SUPPORTING INDIVIDUALS WITHAPHASIA LEARNING TO USE HIGH TECHAAC SYSTEMS

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DISCLOSURES

• I am paid an annual salary by the University of Kansas
• KSHA provided one night of lodging for me at this conference
• KSHA provided a small stipend for each presentation at this convention
• I have no other disclosures to provide
Individuals with dysarthria (without cognitive or linguistic difficulty)

Individuals with aphasia

Individuals with cognitive communication disorder
BARRIERS

- Funding for intervention
- Funding for repairs
- Partner training is a long-term investment
- Staff turnover
- Time
- Knowledge of language and language learning with aphasia
- Comfort with technology
- Resources
- Relationship dynamics
- Expectations
- Commitment
- Perception of being different
- Psychosocial aspects
- Learned communicative passivity
- Depression and anxiety
- Knowledge
- Time
- Resources
- Expectations
- Communication
- Flexibility

Professional Based Barriers

Consumer Based Barriers

System Barriers

Communication

Partner Based Variables
• “Every person, regardless of the severity of his/her disabilities has the right....to communicate with others, express everyday preferences and exercise at least some control over his or her daily life. Each individual, therefor, should be given the chance, training, technology, respect and encouragement to do so”

Bob Williams, former U.S. Deputy Assistant Secretary and an AAC user.

Taken from the Vermont Communication Resource Guide (2002)
• How comfortable are you working with high tech AAC systems with people with aphasia?
• What makes/made you comfortable?
• What makes/made you uncomfortable?
CLINICIAN VARIABLES

Collaborative Knowledge base
Flexible thinking and problem solving
Hardware
Software
Concepts of aphasia
Concepts of motor learning
Adult learning/communication partner training
• Emergent
• Context dependent
• Independent

• Level of communicator will guide how you set up the system and teach use of it. It also determines the length of an intervention program and the format.
EMERGENT

Does not have a **reliable** method of **expressive** communication through **symbolic language**.

They may use non-symbolic gestures

Trials with AAC strategies and devices may be happening but performance is inconsistent.
Has **symbolic communication** that is **reliable** but is limited to particular **contexts** or **partners**.

Use of AAC techniques with vocabulary chosen by others or

AAC strategies that are effective only with familiar persons
The ability to communicate anything on any topic to anyone in any context.
KEYS TO SUCCESS

- Education for communication partners and PWA (ongoing)
- Individualization of the system (ongoing)
- Individualization and integration of teaching strategies and techniques and use in natural interactions
EDUCATION FOR PERSON WITH APHASIA AND COMMUNICATION PARTNER/S
EDUCATIONAL COMPONENTS

- Life Participation with AAC/SGD
- Teaching Strategies and Facilitation
- AAC/SGD System
- Aphasia and AAC/SGD
- Roles and Expectations
COMPONENTS OF A PARTNER TRAINING PROGRAM/COLLABORATIVE INTERVENTION PROGRAM

**Education**
- Aphasia
- Intended use
- Contexts
- Independence
- Purposefulness long term

**Device**
- Hardware
- Software Set up
  - Dynamic
  - Functional
  - Individualize

**Role of Communication Partner**
- Knowledge of user system
- Collaborating with user set up
- Facilitation and purpose of strategies
- Creating opportunities for use
EXPECTATIONS

Outcomes
- How will the system be used?
- When will the system be used?
- What is the purpose of the system?
- Why?

Level of Involvement
- PWA
- Communication Partner
- SLP

Time Line – This is a journey, not an event
- Process
- For the Duration
FOCUS ON PARTICIPATION

- Set up of device
- Messages and vocabulary
- Teaching within activities
- Context/location (home, community, important events)
## Participation

<table>
<thead>
<tr>
<th>Pre-Aphasia Participation and Activities</th>
<th>Current Participation and Activities</th>
<th>Goal for Participation and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work as a clinical educator at a University</td>
<td></td>
<td>Share my story with students and professionals</td>
</tr>
<tr>
<td>Walk each evening</td>
<td></td>
<td>Walk each day and if in wheelchair have longer rolls</td>
</tr>
<tr>
<td>Cook a few meals a week but enjoy cooking new recipes</td>
<td></td>
<td>Cook one new recipe a week</td>
</tr>
<tr>
<td>Attend church on Sunday’s and run the sound board</td>
<td></td>
<td>Attend church on Sundays and join a Bible study</td>
</tr>
<tr>
<td>Talk with daughters on the phone - 5 times a week</td>
<td></td>
<td>Talk with daughters by face time several times a week</td>
</tr>
<tr>
<td>Listen to audio books (thrillers)</td>
<td></td>
<td>Attend therapy</td>
</tr>
<tr>
<td>Watch sports and a few shows on TV</td>
<td>Watch TV</td>
<td>Watch sports and a few shows</td>
</tr>
</tbody>
</table>
EIGHT SUGGESTED STAGES OF PARTNER INSTRUCTION
(KENT-WALSH & MCNAUGHTON(2005))

1. Pretest and Commitment to Instructional Program
2. Strategy Description
3. Strategy Demonstration
4. Verbal Practice of Strategy Steps
5. Controlled Practice and Feedback
6. Advanced Practice and Feedback
7. Posttest and commitment to long-term strategy use
8. Generalization of Targeted Strategy Use
WHAT DOES PARTNER EDUCATION LOOK LIKE IN AN INTERVENTION SESSION

