

Session AAC-50

## Supporting AAC Learners in the Upper Grades:

### Evidence-based Intervention Strategies

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## AAC Student Examples

Emerging Communicators: Does not have a reliable method of expressive communication through symbolic language

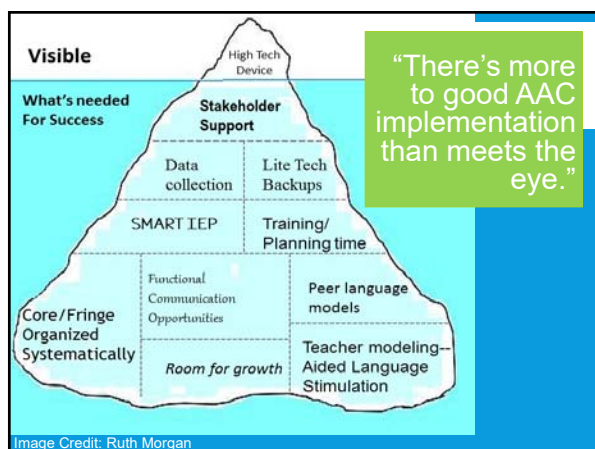
- Primarily non-symbolic communication; No reliable yes/no; Performance w/ AAC is still inconsistent

Context-dependent Communicators: Has reliable symbolic communication but is limited to certain partners or contexts

Independent Communicators: Is able to say anything to anyone in any context

Dowden, 1995

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Linguistic Competence

Operational Competence



Strategic Competence

Social Competence

## Key Principle #1:

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

## Key Principle #2:

Learning outcomes improve when therapists provide strong emotional & 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.

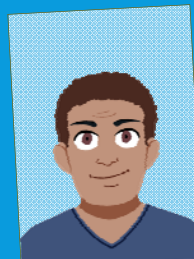
## Key Principle #4:

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

Where are we in the continuum of learning?



## Exposure & Awareness



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

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

App: Bitmoji/Bitstrips

## Initial Instruction

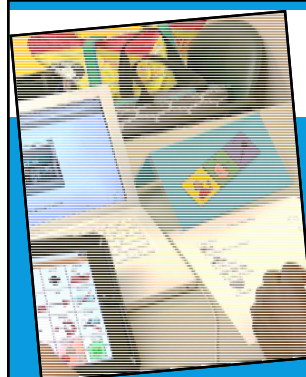


Skill: Moving from single symbol utterances to 2-symbol utterances

- Sentence building template for Stop + [Verb]

App: Conversation Therapy/Tactus

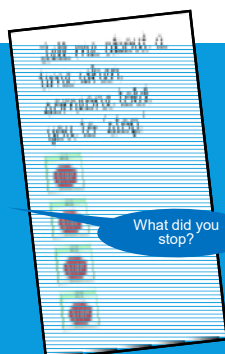
## Practice



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

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

## Generalization



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

- Language Experience Surveys

What did you stop?

Stop kicking

Stop yelling

Stop crying





## Key Principle #5:

Generalization is an important part of all AAC therapy sessions.

## 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, & sustainable

How are we communicating?

	<b>Clear Chloe</b>	<ul style="list-style-type: none"> <li>• Tells everything we need to know</li> <li>• Puts things in the right order</li> </ul>
	<b>Leave-It-Out Lou</b>	<ul style="list-style-type: none"> <li>• Forgets important information</li> </ul>
	<b>Mixed-up Melissa</b>	<ul style="list-style-type: none"> <li>• Forgets to start at the beginning</li> <li>• Tells things out of order</li> </ul>
	<b>Too Little Tanya</b>	<ul style="list-style-type: none"> <li>• Tells just a little</li> <li>• Leaves out details</li> </ul>

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## Informed practitioners want to know:

- What does the activity really accomplish?
- How well does it address the student's AAC goals?
- Where does this fall in the 'big picture' of the student's intervention?
- What's the evidence base? How can I use it effectively?

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## What does the activity really accomplish?



- It introduces a new skill.
- It teaches a new skill.
- It gives practice on an emerging skill.

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## Adapting Activities

- One activity or set of materials must meet the needs of several students
- Activity and/or materials are geared for practice, not instruction
- Little/no prep time
- Student engagement

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## Adapting Activities & Materials



To adapt successfully we need to know:

- What's the target skill?
- Where are we in the learning sequence?

