



Assessment Report Outline

University of Kentucky Assistive Technology (UKAT) Project

RName: Robin Perch

Date of Birth: 6/12/89

Grade: 6

School: Lenton Middle School

Date of Report: 10/28/01

Dates of Assessment: 10/26/01

Locations of Assessment: Classroom

Background

Robin was referred for an assistive technology assessment by her IEP team. Robin is twelve years old with a diagnosis of Tuberous Sclerosis, seizure disorder and mental retardation. She is in a self-contained 6th grade classroom and currently receives Speech/Language Pathology, Occupational Therapy and Physical Therapy services. Robin's hearing and vision are assumed to be within normal limits. She communicates using 2-3 word verbal utterances and gestures. Robin's cognitive ability is below normal limits. Robin's ability to make choices is an emerging skill. Her current accommodations include Dycem, a helmet and a stroller. Robin has full function of her right hand and arm; little to no use of her left hand and arm; full ability to walk and run; and she is able to sit, stand, and maneuver as necessary. Robin's social emotional status is within normal limits for her mental age.

Reasons for Assessment

Robin was referred for an assistive technology assessment by her IEP team to address concerns in the areas of communication and education/transition.

Summary of Activities, Procedures, & Findings

Two demands were examined during the assessment: 1) requesting items from unfamiliar persons in appropriate settings, and 2) turning a music player on and off. What follows are the activities conducted and findings related to each demand.

Requesting. A two-picture no-tech communication board was used to determine Robin's ability to identify pictures and make choices. Black and white line drawings, colored line drawings, and photos were used on the communication board. Colored line drawings appeared to work best for Robin. The boards were used in the classroom and school cafeteria where she successfully identified the pictures, and with some physical prompting, requested items from the board. A trial was planned for McDonalds but the field trip was cancelled. To test a different setting, Robin was brought to the office vending machine and she requested items from there using the 2-picture board. She has demonstrated a clear association of Coke with the Coke logo.

Music player. A battery-operated tape player with a battery interrupter was used to assess on/off switches. Several different types of switches were connected to the player and she was asked to operate it. She could easily use several of the larger plate switches but the smallest, least obtrusive she could use was the toggle switch. It will be important to purchase one that does not require a lot of force to operate.

Recommendations

Implications of the Findings

Robin is ready to augment her communication with colored line drawings on a communication board and a digital communication device. In the short period of the assessment she showed the interest and ability to indicate choices by verbalizing and pointing to line drawings. During the assessment she was limited to 2 picture choices but seemed to grasp the idea of requesting using the pictures. It is highly probable that she can increase the number of choices and continue to make requests based on those choices. Using pictures with and without a voice output system will increase the probability that unfamiliar persons will understand her request. A digital communication device will increase that probability even more.

Robin has ample motor ability to use a number of types of switches to turn objects on and off. It is important to identify one that is closest in similarity to standard on/off switches so the adaptation will not draw additional attention to her. The 1-inch toggle switch is a good option. She could easily operate the switch because she could get her whole hand behind it to flip it on. Music players such as tape recorders, CD players, and MP3 players can be permanently adapted with this toggle switch and make a functional, minimally altered device for her to independently operate. She demonstrated a lot of interest in this activity and it could provide her with an age appropriate leisure activity she enjoys.

Student Preferences

Robin didn't express strong preferences toward any of the devices and activities used in the assessment.

Concerns (i.e., external supports, personal perceptions)

Training Robin to be independent at making appropriate choices in appropriate settings will not be dependent on the technology and strategies used. Training to request will be the challenge. It is a difficult concept to grasp when the choice options are not immediately visible. Systematic training in multiple settings and with multiple request options will be critical. Ample time should be allotted for her to achieve reasonable goals in this area. Learning may not occur quickly.

Strategies and Non-Technology Adaptations

Requesting: Two parallel systems should be made available for Robin to independently communicate her requests. First, a system of picture communication symbols should be used to represent her choice options. These can be mounted on a communication board or put into a flip book so she can carry them with her throughout the day. The same pictures should be mounted in the environment for which they are appropriate as well. For example, food choice pictures could be taped to the counter in the cafeteria so they are always available at lunchtime. Activity options could be similarly posted in specific environments. Picture sources are listed in the table below.

