

Educational Update:

Is "age appropriate" always appropriate?

Proponents of normalization recommend involving autistic children in "age appropriate" activities as often as possible—for instance, encouraging older children to play with Barbie dolls or GI Joes rather than with infant toys. But a new study by Karin Lifter et al. suggests that "developmentally appropriate" activities result in the acquisition and generalization of play skills, while "age appropriate" activities often do not.

Lifter and colleagues worked with three preschool children with autism or autistic-like behaviors, teaching both age-appropriate and developmentally-appropriate play skills. "In contrast to the consistently acquired developmentally-appropriate activities," they report, "the activities of the age-appropriate category apparently were more difficult, and in most cases, they were not acquired. In addition, the children were less likely to generalize the age-appropriate skills to other activities or toys."

The researchers conclude that "if developmentally-appropriate activities are more likely than age-appropriate activities to be acquired quickly, to occur spontaneously, and to generalize to other stimuli and situations, then they have greater potential to function as true play in children's interactions with their peers and are well worth teaching."

"Teaching play activities to preschool children with disabilities: the importance of developmental considerations," Karin Lifter, Beth Sulzer-Azaroff, Stephen R. Anderson and Glynnis Edwards Cowdery; *Journal of Early Intervention*, Vol. 17, No. 2, 1993, pp. 139-159. Address: Karin Lifter, Department of Counseling Psychology, Rehabilitation, and Special Education, Northeastern University, 203 Lake Hall, Boston, MA 02115.

Handling non-compliance

An 18-year-old retarded man's severe non-compliance was successfully treated using positive reinforcement and non-exclusionary time-out, according to researcher Nancy Huguenin.

"When treatment began," Huguenin reports, "[the man] was refusing to leave or walk to his school bus on most school days....Because of his physical size it was extremely difficult for his teachers and parents to move him, and he usually became very aggressive when physically carried. Teachers, students, and [his] parents had been severely injured during his aggressive episodes."

Treatment consisted of offering praise and food rewards whenever the man walked a certain distance to or from the bus. Initially, he received rewards for walking three minutes without sitting down; this time was gradually increased.

When the man sat down while walking to or from the bus, he was placed in a chair

and the staff member walking with him removed the bag of food rewards and walked away. No eye contact or praise was given. After five minutes, the staff member returned and prompted him to get up. The procedure continued until the man complied, or until his schedule required that the staff move him physically.

Huguenin says the treatment resulted in near-zero levels of non-compliance both at home and at school, indicating that "non-exclusionary time-out is a viable alternative for reducing negative behaviors in such potentially assaultive individuals when positive reinforcement for appropriate behavior is also provided."

"Reducing chronic noncompliance in an individual with severe mental retardation to facilitate community integration," Nancy H. Huguenin, *Mental Retardation*, Vol. 31, No. 5, pp. 332-339. Address: Nancy Huguenin, Applied Analysis, Inc., Box 327, Groton, MA 01450.

Cutting out "cussing"

Many autistic individuals also are diagnosed as having Tourette's syndrome, a neurological disorder that causes involuntary motor tics such as blinking or sniffing, and vocal tics such as barking or grunting. One of the most common and most problematic symptoms of Tourette's is inappropriate swearing ("coprolalia"), which can severely restrict social and job opportunities.

Recently, Theresa Earles and Brenda Smith Myles tested four behavior modification techniques to see which would be the most effective in reducing the swearing of a nine-year-old girl with autism and Tourette's. During baseline testing, the girl averaged more than 154 obscenities per day. Approaches used by the researchers included:

—**Modified time-out.** When the girl swore, the teacher removed her from her current task, put her finger over the girl's lips and whispered, "no cussing." Then the task was resumed.

—**Differential reinforcement of other behavior (DRO).** The teacher set a timer for two minutes. If the girl did not swear during the two-minute period, she received a sticker and praise. After receiving three consecutive stickers, the girl was rewarded with a drink of Pepsi and additional praise.

—**DRO paired with DRA (differential reinforcement of alternative behavior).** In these sessions, the girl was taught good words to use in place of obscenities. The timer procedure was continued. If a profanity was uttered before a time period ended, the timer was re-set and the girl was instructed to "say a good word," such as "apple" or "dam." If she complied, she received a drink of Pepsi and praise.

—**Intermittent DRA.** During this phase, the timer/sticker program was dropped. The girl was intermittently rewarded with a drink of Pepsi when she used a good word spontaneously during stressful times. When she swore, she was asked to "say a good word."

Earles and Myles report that the intermittent DRA procedure was the most useful, with the girl's average number of obscenities per day dropping to less than eight. "After the good words became part of [the girl's] repertoire," they say, "she effectively used these words in place of more inappropriate utterings."

The modified time-out procedure, the researchers say, was the least effective; in that condition, swearing incidents averaged about 90 per day. All treatments, however, led to significant drops from the baseline.

"Using behavioral interventions to decrease coprolalia in a student with Tourette's syndrome and autism: a case study," Theresa L. Earles and Brenda Smith Myles, *Focus on Autistic Behavior*, Vol. 8, No. 6, February 1994. Address: Theresa L. Earles, Howard Wilson Elementary School, Leavenworth, KS.

When is teaching over-teaching?

A new study suggests that hand-over-hand modeling, combined with verbal praise for correct responses, may be less effective than simply having students observe a task.

Gerald Biederman and colleagues taught two different tasks to a group of 12 children with autism or other developmental disabilities. Three different techniques were used:

- Hand-over-hand modeling, in which the trainer physically guided the child through each step of the task, offering both verbal instruction and praise.
- Hand-over-hand modeling, with verbal instruction but no praise.
- "Passive" modeling, in which the child simply observed the trainer doing the task and offering verbal instruction.

The researchers found that hand-over-hand modeling was no more effective than the passive observational approach, and actually was *less* effective when combined with verbal praise.

"Such verbal reinforcement, in combination with interactive modeling strategies, may produce confusion in children with language and learning difficulties," the researchers say, because "the child may be uncertain about exactly what behavior is being reinforced, or the reinforcement may serve to distract the child from what is, for him or her, a difficult sequence of behavior."

"The negative effects of positive reinforcement in teaching children with developmental delay," Gerald Biederman, Valerie Davey, Christine Ryder and Dina Franchi; *Exceptional Children*, March-April 1994, Vol. 60, No. 5, pp. 458-465. Address: Gerald B. Biederman, Division of Life Sciences, Scarborough Campus, University of Toronto, Scarborough, Ontario, Canada, M1C 1A4.