

## REVIEW OF: Drawing in Aphasia: Moving Toward the Interactive By: Sacchett, C.\*

### Background Information

- Most persons with aphasia (PWA) will have some degree and variation of impairment in speaking, understanding, reading and writing.
- Drawing may be beneficial for PWA because visual or graphic forms are typically preserved in individuals with severe aphasia. Drawing does not require the ability to understand a printed message or process random symbols or icons. Additionally, drawing provides a visible, concrete, and workable record of conversational exchanges that can be modified by both the PWA and the communication partner in context.
- Therapists have two different perspectives on how to use drawing for communication. Each view subsequently plays a role in how clinicians may approach aphasia rehabilitation.
  - **Drawing as a substitute for language** - the PWA must produce recognizable “messages.” The focus of therapy would emphasize improving the quality of the drawings to increase understanding of the message or “content unit.”
  - **Drawing as an augmentative tool** – the PWA uses drawings to enhance the exchange of messages or ideas in context. The focus of therapy is on the social interaction drawing brings to the conversation between the PWA and the communication partner.
- Specific treatment programs such as Back to the Drawing Board (BDB) or Response Elaboration Training (RET) focus on developing the clarity and quality of the drawing as a substitute for language. Although these programs show improvement in the “recognizability” of the drawn image, the number of “content units,” and the ability to convey complex concepts, the measure of success is quantitative rather than qualitative. For example, therapy was successful if the PWA increased the number of drawings recognized by an unfamiliar person. A qualitative measure would emphasize the communicative value of the exchange of information and ideas within an interaction, such as how successfully the communication partner understood the information. Additionally, this approach puts the burden of the communicative act specifically on the PWA.

### Purpose of the Chapter

This article reviews literature on the use of drawing to communicate by persons with aphasia either as a substitute for language or as an augmentative tool. In addition, it highlights the current trend or shift in aphasia rehabilitation from the former, “purely communicative drawing” to the latter, more “interactive drawing.” It describes the benefits of interactive drawing, reviews intervention strategies and discusses the potential of current technology to support interactive drawing for individuals whose verbal communication is severely limited by aphasia.

### Key Findings

- Recent shifts in aphasia therapy regard “communication as a shared responsibility,” “an opportunity for mutually satisfying encounters” and emphasize “enabling others to reveal and acknowledge the competence” of the PWA.
- Competence includes both **transactional** (how to get the message across) and **interactional** (social function of relating to other people) functions of communication. Effective communicative drawing would need to incorporate both transactional and interactional aspects of communication.
- To increase the communicative value of drawings, recent studies suggest that aphasia intervention might include teaching both the PWA and their communication partners the following:
  - To refine fundamental drawing skills, such as spatial orientation, focusing on interacting with the drawing more effectively rather than simply producing better pictures.
  - To draw more “economically” using only “communicatively relevant details” to convey the main idea or intended message.
  - To learn to select only “communicatively significant elements” of events separately (e.g., the guitar rather than the whole band on stage) when attempting to convey information that is more complex or requires more details or further explanation.
  - To practice drawing within a more “natural” communicative context (i.e., conversation) and demonstrate the “usefulness of drawing in communication by doing it oneself.”

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- To train communication partners with facilitative techniques to help extract content from the drawings via structured observations, modeling, feedback, and direct participation in the session.
- Portable and accessible computerized tools increase opportunities to support interactive drawing by allowing the PWA to draw freehand on a tablet computer using their non-preferred hand, and the ability to store and retrieve previous drawings. Additionally this option would allow both the PWA and communication partner to draw on the same screen interactively in a shared communication space.
- **Five main principles of interactive drawing** are summarized as follows:
  1. "The quality of the drawings produced is less important than their communicative value.
  2. The focus is on participation in natural, mutually satisfying exchanges (interaction) rather than just getting the message across (transaction).
  3. Both participants play an equal role in promoting the success of the exchange.
  4. Drawing is used as a part of multi-modal communication approach.
  5. Interactive drawing always takes place within a communicative context, usually conversational" (p. 274).

### Application of Key Findings in DynaVox Compass™

- **Whiteboard** – The Whiteboard is one of the easily accessible communicative tools within DynaVox Compass™. Integrated with other communication tools, it supports all of the main principles of interactive drawing summarized above. The Whiteboard provides a shared communication space for both the PWA and the communication partner to increase their participation in, and understanding of, the conversational topic through interactive drawing. It also allows drawings to be stored for use in future conversations.

To support the use of the Whiteboard for interactive drawing and other functions\*, informational videos and therapy plans are provided.

\*For more information about how the Whiteboard can be used for augmented input and written choice, refer to Garret, K. & Lasker, J. (2007). AAC and severe aphasia--Enhancing communication across the continuum of recovery, *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, 17, 6-15.

\*Sacchetti, C. (2002) Drawing in aphasia: moving toward the interactive. *International Journal of Human-Computer Studies*, 57, 263-277.