SPECIAL INTEREST GROUP NEWSLETTER

AUTISM

AND RELATED DEVELOPMENTAL DISABILITIES

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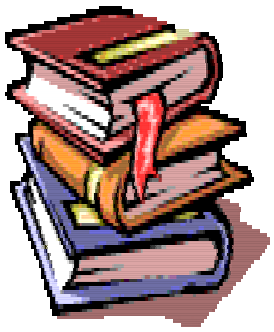
Article Synopsis



The following represents an installment of an ongoing series of article synopses drawn from the pool of behaviorally oriented articles published within the last year. This article synopsis was authored by a doctoral student from the Graduate School of Applied and Professional Psychology, who is also affiliated with the Douglass Developmental Disabilities Center.

Delprato, D.J. (2001). Comparisons of Discrete-Trial and Normalized Behavioral Language Interventions for Young Children with Autism. Journal of Autism and Developmental Disorders, 31, 315-325.

Traditional behavioral techniques have been widely used for teaching language to children with autism. Research has demonstrated that these procedures, typically called discrete-trial or direct instruction, have been effective tools for teaching language to children with autism (Koegel, Rincover, & Egel, 1982; Lovaas, 1977; Risley & Wolf, 1967; Wolf, Risley, & Mees, 1964).

Like traditional procedures, the components of naturalistic interventions were derived from fundamental research findings. However, procedural characteristics of the interventions may differ greatly. Typically, naturalistic behavioral interventions provide reinforcement functionally related to target responses, occur in loosely structured play settings, and are paced by the child's initiations. Examples of these interventions include incidental teaching (Hart & Risley, 1968, 1974), the natural language teaching paradigm (Koegel, O'Dell, & Koegel, 1987), and pivotal response training (Koegel, Schreibman, Good, Cerniglia, Murphy, & Koegel, 1989). Performed correctly, these procedures give the impression that no formal intervention is taking place. However, the trained eye can detect specific antecedent and reinforcement strategies that are in

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place.

The appearance of this type of intervention is strikingly different from traditional procedures. The following table, adapted from the article, presents the procedural characteristics that differ between the two approaches.

The present article reviews a series of studies in which these traditional procedures were compared with newer, more naturalistic interventions for teaching language to children with autism. The review included 10 studies in which researchers evaluated the effectiveness of both established discrete-trial procedures and naturalistic interventions for teaching language to children with autism. Eight of these studies compared effectiveness using language criterion responses and two of these studies evaluated parental response to the procedures. Studies that met criterion for inclusion demonstrated sound research methodology, indicated that all participants met criteria for autism, and employed methods that targeted some aspect of language performance.

In three of the studies that used language criterion responses to compare the effectiveness of both approaches, researchers compared discrete-trial training with a procedure that had a single-component modification from discrete-trial training. In two of these studies (Koegel & Williams, 1980; Williams, Koegel, & Egel, 1981), the naturalistic procedure differed only from traditional discrete-trial by including a natural reinforcer embedded in the task. When comparing percentage correct responses for both the discrete-trial and the naturalistic approach, both studies indicated that students performed consistently higher during the naturalistic instruction. The instructional technique in the third study deviated from a traditional discrete-trial procedure by including more liberal criteria for presenting reinforcers (Koegel, O'Dell, & Dunlap, 1988). Specifically, the researchers positively reinforced all attempts as verbalization, regardless of whether they were correct responses. Comparison revealed that children demonstrated higher rates of correct speech, improved general conduct, and more positive affect in the naturalistic teaching condition.

All other reviewed studies compared naturalistic procedures with multi-component modifications of traditional discrete-trial. The naturalistic procedures in these studies had most or all of the characteristics described in the table above. In two of these studies, the researchers compared incidental procedures with discrete-trial training. Perhaps the earliest form of a naturalistic teaching strategy, incidental teaching occurs in a naturalistic setting, begins with a child's initiation, and uses naturalistic reinforcers (Hart & Risley, 1974). Typically, a teacher will prompt a student to elaborate upon the earlier initiation, providing the child with an opportunity to improve their language capabilities. When comparing discrete-trial and incidental teaching procedures to teach generative responses, Neef, Walters, & Egel (1984) found that during incidental teaching procedures, children produced more correct responses. Further, the naturalistic teaching strategy generalized to nontrained requests. In a similar study, McGee, Krantz, & McClannahan (1985) found comparable acquisition rates of preposition use with discrete-trial and incidental teaching. However, prepositions taught during naturalistic teaching generalized more frequently.

