VALERIE HOEHNKE is a speech language pathologist who has worked with individuals with complex communication needs. She works full-time for Milwaukee Public Schools and is teaching Augmentative Alternative Communication undergraduate/graduate course at the University of Wisconsin-Whitewater. She has presented on low-tech communication and visual strategies at numerous conferences.

Low Tech Communication: An Integral Part of a Multi-Modality System

By Valerie Hoehnke

Everyone uses a multi-modality communication system. Our system may include spoken language, gestures, pointing, body language and facial expression. Some individuals also include sign language or augmentative alternative communication (AAC) in their multi-modality system. When an individual is given augmentative alternative communication, it does not replace the communication system they already have, but augments their current communication system. If an AAC user obtains a new high-tech device, it also augments their communication system and does not replace other means of communicating. Low-tech solutions are not tossed aside because the shiny new device has arrived.

In today's world, there are computers, tablets, iPads and smart phones. We all want the newest and best technology. We think high tech will solve all communication problems, negate weaknesses in our communication system and allow us to express our wants/needs. Let's take a look at a few situations that could be difficult for the augmentative alternative communicator.

Scenario 1: At the market and the battery dies in the AAC device.

Scenario 2: I am taking an art class. I love to work with clay. I know I will need to ask questions about the project and if I am doing it correctly. If I use my AAC device, I will get clay all over it.

Scenario 3: I have swim class today. I love the freedom the pool gives me. I have a substitute caregiver today. How will they know what I need in the pool? I can't take my AAC device in the pool.

Scenario 4: I am moving today. They are asking me where to put the boxes and furniture. It takes me one to five minutes to produce a response to each of their inquiries.

In all four scenarios, a no-tech or low-tech communication system would be the answer. For the purpose of this article, no-tech refers to any communication system that does not require a power source. Choice boards, communication picture boards or communication wallets using pictures are examples of no-tech communication. Low-tech refers to any communication system that requires a source of power, is very easy to program, no computer chip, portable, simple in design, easily implemented/used, has static messages and is low in cost. Static messages are stationary and unchanging. Items are fixed in a particular location and do not change. To change vocabulary, you must change the page, pictures or overlay (display). One example of a low-tech system is a Go Talk 9+ from Attainment Corporation (photo 1). The Go Talk 9+ has nine messages on five different levels. Plus, it has three messages that remain the same on all five levels. These messages are often general comments or questions. The AAC user has 48 messages that can be shared with the Go Talk 9+.

No-tech and low-tech communication systems require both the user and their communication partner to be actively involved in the interaction. The partner must watch the no-tech system to read the message to complete the communication link. The communication partner may need to assist with positioning the AAC system or assisting with a head pointer or mouth stick. Communication partners are needed to change the overlay (display) and /or level of the device. The listener is also needed to record the messages or assist with recording on a low-tech device.

To access no-tech and low-tech systems, direct selection

Photo 1: Go Talk 9+ by Attainment.

can be used, pointing with a finger or other body part or using a head pointer, mouth stick or a laser light. The laser light could be held in the hand, attached to glasses or placed on a hat. When the light is directed at a picture or word, the message is communicated. Another way to access no-tech and low-tech is with the use of listener scanning. The communication partner scans the vocabulary on the system by pointing one by one or group by group. If group scanning is used, once the group is selected, then smaller groups can be scanned, and when the final group is chosen, scanning is completed one by one. The AAC user indicates a choice by blinking, nodding or vocalizing.

No-tech and low-tech systems are often used as backup systems to the high-tech device. Backup systems are necessary because, as we all know, technology breaks down. The backup system usually contains the same vocabulary, layout and organization as the augmentative alternative communication device. One way to achieve this is to print out the pages of vocabulary or dynamic screens that are frequently used and bind them together (photo 2). Now you have an exact match to the high-tech system. The AAC user does not have to learn a new system or search for the words he or she wants to say. This no-tech solution was simple and easily implemented by the AAC user.

No-tech and low-tech systems are not just for use as a backup. Low-tech can be used as a primary form of communication. One form of no-tech is specialty communication boards for specific situations or environments, especially where a high-tech device may interfere with the event or activity. Placing a picture communication board with computer related vocabulary on a mouse pad next to a computer gives the AAC user immediate access to frequently used words, comments, and questions related to computer operations.

No-tech and low-tech provide vocabulary rarely needed by user. This vocabulary is called fringe vocabulary or supplemental vocabulary. For example, the AAC user may need messages for a hospital stay. Placing picture communication symbols on a pillowcase (photo 3) provides needed messages close at hand. The picture communication board was printed on iron-on transfer paper and then ironed on the pillowcase. Direct selection or listener scanning can be used with the pillow.

In one of the scenarios from the beginning of the article, the AAC user is going to a movie and needs vocabulary related to a movie or he wants to rent or buy a movie. One solution would be to use a DVD case and place a picture communication board in the cover. The picture communication board would have messages, such as "I'm looking for," and choices, such as "drama," "scary movie" or "new release." Comments, such as "Let's get our ticket," "I didn't like that one" or "I'm ready to check out," are needed. The AAC user can take it in the store to communicate with family and store personnel.

Another example of a specific environment in which low-tech would be appropriate is in the garden. Use a garden kneeling pad that can be found in the gardening section on any store. Create a picture communication board with vocabulary appropriate to gardening. Next, laminate the board and glue it to the garden kneeling pad. Now the AAC user can carry it with them when they go into the garden to do work.

