

Creating an aided Language learning environment

Gayle Porter

Communication Carnival, Gothenburg, Sweden
October, 2023

Gayle Porter- Disclosure

- Senior Clinician, SLP – CPEC Melbourne, Australia
- Private Speech pathology practice
- Developer, Copyright & Trademark owner of PODD communication system
- Receives royalties from sales of PODD resources
- Honorariums for trainings on a range of topics



Children typically learn to communicate from interactions with family & friends



Your child needs to learn to communicate using AAC



Interaction is critical for communication & language development

- Family and friends will continue to be the critical influence on the child's communication and language development.
- However, **these interactions will now also need to incorporate the use of alternative forms of communication.**



Interaction is critical for communication & language development

- Immersion in the alternative form effectively supports individuals learning to use AAC
 - Partners are faced with learning to communicate in a foreign form that they have most likely never experienced or seen used by competent users of AAC.
 - Natural interaction patterns may be compromised as partners attempt to manage a new AAC system.

"An environment which supports the acquisition of alternative language forms does not seem to come naturally."
von Tetzchner & Grove, 2003, p. 13

Intervention - Others model AAC

- Aided language stimulation (Goossens', Crain & Elder, 1992)
- System for Augmenting Language (Ronski & Sevcik, 1992)
- Natural Aided Language (Cafiero, 1998)
- Aided language modeling (Drager et al, 2006)
- Aided AAC Modeling (Binger and Light, 2007)
- AAC Modeling (Sennott et al, 2016)
- Augmented Input (Allen et al, 2017)

Intervention - Others model AAC

- Interventions that include modeling may have distinct features (Sennott, Light & McNaughton, 2016; Allen et al 2017)
- Sennott, Light & McNaughton 2016 differentiate
 - AAC modeling where the partner uses the AAC system in the context of naturalistic communication interactions
 - Instructional modeling where the teacher models an instructional target.

Types of Models

- General receptive input
 - Variety of genuine messages
 - Natural contexts
 - Genuine interaction
 - Immersion
- Modeling as a prompt or cue



Modeling as a prompt or cue

- Another models a possible "message/turn" in a natural situation
 - Opportunity, but no expectation that the person will produce the modeled message at that time
- Model a targeted "message/turn" in a set up situation
 - Expectation that the person will produce that specific message
 - The model is a prompt to "GET THEM TO SAY IT"
- Mand-model
 - Say "..."
 - Person is expected to imitate the model

Aided Language Stimulation (Goossens', Crain & Elder, 1992)

- System design - Engineering the environment with aided symbols
 - Multiple activity specific displays placed in the environment
- Modeling
- Stimulating self-initiated, generative use (Specific prompts and cues)

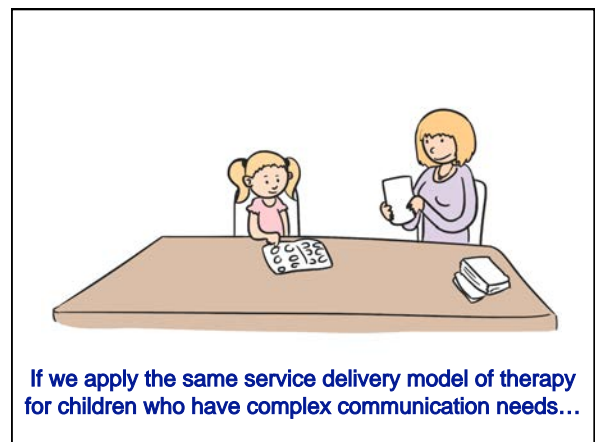
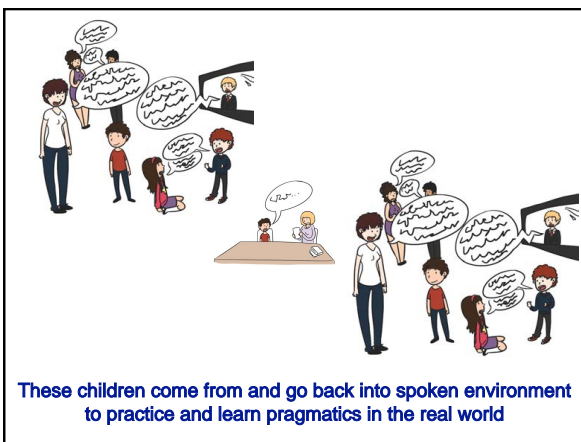
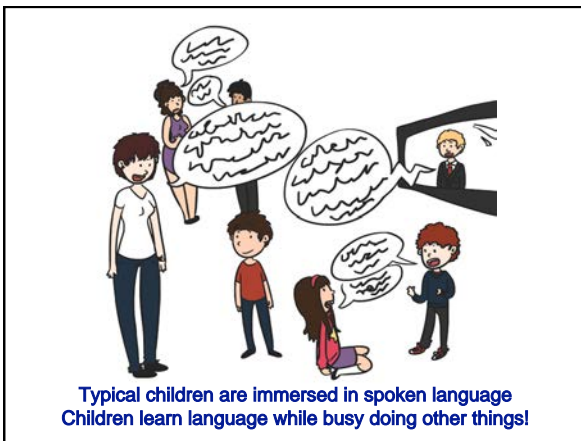
Creating an aided language learning environment

