/next steps

Summary: Key Principals

- Always be thinking about where you're going/next steps

Resources

https://youtu.be/nGpSXQKrmR4 - Video explaining partner assisted scanning

https://youtu.be/GYA1rEp5Y5s - Explanation of basic and intermediate scan files

https://www.alpforaac.com/ - The Assessment of Learning Process for AAC

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Special Topics: AAC & Next Steps

AAC & The Generalist

Image retrieved from Pexels

Scope of Practice

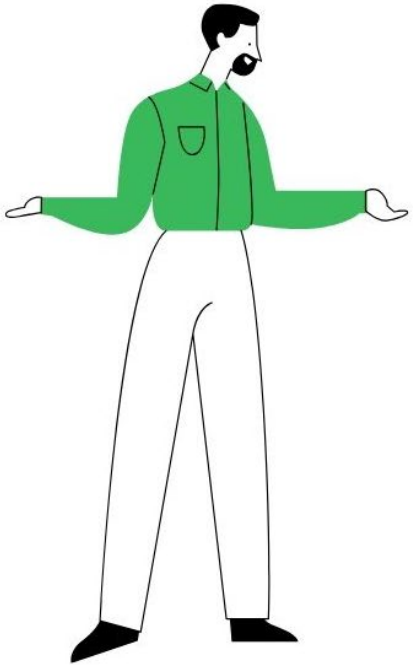
- Might feel overwhelming
- What can I do?
- Am I helping?

You Got This!

- Trust in your foundational knowledge
- Communication is at the core

Image retrieved from Pexels

Decision Tree



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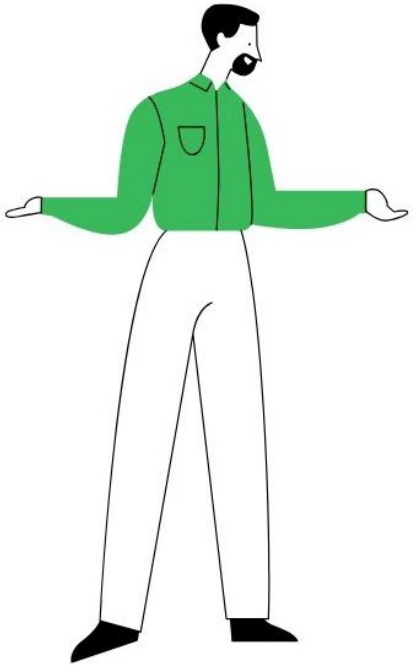
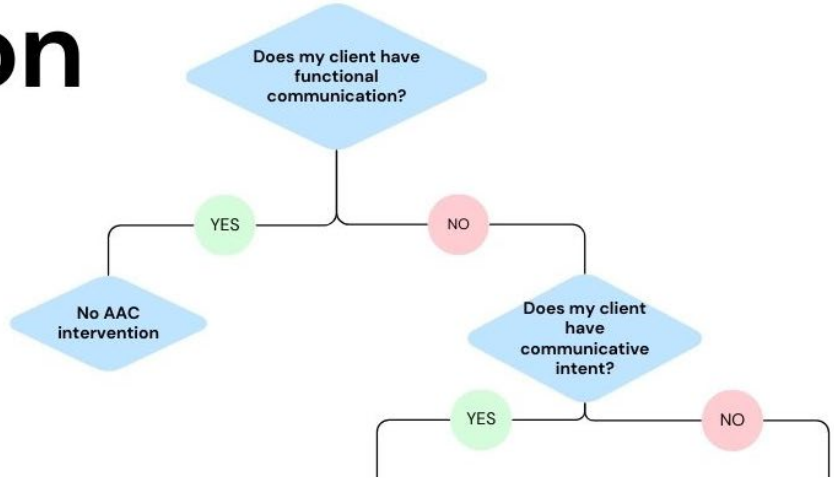
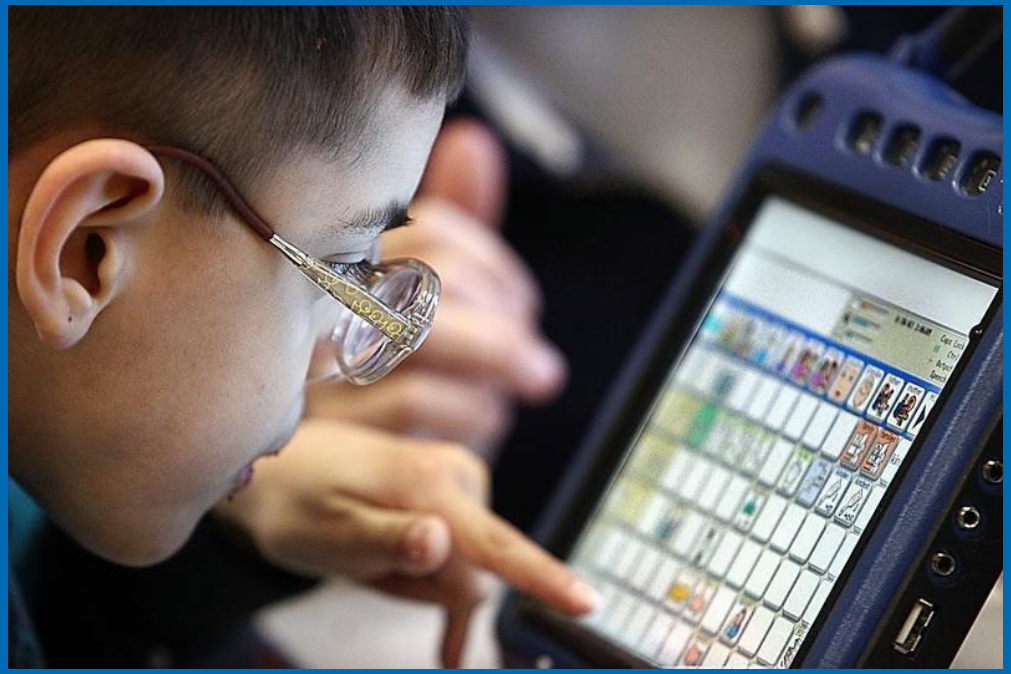




