

# TeleAAC and the Advantages for the Field

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## FINANCIAL:

- Book royalties (Tele-AAC, Plural Publishing, USA)
- Managing Partner of Commūnicāre, LLC

## NON-FINANCIAL

- ASHA SIG 12 – AAC
- ASHA SIG 18 – Telepractice
- RESNA

# Today's Plan

**1-1:05** - Introduction and Disclosures

**1:05-1:30** - AAC fundamentals (including language advancement) and stakeholder involvement

**1:30-2:00** - Overview of tele-AAC

**2-2:20** - Tele-AAC as a continuum of service delivery for best practices

**2:20-2:50** - Case examples

**2:50-3:00** - Q+A

# Learning Goals

Our goal is to be able:

- Detail how tele-AAC differs from telepractice in general;
- Describe tele-AAC as a continuum of service delivery for individuals using AAC; and
- List at least two different ways tele-AAC addresses elements of best practice in the field of AAC.

# What is AAC?

- Anything other than verbal speech
- Lite-tech
- Mid-tech
- High-tech
- Gestures and signs
- Facial expression

# What is AAC?

## Augmentative Alternative Communication

- **Augmentative:** when used to supplement existing speech
- **Alternative:** when used in place of speech that is absent or not functional



# Aided vs. Unaided AAC

## Unaided Communication

- Can be used without an external aid or tool:
  - Gestures
  - Vocalizations
  - Speech
  - Manual sign or other signing systems

## Aided Communication

- Requires an aid, or includes tools such as:
  - Real & mini objects
  - Tactile Symbols, Pictures, Icons & Photos
  - Communication books
  - Speech Generated Devices (SGDs)

# AAC Assessment

- Physical assessment:
  - Hearing, motor (fine/gross), vision
- Cognitive assessment:
  - Memory, executive functioning, attention
- Language assessment:
  - Receptive and Expressive Language
- Communication need:
  - Environments, people, content
- Ability to communicate without Communication device:
  - Gestures, facial expression, pointing, physical manipulation
- Trial different devices and access mode
- Treatment Plan



# Access Methods

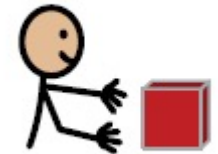
- Direct selection: using touch selection with finger or head stick, joystick, head pointer, eye-gaze
- Scanning: (automatic and step scanning)
  - Auditory scanning: user listens to auditory feedback to make a selection
  - Visual scanning: icons are highlighted and a switch is used to make a selection

# Symbols

- Real photos
- Mayer Johnson Boardmaker Picture Collection Set (PCS)
- Minspeak pictures (Prentke Romich Company)
- Pixons (combination of PCS and PRC)
- Symbolstix (News2you)



wants



# No-Tech/Low-Tech/Lite-Tech

- Picture Exchange System (PECS)
- Communication books that require sequencing to compose message, with Velcro or pointing on a board

# Mid-Tech: Static Display

- Made with a paper overlay
- Digitized speech:
  - voice recording
- Set number of buttons
- Set number of overlays:
  - slide in different overlays



# High-Tech: Dynamic display



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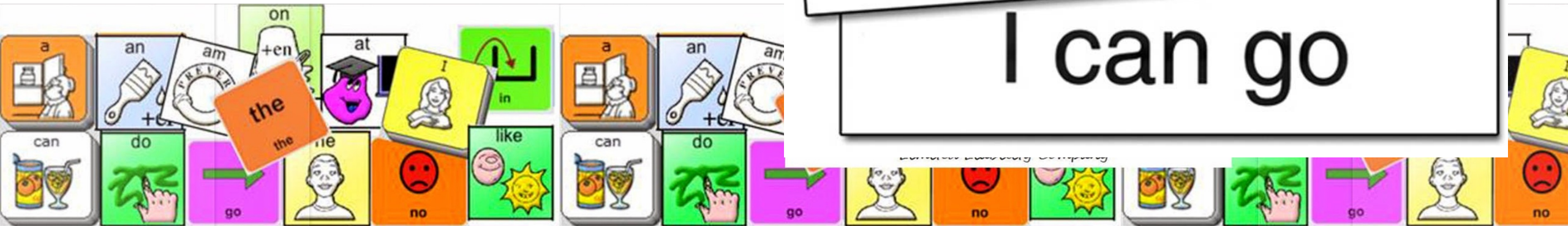