- Intervention Protocol
  - Review of concerns/issues/successes (hardware and software)
  - Changes to pages or user layout based on above
  - Education and review of concepts
  - Education, modeling, and demonstration of use facilitation strategies
  - Brainstorm changes
  - Identify questions or concerns
PROVIDING ONGOING SUPPORT/RESOURCES

- Video’s
- Visual instructions
- Intervention groups and communication opportunities
- Maximize learning opportunities in sessions and communication exchanges
- Tech support
- Online resource
INDIVIDUALIZING THE USER
CONCEPTS FOR CREATING THE USER PAGES

What do they want to communicate – prioritize availability of this

Talk like they talked

Using the device is a process not an event

Use is not a test

Understand how they sort, categorize, and think about language and build on what they have in this area
INDIVIDUALIZATION OF SYSTEM

• User
  • Layout
  • Pre-programmed content
• Organization
  • Pages
  • Icons on the page
• Home page and easy links
  • Topics
  • Pages
  • Words

• Visuals
  • Photo’s
    • Object or action
    • In context
  • Icon’s
  • Text
• Actions
  • Auditory
  • Visual
  • Respond with an action (link)
B’S USER

- Photo’s and icon’s paired with single word text most helpful
- Limited semantic organization
- Strong desire to communicate
- Participation Focus
- Topics of interest include: travel, farming, family, music and Lawrence
- System: NOVA Chat 8 ‘Tabby’ with a 20 button grid
- Changes over time
- Context Dependent Communicator
- Interests: geography, culture, people, music, farming
G’S USER

- NOVA Chat Communication Journey Aphasia as a template
- High contrast icons, bolded text, photo’s
- Direct access triggered on release
- Consistent location when possible
- Fewer buttons spread out but same grid
- Binary choices if needed
- Emergent Communicator
- Interests: TV, sports, calling/face timing with friends and family, joking with people
P’S USER

• Compass App on ipad – Stroke and Brain Injury Persona
• Home page is Quick Phrases
• Two primary pages on the user
  • Quick Phrases
  • Photo Album or Stories
• Started with Topics but needed to simplify
• Photo’s in context
• Written word or phrase
• Emergent Communicator
• Interests: history, Lawrence, Germany, political hearings
B’S USER

- T10 using Compass Brain Injury and Stroke Persona
- Pages targeting specific needs
- Communicated primarily with family (almost exclusively)
- Icons and photo’s with text
TEACHING STRATEGIES
TEACHING STRATEGIES AND CONCEPTS

Prepare for, focus on and practice natural interactions in a variety of contexts

- Modeling
- Aided Input
- Self Talk

Maximize use of motor memory

- Repetition
  - In context
  - Across context
MODELING

• The clinician models use in tasks and with functional use. Leveling the playing field by using the same language system as they use.

• You yourself use the AAC system to communicate so they can see how you navigate to specific information.

• You can pair this with **self-talk** to identify how you made the navigation choices.

• After you model the expectation is that they complete the sequence of touches but they may require support or then use aided input.

• Link to a great description of modeling.

  • [https://www.youtube.com/watch?v=VppaSuAF0f4](https://www.youtube.com/watch?v=VppaSuAF0f4)
AIDED INPUT

- This is modeling with expansion using the device. Take what they give you and add a bit more.
- Pairing the language or message on the device when communicating a message.
  - You might model use by saying “I am really hungry” while navigating to the dinner page. “My husband is making dinner tonight and I hope he makes…” while navigating to the dinner item page and touching the buttons so the device says ‘steak, asparagus, sweet potatoes’.
  - You can than navigate back to the main page, and point to and activate ‘dinner’ and say, ‘what do you want for dinner?’.

- Link to someone using aided input with an adult (but not acquired)
  - [https://www.youtube.com/playlist?list=PL9yzF58nGHOJ2yBLFud8PSynsb91Hwf2](https://www.youtube.com/playlist?list=PL9yzF58nGHOJ2yBLFud8PSynsb91Hwf2)
SELF TALK/THINKING OUT LOUD

- Pair with modeling and aided input as appropriate
- ‘I’m looking for the Target. Target is a place (touching places) and is a type of store (touching store). I recognize the big target symbol – target”
- You can use this type of narration even if you aren’t sure where something is....you can demonstrate your thought process and acknowledge its wrong and go back and talk through a different route.
Create map with icons of the pathway for a message.

- Different level of support
- Allows practice at home for some
- A good method to work on motor memory
- Allows you to focus on functional use and let the motor memory practice to happen at some level outside of intervention
- Helps partners learn the routes as well
AUGMENT TRADITIONAL INTERVENTION WITH DEVICE

Word finding/naming
Spelling/graphic modality
Descriptive tasks
HOME USE AND PRACTICE

- Icon map practice
- Finding a message or icon (with or without maps)
- Verbal practice of words or phrases in device
- Copying of words in text
- Categorization
RESOURCES

• Forbes www.forbesaac.com
• LC Technologies http://www.eyegaze.com/tag/eyegaze-edge/
• Lingraphica www.aphasia.com
• Prentke-Romich www.prentrom.com
• Saltillo www.saltillo.com
• Tobii-Dynavox www.tobiidynavox.com
• Vicki Clarke http://praacticalaac.org/praactical/aac-assessment-corner-by-vicki-clarke-procedural-resources/
• University of Washington Augcomm Home
  • http://depts.washington.edu/augcomm/03_cimodel/comind1_intro.htm
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