Motivation for Communication

- A child needs to have a basic desire to communicate
- Need to support this skill



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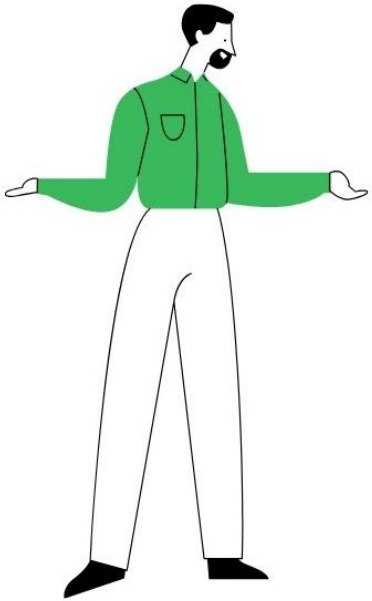
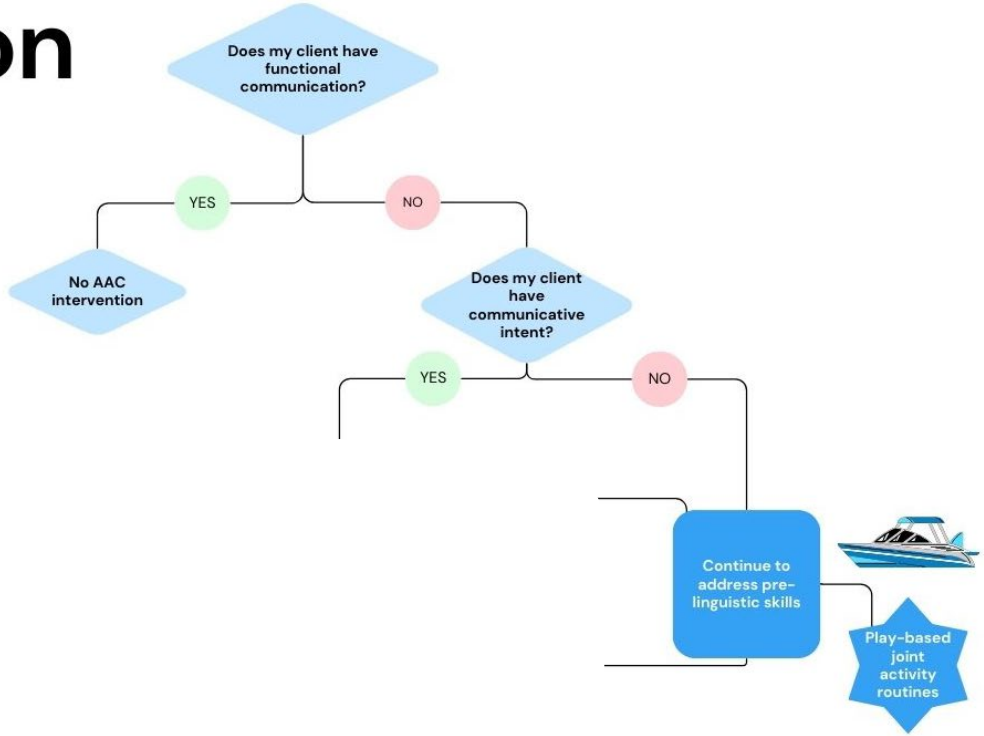
Decision Tree





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Helping communicative motivation

Provide explicit, evidence-based intervention to build skills in these challenging areas in order to maximize the success and potential of AAC system introduced.

- Learning Style Profiles
- DIR-Floortime
- Help is in Your Hands
- Early Start Denver Model
- SCERTS
- Hanen – More Than Words

What does it mean to presume potential?

