

Session #1652
11/19/16

Designing Effective Intervention for Middle and High School AAC Learners

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KEY PRINCIPLE #1:

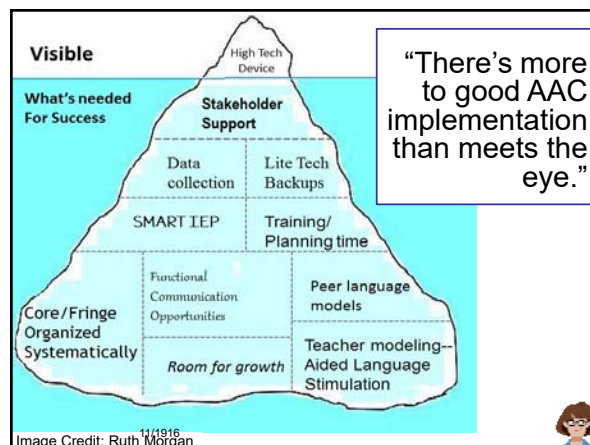
Therapy plan is driven by AAC goals, **not** activities or materials.

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Additional Resources

bit.ly/AACupperGrades

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Active Ingredients

| Structural Features | Process Features |
|---|---|
| <ul style="list-style-type: none"> Service delivery context Goals Treatment intensity Therapy materials | <ul style="list-style-type: none"> SLP-student relationship quality Global quality of therapy sessions Time spent on therapy targets (dose) Intervention strategies |

Justice et al. (2014)

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KEY PRINCIPLE #2:

Learning outcomes improve when therapists provide strong emotional and instructional support.

Justice et al. (2014)

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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.

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Exposure & Awareness

Skill: Moving from single symbol utterances to 2-symbol utterances

- Focused language stimulation & aided language input for
Descriptor + Noun

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App: Bitmoji/Bitstrips

KEY PRINCIPLE #4:

Therapy plan should address a sequence of instructional experiences that lead to the desired AAC behavior.

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Initial Instruction

Skill: Moving from single symbol utterances to 2-symbol utterances


- Sentence building template for
Stop + [Verb]

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App: Conversation Therapy/Tactus

Planning Our Activities & Therapy Materials

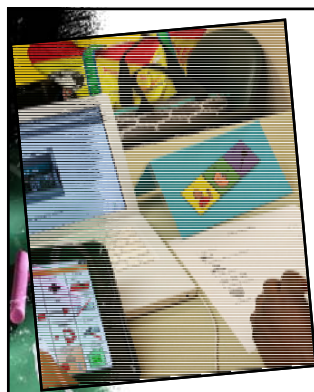
- Activities which:
 - Are effective at building the target skill
 - Are appropriate for the where the student is in the continuum of learning: Initial instruction, practice, generalization
- Using materials that:
 - Are effective, engaging, and sustainable

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Pixon Project Kit



Practice

Skill: Moving from single symbol utterances to 2-symbol utterances

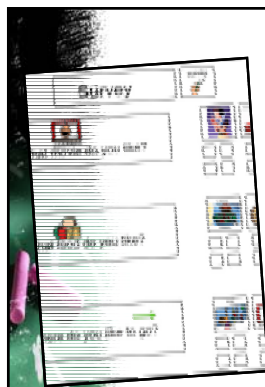
- Reading with Tar Heel Reader (free) online books using the RAAP strategy

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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

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Generalization

Skill: Moving from single symbol utterances to 2-symbol utterances

- Language Experience Surveys

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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

Dowden, 1995

KEY PRINCIPLE #5:

Generalization is an important part of all AAC therapy sessions.

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Effective Instruction: Using Direct & Indirect Strategies

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Selected Intervention Strategies

| Direct | Indirect |
|---|--|
| <ul style="list-style-type: none"> Visual Supports <ul style="list-style-type: none"> Task schedules, session schedules Cue cards Anchor charts Strategy Instruction Video Modeling Graduated Prompting Cues Mand-model Safety Signals | <ul style="list-style-type: none"> Aided Language Input Communication Temptations Language Extensions and Expansions Focused Language Stimulation Recasts Think-aloud Message co-construction |

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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

Franzone & Collet-Klingenberg, (2008), Bellini & Akullian (2009)

Direct Intervention Strategy: Visual Supports

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

I am finished when I have 5 checks:

Today's Agenda

- Chat: How was your week? Is there anything you would like to share? (5 minutes)
- Review homework assignment: summarizing the story of The Wolf Princess (5 minutes)
- Summarizing a Narrative/Story Grammar Marker (25 minutes)
- Conjunctions (15 minutes)
- Suffices (10 minutes)