# Vocabulary

- Core Language
- Fringe Vocabulary
- Phrases
- Single letters/keyboarding

I like

I can go



# Language Advancement

Stage 1	•1 word at a time; direct another's behavior, make requests, label items & objects
Stage 2	•2-3 word phrases, combining words to make more meaningful phrases
Stage 3	•Using meaningful word order, progressive –ing, plural -s
Stage 4	•Learning grammar and sentence structure, questions, negatives, irregular past tense
Stage 5	•Possessive 's, 3 <sup>rd</sup> person present, regular past tense
Stage 6	•Correct grammar and word order, increasing complexity



# Communicative Functions

- Direct
- Request
- Comment
- Label
- Joke
- Question/ask
- Tell
- State






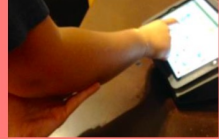




# Foundational Theories

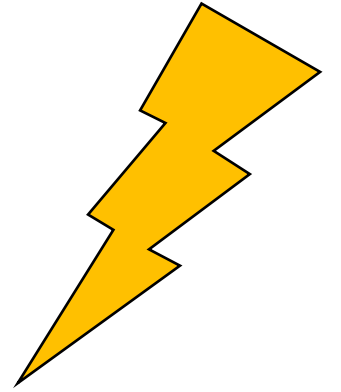
- 3-way process involving the AAC system
- Zone of Proximal Development
- Input-Output Asymmetry

# Partner Fundamentals

- Equip communication partners with important information about how to encourage communicative independence
- Creating Opportunities
- Modeling
- Prompting
- Language Expansion

	<b>Independent (I or +):</b> The individual finds the target on their own.
	<b>Visual Point Prompt (VP):</b> Pointing to the vicinity of the target or directly at the target.
	<b>Verbal Prompt (V):</b> Describing the target or verbally encouraging use of the device. <ul style="list-style-type: none"><li>• natural verbal prompt: "What do you want?"</li><li>• verbal mand: "You want doll. Push the 'doll' button."</li></ul>
	<b>Written/Visual Prompt (WV):</b> Using written words, picture icons, or icon sequences to show the target.
	<b>Modeling (M):</b> The communication partner uses the device to model/show the individual where the target is.
	<b>Partial Physical (PP):</b> The communication partner gently nudges the individual's hands or elbow to make a sign or push the target symbol by placing a hand on their elbow.
	<b>Hand-Under-Hand (HUH):</b> Physically helping the student to select a target on their device by holding underneath their hand and guiding their point/movement.
	<b>Remember: STOP BEFORE YOU PROMPT!</b> It may be helpful to count to 10 in your head to ensure you are providing appropriate wait time and avoiding over prompting.

# Tele-AAC vs. Telepractice



- Includes an AAC system or AAC tool
- The treating clinician has “eyes on” the AAC system (may mean having a second computer or iPad to be able to have a visual of the student, etc.)



**Notes**

for data

**Secure software**  
for video conferencing

**Computer**  
to do it all

**A 2nd camera**  
to show what you know

**iPad**  
to model

**A clinician**  
ready to connect





**A partner**  
ready to help

**Secure software**  
for video conferencing

**Computer**  
to do it all

**An awesome  
individual**  
ready to learn

**A 2nd  
camera**  
to show what you know

**AAC System**  
to work with

## Direct Services

- Real-time services that replicate in-person sessions
- Can involve other team members
- Synchronous

## Consultative Services

- Intensive consultation for those with little AAC experience
- Can be for supervision
- Can be "hands on"
- Synchronous or asynchronous

## Assessment Services

- Supports collaboration
- Can be synchronous or asynchronous depending on case
- Less overwhelming for individual

# Considerations for Privacy and Security

- Check in with ASHA for up-to-date information
- HIPAA compliance
  - BAA agreement
- Environmental considerations
  - Private treatment area
  - Who can hear?
  - Who can see?
  - How is content from the session shared/stored/secured?

# Candidacy for Tele-AAC

- Completing an initial tele-survey to determine
  - the players (the individual and their communication partner(s))
  - the environment
  - the technology/platform
  - how they want to connect (synchronous, asynchronous, scheduled, etc.)
- "Feature matching" for tele-AAC service delivery
  - It is not "yes" or "no," but rather how are we going to provide the service?

