Telehealth and AAC

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Commūnicāre, LLC

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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

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Learning Goals

- Our goal it 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 three different ways customized asynchronous tele-AAC can improve outcomes for individuals with complex communication needs.

What is AAC?

- Anything other than verbal speech

- Lite-tech
- Mid-tech
- High-tech
- Gestures and signs
- Facial expression

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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

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Symbols

- Real photos
- Mayer Johnson Boardmaker Picture Collection Set (PCS)
- Minspeak pictures (Prentke Romich Company)
- Pixons (combination of PCS and PRC)
- Symbolstix (News2you)
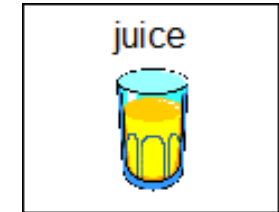
No-Tech/Low-Tech/Lite-Tech

- 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
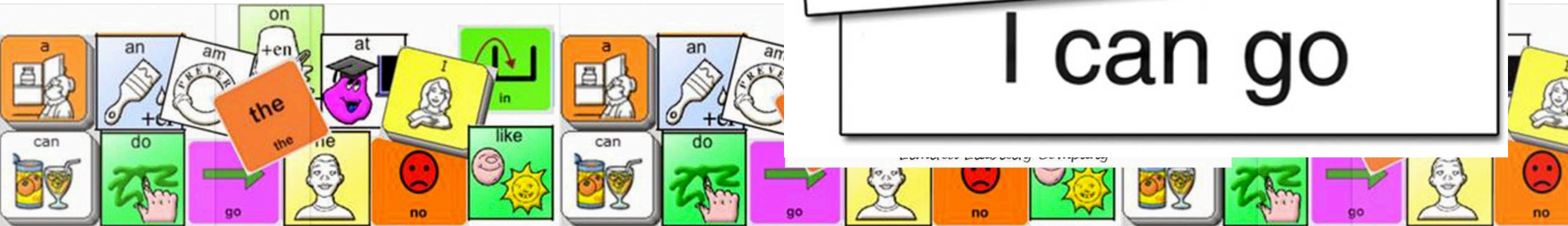

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High-Tech: Dynamic display

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, 3rd person present, regular past tense
Stage 6	• Correct grammar and word order, increasing complexity

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Communicative Functions

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

AAC Fundamentals

- Multimodal process where effective communication is the ultimate goal

- 3-way process (triadic model)

- A range of communicative functions

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Triadic Model

- 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

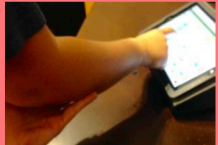- Language Expansion

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Creating Opportunities

- How we set-up the environment and/or interact with an item of interest to encourage an individual to use AAC

- Directing another

- Gaining access

- Asking for help

- Commenting

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Modeling

- Says "I use AAC too"

- Vygotsky's ZPD

- Occurs in the absence of any expressive demand

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Prompting

|		
	Independent (I or +): The individual finds the target on their own.	
	Visual Point Prompt (VP): Pointing to the vicinity of the target or directly at the target.	
	Verbal Prompt (V): Describing the target or verbally encouraging use of the device. • natural verbal prompt: "What do you want?" • verbal mand: "You want doll. Push the 'doll' button."	
	Written/Visual Prompt (WV): Using written words, picture icons, or icon sequences to show the target.	
	Modeling (M): The communication partner uses the device to model/show the individual where the target is.	
	Partial Physical (PP): 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.	
	Hand-Under-Hand (HUH): Physically helping the student to select a target on their device by holding underneath their hand and guiding their point/movement.	
	Remember: STOP BEFORE YOU PROMPT! It may be helpful to count to 10 in your head to ensure you are providing appropriate wait time and avoiding over prompting.	

- Designed to teach a skill

- Response is expected

- Varies according to the task (hierarchy)

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Language Expansion

Stage	Description
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
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Tele-AAC vs. Telepractice
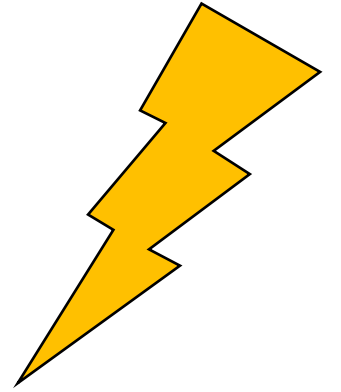
- Includes an AAC system or AAC tool

- 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.)

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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

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?