Let's look at sample adaptation.

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## Weekly Cooking Activity Makeover

Adapted in order to differentiate instruction

- Goal for Students **A**: Requesting
- Goal for Students **B** & **C**: Expand MLU
- Goal for Student **E**: Tier 2 vocabulary

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## Harvest High School Life Skills Café



### Activity Sequence

- Week 1: Recipe selection, shopping list
- Week 2: Review visual recipe, develop menu
- Week 3: Cooking, eating
- Week 4: Write, share

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## Tier 2 Vocabulary

	Instructional Strategies	Activities
Wk 1 Pick recipe, shopping list	Focused language stimulation Dialogue	Identify Tier 2 descriptors Start semantic web Develop word bank
Wk 2 Review picture recipe, menu	Focused language stimulation Dialogue Repetition with variety	Expand semantic web Sentence substitution Vocabulary collage
Wk 3 Cooking, eating	Focused language stimulation Dialogue Repetition with variety	Expand semantic web Cloze sentence
Wk 4 Writing, sharing	Focused language stimulation Dialogue Repetition with variety Recasts	Complete semantic web Grammaticalize sentences Vocabulary collage

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## Speech Tube Activity Makeover

Adapted in order to add instruction

- Student Goal: Comment using core vocabulary from main screen
- *How did we adapt?*



Materials from Speech Room News

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## When Selecting Materials



- Set a top priority:
  - Know what you want to achieve
- Identify the instructional phase for the target skill
  - Build awareness & engagement
  - Teach & instruct
  - Practice & review



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## How can we maximize positive outcomes?



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## Selected Intervention Strategies

### Direct

- Visual Supports
  - Task schedules, session schedules
  - Cue cards
  - Anchor charts
- Strategy Instruction
- Video Modeling
- Graduated Prompting
- Cues
- Mand-model
- Safety Signals

### Indirect

- Aided Language Input
- Communication Temptations
- Language Extensions and Expansions
- Focused Language Stimulation
- Recasts
- Think-aloud
- Message co-construction

## 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 Goals

- Goals: Use ChatAble to 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.

## Therapy Materials & Activities

- Materials:
  - iPad with ChatAble Application
  - Visual picture schedule
  - Customized activities (Puzzles, matching etc.)
- Activities
  - Vending Machine, Hop on, Art (Vocabulary Collage), Snack, Puzzles, Matching, Magazine



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## Visual Schedule

- Began with an object schedule
- Transitioned to a picture schedule
- Needed more experience w/ 2-dimensional symbols
  - Discrimination + location
  - Low-dose therapy = challenge



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## Social Narratives



Build comprehension and understand expectations

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## Intervention Strategies

### Direct

- Use of visual supports
- Explicit instruction
- Video self-modeling
- Hand-under-hand strategy (limited use)

### Indirect

- Aided Language input
- Communication temptation
- Language extensions and expansions

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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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Appropriate  
for his Goals

Limited Tx

Age  
Respectful

Considers  
Classroom  
Expectations

Image Credit:  
Pixabay 32

**AAC Device: ProSlate**

TouchChat WordPower 60 Basic (Customized)

The image shows two side-by-side screenshots of the TouchChat WordPower 60 Basic interface. The left screen is labeled 'Original Version' and shows a standard grid of icons including letters, numbers, and common objects. The right screen is labeled 'Initial Customized Screen' and shows a modified grid where certain icons have been replaced or rearranged to better suit the user's needs. The TouchChat logo is visible in the top left corner of the original version screen.

Original Version

Initial Customized Screen

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## Therapy Activities

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

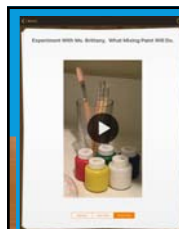


## Materials

- Visual Supports
  - Visual Schedules (greeting routine, session agenda)
  - Personal Participation & Social Stories
- Pictello &/or Tar Heel Reader Stories (ipad, print)
- Realize Language
- Letter tiles, Science materials

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## Pictello Story



Session  
Schedule/  
Agenda

Printed Pictello Story &  
Experiment Mini Schedule

# A New Talker



People talk in many ways. They say words. They write. They use their faces and bodies.