Transparency: a clear discussion about what it will be and what it won't be



# Candidacy of the Individual

- Remember the triadic model of AAC use...
  - How much modeling and co-construction is needed?
  - Alertness and overall availability?
  - Ability to sustain attention (and for how long)?
  - Ability to shift/adjust attention
  - How often are movement breaks needed?
  - Tangible support options (like visual schedules, token boards, etc.), are they needed and how?
  - How do they best receive information (visual, auditory, tactile, manipulative, etc.)?

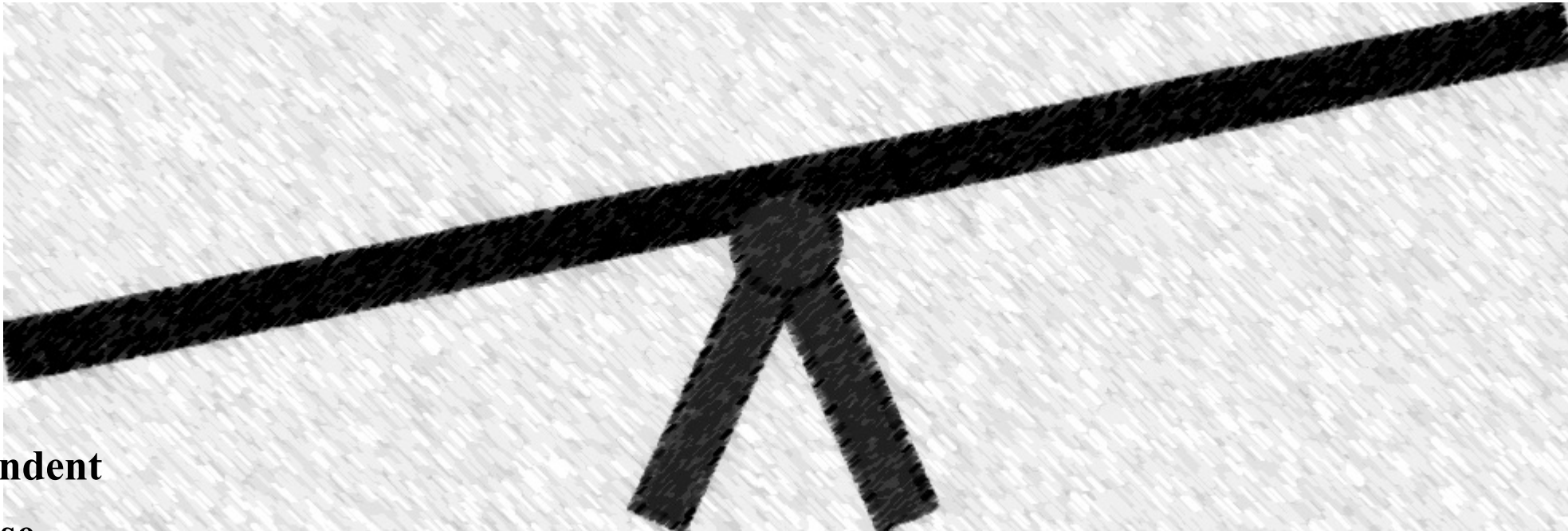
# Candidacy of the Partner

- Comfort level with technology
  - AAC technology, and
  - Tele-technology
- Comfort with AAC modeling (as a strategy)
- Familiarity with engagement strategies (behavior modification)
- Availability for live tele-sessions

