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A series of trainings for paraprofessionals : instructional strategies for supporting students with autism spectrum disorder

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**A Series of Trainings for Paraprofessionals:
Instructional Strategies for Supporting Students with Autism Spectrum Disorder**

Action Thesis Submitted in Partial Fulfillment of the Requirements
For the Degree of Master of Arts in Education

California State University at Monterey Bay

Fall 2008

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Action Thesis Signature Page

A SERIES OF TRAININGS FOR PARAPROFESSIONALS:
INSTRUCTIONAL STRATEGIES FOR SUPPORTING STUDENTS
WITH AUTISM SPECTRUM DISORDER

BY

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Abstract

The purpose of this thesis project was to evaluate the effectiveness of research-based instructional strategies to determine what materials, in the areas of Autism Spectrum Disorder (ASD) and Applied Behavior Analysis (ABA), should be included in a training series for paraprofessionals working with students with ASD. With the prevalence of ASD increasing, it is imperative that paraprofessionals have effective tools and instructional strategies to support students with ASD in general and special education classrooms. Four training modules were created in the areas of Autism Spectrum Disorder and Applied Behavior Analysis: 1) background information on ASD and ABA, 2) antecedent instructional strategies, 3) reinforcement and 4) self-management. One of the training modules was field-tested with a group of paraprofessionals and feedback was provided. This project supports the feasibility of developing a series of trainings for paraprofessionals in the use of instructional strategies based in ABA for students with ASD.

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Chapter 1: Statement of Purpose

Introduction

Students diagnosed with Autism Spectrum Disorder (ASD) may benefit from research-based behavioral interventions, including those derived from the field of Applied Behavioral Analysis (ABA). Many students with ASD struggle with challenging behaviors that may not only affect their learning environment but the learning environment for all students in their classroom. Students with ASD are described as having challenging behaviors as well as behavioral deficits, including the inability to relate to others, lack of language and self-stimulatory behavior (Heward, 2003). Behavioral and educational interventions have become the dominant approach for treating children with ASD (New York State Department of Health, 1999). Shook, Ala'i-Rosales and Glenn (2002) report the two most important variables in ensuring that students with ASD learn the skills needed to increase their quality of life are the type of instructional approach used and the competence of those providing the instruction.

The need for effective behavioral support and instructional strategies for students with severe disabilities, including ASD, continues to be intense (Horner & Carr, 1997). It is recommended that principles of ABA and behavior intervention strategies be included as important elements in any intervention program for children with ASD (New York State Department of Health, 1999). While the classroom teacher has the overall responsibility for designing behavior intervention strategies for students with ASD, properly trained paraprofessionals can assist the special education teacher in a variety of ways, such as with collecting data and supporting interventions in the classroom (Boomer, 1994).

For nearly two centuries, paraprofessionals have assisted special education teachers in educating children with severe and pervasive developmental disabilities (Boomer, 1994). With the growing reliance on paraprofessionals to teach children with ASD, staff training is needed so that they can acquire the tools to competently assist in the implementation of instructional programs (Bolton & Mayer, 2008).

In sum, the role of the paraprofessional in a special education classroom is vital, and they must be trained accordingly. The purpose of this project is to create a series of training modules for paraprofessionals working with students with ASD. These training modules will be designed to educate paraprofessionals about applied behavioral analysis and other behavior intervention strategies and how they can use them when working with students with ASD in both special and general education classrooms.

Background

Currently, many paraprofessionals enter special education classrooms with little to no training in ASD and how to manage behaviors and support students with ASD in special day and general education classrooms. The prevalence of ASD is increasing dramatically. Nationwide estimates place the current prevalence of ASD at 1 in 150 children (Center for Disease Control and Prevention, 2007). In my school district, based on enrollment in December 2007, 24.5% of the students in special education qualify with a disability of ASD (Textor, 2008). According to the 2007-2008 pupil count, out of 124 students served by the preschool in my district for special education students, 45% are diagnosed with ASD. Overall, the population of students with ASD in my school district is on the rise; during the 2001-2002 school year there were 82 students with ASD and during the 2007-2008 school year there were 267 students with ASD. It is also important

to note that my school district serves about 10% more students with ASD than other school districts in Santa Clara County. In my district, the high population of students with ASD supports the need for paraprofessionals to be trained in ABA and the use of behavior intervention strategies.

In my professional experience, there is a need for training that would educate paraprofessionals about ASD and the most widely used research-based intervention strategies to support students with ASD in special and general education classrooms.

Statement of Problem and Purpose

Due to the increased number of students in my school district with ASD, paired with the lack of training for paraprofessionals working with these students, there is a need for training on ASD and the current behavior intervention strategies. I plan to create a training that teaches paraprofessionals working in the special education field with students with ASD the basic principles of ABA and other behavior intervention strategies that can be used to support those students in the classroom. Entering the classroom, many paraprofessionals have little to no training, yet are expected to assist the classroom teachers in providing effective instruction to students with ASD. I plan to create a practical training series to use with the paraprofessionals who work in my classroom, with an interest in expanding the training for all paraprofessionals in my school district. The purpose of the training is to provide them with some basic tools and strategies to support the students with whom they work.

Personal Experience

This subject is of particular interest to me because I have been working in the field of special education for the past 6 years, both as a classroom teacher and a

paraprofessional. During this time, I started as an instructional assistant working in a variety of special education classrooms with no training or experience working with students with ASD. Later as a classroom teacher, I found that the instructional assistants who worked in my class had little to no training as well and were forced to learn as they went along. Many paraprofessionals are coming into the field as novices with limited knowledge about ASD and instructional strategies to support students in the classroom. Looking back, I wish I would have known more about ASD and behavior interventions and strategies going into my first few years as an instructional aide and I am grateful for the teachers I have worked with for sharing behavioral strategies with me.

Thesis Project Goals

In order for me to create a series of trainings for paraprofessionals that will teach them to better serve students with ASD using effective instructional strategies, it is necessary to consider the following questions:

- What are the key behavioral and instructional strategies that have been proven successful when working with students with ASD?
- What are the necessary components of a series of trainings on effective instructional strategies for paraprofessionals working with students with ASD?

With cooperation from my school district, I hope this project will be utilized for years to come, so that paraprofessionals will be trained and ready to implement ABA and other behavioral strategies when working with students with ASD. At the very least, this training will be used again and shared with the paraprofessionals who work in my classroom. I will use it as a tool to ensure my classroom staff has an idea of what ABA is and how its strategies can be used to support the students with ASD with whom we work.

Chapter 2: Literature Review

Literature Review

Applied Behavior Analysis (ABA) has been demonstrated to be effective in a wide array of academic settings for all students (Dunlap, Kern, & Worchester, 2001). In fact, ABA is documented as the most effective instructional technology available for children with ASD (New York State Department of Health, 1999). Heflin and Alberto (2001) describe ABA as having a 40-year history of significant strategy development and generalization. They continue to discuss other work that documents the range of instructional strategies incorporating the principles of ABA for the education of students with ASD (2001). Dunlap et al. (2001) highlight the effects ABA has had on many functional domains of students with ASD as well as the positive impact of ABA on academic instruction, more specifically antecedent interventions. Applied Behavioral Analysis can be used both in the general education and special education classrooms (Koegel, Harrower & Koegel, 1999).

In one of the most heavily cited articles in the field of ASD, Lovaas (1987) showed that 47% of the children with ASD who received early intensive behavioral treatment achieved normal intellectual and educational functioning, having normal-range IQ scores and successful performance in general education first grade classrooms. In comparison, a matched sample of children with ASD who did not receive the early intensive behavioral treatment did not show improvements. Lovaas (1987) commented that two years of intense behavioral treatment would be a better, more cost-effective investment, as compared to students requiring life-long care and possible institutionalization.

