Ingredients to Successful Modeling:
SMoRRES and Partner-Augmented Input
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Communication Partner Instruction

- Kent-Walsh & McNaughton (2005) devised an 8-step instructional program for communication partners based on Ellis et al. (1991) including:
  1) Pretest and Commitment to Instructional Program
  2) Strategy Description
  3) Strategy Demonstration;
  4) Verbal Practice of Strategy Steps;
  5) Controlled Practice and Feedback;
  6) Advanced Practice and Feedback;
  7) Posttest and Commitment of Long-Term Strategy Use; and
  8) Generalization of Targeted Strategy Use.

Communication Partner Instruction

- "Being an effective communication partner or AAC facilitator is not intuitive. It often requires one to change long-established, unconscious ways of communicating" (Blackstone, 2006, p. 12).


Communication Partner Instruction

- Training an AAC user's significant communication partners (e.g., parents, teachers, teacher aides, friends) can be of great benefit in increasing participation in daily interactions by individuals using speech-generating devices (Light et al., 1992; Douglas, McNaughton, Light, 2013).
- There is consistent evidence that communication partner instruction not only improves the skills of communication partners but also has a positive impact on the communication of people who use AAC (PWUAAC, Kent-Walsh, Murza, Malani, & Binger, 2015; Shire & Jones, 2015).
- Communication partner training can be used effectively as an intervention strategy for individuals using AAC (Kent-Walsh et al., 2015).

AAC Implementation

The *finish line* is just the beginning of a *whole new race*.
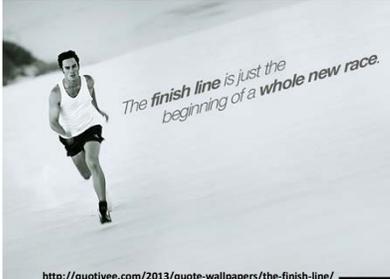
http://quotivee.com/2013/quote-wallpapers/the-finish-line/

Langley (2015)

Infants Learn Language...

Not Through "Instruction"

- **dog** *n*. 1. A domesticated carnivorous mammal, *Canis familiaris*, raised in a wide variety of breeds and probably originally derived from several wild species.

…But Through Modeling

- "Look at the dog!"
- "He's feels so soft. Let's pet the dog."
- "The dog is barking. That's loud."

Learning Language…

- Initially infants don't understand what we're saying… But we keep talking to them…

Learning Language

- "From the moment a baby is born, they hear and respond to the spoken word. We bombard that infant with language for the first 12-18 months of their lives. During that time, we do not expect that they will utter a single understandable word."


http://atto.buffalo.edu/registered/ATBasics/Populations/aac/consider.php

Learning AAC

- Why then do we expect a child to spontaneously begin using an AAC system from the first day (s)he receives it?!?
- Simply giving a child a board or device does not make him/her a communicator!
- We have the benefit of being able to read the words on a child's board. Look at the symbol to the left- Do you know what this means?
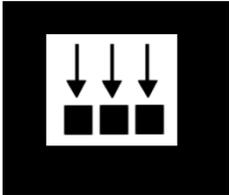
Learning AAC

- AAC users also need and deserve a period of learning from the models of others. This modeling can and should be done by parents, peers, siblings, professionals and others on a regular basis for an extended period of time.

DO's and **DON'T**s of AAC

Do use the AAC system to talk yourself

Don't expect the AAC user to communicate without you modelling how

http://www.assistiveware.com/dos-and-donts-aac-use-aac-system

http://atto.buffalo.edu/registered/ATBasics/Populations/aac/consider.php

Learning AAC

"It is recommended that classroom instruction include the child's targeted AAC language to promote the child's understanding of the symbol and referent."

Dodd & Gorey (2014).

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What is Partner-Augmented Input?

- Partner-augmented input, also referred to as "Natural Aided Language," "Aided Language Modeling" or "Aided Language Stimulation," is a powerful receptive training approach for children and adults who use augmentative and alternative communication.
- "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).

