



Partner-Augmented Input (PAI)

What is Partner-Augmented Input?

Partner-augmented input (PAI), also referred to as *natural aided language*, *aided language modeling*, or *aided language stimulation*, is a strategy for teaching children and adults to use AAC. “Augmented input can be broadly defined as an umbrella term for systematic modeling input from two or more modalities, one of which must include the learner’s AAC system” (Allen, Schlosser, Brock, & Shane, 2017, p.157).

How Is Partner-Augmented Input Provided?

Communication partners (e.g., school staff, parents, peers, siblings) model language by *pointing to the symbols on a child's communication board or device while simultaneously talking*.

Skilled Providers:

- Model a *variety* of communicative functions (i.e., not just requesting);
- Try to model a large percentage of the words they say, as they say them;
- Strive to use an 80:20 ratio of statements to questions/commands;
- Strive to provide partner-augmented input in at 70-80% of ongoing daily activities.

Tips for Providing Effective Language Input:

The purpose of providing partner-augmented input is to teach the child the language of his or her communication book, board, or device by immersing him or her in the language across activities and environments. *The child should be encouraged but not required to use symbols during your interactions*. Remember the ingredients to successful modeling by memorizing the **SMoRRRES** mnemonic:

- **S**low rate – Speak in a slow, clearly-articulated manner;
- **M**odel – Simultaneously talk and touch symbols for key words, phrases or sentences to provide the child with a color commentary of his or her ongoing activities and interests.
 - Discuss what the child is hearing, seeing, doing, and feeling (i.e., parallel talk);
 - Talk about what you are doing as you are doing it (i.e., self talk);
- **R**espect & reflect - When the child communicates something through another modality (e.g., gesture, word approximation, sign), **respect**, honor the communication, and **reflect**, model a word or phrase to communicate the same thought or feeling *without making the child repeat himself*;
- **R**epeat – Provide multiple models of targeted words in a variety of contexts (i.e., provide focused stimulation);
- **E**xpand - Build on the child’s communication, adding 1-2 words and fixing any errors (e.g., if he/she use two words such as “car red,” fix the order and add a word or two, “I want red car.”)
- **S**top - Provide an *expectant pause* before, during or after your model to provide the child an opportunity to communicate (see <http://talcaac.com/S%20is%20for%20STOP.pdf> for additional information on expectant pausing).

Research suggests that PAI:

- increases vocabulary comprehension (*Dada & Alant, 2009*)
- increases symbol comprehension and production (*Drager et al., 2006; Harris & Reichle, 2004*).
- provides models for appropriate language and communication (*Cafiero, 1998*).
- provides children with a model for how AAC can be used, in what contexts, and for what purposes, reinforces the effectiveness of using the system (i.e., children experience the utility and the power of the system), and makes an implicit statement to children that AAC provides an acceptable vehicle for communicating (*Romski & Sevcik, 1996*).
- is an effective method to teach early semantic-syntactic relations (*Lund, 2004*).
- increases production of multi-symbol messages (*Binger & Light, 2007*) and can improve utterance length and complexity (*Bruno & Trembath, 2006*).
- increases responsiveness and use of AAC (*Beck, Stoner & Dennis, 2009*).
- increases use of morphemes such as past tense –ed and plural –s (Binger, Maguire-Marshall, & Kent-Walsh, 2011).
- has been associated with gains in pragmatics, semantics, syntax and morphology and is effective in individuals of varying ages, disabilities, and language skills (O’Neill, Light & Pope, 2018; Sennott, Light & McNaughton, 2016).
- meets the criteria to be considered evidence-based (Lynch, McCleary & Smith, 2018).

Allen, A. A., Schlosser R. W., Brock, K. L. & Shane, H. C. (2017). The effectiveness of aided augmented input techniques for persons with developmental disabilities: a systematic review, *Augmentative and Alternative Communication*, 33(3), 149-159.

Beck, A. R., Stoner, J. B., & Dennis, M. L. (2009). An investigation of Aided Language Stimulation: Does it increase AAC use with adults with developmental disabilities and complex communication needs? *Augmentative and Alternative Communication*, 25 (1), pp. 42–54.

Binger, C., Maguire-Marshall, M., & Kent-Walsh, J. (2011). Using aided AAC models, recasts, and contrastive targets to teach grammatical morphemes to children who use AAC. *Journal of Speech, Language and Hearing Research*, 54, 160-176.

Bruno, J. & Trembath, D. (2006). Use of aided language stimulation to improve syntactic performance during a weeklong intervention program. *Augmentative and Alternative Communication*, 22(4), 300-313.

Cafiero, J. (1998). Communication Power for Individuals with Autism. *Focus on Autism and Other Developmental Disabilities*, 13(2), 113-121.

Dada, S. & Alant, E. (2009). The Effect of Aided Language Stimulation on Vocabulary Acquisition in Children With Little or No Functional Speech. *American Journal of Speech-Language Pathology*, 18, 50-64.

Drager, K. D. R., Postal, V. J., Carrolus, L., Castellano, M., Gagliano, C., & Glynn, J. (2006). The effect of aided language modeling on symbol comprehension and production in two preschoolers with autism. *American Journal of Speech-Language Pathology*, 15, 112-125.

Harris, M. & Reichle, J. (2004). The impact of aided language stimulation on symbol comprehension and production in children with moderate cognitive disabilities. *American Journal of Speech-Language Pathology*, 13, 155-167.

Goossens’ (2000). Facilitation Skills for Engineered Classrooms. Presented at AAC in the Mountains, Park City, UT.

Lund, S. (2004, October). *Facilitating Grammar Development Using Augmented Input and Recasting*. Paper presented at ISAAC, Natal, Brazil.

Lynch, Y., McCleary, M., & Smith, M. (2018). Instructional strategies used in direct AAC interventions with children to support graphic symbol learning: A systematic review. *Child Language Teaching and Therapy*, 34(1), 23-36.

O’Neill, T., Light, J., & Pope, L. (2018). Effects of interventions that include aided augmentative and alternative communication input on the communication of individuals with complex communication needs: A meta-analysis. *Journal of Speech, Language, and hearing research*.

Romski, M. & Sevcik, R. (1996). *Breaking the Speech Barrier: Language Development Through Augmented Means*. Baltimore, MD: Paul H. Brookes.

Sennott, S. C., Light, J. C., & McNaughton, D. (2016). AAC modeling intervention research review. *Research and Practice for Persons with Severe Disabilities*, 1-15.

Van Tatenhove, G. (2006). *AAC Is Just Language Therapy*. Paper presented at DuPage Easter Seal, Villa Park, IL.