Designing Effective Intervention for Middle and High School AAC Learners

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Additional Resources

bit.ly/AACupperGrades

Active Ingredients

Key Principle #1:
Therapy plan is driven by AAC goals, not activities or materials.

Justice et al. (2014)

Key Principle #2:
Learning outcomes improve when therapists provide strong emotional and instructional support.

Justice et al. (2014)
KEY PRINCIPLE #3:
The most important part of any AAC therapy session is the implementation of effective instructional strategies. Good activities don’t make good therapy.

KEY PRINCIPLE #4:
Therapy plan should address a sequence of instructional experiences that lead to the desired AAC behavior.

Planning Our Activities & Therapy Materials
- Activities which:
  - Are effective at building the target skill
  - Are appropriate for the where the student is in the continuum of learning: Initial instruction, practice, generalization
- Using materials that:
  - Are effective, engaging, and sustainable
Practice
Skill: Moving from single symbol utterances to 2-symbol utterances
• Reading with Tar Heel Reader (free) online books using the RAAP strategy

Generalization
Skill: Moving from single symbol utterances to 2-symbol utterances
• Language Experience Surveys

KEY PRINCIPLE #5:
Generalization is an important part of all AAC therapy sessions.

Special Considerations for Middle & High School Students
• Increase in number of communication partners
• Prior intervention history
• Age-respectful materials
• Transition to post-school life
• Self-determination

AAC Student Examples
• Emerging Communicator: Does not have a reliable method of expressive communication through symbolic language
  ➢ Primarily non-symbolic communication: No reliable yes/no; Performance w/ AAC is still inconsistent
• Context-dependent Communicator: Has reliable symbolic communication but is limited to certain partners or contexts
• Independent Communicator: Is able to say anything to anyone in any context

Effective Instruction: Using Direct & Indirect Strategies
Selected Intervention Strategies

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Direct Intervention Strategy: Visual Supports

- Make abstract topics more concrete
- Can encourage positive behavior
- Ease transitions between activities/settings
- Provide routine, structure, and sequence

Direct Intervention Strategy: Strategy Instruction

- Focus is on teaching how to learn by following a systematic process or sequence of steps
  - Example

Figuring out metaphors
1. Identify the metaphor
2. Determine what two things are being compared
3. Create an image in your mind
4. Provide an explanation

Direct Intervention Strategy: Video Modeling

- Observational learning
- Promotes more rapid skill acquisition
- Decreases load of attention and language requirements
- No social interaction with instructor required
- Can be tailored to suit students with various skill sets


Direct Intervention Strategy: Mand Model

- Model
- Time delay
- Incidental teaching
- Naturalistic procedures


Indirect Intervention Strategy: Aided Language Input

- Used to augment the speech of communication partners (e.g., SLP, teacher, aide, peer)
- Clinician selects symbol on communication board/device while providing verbal model
  - Slows the rate of speech
  - Multi-modal

Indirect Intervention Strategy: Aided Language Input

• Helps the clinician become competent and confident with the client’s AAC system
• We become the model for other communication partners – everyone can do it!
• Motivates client to use their device!
• High payoff

Indirect Intervention Strategy: Focused Language Stimulation

• Highlight target language concepts by providing frequent models
• Naturalistic setting/meaningful context
• Can be used for many language concepts
  - Vocabulary: “Let’s GO! I want you to GO with me. When can we GO? We’ll GO later.”
  - Morphology: “I like your new shoeS. We need 3 pieceS. We can take turnS. You have 2 bookS.”
  - Syntax: “COULD YOU wait? WOULD HE get mad? SHOULD WE eat now?”
• Current research primarily supports targeting vocabulary and syntax

Indirect Intervention Strategy: Think-Aloud

• Reveal internal thought process
• Self-cue
• Problem solve
• Monitor progress
• Targets both metacognitive and physical venues of utilizing the highlighted strategy

Jackson: Emergent Communicator

- Age: 21
- Disorder: Mixed expressive receptive language disorder secondary to ASD
- Educational Setting: Public HS special education classroom
- AAC: iPad with ChatAble app
- Communication
  - Strengths
  - Challenges

Therapy Materials

- iPad with ChatAble App
  - Grid display
  - Visual scene display
  - Hybrid display
- Visual picture schedule
- Customized materials
  - Custom puzzles
  - Custom matching activities
About ChatAble 2.0
(Therapy Box)

- Developer resource link - http://www.therapy-box.co.uk/chatable.aspx
- Demo of Features link - https://www.youtube.com/watch?v=kNSGQHJp0w#t=140

