iPads: A continuum of Tools for AAC

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Agenda

- Definitions/Historical Perspective
- iPads for communication: Pros and Cons
- Goals for communication
- Assessment - feature matching
- AAC Tools Available
- Hands-on time
Augmentative and Alternative Communication (AAC)

- Any approach designed to supplement or replace verbal communication.

- Examples: sign language, gesture, communication books, “high-tech” dedicated devices and mobile devices.
AAC “dedicated devices”

- Tobii Dynavox (now merged)
- Prentke Romich
Historical Perspective

- 40 year history
- Much research and development occurred before each device was released to the public
- Vocabulary systems reflected good practice
- Support/Teaching materials “part of the package”
- High production costs and low demand led to high costs and strict funding guidelines

Then the iPad came along (2010)!

- AAC became more “consumer driven”
- Decreased cost and increased comfort with technology helped parents “take the lead” in choosing apps
- AAC became more mainstream

iPad PROS

- Cool & socially acceptable
- Portable
- Camera allows to capture vocabulary “on the go”
- Relatively inexpensive
- Bypass the lengthy, complicated funding process
- Making progress towards gaining more funding options of iPads (AbleNet/ FRS Custom Solutions)
- Hundreds of apps to choose from
- Some nice accessibility features
iPad Cons

- Quick selection of an app may lead to abandonment
- Some apps do not reflect good research and practice
- Access drawbacks
- Often limited tech support included with app purchase
- Not a dedicated device - students may see as a toy/leisure activity
- Frequent updates in iOS platform and app software may lead to glitches/inconsistencies
- Many apps moving to subscription-type services
Goals for Communication

- Core vocabulary vs. pre-stored messages

- Most AAC users who develop a high level of competency require core word vocabulary as the base of their language system, as most of what we say we have never said before

- Most AAC users require some pre-stored messages as the most EFFICIENT way to communicate a message
  - Repair messages (“That wasn’t what I wanted to say!”)
  - Time sensitive messages (“I have to go to the bathroom”)
  - Independence messages (“Can I have a turn?”)
Core Vocabulary

- Small set of simple words, in any language, that are used frequently and across contexts. (Cross, Baker, Klotz & Badman, 1997)
- A few hundred words that account for approximately 80% of the words we use.
- Early sight word lists (i.e. Dolch) often contain core words
- Foundation for SNUG (spontaneous novel utterance generation)
Sample Core

Kate Ahern, Ms. Ed
Fringe Vocabulary

The rest of vocabulary is called “Fringe” vocabulary.

- Specific to a topic
- Frequently emphasized in academics
- Was traditionally emphasized in AAC practice
- Easier to picture (mostly nouns)
- Makes up approximately 20% of communication interactions
Sample Fringe

apple juice  coffee  coke
lemonade  milk  orange
pop  tea  water
When we talk about an iPad app as an AAC device...

- OUR GOALS ARE THE SAME!
- Assessment and feature matching are KEY to success when choosing a language system for a student.
With over 300 apps for communication....How do you decide?

Some stats about families and the iPad

- “iPads, Mobile Technologies, and Communication Applications: A Survey of Family Wants, Needs, and Preferences” (in prep), A. Meder

- 64 Survey respondents, parents of children with a communication related disability and who either were using a mobile device and AAC app (n=42) OR whose parents were considering the purchase of an iDevice and/or communication app (n=18)
Assessment/Funding

- 60% said their child hadn’t received an assessment
- 37% purchased out of pocket
- 15% received funding from a school district
- 7% insurance funded the device
- 5% other sources of funding
What influenced the purchase?

- 33% said ease of use
- 31% said affordability
- 17% chose multiple device functions
- 9% ranked durability
- 1% said screen size
Take a GULP (PraacticalAAC.org)

- **Ask:** What do I want this person to be able to do with this app?
- **Get:** a comprehensive list of AAC apps. Explore product videos on iTunes, YouTube or the vendor’s website.
- **Use:** a feature match approach to ensure a good fit between the app and the communicator.
- **Look:** at app reviews to get a sense of what others think and narrow down your options.
- **Play:** See if you can get a lite version to explore before you decide.
Assessment

- Who should be involved?
  - AAC User
  - Parents
  - Teachers
  - Speech Language Pathologists
  - Occupational Therapists
  - Physical Therapists
  - Vision Specialists
  - AAC Specialists
  - AT Specialists
What is feature matching?