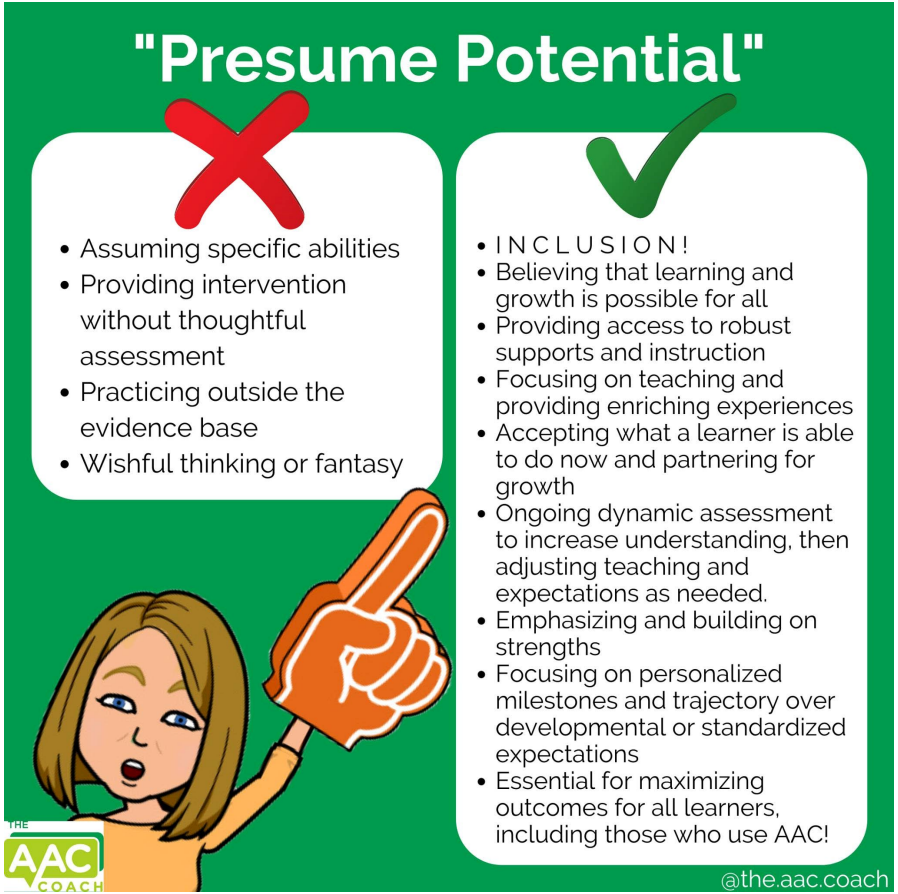
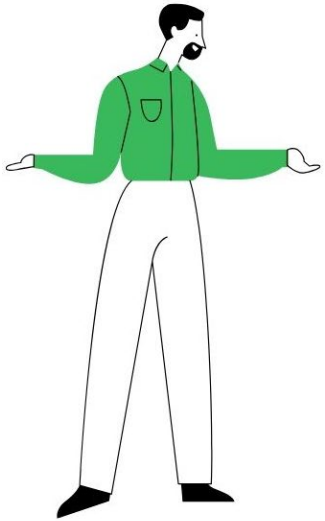
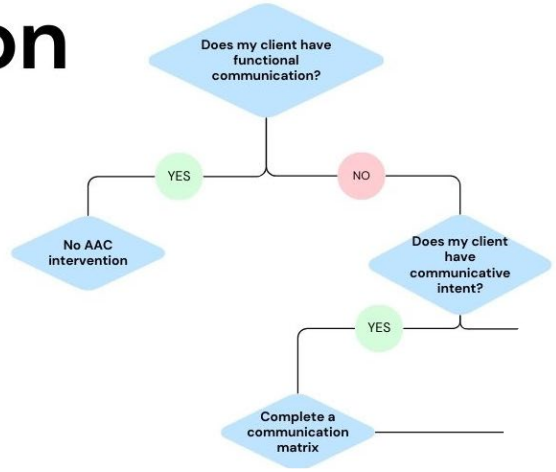


Figure 1. Image of a "Presume Potential" graphic. Adapted from "The AAC Coach" by https://www.facebook.com/theaaccoach/photos/a.140044867482692/157191945767984/?type=3.

Decision Tree





Evaluation for Emerging Communicators: Communication Matrix (by Charity Rowland, PhD)

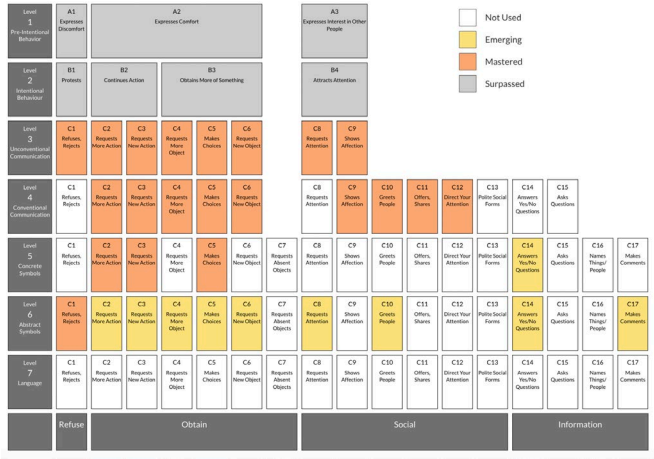
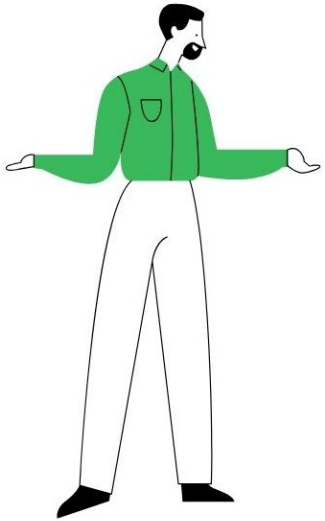