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Direct Intervention Strategy: Mand Model

- Model
- Time delay
- Incidental teaching
- Naturalistic procedures

11/19/16 Nigam, Schlosser, & Lloyd, (2006)

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

- Identify the metaphor
- Determine what two things are being compared
- Create an image in your mind
- Provide an explanation

e.g., Adapted Strategic Instruction Model (Soto, Solomon-Rice, & Caputo, 2009; Thiessen, Horn, Beukelman, & Wallace, 2011)

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

Drager, et al., (2006), Dada & Alant, (2009), Drager, (2009), Harris (2004)

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

Drager, et al., (2006), Dada & Alant, (2009), Drager, (2009), Harris (2004)

Combined Strategies

- E.g., Strategy Instruction + Visual Support

Image Credit: V. Venton

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

Weismer & Robertson (2006), Girolametto, Pearce, & Weitzman (1996)

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

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

11/19/16 Kent-Walsh & McNaughton, (2005)

Therapy Materials

- iPad with ChatAble App
 - Grid display
 - Visual scene display
 - Hybrid display
- Visual picture schedule
- Customized materials
 - Custom puzzles
 - Custom matching activities

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About ChatAble 2.0 (Therapy Box)



Grids are at once recognisable to those who are familiar to AAC. The benefit of ChatAble grids is that they are fully customizable to a user.

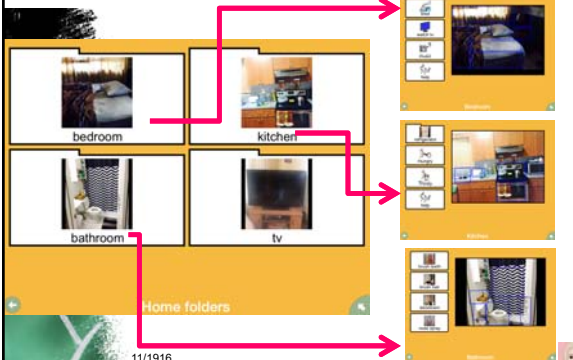


Visual Scene Displays. Visual scene communication can be a fantastic tool for those who respond to more visual situation rather than text.

- Developer resource link - <http://www.therapy-box.co.uk/chatable.aspx>
- Symbols resource link - https://widgit.com/products/third_party/chatable/index.htm
- Demo of Features link - <https://www.youtube.com/watch?v=kNSGQHJp0w#t=140>

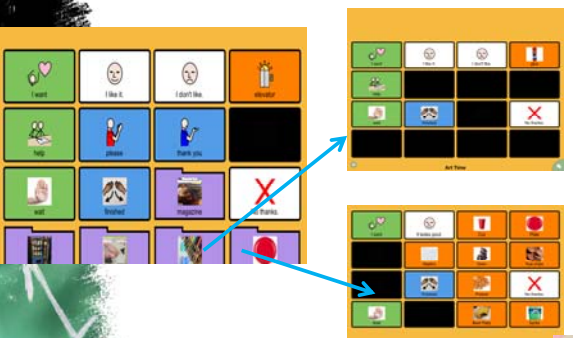
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Visual Scenes (hybrid)



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Grids



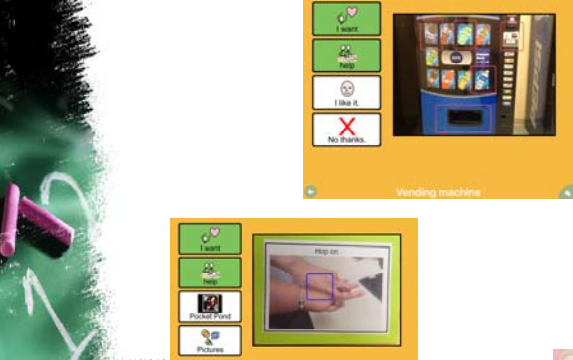
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Therapy Activities

- 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

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Visual Scene (hybrid)