In scenario 3, the augmentative alternative communicator is participating in a swim class at the YMCA. Use the same kneeling pad (photo 4). Create a picture communication board with vocabulary for the pool. Some examples of messages that an AAC user might use in the pool are "I want to float…," "on my back," "on my stomach," "I'm cold" and "Let's take a break." When using low-tech in a situation where it will get wet, it helps to laminate it twice. The kneeling pad floats on the water and can go with the augmentative alternative communication user in the pool. Another idea for a wet environment would be to use a ziplock bag. Create a picture communication board, glue it on cardboard and place it in the ziplock bag. It can go in the bathtub with the AAC user.

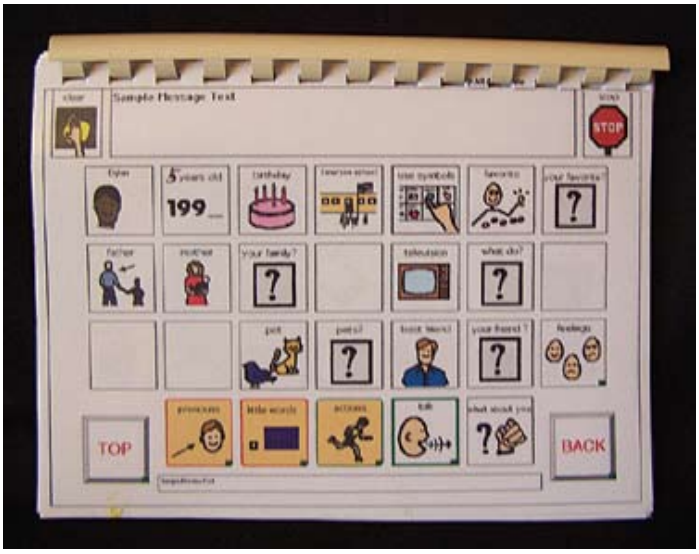

Photo 2: Backup boards.

Photo 3: Pillow case.

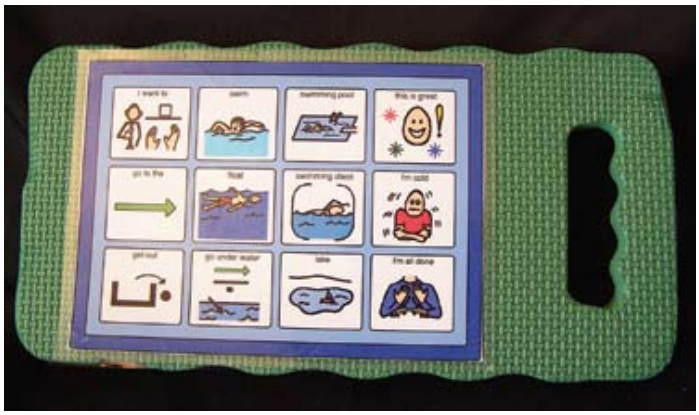

Photo 4: Pool communication (kneeling pad).

A 7-year-old boy is going to the zoo with his family. He is active and likes to be on the move. Two solutions for

his augmentative alternative communication needs while at the zoo would be a T-shirt (photo 5) and a key ring of pictures. The picture communication board that is ironed on to the T-shirt (like the pillowcase) would have general vocabulary that he can use to express wants, needs, choices, protests and comments. On a key ring, individual pictures of animals that the boy and his family printed from the Internet could be laminated, have a hole punched in one corner and then be put on the ring. Now he can choose what animal to see next, identify the animal they are looking at or comment about an animal. The key ring can be attached to a belt loop on pants, a zipper pull on a jacket or through a buttonhole on the shirt. What the little boy liked the most about his low-tech solutions was that he didn't have to carry anything. His hands were free to explore the zoo.

When you are a student, a backpack is something you carry with you all the time. Whether you carry it on your back, over one shoulder or on the back of your wheelchair, the backpack is always with you. It, therefore, is an obvious tool for a low-tech solution. Place picture communication symbols on the straps of the backpack (photo 6), attach a key ring to the zipper of the backpack or put a picture communication wallet in the pocket of the backpack. Vocabulary would be specific to moving from place to place, greetings, making small talk or asking for assistance. The student can use the high-tech device once they have arrived at their destination, school, classroom or lecture hall, but while traveling by bus, walking or moving, the backpack is an effective low-tech communication solution.

Scenario 4 revolves around moving day. We have all had the experience of giving directions to the people helping us move. The AAC user wants to control the chaos of moving day. A low-tech solution for the augmentative alternative communication user could be using a Message Mate 40 from Words + (photo 7). The Message Mate 40 could be programmed to say "in the living room," "that goes here," "can you put that downstairs?" "be careful," "that's fragile" and so on. The individual only has to push one button to say a whole phrase or give a direction. This cuts the communication link between AAC user and listener down to seconds instead of minutes.

With all the low-tech solutions shared above, the augmentative alternative communication user was involved in the vocabulary selection process and design of display. The low-tech solution takes into account the AAC user's physical, sensory, language and learning abilities. The picture communication solution is organized by frequency of use, by topics, alphabetically or by using color and should be consistent with all other augmentative alternative communication that is in the user's multi-modality system. The use of color makes the organization explicit and easier to follow. The design of low-tech communication is also easy for communication partners to use. The low-tech communication should be attractive and reflect the personality, interests and age of the augmentative alternative communication user.

Low-tech communication solutions can look very different from one another. Low-tech communication can be a backup solution to a high tech AAC device or it can be the primary form of communication. Low-tech solutions can be used all by themselves or in conjunction with mid-and high-tech communication. Low-tech communication can contain general vocabulary or fringe vocabulary. Put low-tech solutions with specific vocabulary in specific areas to be available for the AAC user. Low-tech communication can be single messages or multiple messages. It can be a single page or multiple pages of picture vocabulary. No-tech and low-tech communication is an integral part of a multi-modality communication system. ■

Photo 5: T-shirt communication.

Photo 6: Backpack communication.

Photo 7: Message Mate 40 and Message Mate 8 by Words+.