“When someone is not developing speech and language skills or has lost the ability to speak or understand spoken or written language, then AAC intervention approaches are required to meet their complex communication needs” [Cook & Polgar, p. 371, 2008].

DEFINING AAC

- AAC systems may include light tech systems, voice output communication devices, and unaided communication modes.

WHY AAC SYSTEMS

- Reduction of barriers to communication
  - Education
  - Employment
  - Participation
  - Community living
WHY DISCUSS IMPLEMENTATION

- Knowledge of AAC implementation evidence based practices is critical for practitioners, families, support persons, and for persons with complex communication needs.
- AAC systems are complex and supports to establish and maintain communication are necessary.

CONSIDERING EVIDENCE BASED PRACTICES IN THE AAC IMPLEMENTATION PROCESS

AREAS OF EVIDENCE TO CONSIDER

- Communication competencies
- Professional training
- Collaboration and teaming
- Partner training
- Impact of AAC implementation
COMMUNICATION COMPETENCIES

• Light, 1989
  • Linguistic
  • Operational
  • Social
  • Strategic

COMMUNICATION COMPETENCIES

• Linguistic
  • Learning to monitor and exchange linguistic information for communication, participation and learning curricular content.
  • Instruction is required to include
    • Understanding language
    • Understanding language use
    • Understanding the language of a specific AAC system
  • Linguistic competence goes beyond the level of simple requesting

COMMUNICATION COMPETENCIES

• Linguistic competencies examples
  • Augmentative and Alternative Communication Profile
    • Tracy Kovach, 2009
  • Responds to no
  • Understand approximately 50 words in context
  • Regularly uses 10-20 core words on an AAC system
  • Understands two- and three-word phrases out of context
  • Asks social wh-questions with AAC system
  • Understands the difference between question words
  • Uses conjunctions to join clauses
COMMUNICATION COMPETENCIES

- Operational
  - Learning related to operation and use of AAC systems
  - Instruction is required to
    - Use multiple AAC system modes

COMMUNICATION COMPETENCIES

- Operational competencies examples
  - Augmentative and Alternative Communication Profile
    - Tracy Kovach, 2009
    - Beyond the level of turning a device on and off
    - AAC system is stable and available to access
    - Communication partner facilitates positioning and AAC system availability
    - Demonstrates volitional execution of motor movements for AAC system access
    - Recalls symbols and their locations for message retrieval
    - Communicates with AAC system in many environments
    - Uses AAC system’s operation and command functions to improve fluency

COMMUNICATION COMPETENCIES

- Social
  - Using an AAC system to interact with others
  - Instruction is required specific to social interaction with others
    - Across communicative purposes
    - Judgment
    - Interpersonal relations
COMMUNICATION COMPETENCIES

- Social competencies examples
  - Augmentative and Alternative Communication Profile
    - Tracy Kovach, 2009
  - Uses natural behaviors for social interaction
  - Communicates purposefully
  - Purposefully uses AAC system and communication functions to more fully participate in social communication
  - Communication partner refrains from anticipating needs and the expression of those needs
  - Appropriately identifies and expresses opinions and intentions to others
  - Communication partner is aware of, and comfortable with, his or her communication role

COMMUNICATION COMPETENCIES

- Strategic
  - Strategic use of AAC systems within activities
  - Instruction is required specific to
    - Use AAC systems with flexibility
    - Use AAC systems in a variety of environments
    - Use AAC systems with a variety of communication partners

COMMUNICATION COMPETENCIES

- Strategic competencies examples
  - Augmentative and Alternative Communication Profile
    - Tracy Kovach, 2009
  - Communication behaviors are purposeful but not planned
  - Uses meaningful, attention-seeking behaviors, followed by acceptance or rejection signals
  - Communication partner uses guided practice and scaffolding for increased communication effectiveness
  - Selects correct vocabulary, message, and mode of communication at appropriate times
  - Adjust formality of messages relative to social contexts
PROFESSIONAL TRAINING

• Lack of AAC knowledge is evident across special education, speech-language pathology, and occupational therapy literature (Costigan & Light, 2010).
• Lack of professionals to implement AAC systems
  • limited availability of professionals with skills in AAC,
  • lack of AAC knowledge by professionals, and
  • limited training for families, caregivers, and personnel
  • Professionals do not feel they have sufficient skills
  • (McDonald, et.al, 2007; deJonge, et al., 2007).

PROFESSIONAL TRAINING

• Researchers, as well as stakeholders, indicate the significant need for training of professionals to implement AAC systems (McNaughton, et.al., 2008).
• Professional training in AAC is more than just knowledge, education within context is a key to successful outcomes (Bertoli, 2010)

PROFESSIONAL TRAINING

• A significant increase in the type and amount of training in the field of AAC for professionals is required.
• Training expectations should be established by third party payers to ensure professionals, working with consumers, have the appropriate knowledge base.
• Is it acceptable for a professional to learn an AAC system and implementation strategies along side a consumer?
COLLABORATION AND TEAMING

- Collaboration and teaming are shown to increase successful use of AAC systems.
- Increase student initiated interactions
- Decrease need for assistance
- Increase engagement in classroom activities

COLLABORATIVE TEAMING

- Collaboration and teaming should include:
  - Regularly scheduled team meetings
  - Development of supports
  - Accountability system
  - Flexibility to change ineffective supports
  - (Hunt, Soto, Maier, Muller, & Goetz, 2002)

COMMUNICATION PARTNER TRAINING

- RAAP and ImPAACT
- Naturalistic Teaching
- Employment Considerations
Many communication partners do not consistently use behaviors that support positive communication interactions (Kent-Walsh & McNaughton, 2005). Communication partners can:
- dominate interactions,
- take the majority of conversational turns,
- interrupt the communicator,
- and focusing too much on the technology instead of the communicator.
This can result in an AAC user that is passive, producing limited communicative functions and using restricted linguistic forms (Kent-Walsh & McNaughton, 2005).