Simpson (2001) reported that Applied Behavioral Analysis (ABA) is recognized as an essential and scientifically valid method of educating children with ASD. Simpson (2001) describes students with ASD as “a particularly unique group, even when compared with other children with disabilities” (p. 68), so there is no simple intervention strategy that will work for all students. The field of ABA has contributed a number of widely used, versatile tools which when combined in an intensive and systematic way, can deliver significant benefits for children with ASD (Simpson, 2001).

The use of ABA strategies as the primary intervention for children with ASD in schools is a common topic of debate. ABA, while effective for students with ASD, is expensive, requires knowledge of techniques and strategies, and intense implementation. Therefore, training paraprofessionals on behaviorally-based instructional strategies has the potential to defray the costs incurred by relying on outside experts to provide these needed supports (Putnam & Senneth, 2002). Simpson (2001) concludes “the challenge now is to begin the process of having professionals, parents, and advocates work together to plan, implement and evaluate ABA programs, including merging science, policy and practice” (p. 71).

In the field of Applied Behavior Analysis, there are a variety of evidence-based instructional strategies and interventions that can be used by classroom teachers and paraprofessionals to support the learning environments for students with ASD displaying problem behaviors (Alberto & Troutman, 2006).

Cooper, Heron and Heward (2007) report that educators have long used antecedent-based strategies to effectively develop desirable behaviors, diminish problem behaviors, and design effective learning environments. Antecedent interventions involve

manipulating events that immediately precede problematic academic or behavioral performance (Kern & Clemens, 2007). These antecedent interventions are based on individual strengths and needs in learning and interaction, centering on modifying the environment to accommodate the student rather than asking the student to accommodate the environment (Preis, 2007).

One effective and common antecedent procedure for students with ASD in general and special education classrooms is priming (Harrower & Dunlap, 2001). Harrower and Dunlap (2001) explain that priming refers to pre-practice or previewing instructional materials prior to a lesson, and has been documented as an effective classroom intervention for children with ASD. Another effective type of antecedent strategy involves the use of prompts (Alberto & Troutman, 2006). To use prompts effectively, teachers must follow a few guidelines including: 1) using prompts that focus students' attention to the task, 2) prompts should be as weak as possible, 3) prompts should fade quickly, and 4) unplanned prompts should be avoided (Alberto & Troutman, 2006). Task analysis has been the basis for teaching both complex functional and vocational skills to people who have severe and profound disabilities by breaking tasks down into multiple steps or parts (Alberto & Troutman, 2006).

Giving students a choice or breaking down large assignments into smaller tasks is a good strategy to get students motivated. Horner and Carr (1997) describe student choice as a strategy that can make an intervention more effective. Horner and Carr reported from their research that while students should not be able to choose all elements of their curriculum, teaching students with severe disabilities how to make choices, and incorporating choice options in daily schedules have been useful elements of successful

interventions (1997). Dunlap et al. (2001) reported that modifying the task size or duration, offering choices, and task interspersal are a few antecedent strategies that have been used to improve academic and behavior performance in the classroom. Dunlap et al. (1994) suggests that when a student chooses an activity, problem behaviors are less likely to occur than if the teacher presents the same activity.

Northrup, Vollmer, and Serrett (1993) report that the most widely used principle of behavior analysis is reinforcement and that the effects of positive reinforcement have been demonstrated with a variety of disabilities, contexts, and behaviors. Vollmer and Hackenberg (2001) suggest that social reinforcement is the most commonly used type of reinforcer in ABA. Reinforcement describes a relationship between two environmental events, a behavior and an event or consequence that follows that behavior (Alberto & Troutman, 2006). They also report that teachers often have students in their classrooms that do not respond to naturally occurring reinforcers, and in this instance, the teachers need to arrange opportunities for students to earn reinforcers that are of value to them (2006). Differential reinforcement in its various forms is one of the most effective, widely used techniques used to teach new skills and reduce problem behavior (Cooper, Heron, & Heward, 2007).

Alberto and Troutman (2006) report that students with relatively severe disabilities, including ASD, have been taught to use self-management procedures. An important benefit of self-management is the focus on skill building to teach students to be more independent, self-reliant, and responsible for their own classroom behavior (Wilkinson, 2008). Self-management can help a person be more effective and efficient in daily life, replacing bad habits with good ones, accomplishing difficult tasks, and

achieving personal goals (Cooper, Heron, & Heward, 2007). The best person to manage a student's behavior is the student (Alberto & Troutman, 2006). Harrower and Dunlap (2001) describe self-management as a viable intervention strategy for promoting independence in the classroom. According to Dunlap, Dunlap, Koegel and Koegel (1991), the use of self-management techniques shifts the responsibility for behavior management from the teacher to the student. Koegel, Harrower and Koegel (1999) report that teaching self-management techniques for appropriate school work performance is an effective strategy for increasing the level of engagement in academic activities and reducing the disruptive behavior of children with developmental disabilities in general education classrooms. Others have reported that creating response prompts, or visual cues, for desired behaviors is one of the simplest, most effective, and most widely applied self-management techniques (Cooper, Heron, & Heward, 2007).

The principles of ABA can greatly assist a teacher in providing an effective learning environment. As expressed by Alberto & Troutman, teachers who learn and practice the principles of applied behavior analysis can assist their students in mastering functional and academic skills, as well provide learning environments where they can manage behaviors so the focus in the classroom remains on learning (2006).

Due to the increase in prevalence of ASD, Simpson (2004) reports that there is a growing reliance on paraprofessionals to deliver these educational services, like ABA intervention.

Over time, the roles and responsibilities of paraprofessionals in educational settings have expanded and evolved (Quilty, 2007). Quilty describes paraprofessionals as being responsible for more traditional clerical and preparatory duties, as well as now

assuming a wider range of roles, including being more active in the instructional process (2007). For this reason it is important that paraprofessionals go into the classroom trained and ready to support students in a variety of ways, including behavior support and interventions. In fact, research focused on teaching paraprofessionals to write and implement the antecedent-based strategy of social stories shows that when paraprofessionals are taught to develop, use and evaluate social stories they are able to do so (Quilty, 2007).

In order to implement applied behavior analysis, both comprehensively and effectively, educators and other support providers need training to strengthen their skills (Dunlap, Hieneman, Knoster, Fox, Anderson & Albin, 2000). Dunlap et al. (2000) discuss the need for training in the area of positive behavior support, an approach that incorporates many elements of ABA to support students with a history of behavior problems, particularly in promoting the development of skills and the ability to create individualized, assessment-based interventions for students. The curriculum designed by Dunlap et al. for in-service training in this area was based on learning objectives that provided practical knowledge and information that could easily be generalized to provide individualized intervention. The training focused on the importance of working collaboratively to create more comprehensive interventions. Dunlap et al. (2000) described the key themes of the training as: (a) individualized assessment, (b) using proactive and educative strategies, (c) collaboration and (d) focusing on generalization and improving the overall quality of life of students. The inservice training model was provided in a sequence over 10-12 days over a period of several months, but may vary based on prior knowledge and training of attendees.

There is growing evidence that training staff in skills to work with individuals with intellectual disabilities and challenging behaviors can be a successful enterprise (Dowey, Toogood, Hastings, & Nash, 2007). Dowey et al. (2007) discuss that teaching applied behavior analytical skills to promote adaptive behaviors and reduce challenging behaviors can be achieved by direct instruction.

