Augmentative and Alternative Communication: Yes I Can!

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Housekeeping

- Cell phones on silent/vibrate
- Please step out if you need to answer
- Restrooms located
- Please take care to sign in at the beginning and sign out at the end in order to receive your CEU credit.
- Evaluations
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- The presenters are receiving a stipend for this presentation.
- The presenters receive no compensation from any source to create or promote products.
How Kathy and Lesley Got Started in AAC

Kathy:
• First assignment out of grad school
• Supportive team
• Dove in

Lesley:
• Graduate coursework
• Outstanding mentor
• Got my feet wet
• Dove in
Topics for Today

1. Wrapping my mind around what I need to know about AAC so I can help my team support communication and participation for my client

2. Collecting assessment information I can use to determine goals for functional communication

3. Listening to case studies and considering how I can apply multimodal principles to my cases

4. Learning about intervention techniques

5. Picking up tips for communication partners

6. Investigating an intervention model

7. Exploring a team member AAC training plan
Topic #1 Wrapping My Mind Around AAC

What do I need to know about AAC so I can help my team support client communication and participation?
Getting Started: Wrapping My Mind Around What I Need to Know About AAC?

1. Who is our population that would benefit from AAC?
2. What is aided and unaided AAC?
3. What is no tech, low tech, light tech, mid tech, high tech? Good grief!
4. What is static display and dynamic display?
5. What is a dedicated and non-dedicated AAC device?
6. What are synthesized and digitized voices?
7. Do symbols matter?
1. Who is Our Population That May Benefit from AAC?

- 1.3% of the population
- **Developmental or acquired** communication disorders
- **Temporary or permanent** impairments
- Impacts **activity**
- Restricts **participation**
- Severe disorders of speech-language **productions** and/or **comprehension**, including **spoken and written** modes of communication
- Often called individuals with **complex communication needs** but your presenters prefer **complex communication profiles**

2. What is Aided and Unaided AAC?

Aided - simple or complex external (stuff) equipment

- A photograph that represents a concept
- A switch that says a word when you press a button
- A computer that says a phrase when a single or series of buttons are depressed

Unaided - use of the body only (no stuff)

- Gestures
- Manual signs
- Pantomime
- Eye gaze
- Vocalizations
- Head nods and shakes
3. What is no tech, low tech, light tech, mid tech, high tech? Good grief!

**No Tech** (body)
- Face, head and neck, torso, hands, knees, feet

**Low Tech** (Sometimes called light or mid tech)
- Simple electronic device
- No built-in rechargeable batteries
- Record and playback limited length and number of messages
- Writing utensil, paper, dry erase board
- Paper based communication board

**High Tech**
- Expensive electronic device
- Often fully functional computers
- Speech generating device (SGD)
- Tablet technology
4. What is a **static display** and a **dynamic display**?

**Static Display**
- Not automatic
- Levels of programmed messages
- Layover sheets are manually changed
- Communication board
- Communication ring
- Communication binder
- Communication wallet

**Dynamic Display**
- Computer
- One selection may open to another page of symbols; visual scenes
- Vocabulary is organized categorically, linguistically
5. What is a dedicated and non-dedicated AAC device?

Dedicated

- In-person/face to face communication enhancement
- Can be low to high tech

Non-Dedicated

- Can be fully functioning computers
- Email, gaming options, research
- Lock-out mode is an option to make a device a SDG for insurance purposes
6. What are digitized and synthesized voices?

- Digitized (Human Voice)
- Synthesized (Computer Voice)
7. Do symbols matter (wait, what are symbols)?

- Real object that represents an object
- Partial object that represents an object
- Miniature object
- Photograph
- Line drawing
- Logo
- Orthography (e.g. letters, writing)
Groovy, Now What?

Let’s Put A Framework to Your AAC Plan: Think Architectural Plans
AAC Purposes of Communication (Light & McNaughton, 2014)

1. Wants and needs
   • Regulate others behavior
   • Vocabulary tends to dominate communication books and boards

2. Information transfer
   • Sharing information
   • Complex language to convey ideas

3. Social closeness
   • Establishing, maintaining, developing relationships
   • Sympathy, jokes, joy, love

4. Social etiquette
   • Social conventions - politeness
Participation

How do I steer my car to help my team get off the ground?