Communication partner training is needed to decrease barriers to successful communication. Communication partner training program RAPP and IMPAACT (Binger and Kent-Walsh):
- Facilitate communication skills
- Increase expressive message rates
- Evidence based
- 8 step protocol

RAAP:
- read text + provide 2-symbol AAC model,
- ask wh-question + provide 2-symbol AAC model,
- answer wh-question + provide 2-symbol AAC model, and
- provide brief verbal prompt to indicate the student’s turn.
## COMMUNICATION PARTNER TRAINING

### Table 2: InPACT Program Steps

<table>
<thead>
<tr>
<th>InPACT Program Step</th>
<th>Session Number</th>
<th>Goal</th>
<th>Instruction Activities within Specified Context</th>
</tr>
</thead>
</table>
| 1. Pre-test & Commitment | 1              | • Provide illustrations "with" and "without" use of targeted strategy.  
                   |                 | • Have formal commitment to completing instruction.  
                   |                 | • Review "pre" and "post" videos of another client.  
                   |                 | • Discuss differences in partner-client communication.  
                   |                 | • Review and sign a contract document outlining all instructional activities. |
| 2. Strategy description | 1              | • Describe targeted strategy and its component skills.  
                   |                 | • Role play with clinician playing role of partner and partner playing role of the client.  
                   |                 | • Provide "think aloud" statements. |
| 3. Strategy demonstration | 1              | • Model use of targeted strategy and its component skills.  
                   |                 | • Role play with clinician playing role of partner and partner playing role of the client.  
                   |                 | • Provide "think aloud" statements. |
| 4. Verbal practice of strategy steps | 1–3            | • Increase automaticity in using strategy components.  
                   |                 | • Role verbal rehearsal; practice naming each strategy component in order with use of a proverb (e.g., RAAP = Read, Ask, Answer, Prompt).  
                   |                 | • Role play with partner playing role of self and clinician playing role of the client.  
                   |                 | • Provide and gradually fade verbal feedback (both positive and correcting) within "errorless learning" approach.  
                   |                 | • Gradually increase the variety and complexity of client behaviors/responses. |
| 5. Controlled practice feedback | 1–3           | • Provide multiple opportunities for practice of targeted strategy in controlled environment.  
                   |                 | • Role play with partner playing role of self and clinician playing role of the client.  
                   |                 | • Provide and gradually fade verbal feedback (both positive and correcting) within "errorless learning" approach.  
                   |                 | • Provide "think aloud" statements. |
| 6. Advanced practice and feedback | 4–6           | • Provide multiple opportunities for practice of targeted strategy in natural environment.  
                   |                 | • Role play with partner playing role of self and clinician playing role of the client.  
                   |                 | • Gradually increase the variety and complexity of client behaviors/responses.  
                   |                 | • Provide "think aloud" statements. |

COMMUNICATION PARTNER TRAINING

- Cathy Binger and Jennifer Kent-Walsh have a handout of their ImPAACT program at:

COMMUNICATION PARTNER TRAINING

- Incorporating AAC into naturalistic teaching
  - Play and Engage
    - Interesting and engaging toys
    - Actively play with child
    - Teach target level play actions/sequences
    - Choose materials matching child’s play and motor abilities
  - Notice and Respond
    - Sit face to face
    - Follow child’s lead
    - Respond to all communication
      - Use child’s mode of communication
      - AAC available
      - Imitate child and model with AAC mode
  - Balance Turn Taking
    - Balance turns responding to child’s utterance with only one comment
      - Use child’s AAC mode
      - AAC system available

COMMUNICATION PARTNER TRAINING

- Mirroring and Mapping
  - Imitate child’s non-verbal language as a mirror and provide language for these actions
    - Imitate with AAC
      - AAC available
  - Modeling and Expanding Communication
    - Model point, show, and give gestures
    - Model target signs/words
    - Expand communication by adding words/symbols
      - Prepare AAC system to accommodate targets and expansions
  - Environmental Arrangement
    - Assistance
    - Choices
    - WAITING with routine and cues
    - Inadequate portions – sabotage
      - Build responding before prompting e.g., “say _____”
    - Continue AAC system availability
COMMUNICATION PARTNER TRAINING

• Milieu Teaching Prompting Strategies
  • Open questions
  • Choice questions
  • Say prompt
  • Least to most support sequence
  • Begin with a request and end with an expansion
  • Appropriate AAC available


COMMUNICATION PARTNER TRAINING

• Peers in preschool settings through natural intervention opportunities and practice can support communication development of classmates.

COMMUNICATION PARTNER TRAINING

• Communication partner training is useful in settings where communication partners provide direct roles. However, this is not always the case in employment settings. It is often the role of the person who uses AAC (PWUAAC) to educate the communication partner.
  • Content rich vocabulary and literacy skills
  • Communication speed
  • Multi-modal communication
  • Mixture of formal and informal communication
  • Communicating with familiar and unfamiliar partners

IMPACT OF AAC IMPLEMENTATION

- Understanding the new roles of the consumer and family
  - New roles - interpreter
  - New responsibilities – programmer, technician
  - These roles and responsibilities are added to typically overburdened consumers and families
    - Frustration
    - Guilt
    - Blame
  - Financial pressure and lack of support services can contribute to abandonment of technology
    - Marshall and Goldbart, 2008

- Factors to consider
  - Each family is unique in their desire to advocate and develop a deeper understanding of their child’s use of AAC
  - Overall family culture affects successful device implementation
  - Discuss factors openly with families and develop shared understanding of expectations

REFERENCES


REFERENCES CONTINUED