- Vocabulary available to communicate at any time (engineering the environment)
- People using aided language systems to interact in natural contexts
- Training partners to use the AAC systems to interact in natural contexts and support AAC habits for autonomous communication

**PREPARED for communication
AT ANY TIME**

- **Autonomy**
 - To communicate according to my own intentions
 - The right to choose when to communicate (or not)
- **Need AAC system available for communication at any time**
 - Engineering with personal, robust language, communication systems so vocabulary is always with person (habits for communication at any time)
 - Method to initiate communication


Electronic and non-electronic AAC systems for autonomous communication at any time





They come from and go back into spoken language environment with limited opportunity to learn pragmatics of using AAC in the real world.

Critical for Learning Pragmatic use of language!



We need to start with creating the aided language environment. Then, not all the children with CCN will need language therapy

“No one taught me to communicate, I just learned it”
(Kim at 13 years old).



Individuals learning to use AAC need to:

See their system of communication **used interactively by other people** to communicate real messages in real situations

- Interacting with them
- Interacting with others in their presence
- Range of purposes, messages, topics

Individuals learning to use AAC need to:

Have **multiple opportunities to practice** communicating real messages in real situations

- with appropriate scaffolds as required

Individuals learning to use AAC need to:

Receive **natural feedback** as to the effectiveness of their communication

- Respond to everything without question (early learning from babble)
- Don't understand, say so!

Individuals learning to use AAC need to:

Have their informal communication and language messages **expanded** by other people using modes of communication they will be able to use to communicate more effectively.

- Linguistic map
- expansion,
- recast

Interacting in the mess of the real world

Indicating the symbols

- What helps the individual to attend to the communication?
 - Point
 - Highlight with torch
 - Pull off single symbol
- What access method are they learning to use?
 - use the alternative access technique the individual is learning in order to specifically model how they can indicate symbols on the display.
 - "I could do that!"

Model More than Just "This Pictograph Means This" Also Model Important Concepts Such as:

- "Oh I can say that using...."
- "This is the type of context I can say it in"
- "That's how I go about taking up my turn to say that in this situation"
- This way of communicating is valued and responded to by others.

Stimulating
autonomous,
self-initiated,
generative
communication

Autonomous, self-initiated, generative communication

- In addition to learning language and operation of the AAC system the individual will need the knowledge, judgement & skill to
 - Generate ideas of what to say
 - Initiate communication within the discourse of their daily lives
 - Introduce their own messages and topics
 - Solve problems (strategic competencies)

Remember that the individual will learn to use their AAC system in the way they experience others using their system to communicate.

- What
- Where
- When
- Who
- How

Learner's question:

"Is this something I want, see myself (capable of) doing?"