The remaining studies all compared discrete-trial procedures with the natural language teaching paradigm or pivotal response training (Koegel, O'Dell, & Koegel, 1987; Koegel, Schreibman, Good, Cerniglia, Murphy, & Koegel, 1989). These procedures are elaborations of incidental teaching methods and include greater attention to multiple cues, interspersal of maintenance tasks, and reinforcement contingent upon response efforts. The

first of these studies concluded that naturalistic teaching was more effective for both acquisition and generalization on three measures of language capabilities: imitative, deferred imitative, and spontaneous utterances (Koegel, O'Dell, & Koegel, 1987). Another study concluded that pivotal response training results in greater increases in language responding and decreases in problematic responding (Koegel, Koegel, & Surratt, 1992). The primary focus of a third study assessing both discrete-trial and naturalistic teaching was generalization (Koegel, Caramata, Koegel, Ben-Tall, & Smith, 1998). Following naturalistic teaching, children demonstrated more functional use of targeted sounds during generalization tests.

In both studies that evaluated parental effect, parents were randomly assigned to receive training in discrete-trial procedures or pivotal response training. Following training, parental affect was rated during teaching episodes (Schreibman, Kaneko, & Koegel, 1991) or outside of teaching sessions during family interactions in the home (Koegel, Bimbela, & Schreibman, 1996). The authors of both studies found that parents using pivotal response training received reliably more positive scores on all measures of parental affect.

All of the studies included in the review favored naturalistic procedures over discrete-trial for teaching language to children with autism. This evidence supports the use of naturalistic teaching strategies over discrete-trial procedures for teaching a significant range of language capabilities to children with autism and justifies further exploration. However, the range of naturalistic teaching strategies is not determined. Some hypothesize that discrete-trial and naturalistic teaching strategies may not be antagonistic and be used to teach complementary language skills to children with autism. For example, discrete-trial may be more effective to teach language structure, while naturalistic teaching strategies may be more effective for teaching application of language.

	Discrete Trial	**Naturalistic Interventions**
Structure of Session	Highly structures sessions paced by teacher	Loosely structured sessions paced by student
Episode Initiation	Teacher initiated	Student initiated
Settings	Teacher and student seated; Distractions minimized	Teacher and student in various naturalistic settings (often a play setting); Presence of various stimuli
Antecedent Stimuli	Teacher selected and are represented for a series of episodes	Student selected and vary from episode to episode
Order of Target Responses	Same target responses for several successive episodes	No particular order of target responses within a session
Prompting Strategy	Prompts remain constant for particular responses	Vary according to the student's initiations
Reinforcers	Functionally unrelated to the episode	Functionally related to the episode
Reinforcer Presentation	Presentation of reinforcer contingent upon correct response or successive approximation	Both correct responses and attempts to respond are positively reinforced

Conference Corner

AABT

AABT's 35th Annual Convention in Philadelphia was a great success and the autism SIG meeting was well attended! Many thanks to our 2001 SIG Autism SIG meeting presenter, Dr. V. Mark Durand. His presentation on sleep disorders in individuals with autism was practical, interesting, and widely applicable. Plans for the 2003 meeting in Reno are already in progress. We hope you will be able to join us!

If you were unable to make to attend the SIG meeting this year, please see the minutes below.

AABT Autism SIG Meeting Minutes
November 16, 2001

BUSINESS & ANNOUNCEMENTS

1. The student research contest was introduced. The Autism SIG sponsors a student research award each year. Posters presented at AABT with students as the first author will be eligible to enter the contest. SIG members were encouraged to apply or to encourage their students to apply. The winner of the contest will receive a certificate at next year's AABT convention and will have their poster printed in the next issue of the Autism SIG newsletter.

2. The student research award from 2000 was presented to Heather Jennett by Dr. Jan Handleman. She was presented with a certificate and a book.

3. The SIG Newsletter is a quarterly publication that feature articles, conference information, article synopses, free advertisements and announcements. Submissions are always welcome. Opportunities to renew and initiate a subscription were given.

4. Ideas for topics to be presented at the next AABT SIG Meeting were discussed. Suggestions included a presentation on consultation models in school settings.

SPECIAL PRESENTATION:
SLEEP DISORDERS IN AUTISM

*Dr. **V. Mark Durand**, Professor at the Department of Psychology, at the State University of New York at Albany presented on sleep and interventions for sleep disorders in individuals with autism.*

Highlighted points from his presentation include:

What affects our sleep?
- Biological clock
- Circadian Rhythms
- Superchiasmatic nucleus
- Light, melatonin
- Temperature (lower temperature - time to sleep)

Stages of Sleep
- REM: dream sleep, involved in memory and learning
- NON-REM: sort of an enigma, less is

known about this stage

What happens at night?