- What does participation look like for the child or adult?
- Identify ways to communicate a social greeting/closure?
- Identify ways for the person to comment
- Identify ways for the person to express feelings and emotions
- Identify ways the person can navigate the interaction
Let’s Practice the Purposes of Communication With a Child and an Adult Interaction

- What social greetings and closures would work for the children and adults?
- Identify wants and needs (please don’t say toilet)
- What information can be shared?
- Identify opportunities for social etiquette (e.g. Think turn taking).
You’re Goin’ Down!
AAC Competencies (Light & McNaughton, 2014)

Linguistic Competence

• Processing receptive and expressive language for L1, L2, L3
• Comprehending symbolic language of AAC - drawings, signs, and codes
• Learning language

Operational Competence

• Technical skill
• Forming the correct hand shape for manual signs, pointing, or touching buttons on a SGD
• Scanning; On/Off/Volume
• Turn the pages of a communication book
• Gross/fine motor
• Cognitive skills - memory
AAC Competencies  
(Light & McNaughton, 2014)

Social Competence

Pragmatics - sociolinguistics - discourse strategies

• Initiating, maintaining, terminating conversation
• Stating wants and needs
• Requesting and protesting

Sociorelational

• Positive self-image
• Interest in others
• Interest in communication
• Putting communication partners at ease
AAC Competencies  (Light & McNaughton, 2014)

Strategic Competence

• Compensatory strategies (hold four fingers up instead of saying misarticulated “4”) 
• Clarify message, optimize communicative efficiency of message and speed 
• Repair messages 
• Enlist and utilize the support of a peer or adult
How Does the WHO-ICF Matter to Me:

The WHO-ICF Tenant...

• Look at health and disability as a spectrum rather than all or none
• Disability is a mainstream experience
• Common international metric
• Equalizes research

...Matters to Me Because

• Frees up our mind to look at strengths and disabilities
• When we acknowledge experience we can consider improving access to and best ways (practices) to maximize participation
Topic #2 Assessment

What assessment information can I use to determine goals for functional communication for my client across the lifespan?
Communication Inventory for Individuals with Complex Communication Needs and their Communication Partners

- Identify important variables affecting communication
- Guide interventions that impact communication development over time
- Highlight key role of communication partners; identify the family members and other who will be involved in partner training
- Involve clients, their families and friends, in goal setting and intervention planning
- Consider multi-modal nature of communication, interaction patterns in various social situations

“To establish and realize goals to enable individuals to interact with family friends and others to enhance their perceived quality of life.” (*pg. 12)
AAC Users

Too often:

• User has passive role
• User is not supported to initiate communication
• User has limited number of speech acts to communicate needs/desires
• User has limited interactive opportunities
Partners often:

- Use yes/no questions to elicit interaction
- Do not consider facial expression, body language, etc as communicative attempts
- Control interactions, often interrupting the user’s attempts to engage
- Concentrate on technology rather than user and their message
- Interrupt user communications
- Do not validate user’s message
Circle of Communication

Blackstone adapted Forest and Snow’s “Circle of Friends” (1989)

• Center of communication needs is center/focus
• First Circle – Life long partners
• Second Circle – Close friends/relatives
• Third Circle – Acquaintances
• Fourth Circle – Paid workers
• Fifth Circle – Unfamiliar partners
Social Networks

Inventory to:

• Consider/evaluate current communicative strategies used
• Collect information from different communicative partners (family, attendants, etc.)
• Consider perceptions of all members of team to create intervention plan
• Part of a comprehensive AAC assessment
• ...provide comprehensive understanding of how individual interacts with communicative partners across the day in a variety of environments and activities (pg. 17)
Ways and Modes of Communication by Social Networks Circles

1. Individuals in the person’s life
2. Good friends
3. Acquaintances
4. Paid communication partners
5. Unfamiliar communication partners
“The WATI Assistive Technology Assessment* is a process based, systematic approach to providing a functional evaluation of the student’s need for assistive technology in their customary environment.”