Needs to spark their interest

- Interesting possibilities!
- Looks like fun!
- Might help!
- I can do that!
- What a good idea!
- Etc

All modeling is not equal!

What do partners say to people with complex communication needs?

- Less likely to **request activities**
 - More likely to ask questions e.g. DO YOU WANT
 - Tell the person what IT'S TIME TO DO ...
- Need to change language to model requesting messages the individual needs to learn using AAC system
 - e.g. I WANT
 - The partner's request is acted on, unless individual refuses request or says something else.
- **May use a helping doll, assistant, peer model**

What do partners say to people with complex communication needs?

- Less likely to **complain** about self
 - More likely to ask questions e.g. ARE YOU TIRED
- Need to change language to model complaint messages the individual needs to learn using AAC system.
 - e.g. Maybe, SOMETHING'S WRONG, YOU'RE TIRED
 - Linguistic map onto the individual's non-symbolic, informal communication as per typical development
- **May use a helping doll, assistant, peer model**

Focus on interaction

Communication partners learning to interact using AAC

- **Shared understanding of purpose of AAC (AARCH)**
- **Insight** – complex communication needs
- **Motivation – Why?**
 - See how using AAC can add to the child & families' (or individual's) life
 - Long term implications for the future
- **Inspiration** - Knowledge of possibilities

Partners learning to be users of AAC

- In order to create an aided language-learning environment, **partners need to develop fluency using the system.**
- Since there typically is not an immersion environment readily available for the adults learning to use AAC, they **need to be taught in a more direct and graded manner.**

Partners learning to interact using AAC

- Developing **fluency** to use AAC system
 - Training sessions to learn and practice the patterns used in the individual's AAC system language organisation.
- **Graded expectations to develop fluency**
 - Have the whole system there, with you for communication at any time
 - Start with one pattern
 - Choose frequently occurring messages you can use throughout the day
 - Massed practice of similar messages develops automaticity
 - Add another, then another pattern

Practice builds fluency

- **Guided practice to develop competent use of AAC**
 - Sufficient knowledge, judgment and skills
 - Linguistic
 - Operational
 - Social
 - Strategic
 - **Model and coach in the mess of the real world**
- Practical ideas and support for juggling it all

Coach during interaction

- Allen, 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*, Vol.33, NO.3, 149-159
- Binger, C. & Light, J. 2007 The effect of aided AAC modelling on the expression of multi-symbol messages by preschoolers who use AAC. *Augmentative and Alternative Communication*, 23, 30-43
- Cafiero, J. (1998) Communication Power for individuals with Autism. *Focus on Autism and Other Developmental Disabilities* 13 (2), 113-121
- Drager, K. D. R., Postal, V. J., Carrolus, L., Castellano, M., Gagliano, C., & Glynn, J. (2006). The effect of aided language modelling on symbol comprehension and production in two preschoolers with autism. *American Journal of Speech-Language Pathology*, 15, 112-125.

- Goossens', C. (1989). Aided communication intervention before assessment: A case study of a child with cerebral palsy. *Augmentative and Alternative Communication*, 5, 14-26.
- Goossens', C., Crain, S. and Elder, P. (1992) *Engineering the Pre-school Environment for Interactive, Symbolic Communication: 18 months to 5 years*. Birmingham, AL: Southeast Augmentative Communication Conference Publications * Clinician Series.
- Porter, G. (2017) *Pragmatic Organization Dynamic Display (PODD) communication books: Alternative access templates* Melbourne: Cerebral Palsy Education Centre.
- Romski, M.A., & Sevcik, R.A. (1992) Developing augmented language in children with severe mental retardation. in S.F. Warren & J. Reichle (Eds), *Communication and language intervention series: Vol 1. Causes and effects in communication and language intervention* (113-130) Baltimore: Paul H. Brookes Publishing Co.
- Sennott, S.C., Light, J.C. & McNaughton, D. (2016) AAC Modelling Intervention Research Review. *Research and Practice for Persons with Severe Disabilities*, Vol 41(2), 101-115.