Sample research articles: Social KASA (S'16) multimodal intervention approaches

Investigating a Multimodal Intervention for Children With Limited Expressive Vocabularies Associated With Autism

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Purpose: This study investigated a new intervention package aimed at increasing expressive word learning by school-age children with autism who have limited expressive vocabularies. This pilot investigation was intended to show proof of concept.

Method: Ten children between the ages of 6 and 10 years participated, with educational diagnoses of autism and limited expressive vocabularies at the outset of the study. A multimodal intervention composed of speech sound practice and augmentative and alternative communication was used to teach individualized vocabulary words that were selected on the basis of initial speech sound repertoires and principles of phonotactic probability and neighborhood density. A multiple- probe design was used to evaluate learning outcomes.

Results: Five children showed gains in spoken-word learning across successive word sets (high responders). Five children did not meet learning criteria (low responders). Comparisons of behaviors measured prior to intervention indicated that high responders had relatively higher skills in receptive language, prelinguistic communication, vocal/ verbal imitation, adaptive behavior, and consonant productions.Conclusions: The intervention package holds promise for improving spoken word productions for some children with autism who have limited expressive vocabularies. Further research is needed to better describe who may most benefit from this approach as well as investigate generalized benefits to untaught contexts and targets.

Brady, N. C., Storkel, H. L., Bushnell, P., Barker, R. M., Saunder, K., Daniels, D., & Fleming. Investigating a multimodal intervention for children with limited expressive vocabularies associated with autism. American Journal of Speech-Language Pathology, 24, 438-59. doi: 10.1044/2015_AJSLP-14-0093

Communication Modality Sampling for a Toddler With Angelman Syndrome

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Purpose: Vocal, gestural, and graphic communication modes were implemented concurrently with a toddler with Angelman syndrome to identify the most efficiently learned communication mode to emphasize in an initial augmentative communication system.

Method: Symbols representing preferred objects were introduced in vocal, gestural, and graphic communication modes using an alternating treatment single-subject experimental design. Conventionally accepted prompting strategies were used to teach symbols in each communication mode. Because the learner did not vocally imitate, vocal mode intervention focused on increasing vocal frequency as an initial step.

Results: When graphic and gestural mode performances were compared, the learner most accurately produced requests in graphic mode (percentage of nonoverlapping data = 96). Given the lack of success in prompting vocal productions, a comparison between vocal and the other two communication modes was not made.

Conclusion: A growing body of evidence suggests that concurrent modality sampling is a promising low-inference, data-driven procedure that can be used to inform selection of a communication mode(s) for initial emphasis with young children. Concurrent modality sampling can guide clinical decisions regarding the allocation of treatment resources to promote success in building an initial communicative repertoire.

Key Words: augmentative and alternative communication (AAC), Angelman syndrome, communication modes, modality sampling

Martin, J. H., Reichle, J., Dimian, A., & Chen, M. (2013). Communication modality sampling for a toddler with Angelman Syndrome. Language, Speech, and Hearing Services in Schools, 44, 327-36. doi: 10.1044/0161-1461(2013/12-0108)

Toward Functional Augmentative and Alternative Communication for Students With Autism: Manual Signs, Graphic Symbols, and Voice Output Communication Aids

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ABSTRACT: Many individuals with autism are candidates for augmentative and alternative communication (AAC) systems, either to supplement (i.e., augment) their existing speech or to act as their primary (i.e., alternative) method of expressive communication. The purpose of this article is to summarize research and directions for future research with regard to two questions related to the delivery of AAC supports to these individuals: (a) What AAC modality is preferable to use? and (b) What do we know about the use of voice output communication aids with people with autism?

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