*Assessment rather than evaluation as intent is to look at a variety of “activities” to determine “specific needs” of the individual.
WATI AT Consideration Guide

- Provides a Consideration Guide to look at the following:
- What do we want user to do that not currently doing?
- Are current strategies/accommodations meeting the need?
- If using AT, are the needs being met
- If new strategies/technologies being used, describe these
- These questions are considered for all areas of challenge, motor, mobility, hearing, vision, positioning, academic, etc.
- Focus is on on-going part of educational process recommended by those who know the students best (school team), ongoing assessment within the learning environment which results in meaningful support and follow-up to maximize student use/access
AT Assessment Team

Minimum Team

1. Student or person who know student needs
2. Curriculum specialist – special education
3. Language specialist - Speech Language pathologist
5. Person who can commit funds for training and equipment needs

Additional members could include IA, VI teacher, Computer Specialist, Counselor, etc.
WATI Includes:

• The WATI Student Information Guide
• The WATI Environmental Observation Guide
• The WATI Assistive Technology Decision Making Guide
• The WATI Assistive Technology Checklist
• Free – www.wati.org
The Functional Communication Profile (FCP) is a “comprehensive guide to rate clients on 11 major skill categories of communication and related aspects”

- Considers - Sensory, Motor, Behavior, Attentiveness, Receptive and Expressive Language, Pragmatic/Social, Speech, Voice, Oral, Fluency
- Use with individuals 3- adult; mental age as low as 1-2 months
FCP Scoring

- Informal assessment
- Subjective scoring
- Prompting levels – independent to guided or total assist
- Can serve as a completed report
Hearing Them Into Voice

• Dr. Sharon Rogers http://www.drsharonrogers.com/hearing-them-into-voice/

• The instrument is designed for parents, siblings, caregivers, educators, aides, speech language pathologist... any communication partner that knows the child well to describe how a child with a complex communication profile communicates

• Developed by observing the communication behaviors of six children across three days each in their homes and other environments

• Let’s take a look at the tool
Purposes of AAC Device Use for Persons with ALS as Reported by Caregivers

(Fried-Oken, Rau, Tullman, Baker, Hindal, Wile, & Lou, 2006)

Figure 1. Percentage of caregivers reporting frequency of use of AAC technology for 17 purposes of communication.
What do I consider when I put together a multimodal communication plan for a child or adult?
Let’s Think Through a Case Study

1. List the communication environments the client will participate in and all possible communication partners the person may engage with (e.g. family/close friends, friends, acquaintances, paid workers, community workers/people, strangers)

2. Look at the purposes of communication: What are the primary communicative needs of the child or adult (e.g. social etiquette, social closeness, information sharing, wants and needs)?

3. Think multimodal: What are the best and most effective ways/modalities (e.g. gestures, vocalizations, word approximation, verbalizations, speech generating devices = single message, multi-message, static, dynamic) for the child or adult to communicate (it does not always have to be technology).

4. What therapy activities would help you address the communicative needs of the client and communication partners?

5. When will the plan be implemented across environments and time of day?

6. What are your moments of ah-ha while you thought through the case study?
Case Study: J. M.

J. M. is a 36 year old with a diagnosis of moderate intellectual disability, cerebral palsy, seizures with VNS, emotional libel and hypothyroidism. He wears corrective lens and has a mild loss in right ear and moderate loss in left ear. He is ambulatory. His receptive skills fall in the four year level. He communicates desires using 2 to 4 word phrases but is often perseverative. He can name familiar items/pictures. He currently resides in a group home for adults and attends Association for Retarded Citizens (ARC) facility five days a week. He will engage in emotional outbursts to avoid unwanted tasks.
Case Study: J. M.

One goal for J. M. is to improve social skills/interactions in home and ARC. Second goal to provide his selection of options of activities throughout the day by providing pictures of desires options. ARC looking at support for movement between classes.