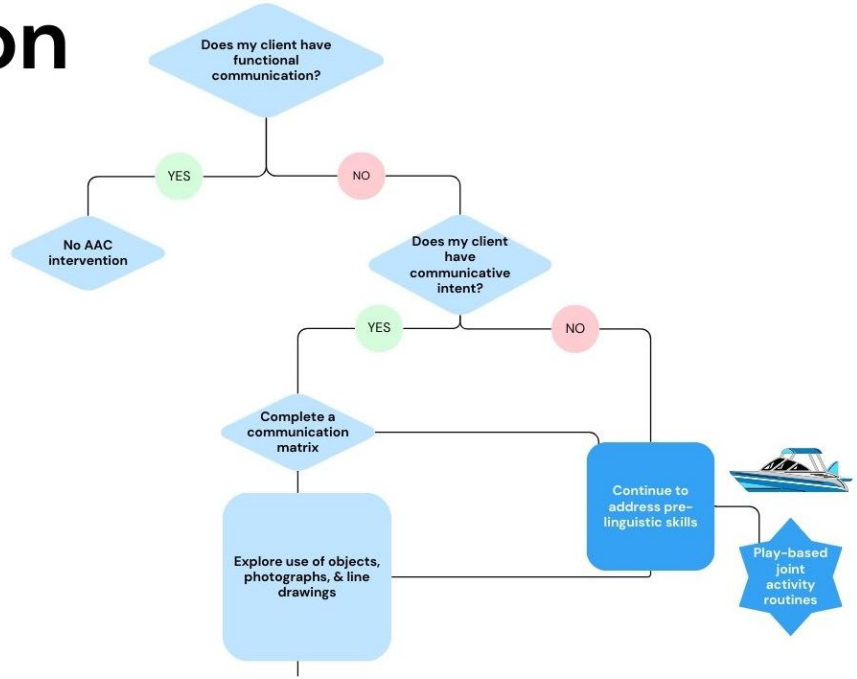
Figure 2. Image of a communication matrix result summary. Adapted from "Communication Matrix" by https://www.communicationmatrix.org/

WHAT DOES IT ASSESS?

- 4 basic reasons for communicating : refuse, obtain, social interactions, seek information
- 7 levels of competence : pre-intentional behavior, intentional behavior, unconventional communication, conventional communication, concrete symbols, abstract symbols, language.
- 9 Categories of Communicative Behavior: body movements, early sounds, facial expressions, visual, simple gestures, conventional gestures and vocalizations, concrete symbols, abstract symbols, language
- www.communicationmatrix.org / www.matrizdecomunicacion.org