# Tele-AAC Service Types

...consider tele-AAC consultation

AAC modeling & co-  
construction

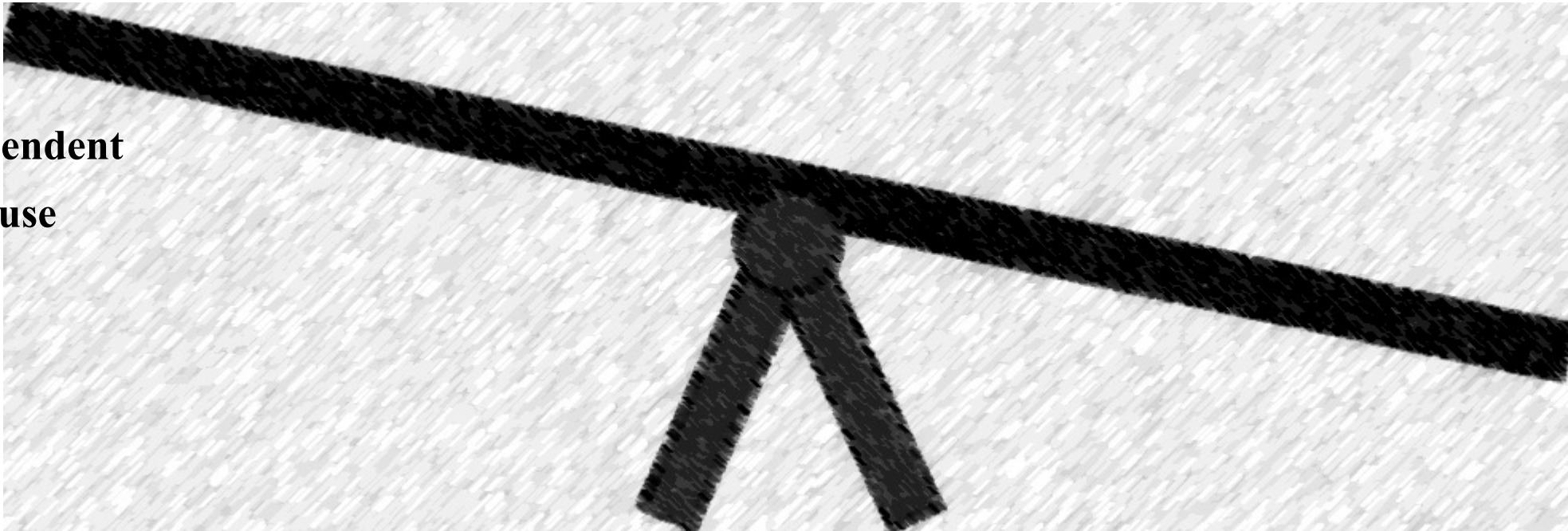


Independent  
AAC use

# Tele-AAC Service Types

...consider tele-AAC direct service delivery

Independent  
AAC use



Modeling & co-  
construction



# Continuum of Service Delivery

direct  
synchronous  
services

less involvement  
from the comm. partner

individual  
is able to  
use AAC and  
tele-tech with  
little help

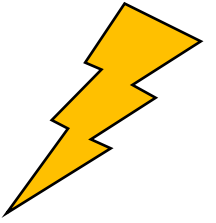
direct  
asynchronous services

synchronous  
consultation

individual  
needs help  
to use AAC  
tech and/or  
tele-tech

asynchronous  
consultation

more involvement  
from the communication partner



# Tele-AAC Equipment Needs

- Display screen
- Display software (Zoom, GoToMeeting, etc.)
  - Screensharing capabilities
  - Annotation
  - Chat
- Cameras
  - One (with toggle)
  - Two (for simultaneous viewing)
- AAC system/emulation
- Internet (hardwire when possible)
- Tripod/mounting (hands-free ideally)

# Tele-AAC Software Suggestions

- Pictures/photos
- Videos
- Word processing/presentation tools
  - Document
  - Slides
- Interactive websites
- Back-up mode of communication (to triage challenges with connectivity, etc.)

Using headphones  
might affect playback  
of audio when  
sharing videos or  
websites offering  
sound

# Tele-engagement Training and Support

- "Must-do's" before session begins
  - clear expectations of partner's participation
- Involve visuals (multimedia)
- Careful management of amount of verbal information
- Use of variable prompting
- "Bookends"
  - Routine to the session
  - Consistency to support focus on content rather than navigation/manipulation
- Motivating tasks





# Arranging the Tele-environment

## Individual's End

- Location of session area
- Minimizing distractibility of people and items
- Clearing the desktop
- Physical tools (schedule, hands-on material, fidgets)

## Clinician's End

- Location of session area
- Minimizing distractibility of people and items
- Visual clutter of screen
- Organizing materials for easy sharing
- Items available for referencing

# Consultation via Tele-AAC



- The clinician works with team members that are working with an individual needing AAC support.
- In real time or store-and-forward.
- May involve the individual or not.
- Real video or photo images or simulation/emulation tools.

# **Tele-AAC Consultation: Synchronous or Asynchronous**

- Highly customized
- Highly relevant
- Creates a permanent product for future reference
- Digestible

# AAC and Tele

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- Powerful combination because:
  - Seamless integration of communication partners
  - Generalization across environments
  - Improved access



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