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How is it Provided?

- Communication partners (e.g., school staff, parents, peers) use visual language themselves by pointing to the symbols on the child's communication board or device while simultaneously talking.

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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 in use of morphemes such as past tense –ed and plural –s (*Binger, Maguire-Marshall, & Kent-Walsh, 2011*).

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Why Partner-Augmented Input?

- Almirall et. al (2016) found that "using an SGD within an effective naturalistic developmental behavioral intervention may facilitate longer and more frequent reciprocal communication interactions, leading to gains in verbal and nonlinguistic communication skills" (p. 11) of 5-8 year-old children with autism.
- In the SGD group, significant differences were seen in spontaneous communicative utterances and initiating joint attention.
- "…the gains made by children… could be explained by the therapist modeling SGD use, with or without child SGD use" (p. 12).

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Systematic Reviews

- "The results of the review indicated that AAC modeling intervention packages led to meaningful linguistic gains across four areas including (a) pragmatics, marked by increases in communication turns; (b) semantics, marked by receptive and expressive vocabulary increases; (c) syntax, marked by multi-symbol turn increases; and (d) morphology, marked by increases in target morphology structures (Sennott, Light & McNaughton, 2016).
- "A broad conclusion would be that evidence for improvement of communication skills in persons with developmental disabilities and CAS is promising" (Allen, Schlosser, Brock & Shane, 2017, p. 156).

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Why Partner-Augmented Input

- The purpose of providing partner augmented input is to establish a solid *receptive* language base upon which the child's AAC use is built. The expectation is that expressive language will eventually follow. The child should be encouraged but *not required* to use symbols during your interactions.

Prompting and PAI

- Caregiver utterances that are both synchronized with the child's focus AND are undemanding in quality are correlated with better language development (Siller & Sigman, 2002).

Prompting and PAI

- Avoid using "mand models" in which there is an expectation that the child will say what we want them to say (Burkhart, 2015).
- "Compliance is not communication" (Post, 2017).

Prompting and PAI

- "Current teaching practice which employs hand-over-hand modeling, combined with frequent verbal and gestural prompting… may limit the effectiveness of modeling in atypical learners." (Biederman, Fairhall, Raven & Davey, 1998, p. 510)
- "Passive modeling was overall significantly more effective than hand-over-hand modeling…" (Biederman, Fairhall, Raven & Davey, 1998, p. 503)

Partner Outcomes

- Van Tatenhove (2006) notes that augmented input:
  - Slows down partner speech rate
  - Shortens partner sentence length
  - Forces emphasis of key words and ideas
  - Emphasizes gaps in core vocabulary
  - Shifts talking by teacher from referential question asking to commenting and modeling
  - Builds natural support networks.

Learning AAC - Goossens' (2000)

- "To become a proficient user of an augmentative communication system, the child must undergo a substantial portion of his/her training within the many environments in which he/she is expected to communicate."

Learning AAC - Goossens' (2000)

- "Furthermore, to achieve mastery, the child must be inundated with seeing the system being used frequently, interactively and generatively."
- "In short, to maximize acquisition, augmentative communication training is best conducted with an immersion approach."

Learning AAC - Goossens' (2000)

- "…We must begin to view AAC training as being analogous to second language learning."

Second Language Acquisition

- Basic Interpersonal Communication Skills (BICS) - 2-3 years to achieve proficiency (in a supportive environment)
- Cognitive Academic Language Proficiency (CALP) - 5-7 years to achieve

Input v. Output

Input v. Output

"Often familiar and unfamiliar communication partners use an oral language system with an individual learning an AAC-based language. In a sense, this dichotomy requires the AAC user to 'code switch' between a verbally symbolic language system and a visually symbolic language system."

