Do You Believe in AAC Magic?

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Do You Believe in AAC Magic?

1. Do you believe?
2. Augmentative Communication (AAC) can be like magic
3. Clap your hands if you believe!
Let’s focus on teaching comprehension of AAC systems

• Non-speaking or low verbal children
• Receptive language/teaching AAC system before expecting production
• Modeling/expansion are universal, evidence-based language stimulation techniques
• Aided language stimulation (ALS)
Evidence: Why do we communicate?


Four purposes of Communication

- Express wants, needs and feelings
- Exchange novel information
- Maintain social closeness
- Social politeness
Evidence: Communicative functions

• Three primary **functions of language** for children:
  – **behavioral regulation**: request objects, actions, assistance, protest/reject objects, actions.
  – **social interaction**: requesting social routines, comfort; greetings, summoning attention, showing off
  – **Joint attention**: commenting, requesting or providing information

• Developing Expressive Communication Skills for Non-verbal Children With Autism, Written by Susan Stokes under a contract with CESA 7 and funded by a discretionary grant from the Wisconsin Department of Public Instruction
Evidence: Barriers to AAC

– Augmentative Communication and Early Intervention: Myths and Realities, Infants & Young Children, 2005, Vol. 18, No. 3, pp. 174–185, Romski and Sevcik

• Myth 1 AAC is a “last resort” in speech-language intervention.
• Myth 2 AAC hinders or stops further speech development.
• Myth 3 Children must have a certain set of skills to be able to benefit from AAC.
More Myths

• Myth 4 Speech-generating devices/AAC systems are only for children with intact cognition.
• Myth 5 Children have to be a certain age to be able to benefit from AAC.
• Myth 6 There is a representational hierarchy of symbols from objects to written words (traditional orthography).
Evidence: When do we start AAC?

- Augmentative Communication and Early Intervention: Myths and Realities, Infants & Young Children, 2005, Vol. 18, No. 3, pp. 174–185, Romski and Sevcik

  – The reality is that it is never too early to incorporate AAC intervention for the young child with a significant communication disability.
Implementing AAC does not prevent verbal speech

• YAACK: http://aac.unl.edu/yaack/

• Plano schools:  
  http://k12.pisd.edu/currinst/sped/AT/AACvsspeech.htm

AAC Teaching Options for Intentional Communication

• Modeling and expansion using aided language stimulation
• Scripted routines
• Milieu Teaching
• Visually Cued Instruction
• Applied Behavioral Analysis
Aided Language Stimulation (ALS)

- A strategy to promote both symbol comprehension and symbol production
- A language stimulation approach in which the facilitator points out picture symbols on the child's communication display in conjunction with all ongoing language stimulation. Through the modeling process, the concept of using the pictorial symbols interactively is demonstrated for the individual.
Modeling using ALS

• Pete the Cat, “I love my white shoes”

• Pete the Cat, “Rocking in my schools shoes”
Evidence exists that Aided Language Stimulation works

• We often focus on AAC for expression and forget to teach comprehension of AAC options
ALS can be extended to gestures, signs, photographs and other response modes

- Model the communication methods you want the child to use
- Parent/caregiver training
- Don’t assume the child understands the gesture, sign, photo, symbol, device or switch use
- Take turns, using the AAC method
- Use peers to model AAC systems
Scripted routines/Expansion using ALS

- Engineering the environment 16
- Engineering the environment 32

- Mayer Johnson: [www.mayer-johnson.com/communication-displays-for-engineered-preschool-environments](http://www.mayer-johnson.com/communication-displays-for-engineered-preschool-environments)
Evidence: Scripted routines

• Young children’s learning of concepts embedded in context
• Digital photos of the child/family in meaningful activities
• Difficult for young children to navigate (traditionally we limited concepts) should use partner scaffolding and introduce lots of concepts/vocabulary
• Infuse aac into play, model aac + speech
Develop symbol use

- Light cueing (use a penlight)
- Engineer your room with photo/symbols attached onto toys/objects/books
- Use sufficient vocabulary
- Can present in single field and gradually increase with Velcro™ display
- Provide a low tech picture communication book!
- Exchange pictures for object (use a prompter); matching picture to picture
Partner Training

- Expectant pause; exaggerated enthusiasm
- Allow enough processing time (count to 15)
- “3 strikes and you’re out” rule (natural environment, cueing, hand over hand)
- Always end with success
- Appropriate, sufficient vocabulary
- Prompting hierarchy
- Repair strategies
- Behavior strategies
- Partner assisted (auditory) scanning
Mileau teaching

• Naturalistic teaching within typical routines
• Expectant pause, peer modeling
• Design/sabotage the environment (toys out of reach, in see-through containers)
• SCERTS: www.scerts.com/index.php?option=com_content&view=article&id=15
Evidence: Milieu teaching