Therapy began six weeks ago. Staff and client are receiving training for use of a picture schedule. J. M. is offered two recreation/leisure options from which to choose.
Break Out Session

• Based on the case study or a case of your own work through the handout/questions on slide 41

• Work independently or in a group

• You have 15 minutes to work with the case study?

• Prepare to report an ah-ha!
Topic #4

Intervention

What are some intervention techniques in need to know about to support a child or adult with AAC?
Intervention Technique #1: Natural Consequences

The theory of natural consequences states that the communication partner must follow through in providing the choice that a person makes even if he or she thinks the child/adult made a mistake. It is important that the child/adult have sufficient attention to the choices, be able to make a sufficient choice, and know that the communication partner will follow through with the request made even if it is a mistake.
Theory of Natural Consequences

Poor Example:
Brooke: Do you want the helicopter or the car?
Client: (Looks at the helicopter.)
Brooke (Has the switch all set up for the car): Do you want the car?
Client: (Looks at the car)
Brooke: Yes! You want the car!

Good Example:
Brooke: Do you want the helicopter or the car?
Client: (Looks at the helicopter.)
Brooke: You want the helicopter!
Intervention Techniques #2: The Ground Rules for Yes and No

• Need the opportunity to say yes or no
• Need to have the option
• Need to know the difference between the options
• Need to have a preference
• Need to have the memory capacity to recall what choice you made
• Need to know that their choice of yes or no will be acknowledged and acted up (natural consequences with the right amount of partner support)
The Ground Rules for Choice Making

• Age appropriate
• One preferred and one distracter
• One preferred and one non-preferred
• Two preferred options
• Sabotage – missing, wrong, incomplete
• Real objects
• Color photographs, drawings, words
• Err on the side of concrete vs. abstract
Case Study: Darcy

Darcy is a 23 year old with cerebral palsy who lived in a hospital setting for 15 years and now lives in a group home with four other women. She uses facial expressions, vocalizations, and body posture to communicate wants and needs with no other formal means of communication. A visual schedule using photos was implemented. Darcy learned the symbols to activity association in six months. Three months later she learned how to make choices. Three months later she learned PCS symbols.
Intervention Techniques #3: Match Up Our Language Strategies Part I

1. Event casts
   a) She is singing and he is running.
      (Child-Boy run.)

2. Expansions
   b) I am pouring and you are shaping the sand.

3. Focused contrasts
   c) Now we draw the arm.

4. Modeling
   d) No, we cannot jump off the dresser ever. (Child: Now jumo!)
Intervention Techniques #3: Match Up Our Language Strategies Part II

1. Open ended questions
   a) You don’t need a towel for swimming tomorrow? (Child-Peter say no towel.)

2. Recasts
   b) Your sock is on. Now you need the shoe.

3. Redirect prompted instruction
   c) You finished your puzzle, now go play ball with Jill.

4. Scripted play
   d) Where do you need to be?
## Intervention Techniques #4: Choice Making and Requesting Formats

(Chart adapted from Beukelman & Miranda, 2013)

<table>
<thead>
<tr>
<th>Format</th>
<th>Description/Example</th>
<th>Choice Gesture</th>
<th>Yes/No Response</th>
<th>Visual Scan of an Item Array</th>
<th>Verbal Lang. Comp.</th>
<th>Symbol Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple choice with visual support</td>
<td>Offer one symbol/request at a time. Hold a cup and offer coffee.</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Simple choice without visual support | “Do you want coffee?”
   “Do you want juice?”               | x              | x               |                              |                    | x                |
| Elicited choice with object support | Place a red and blue crayon on the table, point, state “Do you want the red or blue crayon.” | x              |                 |                              |                    | x                |
| Elicited choice with picture symbol support | Adult points to the finances symbol on a communication board/display          | x              | x               | x                            |                    | x                |
| Self initiated choice              | Select a toy, food item, etc.                                                      | x              |                 |                              |                    |                  |
| Elicited request                   | Person signs “swing” in response to, “What do you want to do?”                    |                | x               |                              |                    | x                |
| Self-initiated request             | Person requests “help” and points.                                                 | x              | x               |                              |                    | x                |
Intervention Techniques #5: Knowledge Society

