AAC Devices- What's out there and how to decide what will work best!

Jennifer Schubring, M.S. CCC-SLP

Building AAC. LLC & Green Bay Area Public Schools

HELLO!

My name is Jennifer Schubring. I am from the Green Bay Area. I am a Speech/Language Pathologist with an expertise in AAC. I began learning about AAC 19 years ago. I attended UW-Madison and Penn State. I have worked in many settings including: Birth-to-Three, Hospital, Home Health, Outpatient Clinic, and for the past 13 years I've worked in the public schools. One year ago I opened my private practice, Building AAC, to help build better communication for individuals with complex communication needs in the State of Wisconsin. I've presented at national conferences, and throughout the state of Wisconsin to help build knowledge about AAC best practices. My hobbies include baking and running.

Augmentative & Alternative Communication (AAC)

- An area of clinical practice
- Addresses the needs of individuals with significant and complex communication disorders
  - Can be related to: CP, Down Syndrome, Autism, Intellectual Disability, Stroke, Genetic syndromes, Head Injury,etc.

Sources: https://www.asha.org/NJC/AAC/ https://www.asha.org/Practice-Portal/Professional-Issues/Augmentative-and-Alternative-Communication/

SLP Poll

"The number of individuals who require AAC services dwarfs the number of service providers who have expertise in AAC. Many service providers report that they lack expertise in evidence-based AAC practices (e.g., Costigan & Light, 2010' Gormley & Light (in press); this lack of expertise negatively impacts services and outcomes for individuals who require AAC."

What is your level of experience with AAC? Choose the description that most closely describes your experience working with individuals with complex communication needs and AAC.   186

I have a lot of knowledge and experience treating students with complex communication needs using a wide variety of AAC tools.
8 %

I have some knowledge about AAC and am comfortable treating students with complex communication needs. I have a few tools in my AAC toolbox that I am most comfortable using.
43 %

I have a little knowledge about AAC. I am unsure of myself when working with students with complex communication needs. I know of one or two AAC tools and use those extensively.
41 %

I fear getting a student with complex communication needs. I have little to no experience. I don't know where to start.
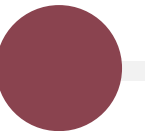8 %

Who needs a Speech-Language Pathologist?

by: Kailey Creech M.A. CCC-SLP

Augmentative & Alternative Communication

Reading & Writing   Dysarthria   Traumatic Brain Injury

Understanding Language   Dyslexia   Head & Neck Cancer

Reading Comprehension   Accent Modification   Degenerative Disease

Self Expression   Deaf/Hard of Hearing   Breath Support   Orientation

Auditory Processing   Word Finding   Transgender Voice Therapy   Feeding & Swallowing

Cleft Lip & Palate   Articulation   Voice

Language Delay   Fluency/Stuttering   Aphasia   Laryngectomy   Reasoning

Behavior Management   Speech Delay   Executive Function   Stroke   Dementia   Dysphagia

