Modeling on an AAC System with Students with Visual, Auditory, and/or Motor Processing Challenges
Gail M. Van Tatenhove, PA, MS, CCC-SLP

Question 1 via email to Gail: I have a student who is using a device. Her mom says she is safely on a 2-word level. I do modeling of language with her, but I felt like when I was modeling words to her, I was, for want of a better word, dumbing it down to a single word level. But am I right that although she is producing some phrases, we should still be teaching the vocabulary on the device at the single word level and verbally modeling the full phrase/sentence? For example, say, “stop doing that” but just model how to say, “stop” on the device?

Question 2 via email to Gail: I have 5 students in my classroom, all with visual, auditory, motor, and cognitive challenges. I’ve been doing modeling in my classroom with all of my students using Pixon boards. We use the boards in all of our activities and I model to them. I’m not sure how much my students are attending and they are often either nonresponsive? What’s your advice to help them benefit more from modeling?

Issue: Modeling

Deciding how much to model verbally is something for which the field of speech-language pathology has historical guidelines. My guide to people is "Gail's Five S Rule:" "short, simple sentences said slowly." Verbally, I don't see any reason to deviate from that with students using AAC devices. But the new questions are:

1. "How much should you model on the AAC system?"
   a. Do you model exactly what you are saying or an abbreviated version of what you are saying?
   b. If you model an abbreviated version of what you are saying, how much do you abbreviate? One word? Key words? Short phrases?

2. “How do you adjust how you model with students with visual, auditory, and/or motor processing challenges?"

To answer question #1, ask yourself these two questions.

1. What linguistic goals am I trying to achieve (learn new vocabulary codes, produce 2-word utterances, correct verb endings, turn taking, etc.)?
   a. Model what you want the student to learn to do.
   b. Advise people that they can do "focused modeling" of target language vs. generic, immersive modeling. Both are okay.

2. How much beyond the student's current level of linguistic output should I model?
   a. Model a word or two beyond the student's current level.
   b. If the student has some linguistic form/patterns to correct (like always doing wrong verb endings), consider only modeling the linguistic form/pattern that you want to correct. This helps the person visually focus on the form/pattern.
   (Focused modeling)
To answer question #2, ask yourself these questions.

3. **How ready to learn is the student visually and auditorily? Can he/she attend to the visual model presented? How much information can he/she process without being overloaded?**
   
a. Gail has advised teachers to model model model model. Most of what the teachers are doing could be classified as "generic, immersion modeling." They are exposing and immersing the student with language input to their visual, auditory and even motor channels. This three-way sensory input is valuable to the linguistic processing. But, depending on the Goal, more FOCUSED MODELING is also appropriate.

b. While immersive, generic modeling that exposes a student to language is generally a good thing; it can be counterproductive for students who cannot process the information being presented. For example, a teacher modeling 3 or 4 words to a student who is NOT attending or who gets easily overloaded may result in the student responding by randomly pointing to words on the device because that is what it looks like to him/her. Or it might result in a student shutting down and not attending at all because it is too much information to process. When you see that happening, you have to take a step back and make adjustments to address the student’s sensory learning needs. Karen Kangas, a highly regard occupational therapist in the field of AAC, pointed out and advised Gail on several things when looking at videos of students where teachers were doing immersive, generic modeling as part of an approach that continually exposes students to visual language. We applied her advice (see points listed below) and saw significant improvements in the attention and responses of the students to the modeling.

   i. **Sit NEXT to the student when modeling so he/she sees the model from HIS/HER physical/visual perspective.** This is the MOST IMPORTANT thing, especially in the early stages of language modeling with students with multiple physical and sensory challenges.
      
      1. When working one-on-one with a student, sit next to the student (other than when working with someone using eye pointing).
      2. When working with students in a group (either at a table or in a semi-circle), try to avoid sitting across from them when modeling. If a teacher is using a kidney-shaped table in a group activity or has the students in a semi-circle, as is typical in many classrooms, you will need other people to help model who can sit NEXT to the student.
      3. If you don’t have any other people available to model in group activities, consider use of a rolling chair and move between the students, as necessary.
      4. If no one is available to help model from the students’ perspective, be alert to providing modeling that the student’s can visually process.

   ii. **Have a STABLE AAC system in front of the children.** Hand-held, lightweight boards
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are convenient for us as we model from student to student sitting in a group, but for students with sensory learning issues, this can be confusing and chaotic! The board appears, often very quickly, something is modeled, and then the board quickly goes away. For students with slow visual processing, they may not have seen anything meaningful nor processed the information correctly.

1. If in a wheelchair, students need a board stable on their tray.
2. If ambulatory and someone else is holding a board, the board needs to be on a firm surface and held very stable and steady in a position that is visually/motorically appropriate. Having 1 board held by an aide for each student is preferred over a board appearing and disappearing quickly.

iii. Adjust the learning setting so that the students are ready to learn and capable of learning. VERY VERY IMPORTANT STUFF HERE!

1. Define the beginning, middle, & end of the learning activity. This helps keep students organized and ready to learn. Recommendations as to how to do this are as follows:
   a. Have a defined space where you go to learn - a mat, inside of a circle duct taped to the floor, a corner of the room, etc. This is especially helpful for students on the autism spectrum.
   b. Have all the materials ready when the students get there so they don't have to be waiting for the learning to start. They know when they get to the mat that it is learning time.
2. Adjust what you say to help students process what they are supposed to be learning (the middle bit of learning).
   a. Reflect back about the learning going on with each student (e.g., Susie read 3 words and made a sentence by herself, Tom said the same word I said.)
   b. Keep focus on the "middle" bits of the learning using transitional comments. (e.g., Susie is done with her turn. It is now John's turn to read.)
   c. Save any praise/excitement (e.g., cheering, clapping) about the learning that took place until the END of the activity as a signal that the learning activity is done for now (e.g., Everyone did reading from the story book. We are done reading. YEAH everyone. - clap.)