Dodd & Gorey (2014)

AAC Competency Takes Time

- The average 18 month old child has been exposed to 4,380 hours of oral language at a rate of 8 hours/day from birth. A child who has a communication system and receives speech/language therapy two times per week for 20-30 minutes sessions will reach this same amount of language exposure in 84 years (Korsten, J.)

http://atto.buffalo.edu/registered/ATBasics/Populations/aac/consider.php

Input Strategies

- Slow speech rate. Speak in slow, clearly articulated manner.

Input Strategies

- Model. Say words/phrases that are related to the contextual information available while pointing to pictures on the child's board or device. For example, while looking at a book, the adult might say: "I see a dog. I like dogs."
  - Parallel talk. Describe the ongoing actions/interests of the child.
  - Self-talk. Describe the ongoing action/interest of the adult. Talk about what you are doing as you are doing it (e.g., "Put in CD. Turn on music.")

Input Strategies

- Respect and reflect. Provide the words to code the child's wants, feelings, and intended messages. When the child communicates something through gesture or word approximation model a word or phrase to communicate the same thought or feeling *without making the child repeat himself*. For example, if the child points to a water fountain, the adult might say: "Drink. Want drink."

Respect & Reflect

- "Following the child's lead enables the communication guide to contingently respond to all of the child's communicative attempts. This demonstrates to the child that his or her language has meaning while providing AAC language models."

  Dodd & Gorey (2014)

Input Strategies

- Repeat. Frequently repeat utterances.
- Expand. Repeat and rephrase adult utterances by adding elements to provide a more complete expression of intended meaning. For example, "Bath time. It's time for your bath." *Build up* the child's communication as well (i.e., if he/she use one word or symbol such as "BUBBLE" expand the comment to two words, for example, "Oh, that's a BIG BUBBLE.")

Input Strategies

- Stop. Pause to allow the child time to respond.

WAIT EXPECTANTLY. *Sometimes silence* IS THE BEST WAY TO ENCOURAGE AAC USE.

Slide 1

What
Stop talking and/or modeling, gazing expectantly at the child while doing so.

Why
Students need to process what we have said, then formulate a reply, and motor plan a response. This all takes time. Depending on the child, this can take anywhere from 5-30 seconds (and sometimes even longer). We must *stop* (i.e., pause expectantly) to allow a child time to communicate. After all, that's why we're modeling in the first place.

How
We can stop before, during, or after a model to invite the child to take a conversational turn.
- Pause **before** your model and avoid anticipating wants and need (i.e., preempting). Even though you may think a child will need assistance or want something tangible, don't anticipate. Allow the child an opportunity to advocate for him or herself. If something is desired or required, give the student opportunity to initiate communication by pausing.
- Pause **during** a model (i.e., between words) to allow the student to finish the phrase or sentence.
- Create communicative temptations (Wetherby & Prizant, 1989) and pause **after** a model. Produce a comment relative to an available object or action to entice the child to initiate communication.
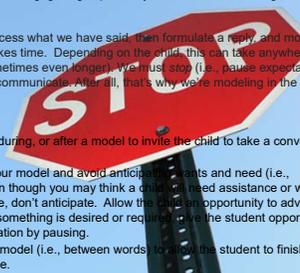
Preempting

- Untrained conversational partners may inadvertently "restrict the AAC users' needs and opportunities to communicate by anticipating their wants and needs to the point that communication is no longer necessary" (Calculator, 1988).
  1. Environmental Preempting – the physical environment is arranged so as to obviate any need to communicate.
  2. Nonverbal Preempting – inaccessible materials, events, and activities are provided by others who anticipate the individual's wants and needs.
  3. Verbal Preempting – others prompt (e.g. question, present choices, or instruct individuals to respond) before they can initiate messages of their own.

Prompting

- Some children quickly become dependent on prompts, and wait for an adult to provide that prompt before they make any type of response. While prompts are useful tools in teaching, it is important to use them thoughtfully (Wolery et al., 1986).
- Expectant pausing allows children time to respond to a discriminative stimulus occurring in the natural environment and one in which typically developing peers typically use when performing a particular behavior (Wolery et al., 1986).