Autism Spectrum Disorder   ADOLESCENCE   ADULTHOOD   End of Life

Short Term Memory

Play Skills   Apraxia of Speech   GERIATRIC

Social Communication   SCHOOL-AGE

Early Intervention

Feeding & Swallowing

Early Detection   TODDLER

INFANT

We have discovered increasingly that **communication has only one prerequisite**; it has nothing to do with mental age, chronological age, prerequisite skills, mathematical formulae, or any of the other models that have been developed to decide who is an AAC candidate and who is not. **Breathing** is the only prerequisite that is relevant to communication. **Breathing equals life, and life equals communication**. It is that simple.
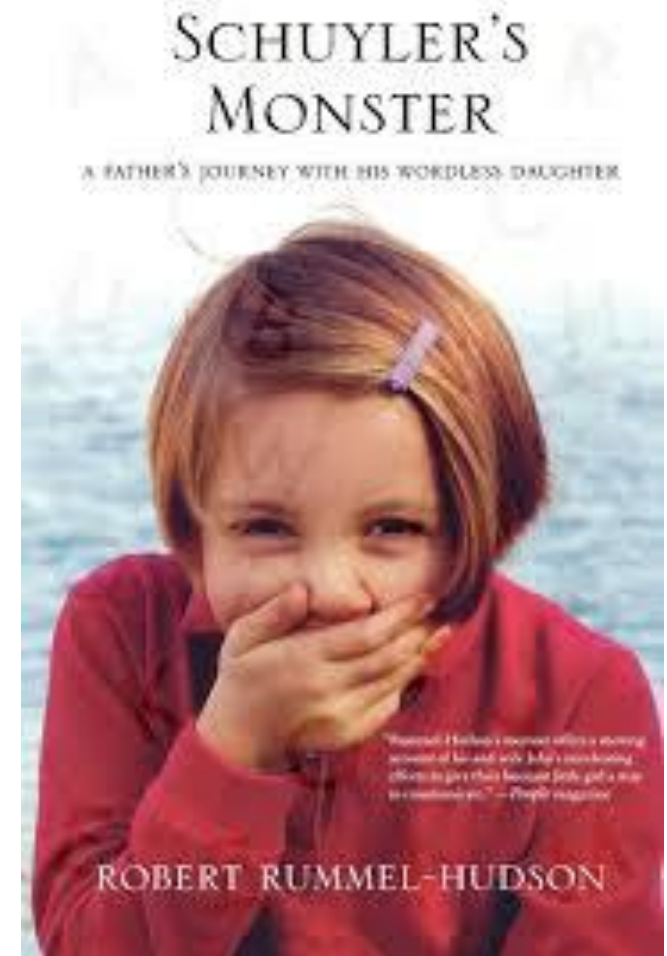
--Pat Mirenda, 1993

"Assuming an individual who struggles with communication has nothing to say, is as ridiculous as assuming an adult without a car has nowhere to go."

The Folly of Fortune Telling

SCHUYLER'S
MONSTER

A FATHER'S JOURNEY WITH HIS WORDLESS DAUGHTER

ROBERT RUMMEL-HUDSON

"My point, ... for every educator and every employer and policy maker and citizen, is that the only way the world will work for people with disabilities like Schuyler is if it becomes a place defined by opportunity. Inclusion can't be a policy or a goal; the time for that is long behind us now. **Meaningful inclusion has to reside in our DNA as a society.** The idea that we should identify disabled children's limitations and predict future outcomes based on what we see or think we see was never a good model. It's an unforgivable one now ... We need only create a just and inclusive society with opportunities and authentic relationships and real equity. And then get the hell out of their way (Rummel-Hudson & Hudson, 2018).

The Folly of Fortune Telling

https://aac-learning-center.psu.edu/2018/10/14/the-folly-of-fortune-telling/

Presuming Potential/competence

Presume competence but not knowledge. Just because you don't know how (to communicate), doesn't mean you can't know how (to communicate).

We will keep saying it until **everyone's potential is seen** and is approached with the presumption that they can communicate.

Models of Assessment:

Candidacy Model

- A set of criteria that would qualify you to receive an AAC device

- Provided AAC to individuals with chronic expressive communication disorders such as ALS or CP

- Individuals who had strong cognitive and linguistic capabilities

- Would not develop or have the potential to develop verbal speech (i.e., apraxia of speech)

- Anyone with a developmental disability likely wouldn't qualify.

- Many prerequisite skills needed.

Communication Needs Model

- Determined individual's unmet communication needs

- Document the communication needs

- Determine how many of these needs are met through current communication techniques

- Reduce the number of unmet communication needs through systematic AAC interventions.

- Works well when the communication needs are easy to define.

- Not very comprehensive

- Does not plan for the future.

Participation Model

- Based on conducting AAC assessments and designing interventions based on the functional participation requirements of peers without disabilities of the same chronological age as the potential AAC user.