- A process in which an AAC user’s strengths and needs (current and future) are evaluated and matched to specific features of AAC symbols, strategies and devices (Costello & Shane, 1994)

- Feature matching provides a framework for clinical decision making rather than making a recommendation based on media coverage, public testimony, personal thoughts, experience, or comfort level and well meaning friends and family (Stephanie Meehan, University of Kansas)
Some things to think about...

- Positioning and seating
  - Muscle Tone
  - Supportive Seating

- Motor capabilities and overall access abilities
  - Scanning vs. Direct select
  - # and size of targets

- Cognitive and linguistic capabilities
  - Communicative intent
  - Memory
  - Symbolic representation

- Literacy skills
  - Word Recognition, spelling and reading comprehension

- Sensory/Perceptual Skills
  - Visual acuity and field, light sensitivity, color perception
# A look at a feature matching chart

<table>
<thead>
<tr>
<th>App</th>
<th>Price*</th>
<th>Device</th>
<th>Typo</th>
<th>Speech</th>
<th>Symbols</th>
<th>Access</th>
<th>Prediction</th>
<th>Errors</th>
<th>Programming</th>
<th>Other</th>
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<td>X X X</td>
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Apps

- TapSpeak Sequence
- Pictello
- PODD
- LAMP Words For Life
- Proloquo2Go
- TouchChat
- Tobii Sono Flex
- Predictable
- HUNDREDS MORE!

For more apps visit www.janefarrall.com/aac-apps-lists/
TapSpeak Sequence

- $29.99 for Basic Version
- $49.99 for TapSpeak Sequence Plus (this version includes 4500 Dynavox/Mayer-Johnson PCS picture symbols)
- Used as a sequential message voice output device
  - Tell news, jokes, messages from home
  - Complete interviews
  - Participate in shared reading activities in the classroom (repeated text)
  - Participate in sequential tasks (getting ready for bed or making a sandwich)
Pros

- Unlimited number of messages
- Unlimited sequence length
- Unlimited recording length
- Can use a variety of visuals (button vs. Photographs/videos vs. symbols)
- Can include a timer in the sequence
- Tap response is configurable
- Can be used with switches
- Sample sequences are included
Cons

- No lite version
- No symbol set included in the basic version
- Limited use as a communication system
- Doesn’t provide tactile feedback like a hard switch would do
Pictello

- $19.99
- Create an slideshow with synthesized or recorded audio
- Social stories
- Sharing information
- Sequences for a task
- Telling a joke or reciprocal conversation
Pros

- Intuitive to use with “Wizard” mode
- Can save and export stories as a PDF
- Facebook User’s group has activities to download
- Can record student’s voice
- Can enter text with word prediction
- Playback options automatic and manual, switch
- Can highlight text as you go
Cons

- User must program all content
- Limited use as a communication device
- Only 1 picture per page
- No symbol set included
- No “lite” version (PowerPoint can do similar things)
PODD

- Pragmatically Organized Dynamic Display (Gayle Porter, Australia)
- Organized around pragmatic intent (i.e. Something’s wrong, chat, go somewhere)
- Designed as a low tech system for people with complex communication needs (CP); communication partner modeled language to match visuals
- Growing in popularity with other populations
PODD on SGD

- Available for intermediate language level (16-40) on Windows tablets
- Grid Player App from Sensory Software (free)
  - PODD grid not included but can be loaded for free if you purchase Grid 2 software for the computer
- Dynavox Compass software with PODD ($299.99)
Compass with PODD

- Pros
  - Uses PCS symbols
  - Editing software available on the computer
  - Developed by Gayle Porter who created the paper PODD
Compass with PODD

- Cons
  - Not a straight copy of the paper versions, but they do use similar patterns
  - Navigational pathways can be lengthy
  - Only available in 15 or 60 cells
  - Expensive
LAMP WFL

- $299.99
- 84 buttons available per page
  - Main page: 82 core words, 1 clear button, 1 spelling/numbers page button
- Motor plans can grow, but they never change
- Every word has a consistent and unique motor plan associated with it
LAMP WFL

