Education update:

Interrupting routines a good means of encouraging language

Interrupting an autistic child's established routines is a powerful way to encourage spontaneuous communication, according to Pam Hunt and Lori Goetz.

Citing several studies showing that "interrupted behavior chains" are a very effective teaching tool, Hunt and Goetz offer the following suggestions:

1. Select routines that occur at least once a day, most days of the week. Select routines (tooth-brushing, playing with toys, pouring juice, etc.) which have at least three steps, and in which the child initiates at least one step.

2. Choose routines that the child is highly motivated to complete, and determine which steps of the routine the child is most determined to carry out. Interrupting the activity must cause "moderate distress," Hunt and Goetz say, or the child will not be motivated to communicate.

3. Determine ahead of time what type of communication you want the child to make. For instance, in the toothbrushing example above, you might want to reinforce the child for signing "toothbrush," or making a request ("I want the toothbrush"), making any verbalization, or pointing to an appropriate picture in a communication book.

4. When the child performs the routine, interrupt him or her at a predetermined point by:

—passively blocking the next action;

—delaying giving the child an item he or she needs to continue;

—placing a needed item out of reach;

—removing an item the child needs; or,

—using items such as bottles or cans the child cannot open without help.

5. Do not offer verbal cues. Wait five seconds for the child to make the response you want. If the response is correct, offer the needed asssistance so the child can finish the activity. If not, model the correct response; do not offer reinforcement, and do not allow the student to finish the routine.

If you have picked routines the child is motivated to complete, and have picked responses within the child's skill range, Hunt and Goetz say, the child should master the targeted response in about five sessions.

The researchers note that this technique is particularly useful with autistic children, who have very ritualized routines and are highly motivated to carry them out. They also note that the technique is easy for family members to use in natural settings, and can be used to encourage any type of communication including signing and picture boards.

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"Teaching spontaneous communication in natural settings through interrupted behavior chains," Pam Hunt and Lori Goetz; *Topics in Language Disorders*, December 1988, pp. 58-71. Address: Lori Goetz, Associate Professor, Department of Special Education, San Francisco State University, San Francisco, CA 94132.

Play skills taught

Teaching an autistic child how to approach another child and initiate play is an effective way to promote social interaction with non-disabled peers, according to Thomas Haring and Laurie Lovinger.

Using trained non-disabled children as playmates, the researchers taught the autistic children to:

1. Pick up a set of toys (cars, etc.).

2. Put the toys on the floor near other children.

3. Hand a car or other toy to one of the children.

If a non-disabled child refused the toy, the autistic child was taught to find another child. If the child accepted, the autistic child was taught to play with him or her for at least 10 seconds.

The non-disabled peers were trained to respond by sometimes accepting the autistic child's invitation to play, sometimes asking for a different toy, and sometimes refusing to play. This was important, Haring and Lovinger say, because "in typical play interactions, not all attempts to join in play are successful."

The teachers also taught the autistic students to observe what toys their non-disabled peers were playing with, and to hand the peer a similar toy. For instance, if the non-disabled peer was playing with cars, the autistic child would hand him another car.

Before and after play-initiation training, the researchers measured the autistic children's social interactions in free-play settings with non-disabled peers. They report that following training, the autistic students initiated play more often, and their non-disabled peers consistently responded more positively to their attempts to play.

By comparison, they say, providing awareness training for non-disabled children (and rewarding them for playing with their disabled peers) increased social interaction between non-disabled and disabled students only slightly.

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"Promoting social interaction through teaching generalized play initiation responses to preschool children with autism," Thomas G. Haring and Laurie Lovinger, *JASH*, Vol. 14, No. 1, 1989, pp. 58-67. Address: Tom Haring, Graduate School of Education, University of California, Santa Barbara, CA 93106.

Pictures help teach independent cooking skills

Cookbooks with color photos illustrating each step were used successfully by Australian researchers Matthew Sanders and Janette Parr to teach independent cooking skills to four retarded adults in a group home.

In addition to the picture/word cookbooks, the researchers used color-coded cooking equipment and instructed the home's staff in prompting and reinforcing the home's clients when they performed a skill correctly. Steps of the training program included:

1. Pre-instruction, in which the trainer reviewed the pictured cooking steps with the subject, and asked the subject to describe the actions and equipment required in each pictured step.

2. Meal preparation. Trainees used the picture-and-instruction cookbooks to complete as many steps as possible without help. When they needed help, trainers provided assistance using the least amount of prompting possible. The graduated prompts included:

- indirect verbal prompts (e.g., "is this what the book says?");
- direct verbal prompts (e.g., "turn the stove to red");
- gestures (e.g., pointing to the photo in the cookbook to show what action came next);
- modeling (demonstrating the step); or
- physical guidance; for instance, placing the trainer's hands over the client's hands while using the can opener.

3. Praise and other social reinforcers when tasks were completed correctly.

Sanders and Parr report that the cookbook method was more effective in increasing independent cooking skills than other methods used by the staff, and that skills generalized to recipes not included in the cookbooks. Skills were maintained at three-month follow-up.

Sanders and Parr note that before the cookbooks were introduced, "trainers' preferred styles of assisting clients appeared to involve heavy reliance on direct verbal prompts, fairly inconsistent use of indirect prompting, and social reinforcement. Such an approach reduced the likelihood of subjects displaying independent behavior."

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"Training developmentally disabled adults in independent meal preparation," Matthew R. Sanders and Janette M. Parr; *Behavior Modification*, Vol. 13, No. 2, April 1989, pages 168-191. Address: Matthew R. Sanders, Department of Psychiatry, University of Queensland, Herston, Q4029, Australia.