- Take learning across contexts
- Routines
- People
- Physical environments
- Times of day
- Moods
- Alertness states

http://carmenscomputingblog.blogspot.com/2014/10/knowledge-society.html
Intervention Techniques #6: Core Vocabulary
Sources for Core Vocabulary

- Center for Literacy and Disability Studies
  http://www.med.unc.edu/ahs/clds/resources/core-vocabulary

- Gail Van Tatenhove
  http://www.vantatenhove.com/products.shtml

- AAC Language Lab
  https://aaclanguagelab.com/resources/free

- Banjee, DiCarlo, and Buras-Stricklin

- Marvin, Beukelman, and Bilyeu

- Baladin and Iacono
Do’s and Don’t’s of Core Vocabulary: Descriptive Teaching Method

http://www.assistiveware.com/dos-and-donts-aac-core-words

• What do you see?

• What do you know?

• Spend less time programming infrequently used words

• Spend more time using words that apply across contexts
Intervention Techniques #7: Talking Mats

http://www.talkingmats.com/

• Topic choice making
• Supporting
  • Conversation
  • Communication partners
• Clients
• Friendship
Topic #5

What tips can I offer communication partners?
Wait, what is a communication partner?
Communication Partners: What Works
(Blackstone, 1999)

• Augmented communicators describe a “good” communication partner as:
  • Patient
  • Motivated
  • Interested
  • Comfortable with all methods of communication
Communication Partners: What Does Not Work
(Blackstone, 1999)

- Speaking partners
- Dominate interactions
- Ask predominantly yes/no questions
- Take a majority of conversational turns
- Provide few opportunities for augmented communicators to respond
- Often interrupt
- Focus on the user’s technology or technique rather than the person or message
- Do not always confirm the content of messages.
Tips for Facilitators: One Who Makes Things Easier

• An AAC facilitator provides assistance to both users and partners. Ideally, however, the facilitator is not an active participant in the interaction.

• Structure the environment to support communication (e.g., ensure proper positioning, access to devices, techniques and strategies)

• Provide varied and meaningful opportunities for communication (e.g. pause time, preparing vocabulary)

• Provide for involvement in motivating activities

• Prompt only when required

• Model the appropriate use of AAC techniques and strategies
Initiation and Topic Setting Strategies

- Visual supports: badges and initiation cards
- Collections
- Memory books
- Topic cards
- Joke cards
- Fact of the day
- Conversational boards
- Dual communication boards (e.g. dueling iPads)
Topic #6

Is there another intervention model I can use besides the domains of language?
AAC Participation Intervention Model
( Rogers & Mayne, Manuscript in Preparation)

1. Social Interaction Skills (nonverbal & verbal)
2. Communication Skills and Activities (child play and adult support)
3. Facilitator Strategies (read, interpret, emphasize, expand, observe, elicit, provide, monitor, demonstrate, etc.)
4. Developing Literacy (photos, safety signs, songs, name in print, stages of narrative development, argumentation)
5. Vocabulary (core and fringe vocabulary)
6. Tools and Access (body, picture board, single message SGD, static/dynamic SGD, switches, mounts)
7. Troubleshooting (backup boards, batteries, access to vocabulary, increased levels of independence)
What stage is my client at with their communication?

a) Getting Started (establishing intent)

b) Building Fundamentals (beginning reciprocity)

c) Making Connections (beginning independence)

d) Bridging Skills (sheltered independence)

e) Maximizing Participation (independence)
Topic #7

What would a team based training plan look like?
AAC Training Plan


Goal: Say what you want to say, when you want to say it, to whom you want to say it.