Summary

ABA is recognized as an effective behavioral intervention for students with ASD (Dunlap et al., 2001 & Simpson, 2001). The literature demonstrates that effective behavioral interventions can better the lives of students with ASD by reducing or eliminating problem behaviors. There is no one behavioral intervention or strategy that will work for all students with ASD, but ABA is successful and widely accepted. It would be beneficial for paraprofessionals to be trained and knowledgeable in ABA strategies and techniques since the success of any behavioral intervention is highly dependent on the competence of the support providers. Training needs to be comprehensive and collaborative with a focus on the generalization of skills for the overall improvement of students' quality of life (Dunlap et al., 2000).

Chapter 3: Methodology and Procedures

Methodology and Procedures

Introduction

The purpose of this study was to create a set of training modules for paraprofessionals working with students with ASD. These modules were designed for the many paraprofessionals with limited training who enter classrooms where they are expected to interact and work with students with ASD. It was necessary to determine what information regarding ASD and which instructional strategies should be included to help them support students in special day and general education classrooms.

Setting and Participants

The training for paraprofessionals in ASD and behavioral strategies, including Applied Behavioral Analysis, took place within Cupertino Union School District in Santa Clara County. While this training was primarily designed for paraprofessionals working with students with ASD in Special Day classrooms, elements of the training also addressed the important considerations for those working with these students in other educational settings, such as general education classrooms.

A field-test was completed on a module of the training series. Three paraprofessionals from the Cupertino Union School District served as the focus audience for a trial run of Module 1 – Background on Autism Spectrum Disorder and Applied Behavior Analysis. The field-test took place at Blue Hills Elementary, on November 20, 2008. The paraprofessionals who attended the training possessed a variety of prior experiences, ranging from no previous training to multiple trainings on classroom intervention and strategies.

Procedures

Literature Review

The process of reviewing the literature served as an opportunity to research and evaluate ABA and other behavior intervention strategies, to determine the effectiveness of various behavior interventions for students with ASD and identify how to use this information to create a beneficial training for paraprofessionals. Literature was selected that provided an overview of ABA and other behavior interventions, techniques currently being used in elementary school settings, and effective practices in both the general and special education populations. Other literature reviewed focused on existing paraprofessional training models and identifying the necessary components for creating a professional development training for paraprofessionals, particularly in the area of behavior intervention support. The literature review provided insight on the topic of ABA, its effectiveness in improving the behaviors of students with ASD and the need for paraprofessionals to be trained in these areas. A search was completed in two computerized databases: PsychINFO and ERIC. The following descriptors were used to search: (a) Autism and related terms (ASD, Asperger's Syndrome, etc.), (b) Applied Behavioral Analysis (ABA), (c) behavior interventions, (d) positive behavioral supports, (e) paraprofessionals, (f) training, and (g) professional development.

From the literature review, the following areas were identified in order to guide the selection of topics and the format of the training series: 1) information on autism spectrum disorders, 2) research and best-practices guidelines on the use of ABA and the strategies used with students with ASD and 3) the role and recommended guidelines for paraprofessionals. This review provided information on current, research-based

approaches to provide training in ABA for paraprofessionals. One of the primary goals of this review was to identify the content to be included in the training series that would be most useful for paraprofessionals.

Input from Professionals in the Field

To ensure the materials for the project were appropriate, a two-phase professional review process was followed. In both phases information was requested from other professionals in the field. The professionals who provided input were a district administrator and a representative from a local behavioral consulting organization that serves students with ASD within my school district. A total of 2 professionals in the field were involved in this phase of the project. This interaction was intended to create a training that could be implemented in our district for any paraprofessional working with students with ASD.

Feedback from Professionals on the Selection of Training Topics

During the first phase of the review, the professionals were presented with selected topics to be addressed in the training. Information was requested from these professionals regarding the appropriateness and comprehensiveness of the topics identified. With both professionals, separate meetings took place where the topics to be covered were presented and discussed.

The first feedback was solicited from the director of Special Education in my school district. At this meeting, I presented her with a list of topics that had been identified from the review of the literature to determine their appropriateness for inclusion in the training series. After discussing the many topics identified, the topics were narrowed down to focus on instructional strategies and background information that

was thought to be of most benefit to the paraprofessionals in our school district. Her feedback allowed me to narrow the focus of the training topics I wanted to include as well as to create a training project for paraprofessionals that would be very relevant to the needs of my school district. (See Results section for a detailed description of the changes made at this stage of review).

The second professional reviewer was the clinical manager of the behavior consulting organization that provides support to students with ASD in my school district. His feedback was requested in a similar fashion to that of the first professional reviewer. He was presented with the newly modified topics determined at the meeting with the director of Special Education. Together, we reviewed the selection of topics and he provided feedback on the relevance and applicability of the topics to paraprofessionals in our district. During our meeting, he shared some additional topics of trainings that he had previously used in training for the paraprofessionals who work with him and are specifically trained in the areas of ABA.

In both meetings, the selected topics were presented to the professionals. Each topic was briefly discussed to determine its appropriateness to be included in an introductory training project for the paraprofessionals working in our district.

Review of Existing Training Materials

Publicly available materials on ASD and ABA were reviewed to gain a better understanding of what materials would be the most useful for the paraprofessionals to be trained in. In addition to the literature review, the review of existing training materials provided ideas of what materials have been included in past professional development activities and provided insight as to whether they would be useful for the audience

targeted for this project. Local agencies in Santa Clara County that currently serve students with ASD were contacted for input on what they felt was key for paraprofessionals working with students with ASD to know. Techniques for effectively presenting these materials as a training for paraprofessionals were reviewed as well. All of the materials reviewed and used for this project were either 1) designed with the purpose of being used for training purposes by the general public, or 2) provided for use with the expressed permission of the developer of the training materials.

Training materials were obtained from local agencies to review for ideas and suggestions. At a meeting with one of the directors for Special Education in the Cupertino Union School District, materials from a training she attended in southern California through the Southwest Special Education Local Plan Area (SELPA) titled ‘Optimizing your Approach to Autism Spectrum Disorder,’ were reviewed. One of the purposes of the workshop she attended was to demonstrate and disseminate options for staff development training materials, including information on ASD and applied behavior analysis.

Another meeting took place with the previously mentioned clinical manager of a behavior consulting organization that provides support to students with ASD in my school district. At this meeting the training materials he has used in the past with the paraprofessionals who work for his organization were provided for review.

Another set of training materials was obtained from a training at the Morgan Autism Center in San Jose, titled ‘Understanding the ASD Learning Process and Its Application for Effective Teaching and Behavioral Interventions.’ This training was intended for teachers as well as paraprofessionals. In addition to reviewing the materials

to determine if any would be appropriate to include in the training series, I was able to attend the training and where these materials were delivered.

Materials were also obtained from the University of Vermont, Center on Disability and Community Inclusion. A paraeducator curriculum titled ‘Supporting Students with Challenging Behaviors’ was reviewed. This training was designed to ensure that paraeducators have the basic skills and knowledge to positively contribute to the education of students with disabilities, including ASD.

Training Materials and Presentation Format

Upon completion of the literature review and the determination of the materials to be included in the training project, the process of creating the professional development training began. A series of PowerPoint presentations were developed, in combination with various handouts that were determined to be of potential benefit to the paraprofessionals who would be attending the training. The content was designed to be practical and easily applied in any classroom setting in which paraprofessionals work. The complete training series was divided into four modules to allow for flexibility with scheduling and time constraints. In addition, modularizing the training was intended to provide a focus on one specific aspect of the training at a time, allowing for a detailed training for those paraprofessionals who would benefit from targeted training in specific instructional strategies over others. Each training module was designed to be delivered within 1-2 hours. With this design and layout, multiple combinations of the modules could also be delivered. The training series could either be split into segments or the whole training series could be presented in a full-day training, depending on the need of the district.