Visual Scenes (hybrid)

Therapy Activities
- Goals: Use ChatAble communicate for different reasons
  - Requesting, rejecting, and commenting
- Increase purposeful communication at home and in the community
- Lots of repetition to promote success
- Focus on carryover into real-world experiences.
- Activities include:
  - Vending Machine, Hop on, Art (Collage), Snack, Puzzles, Matching, Magazine

Intervention Strategies
- Indirect Intervention strategies:
  - Aided language input
  - Communication temptation
  - Language extensions and expansions
- Direct intervention strategies:
  - Use of visual supports
  - Explicit instruction
  - Video self-modeling
  - Hand-under-hand strategy
Communication Partners

- Parent participation in therapy
  - Active participant in session
  - Demonstration of supportive strategies
  - Coaching on AAC facilitation skills
- Techniques and strategies for parent training:
  - Aided language input
  - Communication temptations
  - Language extension and expansion

Alexander: Context Dependent Communicator

- Age: 15
- Disorder: Mixed expressive receptive language disorder secondary to ASD
- Educational Setting: Private special education school
- AAC: Proslate 8D with TouchChat WordPower 60 Basic
- Communication
  - Strengths
  - Challenges

AAC Device: ProSlate

- TouchChat application with WordPower 60 Basic
  - Customized
  - Answer relevant questions, commenting, greetings, requesting

Therapy Materials

- Visual Supports
  - Visual schedule
  - Personal Participation Story
- Pictello
  - Story on iPad; Codes shared with family
  - Printed versions for therapy and home use
- Realize Language
  - Monitor, measure, and maximize the client’s use of his AAC device
Therapy Activities

- Greeting Activity
- Modified Sequential Phonic Instruction (Cunningham, 2000)
- Reading Activity
- Science Experiments

Direct Intervention Strategies

- Visual schedule
- Mand-model
- Prompt hierarchies
- Safety signals (Beukelman & Mirenda, 2013)
- Read, Ask, and Answer (RAAP; Binger & Kent-Walsh, 2010)

Indirect Intervention Strategies

- Communication temptations
- Extended pause time
- Language extensions and expansions

Additional Intervention Issues

- Therapy Goals Curricular Goals
- Consistent use of language facilitation strategies
- Use of multiple devices and AAC tools

Communication Partners

- Aided Language Input
- Building communication opportunities
- Contingent feedback

Veronica: Independent Communicator

- Age: 18 years old
- Disorder: Cerebral Palsy; Expressive/Receptive Language Disorder
- Education: Public HS General Ed with some special ed classes
- Type of AAC: Tobii Dynavox V Max & Maestro, Gateway 60, iPad w/ Verbally
- Communication
  - Strengths
  - Challenges

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Communication
- Strengths
- Challenges
Therapy Materials

- Visual Agenda
- Therapy materials were primarily presented on PowerPoint slides
- Age-respectful narratives and videos

Today’s Agenda
- What was your week? Is there anything you would like to discuss? (10 minutes)
- Review homework assignment summarizing the story of The Red Parrot (15 minutes)
- Intervening a Narrative/Story Grammar Marker (20 minutes)
- Data Tracker (10 minutes)
- Suffixes (10 minutes)

Therapy Materials

- Story
- Grammar Marker
- Tier 2
- Word Lists

Intervention Strategies

- Visual supports: visual schedule every session
  - Combined with auditory learning
- Focused Language Stimulation
  - Tier 2 vocabulary
  - Advanced conjunctions
  - Suffixes on Tier 2 words
- Breaking down incorrect/awkward utterances

Therapy Materials

- Data Tracker for conjunction and suffix goals

Learning Processes

- Set process
  - Simple, clear steps
  - Structure = success
  - Explicit Instruction

Metaphor: Develop a Process for How to Figure It Out

1. Identify the metaphor.
2. Determine what two things are being compared.
3. Create an image in your mind.
4. Provide an explanation.

Figuring out Metaphors

- You are my guardian angel!
  1. Identify the metaphor: guardian angel
  2. Two things being compared: you (human) and a guardian angel
  3. Create an image: You are a protective flying angel
  4. Explanation: You keep me safe!

Figuring out Metaphors

- It was raining outside
  1. Identify the metaphor: raining
  2. Two things being compared: real rain and metaphor
  3. Create an image: Imagining rain or real rain
  4. Explanation: How can you hear it while you drive?
Self-Determination

- Role Playing
- Data collection
- Future Career Goals

Thank You!