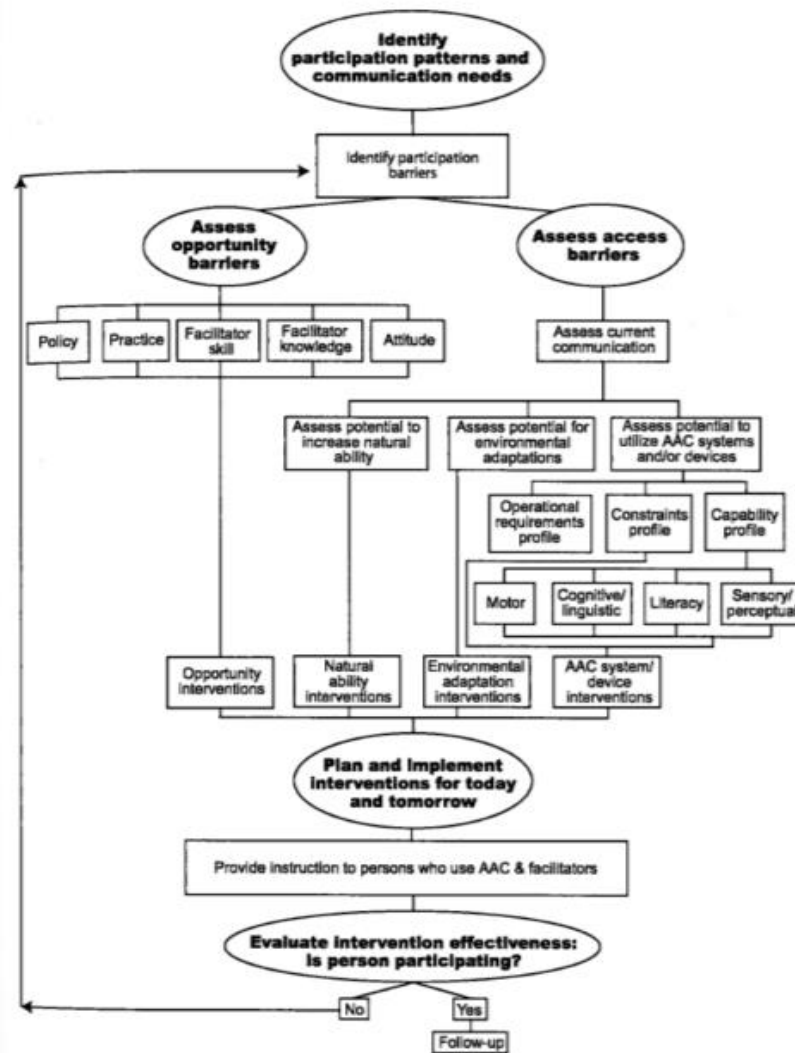- BASED OFF OF THE IDEA THAT THERE ARE NO PREREQUISITES FOR COMMUNICATION, AND THERE IS NO HIERARCHY OF AAC.

Beukelman & Mirenda (2013)

Figure 5.1. The Participation Model for augmentative and alternative communication (AAC).

Source: Beukelman, D. R., & Mirenda, P. (2013). *Augmentative and alternative communication: Supporting children and adults with complex communication needs.* Baltimore, MD: Brookes. Reprinted with permission.

What does this look like in an inclusive setting?

What key questions should we be asking when working with a student who uses AAC in the regular education classroom?

Want more information on the Participation Model?

- Check out Kelly Fonner's AAC in the Cloud presentation from 2019
  - AAC in the Cloud: https://www.aacconference.com/
  - Kelly's Presentation: Applying the AAC Participation Model to Implementation Planning
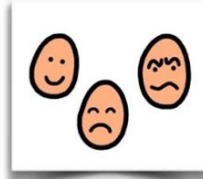   - https://presenters.aacconference.com/videos/UVRNM1FURTU=

My Communication Bill of Rights

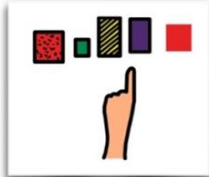I have the right to my own friends and social life.