A list of references was developed for dissemination so that participants could follow up on topics or strategies of interest and thus continue to expand their knowledge following the completion of the training.

Feedback from Professionals on the Training Materials and Presentation Format

In the second phase of the review process, the professionals were presented with a completed draft of the training modules including presentation materials, the format for training, and handouts. With both professionals, the materials were provided for review and then two separate meetings took place where the training materials, format and handouts were discussed and feedback was solicited. As a result of this second round of review, the draft training materials were further revised.

Field-Testing of a Sample Module

Upon completion of the second level of professional review, a field-test was completed with a group of paraprofessionals using the module titled ‘Background on Autism Spectrum Disorder and Applied Behavior Analysis.’ This module was selected for the field-testing due to the information it provided on the background of ASD, including increasing prevalence in our district, and because it included an overview of instructional strategies based on the principles of ABA in the classroom. Feedback from all participants on the materials and presentation was requested in order to further determine what additional changes might need to be implemented. A simple survey (see Appendix A) was created to determine the participants’ perceptions regarding the effectiveness of the training. The survey included a number of questions regarding various aspects of the training, including but not limited to: 1) “What is your role in working with students with ASD?”, 2) “Were the strategies and interventions addressed

in the training easy to understand?”, and 3) “Were the strategies and interventions presented practical to your current classroom setting or for students with whom you work?” The survey was administered immediately following the delivery of the training session, and then placed by each participant into an envelope in order to increase the level of anonymity for the respondents. Completed surveys were then reviewed in order to identify areas of strength and areas for improvement in relation to the training module presented and, if applicable, to other modules as well.

Chapter 4: Results and Discussion

Results from Feedback from Professionals on the Selection of Training Topics

Following the first meeting with the district administrator and the clinical manager of our district behavior consulting organization, it was necessary to review the materials that were originally planned to be included in the training series. In order to meet the needs of our district and the time available for the training of paraprofessionals, the training was modified to include only the topics that would most benefit our paraprofessionals for practical use in their daily support of students with ASD in general and special education classrooms.

Both professionals agreed that since many paraprofessionals come into the field with limited knowledge or experience working with students with ASD, it was important to provide them with some background information as well as informing them of the increasingly high numbers of students with ASD in our district. Both of the professionals in this phase supported the inclusion of reinforcement and antecedent instructional strategies and commented on their effectiveness in supporting students with ASD. In addition, one of the professionals recommended the need for presenting the materials in a way that would be easy for paraprofessionals to understand, as well as practical and appropriate for a classroom setting.

At first, the clinical manager of the behavior consulting organization questioned the exclusion of Discrete Trial Training (DTT) as a training topic. After discussing the role of paraprofessionals in the classroom and collaboration with other professionals, we determined that it was not appropriate to include information on DTT in the training series at this time. Currently, the paraprofessionals working with him, who provide more traditional ABA support to students with ASD continue to benefit from training on DTT.

However, since classroom paraprofessionals are not typically responsible for this type of instruction it was omitted.

One of the professionals suggested separating the training into modules, to allow for flexibility when utilizing the modules. After reviewing the many aspects of ABA to be included, it was determined that the training series would include four modules, including a background on ASD and ABA, antecedent instructional strategies, reinforcement and self-management.

Results from Review of Existing Training Materials

The review of “Optimizing Your Approach to Autism Spectrum Disorder’ training materials resulted in a number of items utilized in the development of the training modules. The section of this training that was most appropriate for the purposes of the current project was a section on staff professional development which provided an introduction to ASD and ABA application, theory and modeling. Thus, this training served as a guideline for deciding what materials should be included in, as well as the format to be used for, the training modules.

The review of the training materials provided by the clinical manager of the behavior consulting organization resulted primarily in guidance regarding the organization of training. Since this program is based on the fundamentals of ABA, the materials covered many principles of ABA, most specifically Discrete Trial Training (DTT), but also the use of reinforcement, prompts and prompt fading, shaping procedures, etc.

While many of the ABA strategies were incorporated into my training presentations, the materials on Discrete Trial Training were excluded due to the fact that

paraprofessionals who work in most public school classroom settings are not typically responsible for delivering this particular type of instruction. The decision to exclude information on DTT in the training was further supported by the feedback previously discussed in the section on the initial round of professional review.

The training provided at the Morgan Autism Center workshop was also very useful in determining which aspects of ABA to include in the training as well as how to format the training. The structure of the Morgan Autism Center training provided guidance as to how the training for this project was eventually structured. The presentation was designed to be 3 hours long and covered the following major topics: 1) background on ASD, 2) diagnosis of ASD and associated symptoms, 3) ASD learning styles, 4) approach to behavior and 5) teaching strategies. From these topics, sections 1, 2, and 5 (as described above) were identified as topics to be addressed in the training developed for this project.

The curriculum for paraeducators, 'Supporting Students with Challenging Behaviors,' designed by Linda Backus and Eileen CichoskiKelly was valuable in my review of existing training materials due to its content and organization. Backus and CichoskiKelly (2001) stressed the importance that paraprofessionals have when working with students with disabilities and how their participation is crucial and often invaluable. The content of this training was designed in a way that allowed for easy variation by each user to meet the needs of their audience. The course content was organized into four units, including: 1) Understanding Student Behavior, 2) Gathering Information about Challenging Behavior, 3) Preventing Challenging Behavior and Teaching Replacement Behaviors and 4) Responding to Challenging Behaviors. The review of these training materials provided content on presenting information on the function of behavior as well

as teaching replacement behavior. This curriculum had detailed activities and handouts that were easily modified to meet the needs of the audience targeted for this project.

Results from Feedback from Professionals on the Training Materials and Presentation

Format

After the first draft of each training module was developed, they were shared with the professional reviewers for evaluation and feedback. Suggestions were given to include information on topics such as the function of behavior, modeling procedures and the use of token economies. As a result of these suggestions, more information was added into the training modules on each of these topics. For example, more information was provided on shaping, and it was explained how the use of feedback through shaping can decrease frustration.

Following further discussion with the clinical manager of the behavior consulting organization, he inquired why the use of more technical language to describe ABA and its instructional strategies was not used. Based on my own informal observations and previous conversations with the other professional reviewer regarding the background knowledge of the paraprofessionals targeted for participation in the training, it was decided that the use of language determined to be readily understood by the participants would be used in the training materials.

The input from the two district representatives in this second professional review phase was very helpful in ensuring that the training would be practical and applicable in our district. Both professionals provided feedback that guided the creation of a training project that truly reflects the needs of the paraprofessionals in our school district. They were able to identify key topics that I had failed to include as well as to assist in the

layout of the materials.

Results from Field-Testing of Sample Module

Upon completion of the second level of professional review, a field-test was completed with a group of paraprofessionals using the module titled ‘Background on Autism Spectrum Disorder and Applied Behavior Analysis.’ The input received from the participants on the materials and presentation was useful in determining if the training was effective for the target audience. Upon completion of the field-test, each participant completed a feedback survey.

Completed surveys were reviewed, and for the purposes of this project the feedback from the target audience was synthesized and reported below.

Question 1 – What is your role in working with students with ASD?

Two of the three paraprofessionals reported working 5.5 hours per day in a Moderate Special Day class, where they each reported working with eight students with ASD. They described their role as helping students with classroom assignments, ensuring student safety, monitoring student behavior, and supporting them outside of the classroom in Speech Therapy, Occupational Therapy, and mainstreaming in general education classrooms. The other paraprofessional who participated in the field-test reported working as a substitute and supporting special education students in a variety of classrooms and schools.