SMoRRES

SLOW RATE
MODEL
RESPECT AND REFLECT
REPEAT
EXPAND
STOP

PAI in the Classroom

PAI in the Home

Resources

Partner Augmented Input in the Classroom Facebook Group:

https://www.facebook.com/groups/PartnerAugmentedInput/

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Resources

- Partner-Augmented Input at Home Facebook Group
- https://www.facebook.com/groups/303660193371937/

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Resources

Partner Augmented Input: Modeling AAC in the Classroom, Section 1
Presented by Jill Senner, PhD, CCC-SLP and Matthew R. Baud, MS, CCC-SLP

Learning Credits: 0 All 3 parts must be completed.
Running Time: 44:30
More Information

- Infinitec Online Classroom
  - http://www.myinfinitec.org/online-classroom
  - Infinitec serves school districts in Illinois, Minnesota, Kansas, and parts of Pennsylvania.
- Talcaac.com/products

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https://www.youtube.com/channel/UCTG5ahrCU-3zfglv-MUjr6w?view_as=subscriber

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References (1)

- Berry, J. O. (1987). Strategies for involving parents in programs for young children using augmentative and alternative communication. *Augmentative and Alternative Communication*, *3*(2), 90-93.
- Binger, C. & Light, J. (2007). The effect of aided AAC modeling on the expression of multi-symbol messages by preschoolers who use AAC. *Augmentative and Alternative Communication*, *23*(1), 30-43.
- 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.
- Darling-Hammond (1995). Changing conceptions of teaching and teacher development. *Teacher Education Quarterly*, *22*, 9-26.
- Dodd, J. L., & Gorey, M. (2013). AAC intervention as an immersion model. *Communication Disorders Quarterly*, *35*(2), 103-107.
- 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.

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References (2)

- Joyce, B. R., & Showers, B. (1980). Improving inservice training: The message of research. *Educational Leadership*, *37*, 379-385.
- Joyce, B. R., & Showers, B. (1981). Transfer of training: The contribution of "coaching." *Journal of Education*, *2*, 163-172.
- Kent-Walsh, J. & McNaughton, D. (2005). Communication partner instruction in AAC: Present practices and future directions. *Augmentative and Alternative Communication*, *21*(3), 195-204.
- Kent-Walsh, J., Murza, K. A., Malani, M. D., & Binger, C. (2015). Effects of communication partner instruction on the communication of individuals using AAC: A meta-analysis. *Augmentative and Alternative Communication*, *31*(4), 271-284.
- Langley, R. (2015). After the Evaluation: ongoing Support & the AAC Team. Paper presented at Closing the Gap, Minneapolis, MN.
- Lesar, S. (1998). Use of assistive technology with young children with disabilities: Current status and training needs. *Journal of Early Intervention*, *21*(2), 146-159.
- Light, J.,Dattilo, J., English, J., Gutierrez, L., & Hartz, J. (1992). Instructing facilitators who support the communication of people who use augmentative communication systems. *Journal of Speech and Hearing Research*, *35*, 865-875.
- Lund, S. & Light, J. (2007). Long-term outcomes for individuals who use augmentative and alternative communication: Part III – contributing factors. *Augmentative and Alternative Communication*, *23*(4), 323-335.
- Lund, S. (2004, October). Facilitating Grammar Development Using Augmented Input and Recasting. Paper presented at ISAAC, Natal, Brazil.
- Romski, M. & Sevcik, R. (1996). *Breaking the Speech Barrier: Language Development Through Augmented Means*. Baltimore, MD: Paul H. Brookes.
- Senner, J. & Baud, M. (2016). The use of an 8-step instructional model to train school staff in partner-augmented input. *Communication Disorders Quarterly*.
- Siller, M. & Sigman, M. (2002). The behaviors of parents of children with autism predict the subsequent development of their children's communication. *Journal of Autism and Developmental Disorders*, 32(2), 77-89.

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