Some people also use Talkers.



# Intervention Strategies

- Direct**
  - Visual schedules
  - Mand-model
  - Prompt hierarchies
  - Safety signals
  - Read, Ask, Answer, Prompt (RAAP)
- Indirect**
  - Aided language input
  - Communication temptations
  - Extended pause time
  - Language extensions & 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

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# Therapy Materials

- Anchor charts & other visual supports
- Tier 2 Word Lists
- Narratives for recounts
- Story Grammar Marker



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# Complex Language: Sequencing Instructional Activities

- Break It Down
  - Focus on teaching component skills
  - Start with one aspect
  - Build slowly over time
- End with carry-over activities (consider providing homework)

Here is your summary of *The Wolf Princess*

Wolf Princess takes place in Russia. It is about a girl named Sofia loving her dads bedtime stories. Sofia goes to Russia on a school field trip. Along the way, Sofia's train stops in the middle of nowhere, and Sofia learns that she's a princess! This book had me on the edge of my seat, and I want to read it!

Let's look at an example

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# Goal: Using adverbs with -ly endings in grammatically correct sentences

- Teach the suffix meaning
- Teach the usage
- Find the errors
- Correct the errors
- Create your own in sentences
- Rate your sentences
- Create your own in narratives

Let's add -ly to some of your adjectives.

- When I get to school, everything seemed **usual**.
- The paper was **advisable**.
- I got dressed when people are not **relate**.
- I am very **disappoint** on my friends.
- They look a little like **superhero**.
- I felt **amused** at the beach with **radio**.
- After **writing** on the box and **use** for **using**.

These sentences are messy. Help me fix them!

- I drove normally to get to the beach through Hollywood.
- I thought that about the decision made by the team.
- Apparently, the kid wanted when he told me to stop.
- The comfortable seats is a great for people.
- Despite their negative attitude in the picture.
- Between actually, the child.

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## Consider Their Learning Process

- Use a predictable structure
- Set up a process for approaching the language task with clear steps
- Lots of:
  - Explicit Instruction
  - Review

### + 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!

## Use Metalinguistics (e.g., Student scores her own work)

### Narratives

- 1= less than 4 sentences.
- 2= 4 sentences.
- 3= 5 or more sentences
- 4= 5 or more sentences + at least 1 conjunction

word	Definition	My Meaning
terrified	scared	3
miserable	sad	2
surprise	shock or wonder	2
disgusting	extremely gross	1
transition	point of change, usually in narrative	3
narrative	story	

### Elaboration in Recounts

- 0- there are no accurate supporting details of the narrative
- 1- only one accurate supporting detail is provided
- 2- two accurate supporting details are provided
- 3- three accurate supporting details are provided
- 4- three accurate supporting details are provided and some elaboration is present, but it is not all accurate
- 5- everything is sufficient detail and accurate elaboration

## Intervention Strategies

### Direct

- Visual Supports
- Scaffolding
- Adapted Strategic Instruction Model (A-SIM; Thiessen, Horn, Beukelman, & Wallace, 2011)

### Indirect

- Focused language stimulation (Weismer & Roberston, 2006)
- Recasts
- Think-aloud
- Message co-construction (Soto, Solomon-Rice, & Caputo, 2009)

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## Self-Determination

- Involve student in:
  - Goal setting
  - Data collection & review
- Personal autonomy
  - E.g., Student selects some of the target vocabulary words
- Align with future directions & plans

### Week 2 Activities: August 15-19

- Activity 1: Explore BCC's website <http://www.broward.edu/Pages/home.aspx>. Look around at all of the different subjects that you can choose to study. Using the Tier 2 word, optimistic, create 2 sentences about what subjects you're interested in.
- Activity 2: Explore BCC's page about all of their food options, <http://www.broward.edu/studentresources/dining/Pages/default.aspx>. Using two of your Tier 2 words (misunderstood, optimistic, incompetent), create 2 sentences about the food choices that BCC offers to the students.

### Scores for Used Vocabulary Words

Category	1/10/15	2/10/15	3/10/15	4/10/15	5/10/15
Subject	2	6	X		
Topic	12	11	X		



bit.ly/AACupperGrades

THANK YOU!