Question 2 – Were the strategies and interventions addressed easy to understand?

All three paraprofessionals described the strategies and interventions as easy to understand, helpful and useful for dealing with the students in our classroom.

Question 3 – Were the strategies and interventions presented in a way for practical

application into your current classroom setting?

All three paraprofessionals said the strategies and interventions were helpful and that they could benefit from their continued use in our classroom.

Question 4 – Would you recommend this training to other professionals?

All three paraprofessionals said they would “strongly” or “definitely” recommend this training to other paraprofessionals. One participant reported that on-the-job training is valuable and important. That same paraprofessional, who reported having worked in the field the longest, stressed the importance of using this as a pre-service training before new paraprofessionals enter a classroom setting.

Question 5 – Do you feel that the information presented was accurate? If not, please explain.

The information presented in the field-test was described as being accurate, up to date, informative and helpful.

Question 6 – Were the materials presented in an organized manner?

All three paraprofessionals stated that the materials were very well organized and detailed. One paraprofessional commented on her appreciation for the materials being informative and accurate.

Question 7 – Did the presenter do an adequate job presenting the strategies and interventions of ABA? Why or why not?

The target audience reported that the presenter explained strategies in an organized way. One paraprofessional added that the presenter was effective in explaining ABA techniques, strategies and tools for the classroom. Another paraprofessional thanked the presenter for the opportunity to attend the training, and for sharing information so that

she could better understand ASD and ABA.

After careful review of all feedback from the target audience, it is clear that they expressed an appreciation for and a benefit from the training materials that were shared. All three paraprofessionals expressed a desire to receive further training in the areas of ABA and research-based instructional strategies, as well as stating that there was a need for other paraprofessionals to have the same opportunities. Their feedback confirmed that the training modules developed were appropriate in meeting the needs of paraprofessionals in utilizing strategies derived from the field of ABA for students with ASD.

Chapter 5: Summary

Summary

The purpose of this project was to create a series of training modules for paraprofessionals in the areas of Autism Spectrum Disorder and Applied Behavior Analysis. The trainings were designed to teach paraprofessionals practical and effective ABA instructional strategies to better serve the students with ASD who they work with. The project was created as a means to provide paraprofessionals with effective tools and strategies to use in the classroom. It is important to note that this project was intended for a target audience of paraprofessionals with whom I work. Thus, I am in a position to be able to respond to questions after the training and to provide ongoing coaching in the use of the strategies covered in the training.

Implications

As the literature shows, ABA has been demonstrated to be effective in a wide array of academic settings, in both general and special education classroom, and for a wide-variety of students, including those with ASD (Dunlap, Kern, & Worchester, 2001; Koegel, Harrower, & Koegel, 1999). Since ABA has been shown to be so effective for students with ASD, it was important to review the literature on this topic and determine what aspects of ABA should be included in the training modules for paraprofessionals. Through the development of these training modules, the need for research and input from professionals in the field became evident in order to create a training tool that was both effective and practical. The literature on ASD and ABA is vast, and there are many important topics which could have been included in a training in this area. However, the review of existing materials, the feedback from professionals and the actual field testing

of a sample module with the targeted audience all played a key role in determining what information to include.

As I developed the training modules, it was my goal to create a training that could be used to educate paraprofessionals about ASD and research-based instructional strategies to support these students in different classroom settings.

Limitations

The limitations of this project could include the need for further follow up training and support after the initial delivery of the training modules, which in many instances may not be available (Crone, Hawken, & Bergstrom, 2007). Follow up training may be needed for many paraprofessionals in order to ensure that they have an understanding of ABA and the practical application of these strategies for their work environment. In my particular situation, I am able to provide the continued coaching and feedback to the staff in my classroom who were part of the field-test. However, if this training were to be given on a district-wide level, there may be participants in attendance who might not have the opportunity for follow up questions and coaching.

Additionally, it is important to note that Discrete Trial Training, while it plays a big role in the field of ABA, was not included in this training project because our district relies on a behavior consulting organization to provide DTT and one to one intervention to students outside of the classroom setting. For other districts that are not supporting students with ASD with these types of programs, it might be necessary and beneficial to determine if paraprofessionals within their district should be trained in the area of DTT or another intensive one to one intervention.

Next Steps

For the purposes of the project, only one module was field-tested with the targeted audience. The feedback shared by the paraprofessionals who participated in the field test was very positive and they expressed an interest in receiving further training in the remaining three modules. In addition, they stated that they would recommend the training to other paraprofessionals. One paraprofessional specifically stated that she felt this training would be of even more benefit if paraprofessionals were trained prior to starting as classroom aides.

I would like to see the series of training modules presented to more paraprofessionals in my school district during staff learning days, at monthly staff meetings or at trainings provided to newly hired paraprofessionals. The American Federation of Teachers (2005) recommends “all districts provide ongoing, job specific professional development for all paraprofessionals to ensure that they maintain the skills necessary to work with students” (p. 6).

In addition, with the help of my district administration, I would like to make the training materials available to other special and general education teachers in my district who work with students with ASD and who are looking for research-based instructional strategies to support these students in the classroom. These materials could be made available for check out through the Special Services office or at the Teacher Resource Center (TRC) in the Cupertino Union School District.

Lastly, I plan to share these materials with a local private school for students with ASD, the Morgan Autism Center in San Jose. The Morgan Autism Center provides many trainings and workshops for a variety of people including paraprofessionals, and has

expressed interest in obtaining this training project for review and possibly adapting it for future workshops they may have for paraprofessionals.

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*References used in training modules only.

Appendix A

A Series of Trainings for Paraprofessionals:

Instructional Strategies for Supporting Students with Autism Spectrum Disorder

Feedback Form

- 1) What is your role in working with students with autism spectrum disorder?

- 2) Were the strategies and interventions addressed easy to understand?

- 3) Were the strategies and interventions presented in a way for practical application into your current classroom setting?

- 4) Would you recommend this training to other professionals?

- 5) Do you feel that the information presented was accurate? If not, please explain.

- 6) Were the materials presented in an organized manner?

- 7) Did the presenter do an adequate job presenting the strategies and interventions of ABA? Why or why not?

Appendix B


A Series of Trainings for Paraprofessionals:

Instructional Strategies for Supporting Students with Autism Spectrum Disorder

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A Series of Trainings for Paraprofessionals: *Instructional Strategies for Supporting Students with Autism Spectrum Disorder*

Alison Hoff
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Purpose of the Trainings

- To share instructional strategies that can be used to benefit students with ASD in the classroom.
- To give paraprofessionals practical tools and strategies to support the students they work with.



Training Series

- This training has been divided into 4 modules, including:
 - Module 1 - Background on Autism Spectrum Disorder (ASD) and Applied Behavior Analysis (ABA)
 - Module 2 - Antecedent Instructional Strategies
 - Module 3 - Reinforcement
 - Module 4 - Self-Management



Module 1

Background on Autism Spectrum Disorder and Applied Behavior Analysis



Autism

- Definition

- ASD is a neurobehavioral syndrome caused by problems in the central nervous system that affect the child's development.

(New York State Department of Health, 1999)

- The onset of autistic symptoms generally occurs within the first 3 years.
- Children with ASD typically show difficulties with:
 - Non-verbal and verbal communication
 - Social interactions
 - Play and leisure activities
- These difficulties can range from mild to disabling.



Autism Spectrum Disorder

- Prevalence

- The prevalence of autism is increasing.
- Nationwide estimates place the current prevalence of autism at 1 in 150 children.

(Center for Disease Control and Prevention, 2007)

- Autism is four times more common in boys than in girls.