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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

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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.)?
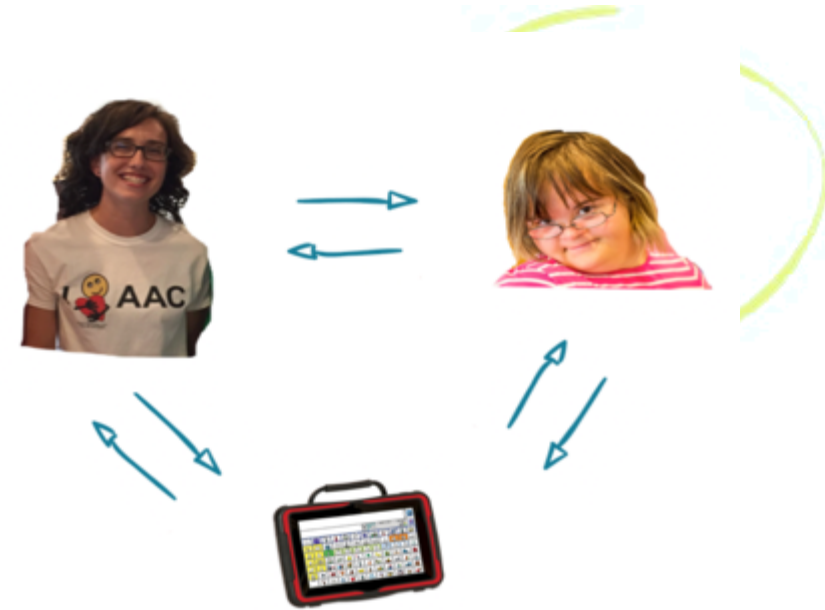
Candidacy of the Partner

- 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
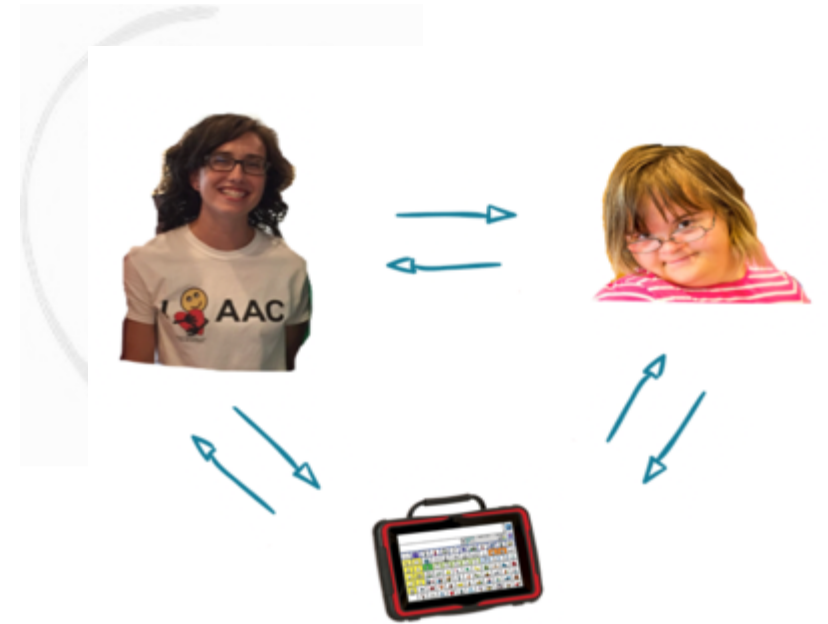
Tele-candidacy: Initial tele-survey

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Initial Tele Survey

Tele-tech

1. How do you prefer to connect? (select all that apply)

☐ email	☐ live video conferencing	☐ sharing recorded videos	☐ video tutorials	☐ phone calls	☐ other: ___

2. What technology would you use (that has a webcam)?

☐ phone	☐ tablet	☐ laptop	☐ Chromebook	☐ desktop	☐ other: ___

3. What is your comfort level with that technology?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

4. What is your comfort level using more than one of those technologies at once?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

5. What platform are you familiar or comfortable with?

☐ Zoom	☐ GoToMeeting	☐ Webex	☐ Clocktree	☐ Doxy.me	☐ other: ___

6. Internet Service Stability

☐ Great	☐ Good	☐ sometimes patchy	☐ often patchy	☐ not reliable	☐ other: ___

AAC Tech

1. Do you have the individual's AAC System at home?

☐ YES   ☐ NO

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2. Do you have an alternative lite-tech (paper-based version) of the AAC System at home?

☐ YES   ☐ NO

3. Do you have a way of charging your AAC System at home?

☐ YES   ☐ NO

4. How familiar/comfortable are you with the AAC System?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

5. How familiar/comfortable are you with supporting your child's use of the AAC System (modeling, language expansion, prompting)?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

6. How familiar/comfortable are you with troubleshooting tech-issues with the AAC System (speech output not working, frozen screen, etc.)?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

7. How familiar/comfortable are you with identifying and creating communication opportunities for the individual using AAC?

