Getting Started with AAC

Whether you choose high tech, low tech, or no tech systems for a student, beginning the use of any augmentative and alternative communication (AAC) system involves the same basic procedures. Though this resource focuses on no tech systems, the procedures for instruction are valid with all system types.

Many students who are nonverbal or minimally verbal are not given AAC systems for the common misconception that its use will inhibit the development of spoken language. In fact, AAC can enhance the development of speech. For these students, low cognitive functioning, poor motivation to communicate, or poor intelligibility may be the underlying reason for low verbal output. Though these students do not speak, communication is generally accomplished through nonconventional behaviors. Adults often interpret these behaviors as noncompliance rather than communication, and they delay putting off the development of an AAC system until these behaviors are eliminated. A functional analysis of behaviors will usually point to the communicative nature of the behaviors, allowing adults to shift their emphasis toward developing an appropriate communication system for a student (LaVigna & Donnellan, 1986).

AAC systems have the best chance of succeeding when they incorporate multimodal methods. Combinations of modalities allow a student to collect information more reliably. For persons with low cognitive functioning, a communication system must feature concrete representations for activities. For students who are not motivated to communicate conventionally, essential features of systems are easy-to-use materials and materials that give immediate and effective results. Motivation can also be increased through systematic instruction of specific communication behaviors. Augmenting speech with pictures or symbols, which indicate essential content of the message, often enhances intelligibility.

In Missouri, resources for formal AAC evaluation and subsequent purchase of electronic equipment are scarce. It is usually left up to a student’s teachers to determine communication needs and to select and construct a system. No tech and low tech AAC systems are generally:

- Inexpensive
- Portable
- Easily understood by others
- Require little or no training for the teacher
- Easily modified

These characteristics make no tech and low tech systems a practical first step to augment a student’s communication.

Assessing for Competencies

The choice of a symbol system depends on the unique characteristics of the individual student. The first step then is to determine those unique characteristics through direct assessments across
environments and a parent interview. Home assessment interview formats can be found in published sources and can be easily adapted to your needs (see Watson, Lord, Schaeffer, & Schopler, 1989, for an example).

A direct assessment of a student for the purpose of selecting a no tech or low tech communication system can be accomplished at school by listing what is known about the student’s strengths and weaknesses in the following areas: fine motor skills, sensorimotor integration skills, cognitive functioning level, receptive communication, current nonconventional expressive communicative behaviors, and communication partners (refer to Resource 24 for specific assessment questions to ask).

**Selecting a System**

The assessment process organizes what is known about a student. It tells you what, when, where, how, why, and with whom a student communicates. At this point, you can make a preliminary decision about what type of no tech or low tech AAC system the student can begin using. Consider types of AAC systems according to levels of abstraction in a spectrum of choices.

Selection of a no tech AAC system does not commit you to that system forever. Because of its low cost and ready availability, a mistake made in system selection can be easily remedied. Even when initial selection of a system works well, each student grows, becomes more knowledgeable, and has changing needs over time. The old system can be used to instruct a new system that better meets the student’s changing needs.

**Low Cognitive Functioning**

Like many very young students, a student with low cognitive functioning handles most successfully concrete representations of activities. Through systematic pairing of the object with the activity, a student will begin to associate the object with the activity. This involves having the object ready to show or hand to a student before and during the activity. Many teachers use techniques developed for students with visual impairments (e.g., symbol shelves) when teaching the use of objects for communication.

Once the student has mastered the association of objects to activities, gradually begin instructing less concrete symbols. This involves systematic pairing of full size objects with miniatures until a student associates the two with the activity. Over time gradually remove the full size object, leaving the miniature in its place. Move to more abstract levels, using the same technique, as a student demonstrates readiness to do so.

A student has been pushed too fast to a more abstract level when he or she shows confusion and does not master the new symbols at the rate expected. Stop at this point.

- Return to the previously successful abstraction level, staying there until long after the student demonstrates comfort and competency again.
- Reassess the student’s capability for handling a more abstract system.
- For a 3-week period, try again to teach the higher-level symbol system. If the student again shows long lasting confusion, return to the mastered symbol system.
Be realistic! Don’t try to push the student through the spectrum of choices. The student will let you know through behavior whether advancement to a more abstract level is practical.

**Poor Motivation to Communicate through Conventional Means**

Those working with students who are poorly motivated to communicate must choose materials which:

- Are easy to use
- Demonstrate immediate effective results

For these students, the primary task is to teach that effective conventional communication obtains desired results and that the AAC system is the tool that works best. This group of students has experience getting results using nonconventional behaviors, such as aggression, tantrums, self-injury, and destruction of property.

Choose a symbol system that matches the student’s cognitive functioning level as a starting point. For many of these students, untaught “reading,” fascination with letters or numbers, or the ability to chunk symbols is present. These fascinations can be used as motivators within the AAC system chosen for the student.

Teaching the use of the new AAC system will involve behavior management techniques. It is necessary to accept communicative behaviors when the system is used and to ignore or redirect the old nonconventional (i.e., unacceptable) communicative behaviors when the new system is not used by the student. Consistency is required to establish a new communication system for a student.

