

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

- ▶ Lois Turner, [lturner@cayabc.org](mailto:lturner@cayabc.org)
- ▶ Anne MacCallum, [annemaccallum@gmail.com](mailto:annemaccallum@gmail.com)

ASHA webinar October 10, 2017

## 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](http://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



## 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/>

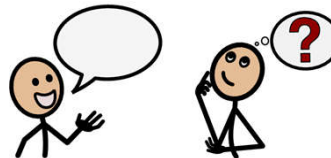


## Grids vs Visual Scenes

- ▶ 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 Features

- ▶ Options to personalize
  - ▶ Messages
  - ▶ Topic setters
  - ▶ Scripts for
    - ▶ Narratives
    - ▶ Social interactions
    - ▶ Self-Advocacy
    - ▶ Directing Care
    - ▶ Repairing breakdowns



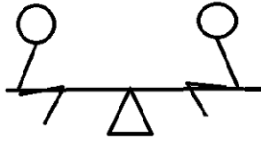
## Page Set Options

- ▶ Symbols
- ▶ Pictures
- ▶ Words
- ▶ Visual scenes
- ▶ Life stories
- ▶ Maps
- ▶ Schedules
- ▶ Scales



## Supported Conversation

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



## Supported Conversation

- ▶ <http://www.aphasia.ca/home-page/health-care-professionals/knowledge-exchange/>
- ▶ <http://www.aphasia.ca/home-page/health-care-professionals/knowledge-exchange/self-directed-sca-module/>
- ▶ <https://www.youtube.com/watch?v=KWVogM9jmEM>

## 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)

## Supported Conversation

- ▶ Four modalities
  - ▶ Comprehension
  - ▶ Expression
  - ▶ Reading
  - ▶ Writing
- ▶ 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
- ▶ Secondly 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

## “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

- ▶ NOVachat - 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
- ▶ (we had really great pictures here, but couldn't use them due to copyright issues...)

## 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
- ▶ <https://salttillo.com/downloads/Salttillo-Client-Information-Form.docx>

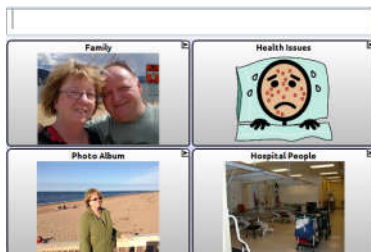
## Decide on the best communication system

- ▶ Identify:
  - ▶ Supported communication techniques
  - ▶ Residual language abilities
  - ▶ Non-tech approaches (gesture, pointing, looking)
  - ▶ Lite-tech approaches (book, board, schedule)
  - ▶ Electronic equipment potential
- ▶ For guidance, see [http://www.cayabc.org/wp-content/uploads/2014/03/AAC\\_Aphasia\\_CAYA.pdf](http://www.cayabc.org/wp-content/uploads/2014/03/AAC_Aphasia_CAYA.pdf)

## Case Study 1: Betsy

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

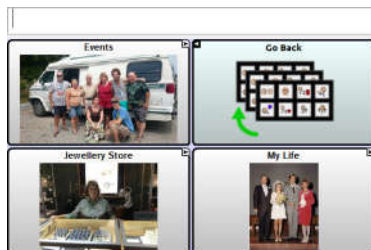
## Betsy's Main page



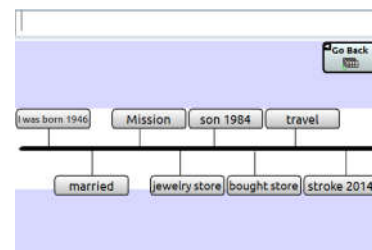
## Betsy - simplify the Main page



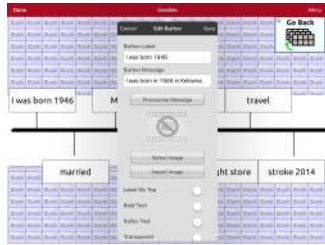
## Betsy - Photo Album page



## Betsy - Timeline page



## Betsy - edit the Timeline page



## Case Study 2: Dan

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

## Dan - Main page



## Dan - Activities page



## Dan - Maps pages

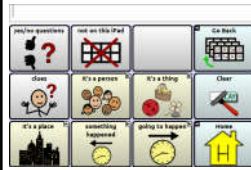


## Dan - edit the Maps pages





## Dan - I'm Stuck pages



## Dan - Strategies page



## 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)
- ▶ Life Participation Approach to Aphasia <http://www.aphasia.ca/research-projects/life-participation-approach-to-aphasia-lpaa/>
- ▶ TouchChat <http://touchchatapp.com/>

- ▶ [www.assistive-technology.ca](http://www.assistive-technology.ca)
- ▶ [www.cayabc.org](http://www.cayabc.org)

SymbolStix®, Copyright 2017, SymbolStix, LLC.  
All rights reserved. Used with permission

Thank you for attending!