



The Center for Literacy and Disability Studies

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Attitudes Toward AAC Users

An NIH Funded Research Project

Features of the AAC devices we select for children can affect perceptions about AAC and influence the attitudes that others hold regarding a child's potential. A device's appearance, its voice quality, its size, and the specific content of messages all have the potential to influence perceptions and attitudes. In this NIH-funded study, the Center for Literacy and Disability Studies, under the direction of Karen Erickson, investigated the influence device features have on perceptions and attitudes.

Three groups of individuals were recruited to participate in this study: children without disabilities ages 6-9; pre-service speech and language pathologists; and highly experienced AAC clinicians. The three groups of participants watched videos of a young boy using the tango! and another AAC device to interact with an adult communication partner. In the videos, the camera was positioned behind the boy, so that viewers could see his hands as he selected messages on the device but not his face. The focus was intentionally placed on the device rather than the child.

After viewing the videos in a counterbalanced order, participants completed an adapted version of the *Assessment of Attitudes Toward Augmentative/Alternative Communication* (AATAAC, Beck, Fritz, Keller, & Dennis, 2000) and engaged in focus group interviews. Analysis of the adult responses to the assessment revealed significantly more positive attitudes toward AAC and more positive perceptions of interactions with the tango! In the focus groups, the adults reported the following impressions:

- The boy was more interested and engaged in the interaction when he was using the tango!
- The boy sought more clarification and was more interested in understanding what the clinician was saying when he was using the tango!
- The phrases on the tango! allowed the boy to initiate conversation, quickly ask questions, and make comments.
- The boy seemed to be more of an equal partner in the conversation when using the tango!
- The boy is more likely to develop positive relationships with other children when he uses the tango!

In this investigation, it was clear that the features of the tango! and the way in which the boy used it, had a positive impact on attitudes and perceptions.



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Learning the tango!
 An NIH Funded Research Project

The goal of this study was to understand the relative ease of learning to communicate using the tango! versus the DV4 with Gateway© 40. Each is designed to promote efficient and effective communication, and both are described as easy to learn. Funded by an NIH-supported subcontract, the Center for Literacy and Disability Studies, under the direction of Dr. Karen Erickson, investigated the ease of learning of the two in the context of game playing.

Nine typically developing children, ages 6 to 9 were randomly assigned to one of the two devices. The children then participated in four, 20-minute teaching sessions followed by one generalization session. During the teaching sessions, a skilled AAC clinician taught the children to use their assigned AAC devices while playing commercially available board games (e.g., Sorry, Trouble). The interactions were not scripted and specific exchanges were not intentionally rehearsed. Instead, the clinician modeled the use of the device and encouraged the child to use the device to communicate specific information about the game (e.g., “It’s your turn.”), as well as general comments (e.g., “I like this.”) and questions (e.g., “Why?”). For the generalization session, another AAC clinician who was unfamiliar with the specific utterances the first clinician modeled and supported played games with each child while the child used the device to communicate.

Analysis of the transcripts of generalization sessions reveals differences between the two devices on several quantitative measures. For example, children using the tango! produced two times as many utterances per minute. Children using the tango! initiated interactions twice as often as the children using the DV4 with Gateway© 40 and they responded to more than twice the number of direct questions posed by the clinician. Furthermore, the children using the tango! used a broader array of word types and resorted to spelling half as often as the other group.

The results of this investigation provide important insight regarding the efficiency of the phrase-first organization of the tango! Children without disabilities were able to use the tango! to achieve a variety of communicative functions after a very brief series of teaching sessions. The table below offers a summary of the group differences across several key variables.

	<i>Total Time in Minutes</i>	<i>Number of Utterances</i>	<i>Words per minute</i>	<i>Utterances per minute</i>	<i>Responses per minute¹</i>	<i>Initiations per minute²</i>
Tango! Average	18.75	16.60	1.48	.93	.68	.20
DV4 Average	20.76	9.75	1.39	.47	.39	.07

¹ A utterance is counted as a response when the child communicates in direct response to a request to use the device or a question or posed by the researcher.

² An utterance is counted as an initiation when the child makes an unsolicited comment, initiates a new topic, or otherwise initiates an interaction different from that suggested by the researcher.