iPad for Communication: A Case Study of iPad App Training for the Development of Independent Communication

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The real power of this technology
ICI Research Team

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Turn and Talk: How/Why might the iPad be helpful in supporting communication and inclusion for people with autism?
Benefits of the iPad for Individuals with AAC needs

• Portability
• Size
• Price
• Visual Based
• Multi-use technology
• Flexibility
• “Cool factor”
• New apps all the time
• Motivation!!
What role is the ipad playing here?

What is the potential challenge for moving forward?
Don’t confuse keeping busy or looking engaged with communication and/or academic access. The iPad is only a tool - you have to know how to use it...
Research Questions

• How can the iPad be used to help individuals who type to communicate develop greater communicative independence?
• What apps and strategies are most useful for developing and practicing communication skills?
• How can we help people apply the skills they develop in non-communicative apps to open-ended communication?
Project Overview

• 9 participants, children to adults
• Videotaped bi-weekly sessions with a Master Trainer
• Introduce and practice apps to work toward established goals
• Set practice goals for the days between sessions
• Pre and post interviews
Participants were instructed to submit practice logs for each time they worked with the apps outside of training sessions.
App selection process

- Identifying individual goals
- Selecting apps related to skill-based goals
- Incorporating practice into typing sessions
Ultimate Goal...

Open-Ended Communication

Focus

Rhythm

Sensory Regulation

Eye Gaze and tracking

Discrete words

Sentences

Completion

Sequencing

Initiation
Focus on the Process

NOT

Not the Message
The Apps

2 Pics One Word
2 Pics One Phrase
Abilipad
Art Apart
Bitsboard
Color Dots
Counting Dots
Dot Connector
Dot Collector
Eye Movement Training
Fireworks Arcade
Flow Free

Guess the Phrase
Jigsaw Puzzle
Petting Zoo
Photo Touch Zoo
Rain Dots
Spelling Zap
Take It Easy
Word Association
Words Challenge
Word to Word
Word Wall
A Few Illustrative Examples...
Participant A

• Level of support: upper arm / elbow

• Session goals
  – Reducing physical supports; increasing independence
  – Practicing anticipation
  – Sequencing
  – Focusing
Participant A

• “I DO NOT SEE THEM [words] AS PICTURES AND YET NOT AS INDIVIDUAL LETTERS BUT AS A BLOCK OF LETTERS. ...BEFORE I JUST EXPLAINED I SAW WORD AS HARD TO BREAK THIS DOWN THEY WERE STILL IN BLOCKS BUT I SCANNED THE BLOCKS AND NOT REALLY FOCUSED AS I AM NOW LEARNING. ... WORKING ON INDEPENDENCE IS GIVING MY THOUGHT PROCESS TO SEE LETTERS.”
Participant B

• Level of support: elbow, shoulders, no touch

• Session goals
  – Reducing physical supports; increasing independence
  – Increasing eye/hand coordination (speed)
  – Improving Visual tracking
Participant B

• T (Trainer): You’re making small gains. It said in your notes.
• B (Participant B): THE EYE TRACKING
• T: What about the eye tracking?
• B: IT HELPS CONTACT THE EYES.
• T: Tell me what that means to you.
• B: IT KIND OF HELPS TRACK THE EYES.
• T: Are your eyes working better?
• B: YES THEY ARE WORKING BETTER.
• T: I heard from your mom - when you move your eyes, you also move your head - are you aware of that?
• B: YES I AM AWARE.
Participant C

• Level of support: elbow, shoulders, no touch

• Session goals
  – Reducing physical supports; increasing independence
  – Decreasing impulsivity
  – Increasing intentional movement
Preliminary Findings

• Sometimes a game is not just a game
  • The importance of relevancy and challenge
  • Individual vs. Collaborative games

• Great Expectations

• The Role of Practice
Sometimes a game is not just a game

- Individual vs. collaborative games
  - “Both, depending on the mood”
  - “I like playing by myself because I like the challenge of creating focus”
  - “I want to play by myself”
  - “By myself, high stress to play with noisy and loud people
  - “play by myself”
  - “by myself, I love being independent, no help”
Importance of Relevancy & Challenge

• “I love playing challenging games. Yes, that is my choice”
• “Needs to be something to really focus on.”
• “yes I need a challenge.”
• “I vitally connect with the challenge. Developing the process of the movement.”
• “I don’t get much out of things that come easy.”
• “Challenging is ok. Not too fun if it’s easy.”
Great Expectations?

• T: “After the study will you keep practicing”
• P: “Yes I think 3 times a week.”
• T: “Who will you practice with?”
• P: “Mom only. Didn’t want others to see me failing.”
The Role of Practice

• “The role of practicing was the most important part for me” (Rick)

• Re-framing communication as a skill to be practiced
  • Body organization
  • Motor control
  • Visual tracking
  • Focus
  • Accuracy
  • Rhythm
Useful Apps for People Who Type
Questions and Feedback?
Thank you!

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