Building Success with AAC: The Devil is in the Details

Cathy Binger, Ph.D., CCC-SLP
University of New Mexico

NW-ACS 2012
Overview for Today

• Why the Title?
  – *It’s the little things...* that turn out to be not so little

• Morning Session
  – Troubleshooting Techniques for Clients who use AAC

• Afternoon
  – Selecting Skills to Teach Communication Partners
  – Teaching Rule-Based Language to Children who use AAC: Research Update

Binger NW-ACS 2012
Overview of Troubleshooting

• Where do I start?
  – Tips for getting started with AAC solutions

• Troubleshooting
  – Client isn’t interested in communicating
  – Client isn’t making progress
  – Client is inconsistent
  – Client demonstrates challenging behaviors

• Providing Communication Opportunities
  – Essential but often overlooked
Where do I start?

- **Key Question 1:** How is the client currently communicating?
- **Key Question 2:** What is the client trying to communicate?
- **Key Question 3:** Are the client’s current communication modes appropriate, efficient, and effective?

Tips for getting started with AAC solutions
Key Question 1

How is the client currently communicating?
Make a list of current communication modes

- **Vocalizing**
  - Include speech & non-speech

- **Gestures**
  - Pointing, reaching, pushing items away, etc.

- **Gaze**
  - Is joint attention present?

- **Challenging behaviors**
  - Yelling, kicking, screaming, biting, throwing, leaving, etc.

- **Other idiosyncratic behaviors**
  - E.g., Dropping head to indicate boredom
Key Question 2

• What is the client trying to communicate?
  – Start by shaping *current* communicative behaviors (rather than teaching brand new ones)
  – Examine *communicative functions; e.g.:

<table>
<thead>
<tr>
<th>Function</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejecting</td>
<td>• E.g., undesired objects, events, or transitions</td>
</tr>
<tr>
<td>Requesting</td>
<td>• E.g., desired objects, people, or activities</td>
</tr>
<tr>
<td></td>
<td>• E.g., something surprising happens and the client looks at you to see if you noticed it too</td>
</tr>
</tbody>
</table>
Where do I start?

• Make a list of how these things match up
  – See next slide
<table>
<thead>
<tr>
<th>Communication Act</th>
<th>Vocalization/speech</th>
<th>Facial expression</th>
<th>Gesture</th>
<th>Manual sign</th>
<th>Graphic Symbol</th>
<th>AAC device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request food item for snack</td>
<td>X</td>
<td></td>
<td>X reaches</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request drink for snack</td>
<td>X</td>
<td></td>
<td>X reaches</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requests participation with peers for floor play time</td>
<td>X whines</td>
<td>X</td>
<td>X reaches toward peers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rejects food</td>
<td></td>
<td></td>
<td>X reaches</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rejects people</td>
<td>X cries</td>
<td></td>
<td>X turns head</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments on sound of school bell indicating it’s time to change classes</td>
<td></td>
<td></td>
<td>X looks expectantly at teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Key Question 3

• Are these methods of communication
  – Efficient?
  – Effective?
  – Appropriate?

• Any communicative attempts that do not meet these 3 criteria are an excellent place to start
Example Child #1

1. Current communication
   • Frequently cries
   • Also can: vocalize, use gaze, touch desired object, reach toward nearby objects

2. Intent of a specific communicative act (pragmatic function)
   • Gain attention; typically does this by crying

3. Is this efficient, effective, and socially appropriate?
   • Does not meet all 3 criteria; something to work on

• Potential communication options
  – Access a message that says, “Please come here” (IF the child is symbolic)
  – Pointing toward partner, vocalizing, and making eye contact
    • The latter may well be highly preferable!!! Not just about technology solutions
      – Maximize use of unaided modes for simple communicative functions
Example Child #2

1. Current communication
   - Yells & cries, throws objects, pounds objects on surfaces, points, has a few manual signs

2. Intent of a specific communicative act (pragmatic function)
   - Rejecting undesired objects by throwing them

3. Is this efficient, effective, and socially appropriate?
   - It’s efficient and effective, but not socially appropriate

- Potential options
  - Push the item away
  - Access a message that says, “I don’t want that”
    - This MUST be made as easy to do as throwing things!
Analyzing the data

*If the client is effective, efficient, and socially appropriate*

- May not need to change anything, or
- May teach higher level options for communication

**Examples:**

- If the client requests a drink by pointing and looking at the communication partner, work toward having the client use a sign or point to a symbol.
- If the client points to one symbol to make comments, work toward having the client point to two symbols.
Analyzing the data

*If the client is *socially inappropriate*

- Replace with a more appropriate option
  - For example: If the client currently rejects food by throwing it, replace with

  - Pushing the food away
  - Hitting a button that says, “I don’t want that”
  - Or another appropriate behavior