I have the right to ask for what and who I want and where to go.
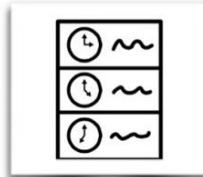
I ALWAYS have the right to say, "no!"

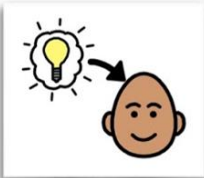I have the right to say what I feel.

I have the right to make my own, real, choices.

I have the right to say what think.

I have the right to ask for, get and give information.

I have the right to know about the people in my life and everything happening to me.

I have the right to be taught to communicate and have what I need.

I have the right to have my communication system (and other tools), to have them working and to be with people who know how to set up, use and fix my communication system.
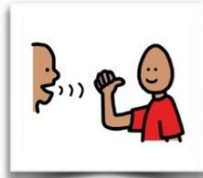
I have the right to be heard and answered, even if I can't have what I want.
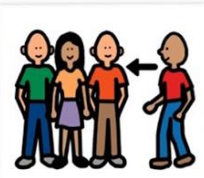
I have the right to be part of my community

I have the right to be treated with respect.

I have the right to be talked to and not about.
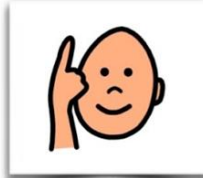
I have the right with be talked with in a way I understand.

Adapted from the NJC Communication Bill of Rights 2016, ASHA by Kate Ahern, M.S.Ed Mayer-Johnson Communication Symbols Used with Permission

Communication Bill of Rights

Source:
https://www.asha.org/uploadedFiles/NJC-Communication-Bill-Rights.pdf

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Let's take a look at assessment tools…

Wisconsin Assistive Technology Initiative (WATI)

- www.wati.org
- Defunded over 15 years ago, but through a grassroots effort the forms were updated in 2017.
- Assessment process and forms available to guide you through the AT process.

Wisconsin Assistive Technology Initiative (WATI)

1. Procedure Guide for Assessment: http://www.wati.org/wp-content/uploads/2017/12/3-WATI-Procedure-Guide-for-Assessment-2017.docx

2. WATI Student Information Guide: http://www.wati.org/wp-content/uploads/2017/12/4p-WATI-Student-Info-Guide-2017-print.docx

3. Classroom Observation Guide: http://www.wati.org/wp-content/uploads/2017/12/5f-WATI-Classroom-Observation-Guide-2017-fillable.docx

Wisconsin Assistive Technology Initiative (WATI)

4. AT Decision Making Guide: http://www.wati.org/w content/uploads/2017/12/7-WATI-Assistive-Technology-Decision-Making-Guide.docx

5. AT Trial Use Guide: http://www.wati.org/wp-content/uploads/2017/12/10f-WATI-Assistive-Technology-Trial-Use-Summary-2017-fillable.docx

My favorite AAC evaluation tools:

- Gail Van Tatenhove's AAC Assessment forms: http://www.vantatenhove.com/resources
  - (Under Papers → select "assessment")
    - Gail has many other useful resources in this section
    - Does a nice job of outlining a student's receptive and expressive language skills
    - Gather's a lot of data that is needed for writing funding reports

- Communication Matrix
https://www.communicationmatrix.org/
  - Free Tool
  - Great for tracking very early, pre-intential/beginning communication

Assessment/Trial-How to acquire devices:

- During the assessment process high tech devices are available from the CESA 2 lending library: Assistive Technology Lending Center-ATLC (if your district is a part of any CESA). These devices need to remain in your district and cannot be used to complete a home trial. (http://www.atlclibrary.org/)
  - Loaned for 1 month
  - A return shipping label is included in the box
  - Pros: Easy process, usually supported by administration, they have an array of choices including eye gaze, keyguards, and software options
  - Cons: Little/no support to set-up the device if you're not familiar with it, 1 month is a very short time to get started using the device, not all devices are running the most up-to-date options or have a variety of voice options, cannot be sent home with a student
- Many AAC device manufacturers have an option for SLPs to check out equipment for assessments
  - Pros: Equipment is usually newer, a company representative may be able to be present onsite and assist with set-up, can order with a variety of access options such as keyguards and switches
  - Cons: Usually only loaned out for 2-3 weeks, cannot be sent home, is not always support by administration as financial responsibility for the loaned equipment is assumed by the district.