Decision Tree





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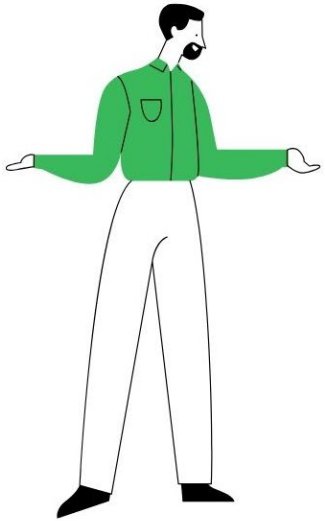
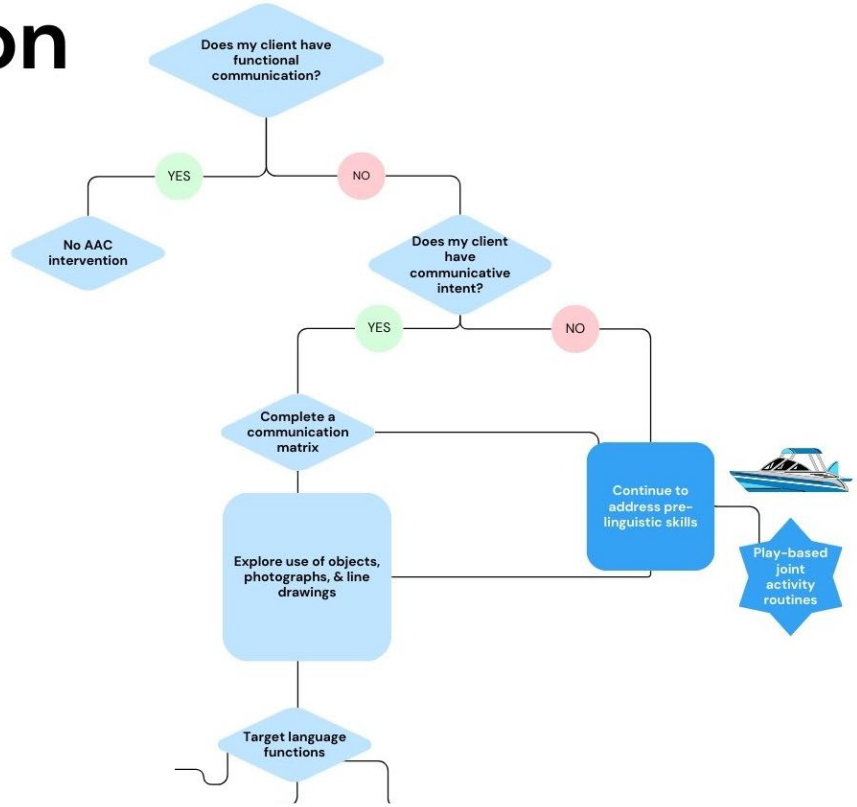