A general rule of thumb is that for every year a student has practiced a behavior, it takes about 3 months to replace that behavior with a new behavior. So, for a 7-year-old student who has been hitting to communicate “I don’t want to do this!” since age 3, it will take 12 months to firmly establish the student’s use of an augmentative symbol for the communicative intent (4 years x 3 months = 12 months of instruction). Most AAC systems fail for unmotivated students through lack of long-term adult commitment to instruction.

**Instructing the Use of a No Tech Communication System**

**Set Up for Success**

To rapidly learn something new, a student must experience it frequently. Traditionally, teachers wait until an undesirable behavior occurs, and then correct it or hold arbitrary instruction sessions in the back of the room. For students with disabilities, time is wasted when a student practices an undesirable behavior. The situation-specific student learns communication skills that do not generalize to new settings.

Practice desirable behaviors by organizing short periods of the day when a student automatically uses the new conventional communication system and is reinforced for it because it works.

- Try one 5 minute session each half-hour initially. Set up activities that interest the student (temptation) with at least one peer the student likes (reinforcer).
- Cue the peer in advance about what to do.
Make the session worthwhile to the student.

Once a student associates using the new system with pleasant reinforcement, the sessions are expanded to less desirable tasks. When expanding, keep the main ingredients from the first sessions (i.e., the same peer, the same reinforcement, the short time period, or the same adult). A student’s behavior and lack of confusion are cues to move to the next step in instruction.

At the next step, expand or change one of the main ingredients in the original formula (e.g., add a harder task, lengthen the old task, change peers, or move to a different environment). The idea is to plan to systematically introduce new variables into a student’s required use of the communication system. Don’t try to have a student use the system all day initially. You will only tire yourself out and frustrate the student.

**Enrich the Environment**

*Student preferred symbols:* Choose activities and symbols for those activities the student prefers, not that you prefer. For example, most low functioning students are uninterested in toileting while their teachers are very interested in toileting. A symbol for toilet is an adult preferred symbol, not a student preferred symbol. Initial success in instruction of a communication system only occurs when a student receives a payback for using it. Include symbols for activities, tangibles, and people a student wants, so the student will more quickly use the system.

*Communicative partners:* Carefully select the communicative partners during initial instruction. If you are instructing “Go away” or “Leave me alone,” it is helpful to choose a person the student doesn’t care for to approach the student. You could then help the student point to the “Go away” symbol, and the other person could leave. Soon the student will use that symbol to avoid all kinds of people and tasks! This will be definitely motivating for a student. The same technique is useful when teaching refusal, (i.e., “I don’t want to do that”). Of course, the next step is to teach a student to work a little anyway or to choose a different task. This is accomplished by saying, “You don’t want to do this. Thank you for telling me. Do one more and you can stop (or do something else).”

*Natural settings:* Normal communication development occurs in the environments where the student lives and interacts. A student with disabilities learns more rapidly when instruction sessions revolve around situations encountered routinely.

- Watch similar aged peers to learn about natural interaction.
- Ask the student’s family and friends where and about what the student will need to communicate.
- If at all possible, take the student to those environments to practice communicating.
- Though naturalistic situations are never as good as real situations, they are preferable to situations that bear no resemblance to the real world.

When a student appears to have generalized the use of an AAC system across discrete trial training sessions, he or she is ready to use it in natural settings with assistance. In this phase, an adult or peer facilitates use of the system in unrehearsed situations and new settings. It’s time to take the communication system to the playground, cafeteria, music class, principal’s office, etc.
Reinforcement
Use adequate reinforcement during instruction of a new AAC system. Plan the scheduling of reinforcement and the strength of the reinforcers needed.

Consistency across People and Environments
Teach adults and peers in all of a student’s environments how to use the new AAC system. As outlined above, choose communicative partners a student prefers. Only after a student has had some success with the system, should partners not cared for (but who must be dealt with routinely) be introduced. Show them by role-playing how you are instructing the system. Explain to them how long they can expect to work before the new system becomes truly automatic for a student.

A student will initially learn to use an AAC system with an adult. Practice the process until the student is comfortable in that dyad and in that same environment. Reinforcement is very important in the initial stages.

Add an adult to the practice session. Plan to have the student interact with the other adult, for the adults to interact, and for the student to interact with the original adult. Again, practice until the student appears to be comfortable.

Substitute a same age peer for one of the adults. Again, vary the interactions in the triad so that each person interacts with each of the others.

When the student is comfortable, take the student and adult dyad out of the original environment to a quiet and nonthreatening place. Practice interacting with the system there. Remember to reinforce the student strongly for tolerating the routine change.

Add another person (i.e., peer or adult) to the conversation in the new environment. If the student shows signs of discomfort, then return to a previous step.

Continue mixing up the triad and experiment with new environments and people.

Always take your cues from the student as to how much stimulation can be tolerated. Stop and return to a less threatening step if necessary. Reinforce strongly. Assure the student that he or she is communicating effectively with the new system.

References


Missouri Technology Center for Special Education, School of Education, University of

Working with Students with Autism in the Schools