- Three levels
  - 1\textsuperscript{st} Level: 84 One-hit - hit the button, get that word
  - 2\textsuperscript{nd} Level: 84 Transition - every word is accessible in 2 hits or less
  - 3\textsuperscript{rd} Level: 84 Full - access to 6000 words in 3 hits or less
LAMP WFL

- **Pros**
  - Very thoughtful in planning
    - No duplicate words
    - Vocabulary selection for each level is highly research based
  - Vocabulary builder tool to mask words that aren’t being targeted
  - Plenty of room to allow for fringe vocabulary to be added
  - Text on every icon
  - Word finder tool
  - Website has TONS of free tutorial videos, guides, information
LAMP WFL

- Cons
  - Only available in layout with 84 buttons
  - No lite version available
  - E-mail support is only support included with purchase
    - Can purchase a premium support plan for $125.00/year (telephone) or $50.00/year (live chat support)
  - Expensive
Proloquo2Go

- $249.99
- Full featured communication app that has recently updated to include Crescendo TM Vocabulary
  - 3 new vocabulary levels and 23 grid sizes ranging from 9-144 buttons on the screen
- Can be used on any iOS device, including the apple watch
Proloquo2Go

• Pros
  • Very customizable to different types of students, skill levels
  • Accessibility options (switch accessible, hold duration, repeated tap options, dimmed or hidden buttons)
  • Grammar support
  • Minimal re-customization as vocabulary grows - supports motor learning
  • Expressive power (pre-recorded expressions and sounds)
  • Word prediction in typing view
  • Share folders/users between devices
Proloquo2Go

Cons

- No Lite version
- No data collection feature
- Only access to Symbol Stix or Photos
- Technical support through e-mail or Facebook messaging
Touch Chat

- $149.99 / $299.99 with WordPower
- Lite version $9.99 for interface without sound
Pros

- Full-featured communication App
- Available on dedicated devices as well
- “Hide” mode for growing vocabulary
- Many vocabulary sets included
- Can play audio files through pushing a button
- Can take pictures while programming
- In app purchases available (voices, symbol sets)
- Can share user areas via the Cloud, Air Drop
- Instructional videos and tech support available
Cons

- Expensive with Word Power
- PCS not available
- Premium tech support charges a fee
Tobii Sonoflex

- $99.99
- Combines core and topic-based vocabulary and comes with 50 pre-made context vocabularies
- 32 buttons plus navigation window on iPad
- 20 buttons plus navigation window on iPhone
Pros

- Can easily change contexts for language use
- Pre-made conversation sets (frequent comments, questions, etc.)
- Good basic core and “core-like” categories on the home page
- Grammar support and history tracking
- Also available on the Android
Cons

- PCS Symbols not available
- Icons are laid out by priority and alphabetically - User may have to navigate through multiple pages to find words and may be difficult for someone without literacy skills
- No motor planning approach
- Difficult to customize
- No immediate voice output upon vocabulary selection
- Does not allow for scanning options
- Tech support through e-mail only
Predictable

- Text-based
- $159.99
- For iPhone and iPad
- Word prediction -
  - Learns user’s vocabulary
- Can use voice banking
- Save phrases or favorites
- Integrates with social media, YouTube, Dropbox
Predictable

- Features
  - Clean, visually appealing layout with customizable color schemes
  - Good ability to save frequently used messages
  - “Emote” feature (laugh, cough)
  - User Friendly
  - Hand writing feature
  - Several keyboards available (QWERTY, ABCDEF, and high frequency)
For More Info

- **Websites**
  - www.janefarrell.com
  - Spectronics.com
  - PrAACticalAAC (praacticalaac.org)
  - YouTube reviews and tutorials
  - Speechtechie.com

- **Apps**
  - AAC Ferret app helps with feature matching
  - AAC Genie
Other places to look for information

- Facebook
  - Practically speaking AAC
  - Practical AAC
  - Pictello Users Group
  - Proloquo2Go or Proloquo2Go Professionals
  - TouchChat App Users Group
  - Speak For Yourself Users Group

- Blogs
  - http://teachinglearnerswithmultipleneeds.blogspot.com/
Final Questions & Comments

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