Assessment/Trial-How to acquire devices:

- Trial apps on an iPad/tablet system
  - Pros: Many apps can be obtained for free from app developers. Apps such as LAMP WFL is given for free when you go to a LAMP training. Tobii Dynavox gives SLPs (and educators if you work through your sales rep) evaluation copies of apps. Can have a multitude of apps to trial. Can assess for a longer time as the iPad would not need to be returned.
  - Cons: If you using an app on an iPad with multiple students-ongoing, you need to purchase apps for each individual student. It is illegal to load an app on more than one device if you only own one license. Can be used to assess, but a formal device trial through the company would need to be completed. Alternative access may not be available through an iPad/app. Some device manufacturers have different features on a dedicated system vs. the iPad app.

Trial – the nuts and bolts:

- Check with the insurance company to see how long of a trial is needed. At this point the device manufacturer is included in the process, and can help check with insurance.

- Make sure to have signed authorization to release information in place with the district and the device manufacturer, and any other agencies that are also involved.

- Make contact with the company representative. They often have trial forms and sample evaluation reports or report writing guides that they can share with you.

  - Tip: I always begin the report writing process during the trial. I begin filling in background information about health history, speech/language skills, motor skills, etc. Much of the assessment information can already be put into an SGD Funding report. If you know what you need for the report, you can make sure to collect the information during the trial.

- You will need to build in time for training the family, teachers, and para-professionals. You may not be the only one collecting data, so everyone needs to be involved in the process to ensure that the trial is a success and the information you need is collected.