AAC Interventions to Maximize Language Development for Young Children, AAC-RERC webcast 2005, Janice Light, et al

- Early intervention is critical
- Identify meaningful contexts for communication
- Develop appropriate AAC systems
- Work with parents/facilitators to ensure appropriate scaffolding support
- Infuse communication into all activities
- Monitor progress/Evaluate outcomes
Milieu Teaching examples

• Video: Snack with Brandon
• Video: Elizabeth playing with baby
Evidence: Teach sufficient vocabulary receptively


- Sufficient, functional vocabulary is critical to success
- Often too few words are provided
- Article contains a vocabulary questionnaire
Evidence: Insufficient vocabulary a common problem

• Does the child only have access to “more, all done?”
• Does the child only have access to symbols in the classroom, not at home?
• Does behavior impact availability of symbols or switches?
  – Provide a low tech communication book, written vocabulary table, list of books, songs with repeatable lines, auditory list of categories and messages.
How do we select vocabulary?

- Vocabulary questionnaire or checklist
- List of most frequently used words
- Environmental inventory
- Activity based
- Contextual/visual scenes
- Categorical
- Core vocabulary (generic & reusable)
Visually cued instruction

- Video with Michael
- Video with Jose
Prompting

• **Prompts given by another person:** A prompt may be given by the child’s partner when it is obvious that the child needs assistance in remembering what to do. For example, if the child wants a toy that is out of reach, the adult might wait expectantly for the child to make an overture, and, if nothing happens, prompt the child to ask for it.
Prompts from least to most intrusive

- Natural verbal prompts (e.g. The adult says "What do you want?")
- Verbal mands (e.g. The adult says "You want the doll. Push the ‘doll’ button on your talker.")
- Modeling (e.g. The adult makes the sign "want baby" so that the child can repeat it. Modeling requires that a child be able to imitate.)
- Gestural (e.g. The adult points to the button that the child is supposed to push.)
Prompts from least to most intrusive cont.

• Physical assistance (e.g. The adult gently nudges the child’s hands toward the symbol that the child needs to touch. Physical assistance cannot be used in teaching speech, nor can it be used with children who dislike being touched.)

• Physical guidance (e.g. The adult physically assists the child to make the sign or push the button on the VOCA. Physical guidance is an error-free approach because the child always produces the target skill, although not independently, guaranteeing the child’s success. However, it cannot be used in teaching speech, nor can it be used with children who dislike being touched.)
Applied Behavior Analysis (ABA)

- Applied behavioral analysis
- The stimulus, the response and the consequence
- PECS: www.pecsusa.com
Picture Communication Exchange System (PECS)

• Phase I: How to communicate
• Phase II: Distance and persistence
• Phase III: Picture discrimination
• Phase IV: Sentence structure/attributes and language expansion
• Phase V: Answering questions
• Phase VI: Commenting
  • Pyramid Educational Consultants, Inc., 1992
    Andrew Bondy, Ph.D., and Lori Frost, M.S., CCC-SLP
    www.pecsus.com
What can we learn from PECS?

• Build responsiveness using a prompter
• Inventory motivators
• Clear behavioral hierarchy
• Backward chaining
Evidence: Can we work with children who don’t imitate?

  • Although this article is focused on speech imitation, it applies to motor imitation and social responsiveness
Evidence: Learning to imitate can be taught

- Mirror (motor) neurons
- Developing neural webs from production of skills
- Imitation for verbal speech
- Imitation for motor movements, gestures or pointing
- Imitating use of AAC systems
- Imitating social exchanges, eye contact, attention
What elements need to go into the Magic brew?

- Motivation to communicate
- Promote participation and initiation
- Modeling, modeling, modeling
- Availability of AAC
- Parent/partner training
Motivation to communicate when kids have learned passivity or limited responsiveness

• Tell me your ideas:
Motivation to communicate

- Inventory the child’s motivators
- Assess communication environments
- Provide opportunities to communicate (sabotage)
- Use other children as models
- May use the same few activities in rotation
- Hummmm … Magic?
What limits participation?

• Some children have such severe sensory or behavioral issues that they resist physical prompts or hand-over-hand cueing
  – Ideas?
    • Find motivators (music, favorite toys, video of parent)
    • Return to successful activities (old macdonald, eieio)
    • OT consult
    • Consistency
    • Repetition and practice
    • Cowboy rodeo
Let’s make magic, not excuses

- The child doesn’t respond
- The child is too low cognitively
- They don’t understand pictures
- Fine motor is a mess
- They can’t see or hear
- I’ve tried that before
- I don’t have equipment, software, money
- I don’t have time, I don’t have time, I don’t have time
Thank you! Enjoy St. Simon’s . . .

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