- Areas to work on
- Short term goals with a time frame
- Brainstorm solutions
- Action plan
- Resources needed
- Implementation

<table>
<thead>
<tr>
<th>Action Plan</th>
<th>Resources Needed</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Design board using core 40 vocabulary to send to printer</td>
<td>Money for printing</td>
<td>Key Stakeholders: Small group monthly/bimonthly meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More in depth discussion of topics in introductory level</td>
</tr>
<tr>
<td>2. Provide staff training</td>
<td>Myths and Misconceptions Core Vocabulary Aided Language Input Introductions Goal Writing and Data Collection Introduction</td>
<td>Key stakeholders: One large group training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilitated by key stakeholders</td>
</tr>
<tr>
<td>3. Follow-up and Next Steps</td>
<td>Meeting with key stakeholders Survey for continued needs</td>
<td>Key stakeholders report on progress and report needs Google survey Intro Level</td>
</tr>
</tbody>
</table>
Everyday AAC

Ashley Robinson, MS, CCC-SLP

https://everydayaac.com/

- Image by Ruth Morgan
- High tech devices are the tip of the iceberg
- Consider 10 other components
- Also add
  - Nonverbal communication
  - Verbal/vocal modalities
  - Literacy
AAC Funding Help http://www.aacfundinghelp.com/

- Medicare
- Medicaid
- Insurance & Health Benefits Plans
- Federal Employee Health Benefits Plan
- Tricare
- Department of Veterans Affairs
- Special Education & Early Intervention
- Vocational Rehabilitation
- Telecommunications Equipment Distribution Programs
- Medicare is the largest single purchaser of SGDs.
1. I am going to think participation: How can I support participation by supporting/developing communication?

2. I will elicit ideas from team members about their ideas on when and where the child can participate; I can think about the how.

3. I can assess using some free tools and put in a requisition for Social Networks and the Functional Communication Profile.

4. I can try one intervention strategy.

5. I can introduce the AAC Training Plan to team members as a functional way to thinking through a client’s goals, team member training needs, resources, action, and implementation needs.
AAC Website Resources

- AAC Institute [https://aacinstitute.org/10-aac-rules-of-commitment/](https://aacinstitute.org/10-aac-rules-of-commitment/)
- AAC Website Resources List [https://www.iidc.indiana.edu/pages/aac-website-resource-list](https://www.iidc.indiana.edu/pages/aac-website-resource-list)
- PraAACical AAC [http://praacticalaacc.org/](http://praacticalaacc.org/)
- Prentke-Romich [https://aaclanguagelab.com/](https://aaclanguagelab.com/)
- RERC-AAC [http://aac-rerc.psu.edu/](http://aac-rerc.psu.edu/)
- TobiiDynavox - InterAACt [http://www.dynavoxtech.com/interaact/](http://www.dynavoxtech.com/interaact/)
- University of Nebraska Lincoln [http://cehs.unl.edu/aac/visual-scene-resources/](http://cehs.unl.edu/aac/visual-scene-resources/)
10 Rules of AAC Commitment - AAC Institute
(Katya Hill, PhD, CCC-SLP)

Rule 1: Be committed to the most effective communication system for the individual being served.

Rule 2: Be committed to following your professional code of ethics.

Rule 3: Be committed to involving the consumer and family in the service delivery process.

Rule 4: Be committed to achieving the maximum outcomes for the individual.

Rule 5: Be committed to advocating for language.
Rule 6: Understand the merits of ALL AAC language representation methods. (Be able to discuss and demonstrate how language is represented using an Speech Generating Device [SGD]) MULTIMODAL

Rule 7: Support the language representation method(s) for core and extended vocabulary access that best serve the interest of the individual.

Rule 8: Advocate for the AAC system that supports the chosen language representation method(s).

Rule 9: Be committed to using AAC performance measurement to support clinical intervention.

Rule 10: If unable to adhere to any of these guidelines, be truthful about it to the individual, family, and advocates.
References


Answer Key for the Language Strategies

SLIDE 51
1. Event casts – C Now we draw the arm.
2. Expansions – D No we cannot jump off the dresser in response to a child saying “jump!”
3. Focused contrasts- B I am pouring and you are shaping the sand.
4. Modeling – A She is singing and he is running focusing on pronouns and –ing verbing.

SLIDE 52
1. Open ended questions – D Where do you need to be?
2. Recasts - A You don’t need a towel for swimming tomorrow? (Child-Peter say no pool.)
3. Redirect prompted instruction – C You finished your puzzle, now go play ball with Jill.
4. Scripted play – B Your sock is on. Now you you need the shoe.