Key References Influencing Development of the DynaVox Compass™:

All Access Pageset

Rate of AAC use in Children with CP

Andersen, G., Mjoen, T.R., & Vik, T. (2010). Prevalence of speech problems and the use of augmentative and alternative communication in children with Cerebral Palsy: A registry-based study in Norway. *Perspectives on Augmentative and Alternative Communication*, 19 (1), 12-20.

The purpose of this article is to describe prevalence rates of both speech disorders in and the use of augmentative and alternative communication (AAC) by children with CP in Norway. The findings indicated that 35% of the 571 children in the study demonstrated some degree of speech disorder. Of these children, only 54% used some form of AAC. The most widely used form of AAC was sign language though the quality was frequently poor. Because so few children with CP are accessing appropriate AAC, the authors developed a screening tool that will help children get earlier access to AAC and the associated cognitive and social benefits.

Addressing Access and Language at the Same Time

Burkhart, L.J. & Porter.G. (2012). *The juggling act: Developing switch access, language and communication skills in parallel.* Retrieved from http://www.spectronicsinoz.com/blog/resource/the-juggling-act-developing-switch-access-language-and-communication-skills-in-parallel/.

This conference presentation focused on children with both complex communication needs (CCN) and severe motor impairment. These are individuals who have difficulty accessing a communication device, limited expressive language and potentially difficulties with cognition, vision, receptive language and other skills. The goal for these children is the same as it is for all children: being able to say what I want, when I want, and to whom I want. This requires communication/language and access to be addressed at the same time. It was recommended that clinicians select activities where some aspects are easily within the child's skills and others are new or more complex. The use of partner augmented input (aka aided language stimulation) was also recommended.

Thoughts on AAC from Adults with Cerebral Palsy

Chung, Y., Behrmann, M., Bannan, B., Thorp, E. (2012). Perspectives of high tech augmentative and alternative communication users with Cerebral Palsy at the post-secondary level. *Perspectives on Augmentative and Alternative Communication,* 21, 43-55.

The purpose of this study was to investigate how adults using high-tech AAC devices view their communication systems, successes, and barriers. They also gathered suggestions from the participants regarding new developments in AAC and the attitudes and actions of professionals and other communication partners. Overall, the participants found their AAC devices an important part of their overall communication system but only a part. Speech was their preferred method of communication. AAC devices provided an additional tool to be used as needed.

Communication to Build Friendships and Decrease Loneliness

Cooper, L., Baladin, S., Trembath, D. (2009 September). The loneliness experiences of young adults with Cerebral Palsy who use alternative and augmentative communication. *Augmentative and Alternative Communication,* Vol. 25 (3), pp. 154-164

In this study, the authors interviewed young adults with CP regarding their experiences of loneliness, especially as they transitioned from adolescence to adulthood. Participants identified the importance of support from family and friends, the use of AAC, and the use of technology in a broader sense to mitigate loneliness. For AAC systems specifically, participants stressed that use increased independence which resulted in greater opportunities to interact and thus to develop friendships. Finally, the article discussed areas on which speech-language pathologists could focus to support communication and interaction between AAC users and their communication partners on a long-term basis.

Multiple Ways to Access AAC

Fager, S., Bardach, L., Russell, S., Higginbotham, J. (2012). Access to augmentative and alternative communication: New technologies and clinical decision- making. *Journal of Pediatric Rehabilitation Medicine: An Interdisciplinary Approach*, 5, 53- 61.

Access (e.g., head tracking, eye tracking, scanning) is fundamental for successful communication with a variety of people and in a variety of settings and also for participation in the activities of life. The purpose of this article is to highlight new developments in access technology and suggestions for future advances and research. Additionally, considerations for decision making are presented. For example, the authors recommend that teams identify multiple methods of access to allow children with CCN to communicate throughout the day, regardless of positioning, medication levels, fatigue, and other variables. While a child might be able to use eye tracking when she is positioned in her wheelchair, she may need to use scanning when on the floor or in bed.

Vocabulary Organization and Design

McCoy, K.F., Hoag, L., & Bedrosian, J. (2011). Next generation utterance-based systems: What do pragmatic studies tell us about system design? *Perspectives on Augmentative and Alternative Communication*, 20 (2), 57-63.

This article provides a review of previous research regarding the use of utterance-based AAC systems for faster/easier communication. Findings indicate that systems must have a combination of prestored text and tools to create new messages. Additionally, these two types of tools must work together seamlessly as stored messages will need to be edited and both types may be needed to communicate effectively. The authors indicate that InterAACt, the language framework upon which DynaVox Compass was built, allows for this seamless switching. They propose a model that would further expand this concept and inform the development of future technologies.

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