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

Tele-Environment

1. Where will the tele-session take place? (closed door room, at a desk, shared space, etc.)

2. Other people around the tele-environment? (siblings)

3. Days/Times available for tele-sessions.

Communication Partner

1. Comfort level managing student's engagement and focus to task? (using token reinforcement, visual schedule)

☐ very comfortable	☐ comfortable	☐ open to training	☐ not my strong suit	☐ terrified	☐ other: ___

2. Communication partner's other responsibilities at the time of tele-session?

☐ siblings	☐ work	☐ available to focus on tele	☐ not my strong suit	☐ terrified	☐ other: ___

Individual

1. Ability to sustain attention?

☐ 60 min	☐ 30 min	☐ 15 mins	☐ 10 min	☐ 5 min	☐ other: ___

2. Need for visual schedule?

☐ YES   ☐ NO

3. Need for token reinforcement or reinforcement schedule?

☐ YES   ☐ NO

4. What is your child's best access method for learning? (choose all that apply)

☐ visual	☐ auditory	☐ tactile	☐ hands on	☐ other: ___

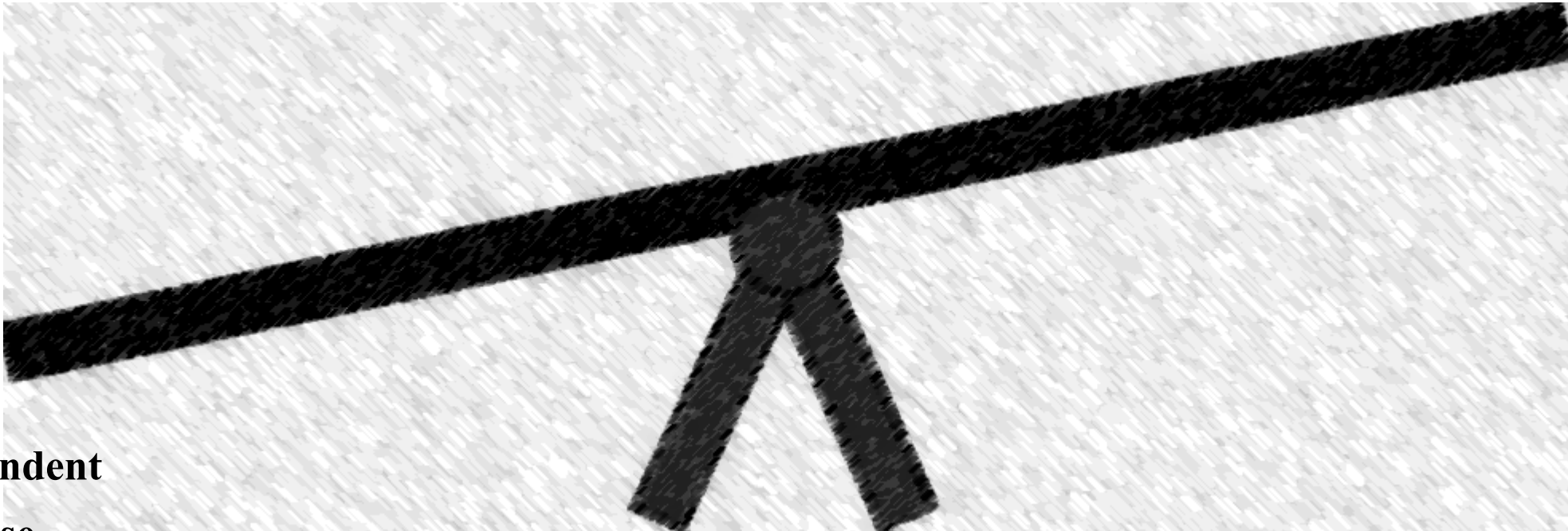**5. Motivating topics/engaging tasks for your child? (TV shows, movies, books, characters, places, etc.)**

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Tele-AAC Service Types

...consider tele-AAC consultation

AAC modeling & co-construction

Independent

AAC use

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Tele-AAC Service Types

...consider tele-AAC direct service delivery

Independent AAC use

...deling & co-construction

Continuum of Service Delivery

less involvement from the comm. partner

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

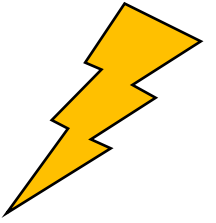**direct synchronous services**

direct asynchronous services

synchronous consultation

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

asynchronous consultation

more involvement from the communication partner

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Tele-AAC Equipment Needs

- Display screen
    - Depends what you wish to share
    - The more you plan to display the larger the screen should be

- Display software (Zoom, GoToMeeting, etc.)
    - Screensharing capabilities
    - Annotation

- Multiple "seats"
    - if planning on using two cameras, or
    - involving more than participant

- Recording features
    - if planning of sharing the content

- Cameras
    - One (with toggle)
    - Two (for simultaneous viewing)
    - Maybe more depending on the service

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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

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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

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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

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Consultation via Tele-AAC

- The clinician works with team members that are working with an individual needing AAC support.

- In <mark>real time</mark> or <mark>store-and-forward.</mark>

- May involve the individual or not.

- Real video or photo images or simulation/emulation tools.

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Tele-AAC Consultation: Synchronous or Asynchronous

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

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