Communicating Post Stroke - Using Technology in a Multi-Modal System

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Learning Objectives
- Participants will describe how to collect vocabulary ideas for their clients with aphasia.
- Participants will identify 3 ways to organize the page set, by changing the grid size, choosing buttons and pages for the home page, and adding pertinent vocabulary.
- Participants will identify the need for vocabulary collection in order to provide the customization that is essential for any AAC system to be truly functional.
- Participants will identify the components required to design a communication system for their client using this page set.
- Participants will identify the pages of vocabulary available in the Communication Journey: Aphasia page set.

What is Aphasia?
Aphasia is an acquired communication disorder that impairs a person’s ability to process language, but does not necessarily affect intelligence (National Aphasia Association, www.aphasia.org)

What works best?
Many different models for identifying and teaching supportive strategies
- Many different types of support available
- Electronic and non-electronic options

Tablets
- Dominate the North American Consumer market
- They are part of everyday life for many people

Where are we?
CAYA is a provincial program in BC that supports adults who use AAC strategies
We use TouchChat for symbol-based communication systems
We created a page set that would work for our clients, using a TouchChat vocabulary set and making generic modifications

Vancouver
Creating the Pages
- Gathered vocabulary and architectural ideas from SLPs who work exclusively with people with severe aphasia.
- Followed the core values from the Life Participation Approach to Aphasia.
- Expected the pages to be part of a multi-modal communication system.

Life Participation Approach to Aphasia
- Core Values
  - Enhancement of life participation
  - Service for everyone affected by aphasia
  - Service at all stages and for all degrees
  - Documented outcome measures
  - Consider personal and environmental factors
  - http://www.aphasia.ca

Grids vs Visual Scenes
- Our population is severely impaired
  - Having all topics available on all pages was too much, visually and linguistically
  - SLPs wanted to be able to quickly simplify/modify pages for their clients
  - We were initially extensively revising MultiChat for clients and realized that a grid was the format that worked best for us
  - We did not want to keep “reinventing the wheel” for each client that we saw.

Page Set Features
- Can be used by people with different
  - Types of aphasia
  - Degrees of severity
  - Range of cognitive issues
- Can be used to enhance understanding of spoken language

Page Set Options
- Symbols
- Pictures
- Words
- Visual scenes
- Life stories
- Maps
- Schedules
- Scales

Page Set Features
- Options to personalize
  - Messages
  - Topic setters
  - Scripts for
    - Narratives
    - Social interactions
    - Self-Advocacy
    - Directing Care
    - Repairing breakdowns
Supported Conversation

- Communication is a two way process
- The conversation partner will take more of the communicative responsibility

Supported Conversation

- Four modalities
  - Comprehension
  - Expression
  - Reading
  - Writing
- Aids input for people with fluent aphasia
  - Ex. You left your sweater on your bed (say: where you sleep, show: picture of a bed)
- Aids output for non-fluent aphasia
  - Ex. “go, go” - picture of daughter, flyer from store = shopping with Kelsey

Communication Ramps

- Tools that allow a communication partner to support the person with aphasia
  - Supported conversation
  - Visual scene displays
  - Schedules, maps, clocks
  - Written supports
  - Picture and symbol displays

Ways to use the Page Set

- Primarily for face-to-face communication
- Secondarily can be used for practice
- As a person recovers, they may choose to practice in order to regain speech
  - Which they may or may not achieve
- Settings - “pause between words” and “rate”
- Strategies - videos of a talking mouth

[Links]

- [http://www.aphasia.ca/home-page/health-care-professionals/knowledge-exchange/]
- [http://www.aphasia.ca/home-page/health-care-professionals/knowledge-exchange/self-directed-eca-module/]
- [https://www.youtube.com/watch?v=KWVqoM9y6EM]
“Pause Between Words”
- People with aphasia want to speak!
  - Due to concomitant apraxia, they cannot speak quickly so need time in between words
  - This feature slows the speech without distorting the pronunciation
  - For practice, not communication

Videos for Speech Practice
- Insert videos of words or phrases
- Client can attempt to repeat after watching the video
- For practice, not communication

Whiteboard
- NOWchat: can link to a white board app
- iPad: must close TouchChat and open a white board app
  - In both platforms you must download a white board app
  - Uses:
    - Aided language input
      - Communication partner can draw or write while talking with person with fluent aphasia
    - Output
      - Draw or write first letters or attempt spelling

Communication Journey: Aphasia - Main Page

Importance of Customizing
- Every app must be customized
  - Every person has unique abilities
  - Life experiences
  - Needs

Learn about your Client
- Functional assessment:
  - Gathering information regarding the individual
    - Language comprehension
    - Language expression
    - Reading and spelling
    - Gestures, drawing
    - Vision, hearing and physical capabilities
  - Gathering information regarding the environment
    - Where they will communicate
    - With whom they will communicate
    - What they are interested about communicating

(we had really great pictures here, but couldn’t use them due to copyright issues...)
Decide on the best communication system

- Identify:
  - Supported communication techniques
  - Residual language abilities
  - Non-tech approaches (gesture, pointing, looking)
  - Lite-tech approaches (book, board, schedule)
  - Electronic equipment potential


Case Study 1: Betsy

- 68 yrs, married, one son
- Owned a business, many friends
- Severe expressive & receptive aphasia
- Still in hospital

Betsy’s Main page

Betsy - simplify the Main page

Betsy - Photo Album page

Betsy - Timeline page
Case Study 2: Dan

- 46 yrs, divorced, no children, systems analyst
- Expressive aphasia from stroke five years ago
- Lives on his own
Case Studies - Conclusions

- Each page set was customized to help each individual achieve communication goals
- Each page set will have a learning curve
- Each page set should continue to grow

References

- National Aphasia Association, [www.aphasia.org](http://www.aphasia.org)
- [www.assistive-technology.ca](http://www.assistive-technology.ca)
- [www.cayabc.org](http://www.cayabc.org)

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