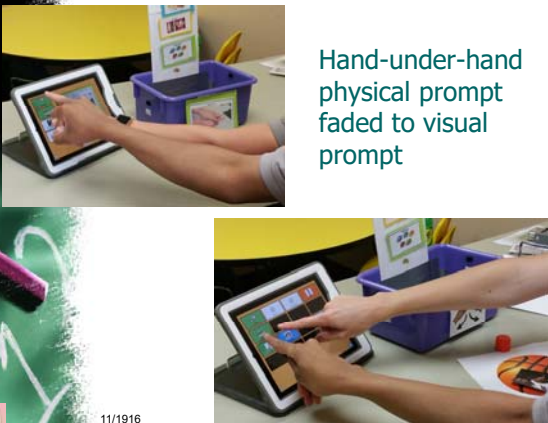


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Intervention Strategies

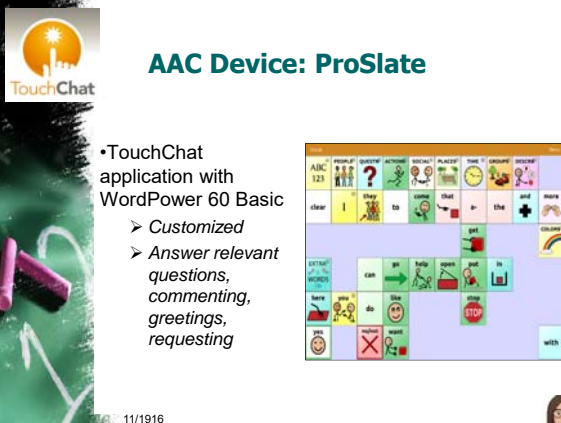
- Indirect Intervention strategies:
 - Aided language input
 - Communication temptation
 - Language extensions and expansions
- Direct intervention strategies:
 - Use of visual supports
 - Explicit instruction
 - Video self-modeling
 - Hand-under-hand strategy

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Hand-under-hand
physical prompt
faded to visual
prompt

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AAC Device: ProSlate

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

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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

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Therapy Materials


- Visual Supports
 - Visual schedule
 - Personal Participation Story



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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



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Therapy Materials

- 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



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Therapy Activities

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



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Additional Intervention Issues

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



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Direct Intervention Strategies

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



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Communication Partners

- Aided Language Input
- Building communication opportunities
- Contingent feedback

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Indirect Intervention Strategies

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



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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



Therapy Materials

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

Today's Agenda

- 1. Chat: How was your week? Is there anything you would like to share? (5 minutes)
- 2. Review homework assignment: summarizing the story of The Wolf Princess (5 minutes)
- 3. Summarizing a Narrative/Story Grammar Marker (25 minutes)
- 4. Conjunctions (15 minutes)
- 5. Suffixes (10 minutes)

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

- Story Grammar Marker
- Tier 2 Word Lists

Learning Processes

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

Therapy Materials

- Data Tracker for conjunction and suffix goals

+ 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 (person) and a guardian angel
3. Create an image: You are a protective flying angel
4. Explanation: You keep me safe!

+ Figuring out Metaphors

■ He was boiling mad

1. Identify the metaphor: boiling
2. Two things being compared: boiling and mad (anger)
3. Create an image: Imagine a pot of water boiling so high it is about to overflow and imagine how a person would feel boiling
4. Explanation: he was furious!! Not just upset but very angry!

WAYS WE FIND THE MAIN IDEA

- The overall idea of a passage.
- Key details support the main idea.

METHOD 1:

- Within the topic of _____, what is the big message?

METHOD 2:

- Form a hypothesis and examine each detail to find if it has supporting evidence.

Main Idea Map

Sharks do not run out of teeth!

Key Detail #1

If a shark loses a tooth, another moves forward from within the shark's jaw, where it keeps nearly an unlimited supply of replacement teeth.

Key Detail #2

It is almost impossible for a shark to end up without a full set of teeth.

Key Detail #3

No other animal in the world has teeth quite like the shark's. A shark can go through as many as 25,000 teeth in its lifetime!


This was a bad year for people with allergies

Springtime means warmer weather, blooming flowers, and allergy season! This year has been especially bad for allergy sufferers. Experts have nicknamed it a "pollen tsunami". The blooming flowers release pollen, a yellow, powdery substance made by plants. But for people with allergies, it can also mean runny noses, sneezing, red, and watery eyes. Even worse, it can cause asthma attacks. Even people who've never had allergies before are being affected by the recent surge of pollen—and the problem might be here to stay. People have been affected by allergy season worse this year than previous years.

Explanation: Within the topic of allergies, what is the main idea? The beginning of this passage identifies allergy season and then it states that this year has been particularly bad for those with allergies. The symptoms of allergies are then described as ways that people may be affected. The passage then says that even people who do not have allergies are suffering this year. Wow! This must be a pretty bad allergy season! The passage even called it "pollen tsunami". The main idea of this passage is that this year was a bad year for people with allergies.

Self-Determination


- Role Playing
- Data collection
- Future Career Goals



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Thank You!

AAC in the Upper Grades



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