- 25% of typical children have significant sleep problems (i.e. problems interfere with their functioning).
- Affects 33% of children with disabilities.
- Affects over 50% of children with autism.
- Types: nightmares, sleep terrors, sleep-walking, etc.
- Lack of sleep may serve as a setting event for behavior problems in children with autism

Good Sleep Habit Checklist

- Bedtime routine
- Maintain a set bedtime and awakening time
- No caffeine for 6 hours before bed
- Limit alcohol
- Drink milk (L-tryptophan)
- Eat a balanced diet
- Do not exercise before bedtime, exercise earlier.
- Restrict activities in bed (stimulus control)
- Reduce noise and light in bedroom
- Avoid extreme temperature changes in bedroom

Intervention Approaches

- Graduated Extinction
  - Spending increasingly longer amounts of time ignoring the cries and protest of the child
- ♦ Scheduled Awakening
  - Reset clock idea?
  - 15-60 minutes before typical sleep interruption
- Sleep Restriction and Bedtime Fading
  - ♦ ~90% of the typical time for sleep-work slowly back to 100%

ABA

28th Annual Convention of the Association for Behavior Analysis

May 24—28, 2002
Sheraton Centre, Toronto, Ontario

The next issue of the Autism SIG newsletter will provide a detailed schedule of autism related events at the upcoming convention in Toronto. Conference brochures are now available on the ABA website! You can search the program by day, presenter, or area of interest. Check it out at www.wmich.edu/aba/convention/program.htm. You can also register online at www.wmich.edu.aba.convention/registration.htm or call the ABA office for a registration form.

Douglass Developmental Disabilities Center presents:

Autism and Related Disorders: Meeting Diverse Educational Needs.

April 10, 2002
Rutgers, The State University,
Busch Campus Center
Piscataway, N.J.

Call Nadine 732-932-9137 for registration information.

Help wanted

Coordinator of Professional Services

COSAC is seeking candidates for a Coordinator of Professional Services. This full-time position requires a B.A. degree and a minimum of two (2) years experience in the autism field. Strong clinical and organizational skills are necessary to plan and deliver educational and support services to professionals throughout the state. Knowledge in applied behavior analysis, inclusion strategies, and school consultation is necessary. Fluency in Spanish is desirable. Opportunities to pursue behavior analysis certification are available.

Please mail/fax a resume and cover letter detailing your experiences and/or interest in the following areas: working with individuals with autism and professionals, behavior analysis, and public speaking, to

COSAC, Attention: Suzanne Buchanan, Psy.D., BCBA,1450 Parkside Avenue, Suite 22, Ewing, NJ 08638. Fax (609) 883-5509.

For questions, contact Dr. Buchanan at (609) 883-8100 extension 42.
COSAC is an equal opportunity employer.

MENTOR-NJ

MENTOR-NJ a community based behavioral healthcare company, is seeking an individual to work with clients with developmental disabilities.

BEHAVIOR SPECIALIST:

Recent Ph. D psychology graduate or Master level Clinical Psychologist experienced in working with individuals with developmental disabilities. Function as a member of a treatment team and work with foster parents and consumers in their homes. Responsibilities include developing and implementing behavior management plans as well as crisis intervention and assisting with in-call service.

Please mail or fax resume to: MENTOR-NJ, 2 World's Fair Drive, Suite 301, Somerset, NJ 08873. Attn: Barbara Wetzel. Fax: 732-627-9868

Douglass Developmental Disabilities Center

The DDDC at Rutgers, The State University of New Jersey is a center for the study and treatment of autism**. There are currently positions open.** Please send resume or inquire about possible openings to:

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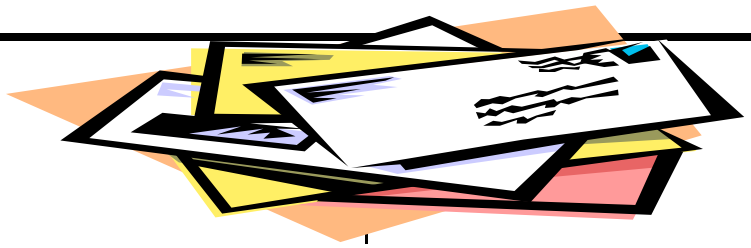
Douglass Developmental Disabilities Center
Rutgers, The State University of NJ
25 Gibbons Circle
New Brunswick, NJ 08901
Phone: 732-932-9137



PLEASE UPDATE YOUR SUBSCRIPTION INFORMATION

We are currently updating our Autism SIG newsletter subscription database. If you would like to continue receiving this newsletter, please complete the following information. If we do not hear from your regarding your continued interest over the next few months, your name will be taken off the mailing list. Thank you! Heather Jennett, M.S., Newsletter Editor

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AUTISM SIG NEWSLETTER

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Please return this form to:

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Please send your suggestions of topic ideas for possible inclusion in an upcoming issue of the SIG newsletter to:

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