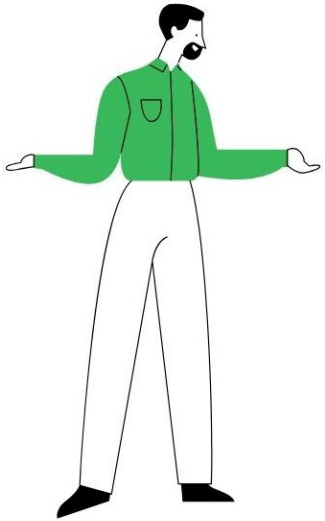


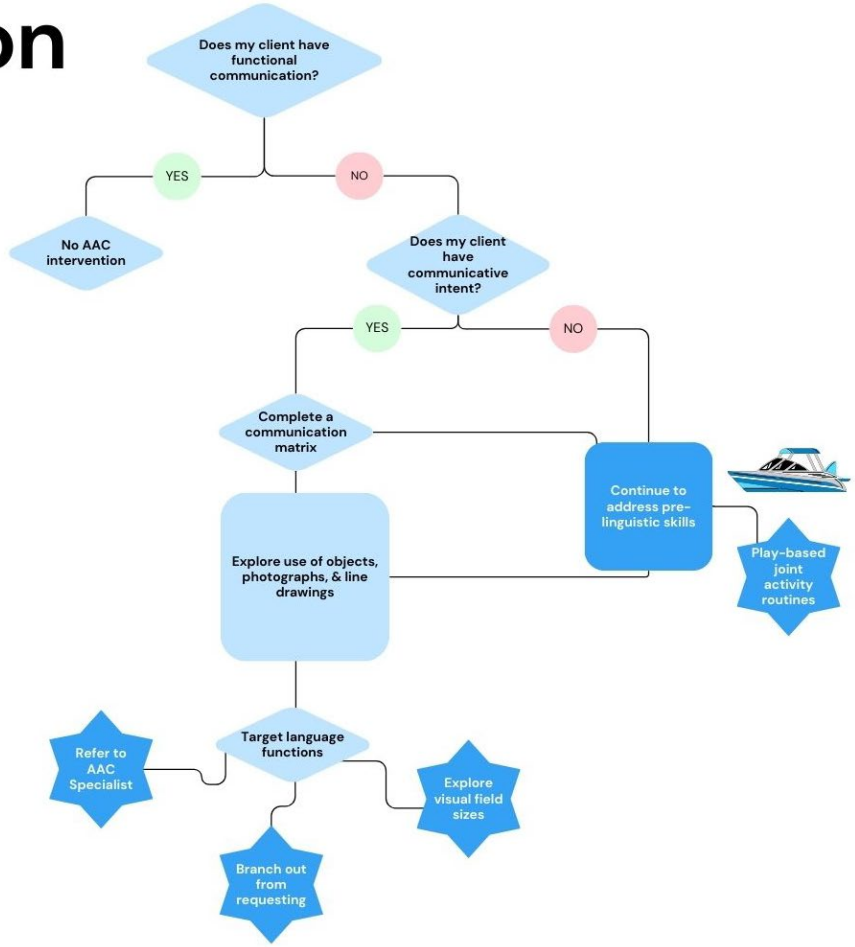
Use visual representations …

to target communication functions!

Figure 3. Image of colorful language strategy. Adapted from "Colorful Language Poster" by https://www.speakingofspeech.com/material/detailed-view/5ce55a63c138851b897b6e81

Decision Tree





When do I refer to an AAC specialist?

- After I have completed the Communication Matrix.
- After you have considered all items on the AAC intake form.
- After I have tried and my patient is making progress with the use of pictures for communication (if you have access to the following tools: static screen device or iPad with Sounding Board).
- If my patient in unable to use direct access (point).
- Always feel free to ask someone with expertise in AAC for help.

Conclusion

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AAC at Camp

1. What does it look like?
2. How to prepare?
3. Words of Wisdom

What does AAC at Camp look like?

Clusters are made of

- 5-7 campers
  - Each camper is paired with 1 adult to support communication (trainer) and 1 adult for personal care (counselor)
  - Some campers have an additional adult (Personal Care Attendant) to support high medical or social needs
- 1-2 speech therapists from Children's Hospital Colorado

Additional Support

- 1 occupational therapist from Children's Hospital Colorado

What does AAC at Camp look like?

Campers are grouped by age:

- Peers are powerful!
- Allows for emerging communicators to learn from more independent communicators
- Allows for independent communicators to practice their communication repair skills with emerging communicators

What does AAC at Camp look like?

Sometimes campers love the planned Talking With Technology Camp activities, and sometimes they don’t. We do not force campers to participate, but we do offer and support the language to decline!

What does AAC at Camp look like?

Trainers will support campers by:

- Immersing the camper in their language system. This is done by speaking to the individual on their device or on a paper-based copy.
- Being an AAC Ally by removing environmental, social, and other opportunity barriers
- Problem solving when technology fails us. Because it will, but we can still have a great time!

How to Prepare

- Watch the presentations and take the quiz

How to Prepare

- Review your camper's chart
  - What language level is your camper?
  - Do they have a variety of communication functions to express basic needs, ideas, and thoughts?
  - What is the camper's literacy level?

How to Prepare

- Contact the camper and/or their caregivers to discuss what they hope they will gain from camp, as well as ways to support the camper
    - Personal Care supports will be provided by the counselor

How to Prepare

- Become familiar with your camper's SGD by watching videos and reviewing resources on the company's website
  - Know the layout and design of the vocabulary
  - Know how to do simple programming – add/edit buttons, create page

How to Prepare

- Pack!

Words of Wisdom

- This will be an amazing, exhausting, and eye-opening experience
- Therapy isn’t a pretty, little box with a bow
- Routine and repetition are good
- Focus on FUN