ASD

- Based on our district enrollment in December 2007, 24.5% of students in special education qualify under ASD.
- According to the 07-08 pupil count, out of the 124 preschoolers attending the YCC, 45% are diagnosed with ASD.



ASD

- Under the diagnosis of Autism Spectrum Disorder, there are five subgroups:
 - Autistic Disorder (autism)
 - Asperger's Syndrome
 - Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS)
 - Child Disintegrative Disorder
 - Retts' Syndrome



Common characteristics of ASD

- Little to no eye contact
- Prefer being alone
- Difficulty with change, prefer sameness
- Repetitive behaviors
- Difficulty expressing wants or needs
- Echo-like speech
- Obsessive attachment to toys or objects
- Non-responsive
- Odd or ritualistic play
- Avoids physical contact
- Poor fine and gross motor skills



ASD cont.

- Autism is a spectrum disorder, which means individuals with ASD are affected differently and they can move across the spectrum over time.
- This makes our job working with students with ASD very challenging (and interesting) because there is not one “catch all” intervention or strategy.
- For many of our students, a combination of effective strategies and patience is important.



ABA?!?!?

- Have you heard of ABA prior to today?
- Do you think you are currently using ABA strategies to support the students you work with?



Applied Behavior Analysis

- Has been noted as the most effective instructional technology available for students with autism.
- Has been demonstrated to be effective in a variety of academic settings.
- Provides us with the tools and strategies to provide quality instruction to students with autism.
- Has the potential to make meaningful changes in the lives of children with autism.



ABA Defined

According to Cooper, Heron, & Heward (2007), applied behavior analysis is the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and where experimentation is used to identify the variables responsible for behavior change.

They continue...“ABA is a discipline devoted to the understanding and improvement of human behavior” (p.3).



ABA cont.

- Baer, Wolf, and Risley (1968) suggest that ABA should be:
 - Applied
 - Behavioral
 - Analytic
 - Technological
 - Systematic
 - Effective
 - Able to Generalize



ABA cont.

- ABA programs:
 - Are based on empirical research,
 - Include direction observation, and
 - Measure behavior
- ABA programs utilize:
 - Antecedent stimuli,
 - Positive reinforcement, and
 - Consequences
to produce behavior change.

(Buchanan & Weiss, 2006)



ABA cont.

- It is important to note that while our classrooms are not technically “ABA programs” we can and do combine many instructional strategies of ABA.



How is ABA used in the classroom?

- While ABA is very scientifically-based, not all aspects of ABA involve an intensive 1:1 setting and data collection.
- Many strategies and interventions derived from ABA can support students with ASD in the classroom.
- Those who support ABA believe that behavior is learned, as student is taught new, more appropriate behaviors, the old behaviors become unlearned.



ABA and Behavior

- ABA really focuses on the connection between behavior and the environment.
- One of the first things considered when determining the function of a behavior are the ABCs.
 - **A**ntecedent - what happens before the behavior.
 - **B**ehavior - the behavior itself
 - **C**onsequence - what happens after the behavior.



How do ABCs help?

- If we are able to uncover and understand when and why behaviors occur, we have the ability to change behaviors by changing the antecedents and/or consequences.
- All behaviors have a purpose, so it is important that we become detectives to find out what is triggering or reinforcing the behavior and manipulate the environment to change behaviors.



Behavior

- All behaviors, whether appropriate or inappropriate have:
 - Antecedent
 - Motivation or Situation
 - Consequence
 - Desire or Avoidance

Antecedent → Behavior → Consequence
Child sees someone eating a cookie → "I want cookie!" → Child gets a cookie

Adapted from CAP presentation (2008)



Let's Practice...

- Read the paragraph about Jenni.
- Identify behaviors and list them in the “B” column.
- Identify antecedents and list them in the “A” column.
- Identify consequences and list them in the “C” column.
- Share with group.



ABC Activity cont

Whenever Jenni cried and hit herself, many of the other students would come over to her and speak nicely to her. The other students who have wanted the toy she had always relinquished their request. They would find something else to play with. Often children would ask her what other types of things she might like and she would have more interesting toys to examine. But, when Jenni was quiet and not fussing, children would generally ignore her.



ABC Activity cont.

Antecedent	Behavior	Consequence



Functions of Behavior

- Alberto and Troutman (2006) state...
“the function of behavior is to make a desired change in the environment” (p.170).

In a nutshell, if the behavior, whether inappropriate or not, is allowing the child to receive the desired consequence, the likelihood the behavior will continue to occur.



How do I use ABA?

There are many instructional strategies that have been derived from ABA. We can use a combination of these strategies to provide an effective, learning opportunity for students with autism.

After learning a little about ABA, can you identify any strategies you are currently using that you think are derived from ABA?



ABA strategies you might use...

- Verbal prompting
- Modeling
- Use of icons and visual cues
- Reinforcement
- Praise
- Generalization
- Token Economies
- Assisting with Self-Monitoring
- Goal Setting
- 1:1 instruction
- Use of reinforcers



ABA Strategies cont.

The three main areas of focus in the remainder of this training series are:

- Using **antecedent** strategies
- Increasing or decreasing behavior through **reinforcement**
- Teaching and supporting **self-management** skills



Why is this important?

While the ultimate responsibility of the design and implementation of instruction is the responsibility of the classroom teacher.

You can:

- Support students using a variety of tools, provided and supported by the classroom teacher.
- Understand student needs and the instructional strategies that work best for them.
- Collaborate with the teacher to create an effective learning environment.



Any Questions???



Module 2
Antecedent Instructional
Strategies



Antecedents and Behavior

Through the use of ABA, we know that with every behavior there is an antecedent.

An antecedent can be described as something that happens within the environment just before a behavior occurs and it can be environmental or social.



What is our role?

- Since we know that antecedents have a direct effect on behaviors, this is something we, as teachers and paraprofessionals, have some control over in the classroom.
- There are a variety of ways in which antecedents can be manipulated to prevent behaviors from occurring in the classroom by promoting a more effective learning environment.



Commonly used Antecedent Strategies for the Classroom

- Modifying the environment
- Priming
- Use of Prompts
- Modeling
- Shaping
- Choice
- Task Analysis
- Task Difficulty and Interspersion



Modifying the Environment

- While teachers are limited in their ability to change antecedents, making changes to the classroom environment is one thing we can effectively change.
 - Make the learning environment predictable
 - Have clear expectations and procedures
 - Classroom set-up and arrangement of desks
 - Try and avoid placing students who trigger each other in close proximity.
 - Incorporate choice in classroom set-up
 - Give effective instruction
 - Use high interest materials
 - If a student likes ocean animals, try and use that to your advantage.



Priming

- Also known as pre-practice, can be an effective classroom intervention for students with ASD.
(Harrower & Dunlap, 2001)
- Priming refers to previewing materials or activities that may be difficult to a student prior to it being used in the classroom.
- Priming can be very helpful for our students who mainstream into general education classroom. We can pre-teach concepts or at least expose them to ideas before the lesson is taught in a general education classroom.



Prompts

- There are a variety of prompts that can be used in the classroom to provide instructional support for students with ASD.
- The three most common prompts used in our classroom are:
 - Verbal Prompt
 - Visual Prompt
 - Physical Prompt



Prompt Hierarchy

(from most to least intrusive)

- Full Physical
- Partial Physical
- Gestural
- Positional
- Visual
- Modeling
- Verbal

(Adapted from CAP Presentation, 2008)



Verbal Prompts

- Verbal prompts are commonly used in classrooms.
- In a classroom, we give most instructions and whole class directions as verbal prompts.
- Verbal prompts, especially for students with ASD, are not always effective if you do not have their attention.