- Determine if there are any built-in data collection tools. PRC and Saltillo have a great tool called "Realize Language" which helps collect data and analyzes it for you. (Note, it does not distinguish between someone modeling communication on the device and actual activations by the AAC user.)
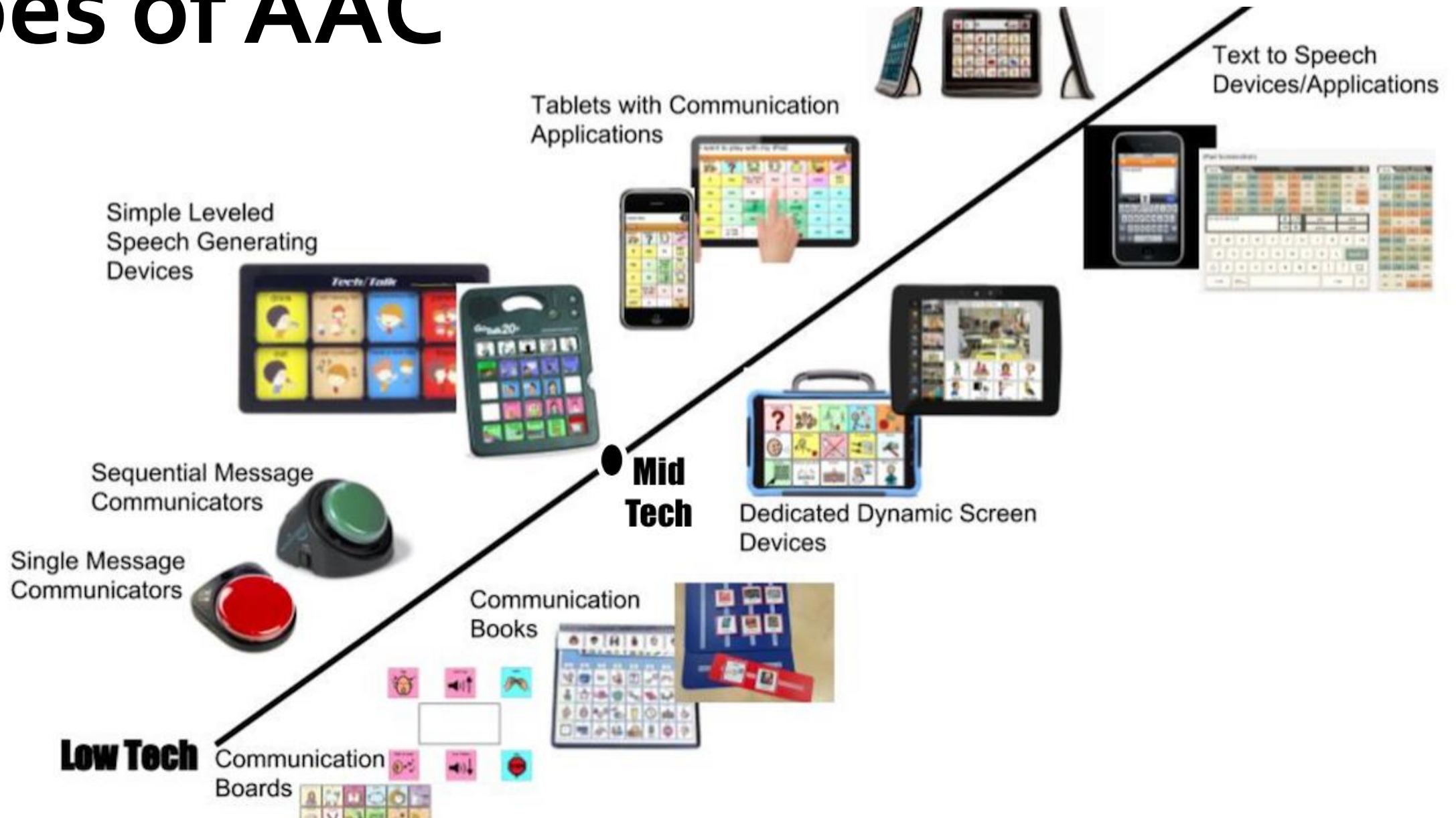
How Medicaid Works - 2

- Coverage Rule of 4:
  - SGDs must be primarily and customarily used to serve a medical purpose;
  - SGDs must generally not be useful to an individual in the absence of a disability, illness, or injury (always recommend "dedicated;" or "locked" devices);
  - SGDs must be able to withstand repeated use (be durable); and
  - SGDs must be reusable or removable.

    Source: 42 CFR § 440.70(b)(ii)(2016).

- "Coverage" decisions focus on device characteristics not individual client facts. Once coverage is established it should apply to all subsequent requests.
  - All Medicaid programs acknowledged SGD coverage by the end of 2000.