A highly specific training plan should be developed using principles of least prompts to teach Robin to initiate requests from an increasingly large array of options. The trainers are cautioned to not get caught in merely asking her to point to a picture to determine her understanding of the picture (e.g., show me the ...). Systematic training must remove any dependency on prompts and transfer the skill of requesting her choice item or activity to her own volition.

Services and Features of Assistive Technologies Recommended for Trial

Requesting: Robin has some difficulty clearly expressing her desires, especially to unfamiliar persons. A digitized voice output communication system is recommended to augment her communication in this area. Robin demonstrated interest and ability to make choices from two options. Her speed at learning indicates the potential for increasing the number of options available to her. To explore that ability, a simple 2-8 cell communication device is recommended. The device chosen should allow for easy programming (i.e., voice recording) so it can be quickly changed as she moves through different environments during the day. Beginning with a cell size no smaller than 1-inch is suggested.

Ultimately Robin may benefit from a device that allows for layers of programming, that is, one that stores several sets of phrases allowing the user to call up the set appropriate for a specific environment. These devices cost more thus the recommendation at this time is for the more simple device. When she demonstrates the ability to use the device with at least 4 options in each of the different environments, it would be time to explore the more advanced device.

Ease of recording, ease of exchanging pictures, clarity of voice output, and portability are the key features to consider when looking for a device.

Music player: Robin will derive a lot of pleasure from the ability to independently operate a music player such as a tape recorder, CD player, or MP3 player. Her ability to use only one hand is a major factor in selecting an on/off switch to operate 'off-the-shelf' players. The switch must be easy to operate without pushing the player away from her. A 1-inch toggle switch is recommended but it is important that it require very little pressure to operate. If using a portable device, she will need to wedge it under her left arm or place it in a carrier. This creates an unstable surface for the device and any switch requiring too much force will only move the player and not turn the player on or off. Non-portable players can be secured in position by placing Dycem under them.

Toggle switches of this type are available at local electronics stores, including Radio Shack. Someone with simple electronics and soldering experience will be needed to replace the current on/off switch with the toggle switch or install it as a second on/off switch. If no one on the team has those skills, school volunteers and service organizations could be contacted for assistance.

Examples of Potential Technology

Product	Cost	Vendor Contact Information
Four Frame Talker	\$39.00	Attainment Company, Inc. PO Box 930160, Verona, WI 53593-0160 Phone: 800-327-4269 Email info@attainmentcompany.com Web: http://www.attainmentcompany.com
Word Wise Master Cards	\$49.00	See above
Go Talk 4	\$159.00	See above
Pocket Go Talk	\$199.00	See above
Boardmaker	\$399.95	Mayer Johnson P.O. Box 1579 Solana Beach, CA 92075 Phone: 800-588-4548

		E-mail: mayerj@mayer-johnson.com Web: www.mayerjohnson.com
Cheap Talk 4	\$99.95	Toys for Special Children & Enabling Devices 385 Warburton Avenue Hastings-on-Hudson, NY 10706 Phone: (914) 478-0960 E-mail: orders@enablingdevices.com Web: http://www.enablingdevices.com/
Cheap Talk 8	\$189.95	See above

Potential Sources for Trial Equipment

The Fayette district AT library has a Cheap Talk 4 available for loan. Contact them at Central Office to make arrangements to try this device. Ask the AT Specialist (Anne Browne) if there are other similar devices available in the district that are not part of the AT library.

Potential Sources for Training

The use of these no-tech and low-tech devices is relatively straight forward. Anne Browne can provide training on all of the recommended items in 1-2 hours. Contact her to make arrangements for a training session once the items have been received.

Next Steps

A trial implementation plan should be developed to include acquisition of the technologies, training, and trial use of the items by the student and staff. If possible, several devices should be tried to determine which would be best for Robin. Each device has slightly different features and one may work better than another. This report should be amended to include any final decisions.

Assessors

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Individuals Receiving a Copy of the Report

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