Verbal Prompts cont.

- It might be necessary to break down instructions into specific details when a verbal prompt is used.
- Also, be sure to give each child a chance to process each step along the way.
- Give a verbal prompt and count to 5 before repeating or giving another prompt.

(Adapted from Morgan Autism Center Workshop, 2008)




Here's an example:

- In a general education classroom, the teacher might be able to say “It’s time for Math!” and the students would know to clear their desks and get out their math materials.
- In an SDC, the teacher might say “It’s time for Math!” but then they may break it down further with verbal prompts like, “Put your reading book in your desk...get out your yellow math book...get out your pencil and eraser.”



Visual Prompts

- Visual prompts are commonly used with students with ASD.
 - Visual prompts can aide in teaching a new skill or behavior.
 - Visual prompts can be created by a teacher but then implemented by a paraprofessional in a variety of settings.
- Examples of Visual Prompts
 - Number line
 - Schedule
 - Behavioral reminders
 - Work time procedures at desk
 - Expectations
 - Token economy
 - Flash cards



How do you use visual prompts?

Let's take a minute to share ideas and strategies that you use in your classroom.

Don't be shy...your ideas might be what your colleague has been searching for.



Visual Prompts

- Visual prompts work well for our students because it can be as simple as a gesture.
 - “Quiet Mouth” icon on desk
 - Pointing to a token economy chart can be a visual reminder of what they are working for
 - Displaying a visual prompt, can remind a student of proper sitting during circle time, without pointing out to their classmates that they are off task.
 - A classroom schedule can be referenced throughout the day so the students know what to expect.



Modeling

- When verbal and visual prompts are unsuccessful, a teacher might try modeling.
- Teachers can use themselves as the prompt to teach new skills. “Watch me, I’ll show you!”
- Teachers can also identify appropriate peers to use as models.




Modeling cont.

- It is important to provide models for students with disabilities. Students with disabilities will imitate behaviors and therefore can learn from their typically developing peers.

(Alberto & Troutman, 2006)

- When students are given an opportunity to mainstream or spend time with their general education peers, it is important to provide opportunities for modeling to occur.
 - This most naturally happens by sitting in close proximity to a general education peer in class or at lunch.



Things to remember about modeling...

- It is important to note that not all behaviors can be easily modeled.
- Some tasks may require a combination of prompts.
- Not all general education peers make good models - make sure you pick wisely.



Shaping

- Shaping is a gradual process and is a way to reinforce the improvement of a behavior
(Buchanan and Weiss, 2006).
- As a behavior is being learned, we continue to reward and reinforce as the students gets better and better at a target behavior.
- Students should have a lower level of frustration when shaping is used because of the feedback provided as they make progress toward a goal.



Physical Prompting

- Physical Prompting is intrusive and should be used only when the use of other prompts has been exhausted.
- While we try to limit physical contact with our students as much as possible, there will be times when physical contact is appropriate and necessary.
- Make sure the students is comfortable and cooperative with a physical prompt. If they are fighting it, it will not be a successful intervention.
- Use common sense.



Physical Prompts cont.

Appropriate Physical Prompts

- Hand over Hand fine motor support
- Assisting a child with raising their hand paired with verbal prompt
- Holding hands when walking
- Assistance with hand washing
- Hand motions during songs or circle time activities.
- Assisting a child with feeding procedures

Inappropriate Physical Prompts

- Holding a student's wrist or arm when walking
- Force feeding

If you ever feel uncomfortable or unsure about the use of physical prompts, be sure to ask the classroom teacher or school site administrator.

Due to the different needs of our students, a physical prompt that may be used for one student could be inappropriate for another. Don't assume that a physical prompt is always necessary.

Be sure to ask questions and get clarification.



Fading of Prompts

- When prompts are used to support students, it is necessary to have a plan to ultimately fade prompts so tasks are completed independently. The teacher should clarify what that plan is.
- Prompts can be faded in different ways.
 - Time Delay - Wait several seconds for the students to respond before giving prompt.
 - Graduated Guidance - Reducing a physical prompt to more of a shadow (no touching the student).
 - Increasing Assistance - Start with the least intrusive prompt and then provide more prompting if needed.
 - Decreasing Assistance - Start with a more intrusive prompt and as target behavior occurs, reduce to a less intrusive prompt.

(Alberto & Troutman, 2006)



Basic Steps In Prompt Fading

1. Select the prompt that is most likely to assist the student with the targeted behavior.
2. Create a prompt hierarchy
3. Present the prompt when needed
4. Decrease the level of prompt after correct responses
5. Increase the level of prompt after error responses



Prompt Sequencing

- **Least to Most Sequencing**
 - Used to give the child a chance to complete a task before a prompt is given.
 - Often used for students who generally respond correctly.
- **Most to Least Sequencing**
 - Fully prompt the student when beginning a task and then fade as the student becomes more and more independent.
 - Often used when new or difficult skills are being taught.

(Adapted from CAP presentation, 2008)



Inadvertent Prompts

- These are unintentional prompts that the child learns to rely on.
 - For example, the teacher gives a disapproving facial expression when the student is incorrect.
- Ways to avoid inadvertent prompts:
 - Select reinforcers before starting activity
 - Make sure you always have good posture
 - Try to keep your eyes looking in the same direction, to avoid giving clues

(Adapted from CAP presentation, 2008)



Guidelines for Using Prompts Effectively

- Prompts should help focus students attention, not distract it.
- Prompts should be meaningful and relevant.
- Always use the least intrusive prompt.
- Have a plan for fading prompts.
- Be aware that your facial expression and body language can act as a prompt.



Let's test our knowledge of the different types of prompts...

- Which type of prompt is it?
 - Pointing to a specific object to direct a student to a task on a worksheet.
 - Using picture cards.
 - Moving the student to assist them with completing a task.
 - Manipulating the placement of a object or cue.
 - Using a touch to get an activity started and then stopping.
 - Repeating directions.



Choice

- Giving students choices throughout their day is a great way to increase engagement and motivation to complete tasks as well as decrease behavior.
- We can all offer choice without any extra tools.
 - It's simple...if the child is expected to complete 2 worksheets, show them both worksheets and allow them to chose which one they will do first. They may feel empowered and are more likely to complete the task.



Ideas to incorporate choice...

- Allow student to pick a song during circle time.
- Allow student to pick between using two different pencils.
- Allow student to choose between two colors for a coloring activity.
- Allow student to select order for work.
- Give student the choice of which sticker they will get as a reinforcer.
- Give student two preferred options during free time.

The main thing to remember is that
YOU are empowering the student
by giving them a choice!



Task Analysis

- Task Analysis involves the breaking down of a complicated skill or task into small, more teachable units.
- The way a task is broken down will vary for each individual based on their age, skill level, and prior experience.
- Remember that prerequisite skills may need to be taught.
- There is no right or wrong way to do task analysis. We are ultimately trying to make a hard task more manageable for our students to avoid frustration and anxiety.

(Adapted from Morgan Autism Center Workshop, 2008)

Task Analysis Activity

- Using the handout provided, use what you know about task analysis to write instructions on how to make a peanut butter and jelly sandwich.



Example of Task Analysis “Snack Time”

- For most kids, we would think this would be an easy task. If you are hungry, you need to wash your hands, sit down and eat your snack.
- For our students, this can be quite difficult and a good example of where task analysis can be used.



Example of Task Analysis “Snack Time”

1. Wash Hands

- Turn on water
- Wet hands
- Get soap
- Rub hands together
- Turn off water
- Dry hands

2. Sit down

- Find name
- Pull out chair
- Sit down
- Scoot chair in

3. Eat Snack

- Open snack bag
- Pull snack out
- Open (or ask for help)
- Eat food

Did we forget any steps?