Types of AAC

Text to Speech Devices/Applications

Tablets with Communication Applications

Simple Leveled Speech Generating Devices

Sequential Message Communicators

Single Message Communicators

Mid Tech

Dedicated Dynamic Screen Devices
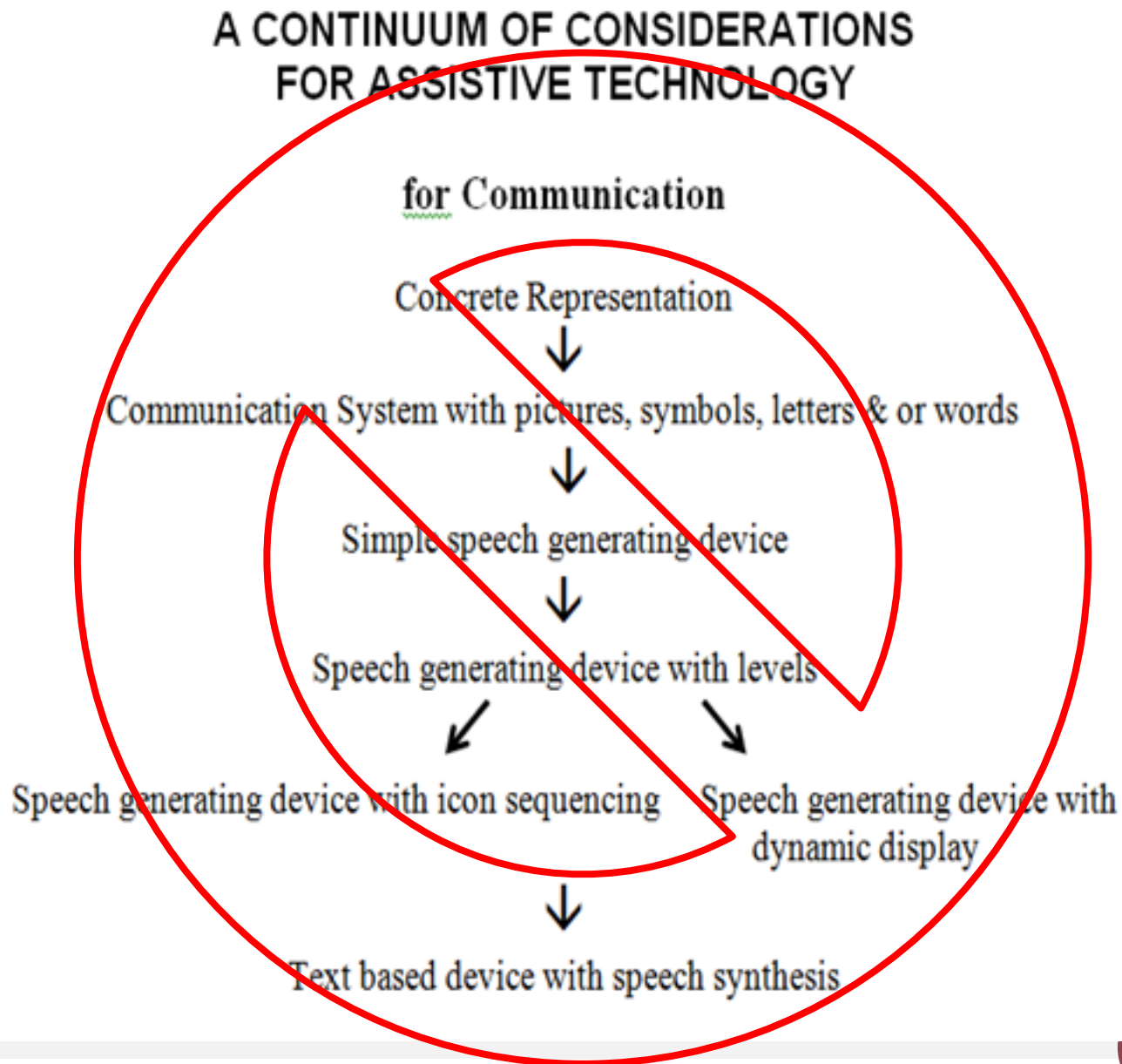
Communication Books

Low Tech Communication Boards

AT

Continuum

A progression of low tech, through mid tech to high tech

Research shows that there is no continuum!

A CONTINUUM OF CONSIDERATIONS FOR ASSISTIVE TECHNOLOGY

for Communication

Concrete Representation
↓
Communication System with pictures, symbols, letters & or words
↓
Simple speech generating device
↓
Speech generating device with levels
↙ ↘
Speech generating device with icon sequencing   Speech generating device with dynamic display
↓
Text based device with speech synthesis

Communication Options

Concrete representations:

▹ **Real objects**
▹ **Tangible Symbols**
▹ **Miniature objects**
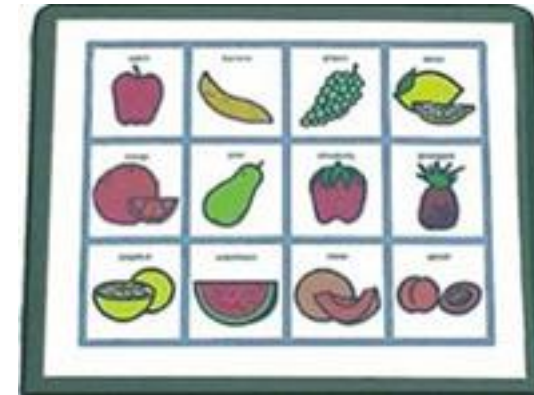
Communication Options→ Low Tech

Communication systems with pictures, symbols, letters and/or words

▹ **Boardmaker**
SymbolStix
LessonPix

Free Online picture database: OpenSymbols.org

How to use the OpenSymbols website

Great resource to share with families who don't have access to symbol programs such as Boardmaker

Communication Options
Mid Tech

Simple Voice Output Devices

▸ [101 ideas for using single message devices](#)

15. I have a client who is clinically depressed and she has one that she uses with her friends. When friends come by and she`s not in her dorm room, they leave a message with it. She says its the best therapy she gets to have "Hi, I`m thinking about you" messages from friends when she`s not expecting them.

35. One idea is to use the BIGmack for taking a break. Having it programmed to say "I need a break" could work nicely for verbal and non-verbal kids. It can help teach them to tell you when they are fatigued or getting frustrated.

90. Any time an interjection during an activity is appropriate (e.g., "Wowee!" "Cool")

Communication Options
Mid Tech

Speech generating device with levels

▸ For example, a device with space for 8 symbols will have seven levels which will give you 56 possible messages. You could use each level for a different activity or a different class. These AAC systems will use recorded speech.

Communication Options
High Tech

Speech Generating Devices with icon sequencing or dynamic display devices.

Communication Options
High Tech

Text-based device with speech synthesis.

- ▹ Proloquo4Text (one example of a text-based device)
- ▹ Features:
  - ▪ Word prediction
  - ▪ Stored words/phrases/conversations/message history
  - ▪ Can speak message or have conversation partner read message
  - ▪ Multiple language available and can switch between them easily
  - ▪ Can have multiple conversations open
  - ▪ Available on the iPad, iPod, iPhone, Apple Watch

"One is never enough: Individuals with complex communication require more than one device one communication partner, one communication strategy, one communication environment" (p. 195).

- Williams, M. B., Krezman, C., & McNaughton, D. (2008). "Reach for the stars": Five principles for the next 25 years of AAC. *Augmentative and Alternative Communication, 24, 194-206.*
- https://aac.psu.edu/wp-content/uploads/2011/11/Williams_et_al_2008.pdf

Tablet Technology

Resources

iPad Apps for Complex Communication Support Needs: Augmentative and Alternative Communication (AAC)

CALL Scottland: https://www.callscotland.org.uk/

Located under Downloads→Posters and leaflets

There is also and android app wheel.

Other App Resources:

- Jane Farrall: http://www.janefarrall.com/aac-apps-lists/

- Forbes AAC App Comparison:
  https://tinyurl.com/ForbesAAC
  - Bridget Gilormini, Forbes AAC representative

Access

- ▹ Switches
- ▹ Keyboards
- ▹ Mice
- ▹ Touchscreens
- ▹ Eye Gaze (low tech and high tech)
- ▹ Voice recognition

"Communication should not be viewed as the end goal; rather, it is a tool to attain a wide range of educational, vocational, and personal goals.

Light, J. C., McNaughton, D. B., Beukelman, D., Fager, S. K., Fried-Oken, M., Jakobs, T., & Jakobs, E. (2019). Challenges and opportunities in augmentative and alternative communication: Research and technology development to enhance communication and participation for individuals with complex communication needs. *AAC: Augmentative and Alternative Communication, 35*(1), 1-12. https://doi.org/10.1080/07434618.2018.1556732

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