- Must **reinforce** this new behavior consistently!
Analyzing the data

*If the client has no way to communicate something*

• First, ensure the client is **motivated**
  – For example, does she **like** the food item being offered?
    • If so, teach requesting
    • If not, might use this to teach rejecting
Analyzing the data

*If the client has no way to communicate something (con’t)*

- Second, teach the client to direct an unaided behavior toward a person
  - For example, looking at the communication partner and then at the food item
    - If the client is not directing communication at a person, do not use signs or graphic symbols yet!
Analyzing the data

When to start working with symbols

• Once the client is directing communicative behaviors toward a person
  – She is communicating
  – Can begin to introduce symbolic means of communication
    • Consider multiple options

<table>
<thead>
<tr>
<th>Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line drawings</td>
</tr>
<tr>
<td>Photographs</td>
</tr>
<tr>
<td>Voice output device</td>
</tr>
</tbody>
</table>
Analyzing the data

Selecting communicative behaviors for/with the client

• Once the client is directing communicative behaviors toward a person, ensure that
  • The communicative behavior is
    – Efficient, effective, and socially appropriate
  • Everyone
    – Knows what behavior is expected in that situation
    – Is immediately responding to that behavior
Overview of Troubleshooting

• Possible Client Issues
  – Lacks interest in communicating
  – Is not making progress
  – Is inconsistent
    • With each communication partner
    • Within each situation
    • From one day to the next
  – Is demonstrating challenging behaviors
Lack of Interest in Communication

Lack of access to viable communication modes

May not know what is expected/what to do

Not taught a variety of interests

Active dislike for activity

Not provided with communication opportunities

Boredom

Binger NW-ACS 2012
Lack of Access & Opportunity

• Lack of access to viable communication modes
  – Can be true for symbolic or pre-symbolic communicators
  – Client needs an effective, efficient way to communicate
  – Consider use of all possible communication modes

• Not provided with communication opportunities
  – More on this later today
Boredom

- Children with severe physical disabilities need to have the world brought to them
- They need motivating activities to keep their minds stimulated, just as other children do
- Need something motivating to talk about!
  - Communication is effortful
  - It MUST be worth the “cost” to make the effort

Motivation is absolutely, positively essential

If I’m not motivated, why should I bother?

There eventually must be a motivation beyond a primary reinforcer

Communication must mean something in the real world to be worth the cost

Binger NW-ACS 2012
Active Dislike

• These are good opportunities to teach children how to reject in a socially appropriate manner
• For example: If a client tends to throw items he does not like, teach him to:

  - Sign “no”, or
  - Touch a line drawing that stands for “I don’t like that”, or
  - Hold up his hand to protest, or
  - Gently push the item away
Lack of Interests

• Not ‘taught’ a variety of interests
  – Some children with severe mental impairments may demonstrate few interests
  – Need to teach them how to enjoy activities
  – For example, provide repeated exposures to:
    • Different people (make request to have certain people with them)
    • Different types of music, games, activities
    • Different types of food
Lack of Knowledge

• May not know what to do
  – **Model** appropriate responses for the client
  – Can demonstrate appropriate responses by having other people use AAC
    • Peer models are great

• Medicines also can interfere
Lack of Progress

May be aiming too high

May be aiming too low

- Simplify the task
- Break the task down into more steps
  - Being a good task analyzer is ½ the job of being a good clinician
  - Back up to an earlier phase of development

They may be bored!
The vocabulary you have provided may be
- Inappropriate
- Uninteresting
- Motivation is essential!
Lack of Progress

• May not be appropriate for the client
  – For example: The client might not have the motor abilities to easily access the AAC device

• Should NOT have the SAME goals year after year
  – Write attainable goals, however minor the progress may seem
  – Much better to document SOME progress on a modest goal than no progress on a more ambitious goal
Inconsistent Performance

• Look for **PATTERNS** of when client does and does not perform behavior

• Does the client perform differently when the aided AAC device is placed in different locations?

• Has the aided AAC device been changed in any way recently?
  – Symbols moved to a different location
  – New pages added
  → It takes time to re-learn these things
Inconsistent Performance

• Has the communication context changed?
  – May have difficulty generalizing across
    • People
    • Contexts
    • Activities

  – For example:
    • Rejecting a person is different from rejecting an object
    • Requesting food is different from requesting another object or requesting a person
Inconsistent Performance

- Performance can vary because of differences in:
  - Partners
    - Clients may simply like some partners better than others
  - Settings/Tasks
    - May vary because of like/dislike for certain settings/tasks
    - Demands may be different across settings/tasks
  - Days
    - We all have good days and bad days!
    - Time of day may make a difference as well
• If client has variable performance with the same partner in the same setting on the same day
  – May be bored
    • For example: The client doesn’t WANT to request the music again
  – May need to offer more choices for communication
    • Again: Motivation is a key factor
  – May need to offer fewer choices
  – May be tired
Challenging Behaviors

- Kicking
- Biting
- Yelling or screaming
- Pushing
- Throwing items
- Hitting
- Leaving/Running away

- May be injuring themselves
- May be injuring others
Causes of Challenging Behaviors

• Most often, children with severe disabilities exhibit challenging behaviors because they are experiencing communication failures

  – They do not have an effective means of communication

  – Their communication partners are not consistently responding to their communicative attempts
Remediating Challenging Behaviors

• Functional Communication Training (Dunlap & Duda)

• Identify the purpose of the challenging behavior
  – When and why is the client acting out?

