

iCan Chat Project: Creating Meaningful Language Experiences through AAC for Children with Complex Communication Needs

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What do we know about autism and AAC?

- Approx. 50% do not develop speech or develop limited speech and language abilities (CDC, 2007)
- Does not prevent talking (Millar et al., 2006)
- Decreases challenging behaviors and improves communication skills (Ganz et al., 2012)
- Barriers to implementation (Granlund et al., 2008)



Are mobile devices (e.g., iPads) the answer?

- Highly desirable and socially acceptable
- Perhaps less stigmatizing
- Kagohara et al., (2013) Systematic review of 8 studies investigating the iPad as a speech generating device (SGD)- results positive for improving communication skills
- More research is needed investigating use of the iPad as a SGD.

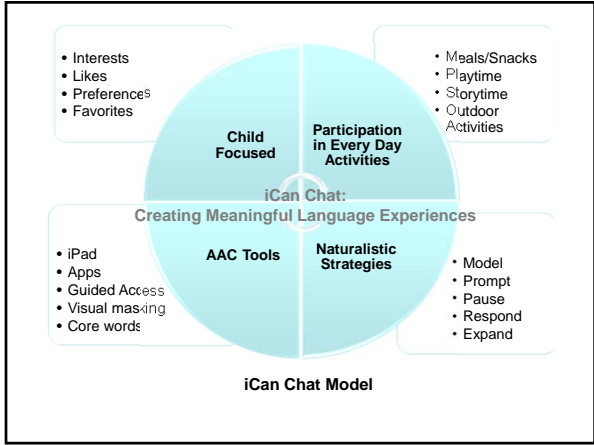


What did we do?

Brief Intervention utilizing

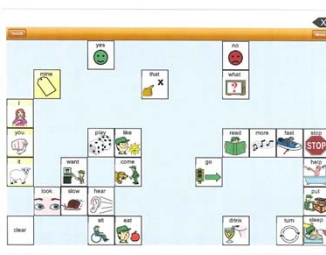
- **Interdisciplinary Team-** 3 Sessions with parents, child, bilingual SLP and parent coach (AT/MSEd)
- **Family-Centered Approach-** Intervention plans with parental input; parent coaching and training, high interest in iPad; borrow iPad to use at home, school, therapy
- **Cultural Sensitivity-** bi-lingual sessions. Reports translated in Spanish for Hispanic families.

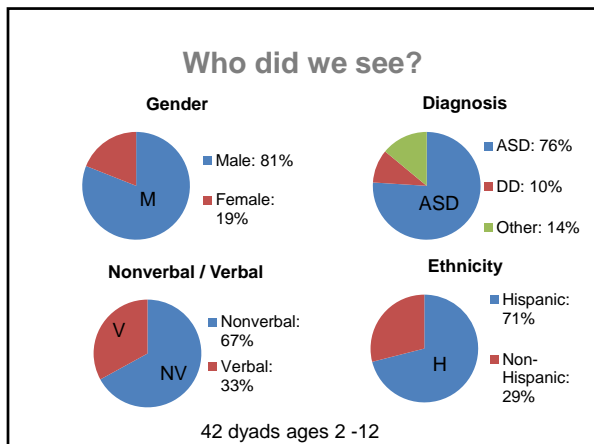




What words did we use?

- 27 Core Words (Banjee et al., 2003):
- High frequency
 - Relevant
 - Words used in multiple contexts
 - Range of communicative functions
 - Visual Masking to target words
 - Pattern vs symbol recognition





How did we measure change?

Communication Complexity Scale (Brady et al., 2012)

Pre-Intentional Communication

- 0- No response (no communicative behavior)
- 3- Single orientation + 1 potentially communicative behavior/PCB (reach, vocalizing, touching device, take hand)
- 5- Scanning (between objects) with or without PCB

Intentional Non-Symbolic Communication

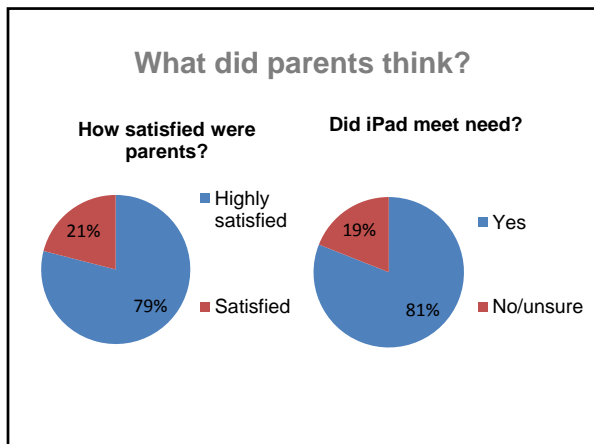
- 6- Dual orientation (shift focus between object and person)
- 7b- Dual orientation with 1 or more PCB

Intentional Symbolic Communication

- 10- One word verbalization, sign, or AAC symbol selection
- 11- Multiword verbalization, sign or AAC symbol selection

What happened?

- Child Outcomes
 - Improved joint attention
 - Increased initiation
 - Increased engagement
- Parent Outcomes:
 - "[He] was able to use it with ease."
 - "I like this program for my son"
 - "He interacted with others in the room..."
 - "...giving us hope that she will be able to 'talk'..."



What did we learn?

- AAC works but differently for different individuals
- Can work with any interests, in any environment
- Strategies/environment more important than device/app
- More research is needed- bilingualism and AAC
 - Parents Spanish only but child receives instruction and therapies in English



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What happened after 1 year?

Contacted 18 of 28 families
Significant majority using iPad
small % had no access
50% using across environments
50% school/therapy only
Benefits (portability, security, literacy, behavior)
Barriers (cost, distraction, technology too difficult)
Views on bilingualism (mixed)

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TalkBoard



- \$16.99
- Upload your own photos & record your own voice
- Ranges from 1-20 cells
- Branch boards to one another
- Can begin by focusing on core vocabulary (structure grid by using handout provided)
- Comes with video tutorials for each app feature
- "Back up & restore" feature
- Boards can be printed and easily shared with others

LAMP Words for Life



- \$299.99
- Most robust app
- Ideal for communication throughout user's lifetime
- Fantastic for language development
- Includes 3000+ words and allows for creating personalized boards
- Vocabulary builder: hides words to limit distractions
- Word finder: allows user to search for words on different pages

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