REVIEW OF: Visual Scene Displays (VSD): New AAC Interfaces for Persons with Aphasia

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Background Information

Often individuals with chronic aphasia will need to supplement natural speech and language capabilities with a form of augmentative or alternative communication (AAC). AAC may range from low technology forms (communication books, pen/paper) to high technology such as a speech generating device. Review of the literature suggests that many individuals with severe or chronic aphasia may be limited in using AAC strategies secondary to the symbolic representation or navigational process within a system. Specifically, the language impairment limits the ability to understand a printed message or icon, combining words into messages, or locate specific information in a book. Visuo-spacial capability is typically preserved in individuals with severe aphasia.

Purpose of the Article

This article describes a new communication device interface designed for people with severe aphasia or apraxia. The Visual Scene Display (VSD) interface features contextually rich visual images to represent meaning and support navigation between topics.

Key Findings

- A visual scene is described as a picture, photograph or virtual environment representing a situation (grocery shopping), place (library) or experience (grandson's baseball game).
- The VSD provides visual-contextual support to facilitate navigation of a dynamic display AAC system in order to successfully communicate messages.
- The scene provides both the person with aphasia (PWA) and their communication partner with:
  - A framework or context for conversation because it provides an illustration of an entire situation, place or experience in its entirety (trip to aquarium) rather than an isolated image (fish).
  - A way to co-construct meaning from a picture whose elements and semantic associations are tied together rather than guessing with yes/no questions.
  - Opportunities for multiple communication exchanges (comment, ask questions) rather than one turn and the ability to pair the interaction with multiple modes of communication (voice, facial expression, gesture).

Application of Key Findings in DynaVox Compass™

- **Navigation Bar:** The Navigation Bar is always visible for the PWA to change topics with ease. There is access to all topics in single layer navigation.
- **Visual Scenes/Topics and Topic Messages:** Clear, contextualized visual scenes are used to support successful communication. The Topic Messages are provided in scripted or individual messages that can be produced at will. Any of these may be used to trigger speech, clarify speech or to access related messages to speak.
- **PCS™ Symbols:** Contextual symbols have been included in the DynaVox Compass™ symbol library. These symbols provide detailed content or background to encourage understanding of the actual intent of the message rather than only one key word of it. For example, "I'm going to bed" shows a person walking into a bedroom with a bed visible. It shows a person performing the action of the intended message rather than just an icon of a bed on the button.
- **Personalization:** Individuals have the ability to easily replace our provided Topic images with personal ones as well as create and/or edit Topic Messages.

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