• Teach an appropriate behavior that will achieve the same result
Challenging Behaviors: ABC

- **Antecedent**: What immediately preceded the challenging behavior?
- **Behavior**: Describe the challenging behavior (kicking, throwing, etc.)
- **Consequence**: What happened immediately following the behavior?
Challenging Behaviors: **Antecedent**

- Determine what prompts the client to exhibit the behavior
- This should tell you what the client is trying to communicate
  - Avoid or escape an undesirable situation
  - Request an activity
  - Request social contact
  - Etc.
Challenging Behaviors: *Behavior*

• Look at the challenging behavior as a communication mode

If is not socially appropriate, but the client is trying to communicate something

Select another communication mode that is equally *efficient*, *effective*, and *socially appropriate*

- **Examples**
  - Pushing food away instead of throwing it
  - Hitting a button that says, “No thank you” or “I want something else”
Challenging Behaviors: *Consequence*

- Often, communication partners are not responding *consistently* to the client’s communicative attempts.
- Consistency is essential when teaching new communicative behaviors.

Everyone must agree on the behavior from the client that will be accepted.

When teaching the new behavior, everyone must respond consistently and reinforce the client’s new behavior.

(Reference: Binger NW-ACS 2012)
Challenging Behaviors: **Consequence**

- To teach him to push it away, *or*
- To hit a button that says “No thank you”

1. Give the client a non-desired food item, **and** use hand-over-hand
2. IMMEDIATELY remove the food item
3. Fade the hand-over-hand cue as quickly as possible
Let’s Take Some Extra Time to Examine: Providing Communication Opportunities

• Let’s start by looking at two videos

• Notice differences with
  – What the teacher is doing
  – What the child is doing
## Providing Communication Opportunities

### What the teachers are doing differently

- Providing an expectation for communication
- Providing extra wait time; Many people who use AAC have delayed language processing
- Providing models using the communication mode the child is expected to use
- Asking who, what, and where questions instead of yes/no questions
- Responding contingently to the child’s communication attempts

- Teachers are still refining their skills. Build slowly and give them credit as they progress
Providing Communication Opportunities

What the children are doing differently

- Pragmatically
  - Taking communicative turns
  - Pointing to pictures in the story
  - Vocalizing
  - (Answering questions – didn’t get to see this)

- Linguistically
  - Using words on the AAC device
  - (Using speech)
  - (Putting words together using the AAC device)
Providing Communication Opportunities

• Note: Even in the first of each video, we had
  ✓ Identified motivating contexts for communication
  ✓ Developed appropriate communication boards
    ✓ Selected appropriate vocabulary
    ✓ Organized vocabulary appropriately
Providing Communication Opportunities

☉ These steps are necessary but not sufficient for communicative success
   ☉ Communication partners must change how they interact with AAC clients

☉ #1 Reason (I believe) clients fail to use AAC
   ☉ THEY ARE NOT PROVIDED WITH MEANINGFUL OPPORTUNITIES
      ☉ We must teach communication partners how to do this
Providing Communication Opportunities

- This child already is
  - Pragmatically
    - Taking communicative turns
    - Pointing to what he wants
    - Using gestures to communicate
    - Answering questions
    - Vocalizing

- However, he is not
  - Using words to communicate
Providing Communication Opportunities

• Assumption
  – Maybe we should start with very basic goals
    • Using single symbols to communicate

• However, his receptive language abilities are strong
  • 3 year old range
    – He understands many linguistic structures
    – If his speech were not impaired, he would be using full sentences
    – Don’t aim too low!
Providing Communication Opportunities

• Differences between the two videos
  – The major change is that I am using “aided AAC modeling”
  – We must model and model and model and model and model with the AAC device
    • Otherwise, why would we expect them to use it?

• Move on as quickly as possible...
Providing Communication Opportunities

• Don’t hold your clients back
  – Provide them with the communication solutions they need
    • Motivating contexts
    • Appropriate vocabulary
    • Expectation for success
  – Challenge your clients!
    • Expect them to keep improving
    • Increase expectations every time they improve
Summary

• Examine current communication techniques before introducing new ones
• Ensure that all communication techniques are
  – Efficient
  – Effective
  – Socially appropriate
• If the solutions you are trying are not working, carefully examine various reasons why this may be happening
• Address challenging behaviors systematically and consistently