Task Analysis

- If we look at our classrooms, there are a variety of activities/procedures that can be broken down using task analysis.
 - Entering the classroom
 - Leaving the classroom
 - Going to the bathroom
 - Playing a game
 - Reading a book
- Can you think of any others?



Task Difficulty

- Task Difficulty
 - In order to keep students engaged and interested in learning, we must present work at their instructional level.
 - If a task is beyond their ability, it will be difficult to keep them on task and prevent problem behaviors.
 - Take the time to modify tasks so they are appropriate to the student's ability.
 - Any teacher would be grateful if you take the initiative to modify tasks as needed but be sure to let the teacher know.



Task Interspersal

- Task Interspersal
 - This strategy refers to the blending of easy tasks in with more difficult ones.
 - Activities can be sequenced so that a student is lured in with an activity they are comfortable with and then a more difficult task is presented.
 - This is often how text books are designed but for our kids, the sequence might need to start off at a more basic level.
 - Many students with ASD get very anxious with new concepts or work they perceive to be difficult. This strategy allows you to mix and sequence activities to reduce stress and encourage work completion.



Generalization

- Buchanan and Weiss (2006) state...

“Generalization occurs when a person learns something in one environment and can independently apply it in another” (p.45).
- For students with ASD, this can be difficult and more intensive teaching may be needed.
- It is important to teach skills in a functional way so that they can be used in a variety of settings.



Any Questions???



Module 3

Reinforcement



Reinforcement

- For many typically developing 1st graders, appropriate behaviors continue to happen as the result of natural reinforcement.
- For example:
 - If they do good on the test, they know they will receive good marks on their report card.
 - If they share with others, generally others will share with them.
 - If they do their work, their teacher will praise them.
 - If they behave nicely in school, they will avoid the principal's office.



Reinforcement cont.

- For students with ASD, the naturally-occurring reinforcers are not sufficient so new, more effective reinforcements must be found.
- Northrup, Vollmer, & Serrett (1993) report that the most widely used principle of behavior analysis is reinforcement.
- The use of positive or negative reinforcement is likely to increase behavior.

(Adapted from Morgan Autism Center Workshop, 2008)



Positive Reinforcement

- Cooper, Heron & Heward (2007) describe positive reinforcement as a response followed immediately by a stimulus, and as a result, similar responses occur more frequently.

- Let's talk about examples...



Examples of Positive Reinforcement

- Johnny completes his math page and he is allowed 5 minutes of free time.
- Kathy brings in her completed homework and she is presented with a sticker.
- Chris sits attentively and looks at the book his teacher is reading and he receives a high five and verbal praise.
- Brooke cleaned up her toys when asked and she gets to be the line leader out to recess.



Things to remember...

- Reinforcement needs to immediately follow the behavior you are reinforcing.
 - Even a few seconds delay can be confusing and in effect be reinforcing a different behavior.
- Make sure the reinforcers being used are motivating.
 - The likes and dislikes of our students change frequently. Make sure they are working for something they like.
- Reinforcers should be contingent on behavior and therefore not given unless target behavior occurs.



Motivation

Buchanan and Weiss (2006) define motivation as:

“...the heart and soul of ABA” (p.14).

- Once we know what a student is motivated for, whether it's attention or a high-preference toy, we are able to reorganize the classroom environment using their motivators as a guide to our planning.
- It is also important to note that motivation can change, and it can happen very quickly.



Types of Reinforcers

- **Edible**
 - Highly preferred food items, small pieces of candy, etc.
 - Not too common in a classroom setting
- **Activity**
 - Playing a game, reading a book, being a line leader
- **Tangible**
 - Stickers, small toy, note home
- **Sensory**
 - Music, tickles, massage, playing with a vibrating toy.
- **Social**
 - Attention, praise, hugs or pats on the back



Reinforcement cont.

- When we start using positive reinforcement to get students to engage in a target behavior, we often start with a primary reinforcer that is highly motivating and can be more intrusive.
- Over time, it is important to fade the use of primary reinforcers and rely more on the use of secondary reinforcers, which seem much more appropriate for a classroom setting.
- By using a combination of primary and secondary reinforcers when teaching a target behavior, the student will eventually be motivated solely for the secondary reinforcer.



Examples of Secondary Reinforcers

- Praise
- Token Economy
- Sticker
- Time on the computer
- Playing a game
- Using favorite art supplies
- Being a classroom helper



Social Reinforcers

- Most people like social reinforcement, and our students do, too.
- Social reinforcement is easy and requires no extra work.
- Let's talk about examples...



Social Reinforcers cont.

- Simple Expressions
 - A smile, nod, or applause
- Contact
 - Pat on back, high five, holding hands
- Privilege
 - Being class leader and displaying work on walls
- Words
 - "Great Work!" or "I like the way you are sitting!"
- Proximity
 - Sitting next to a special helper or teacher



Praise!!!

For the students who are reinforced by it, praise is so easy and fun to give.

A few things to remember...

- Be (or at least sound) sincere.
 - Our kids can sense it if you are not.
- Be specific.
 - Tell them what you are praising them for...
“Great job keeping your hands quiet!”
- Be quick! (Don’t wait!)



Token Economy

- Students earn tokens for short periods of appropriate behavior and can later use the tokens to gain a tangible.
- Token economies are a powerful tool to delay the delivery of reinforcement to a more typical schedule, like in a classroom setting.

(Buchanan & Weiss, 2006)

- Response Cost can also be used with a token economy. This involves the taking away of tokens for inappropriate behavior.
 - This should not be introduced in the early stages of introducing a token economy.



Negative Reinforcement

- Cooper, Heron & Heward (2007) describe negative reinforcement as the termination or postponement of a stimulus until the occurrence of a response, which would lead to an increase in the response occurring.
- It is similar to positive reinforcement, except instead of getting a reinforcer, a reinforcer is removed.
- It is not punishment.



Examples of Negative Reinforcement

- Getting a break when requested appropriately.
- Removing a screaming child from the classroom when loud noise triggers the student to cry.
- Any other examples...



Using Reinforcement Effectively

- Use varied reinforcers
- Be prompt in delivery
- Set realistic goals to earn reinforcers
- Use high interest reinforcers
- Have a plan to fade primary reinforcers for the use of more natural occurring ones.



Any Questions???



Module 4

Self-Management



Self-Management

- As we start to see some of the interventions and strategies working for our students, we begin to fade prompting and put more control into the hands of the students.
- Self-management is an important strategy for promoting independence in the classroom.

(Harrower & Dunlap, 2001)
- It is important to lead our students in the direction of being able to manage their own behavior and productivity.
 - As each student becomes more independent, it allows the classroom staff to be more available to the students who need more intensive support.



Components of Self-Management

According to Harrower and Dunlap (2001), self-management should include teaching students to:

1. Distinguish between appropriate and inappropriate behavior;
2. Evaluate their own behavior;
3. Monitor behavior over a period of time; and
4. Reinforce behavior when the criteria have been met.



Self-Management cont.

- Self-management is a very complex intervention and puts much responsibility on the student.
- It is important to note given the population of students you work with, the percentage of those who are able to use self-management techniques will vary greatly.
 - For example, in my K/1 Moderate SDC, I would confidently say only two of my ten students are able to understand the basic idea of self-management and are learning more as my staff and I continue to explicitly teach them. Even after months of teaching, they are not ready to implement the self-management techniques on their own.



Self-Management cont.

Students with ASD, when ready, can be taught to monitor and change their own behavior.

- There are different aspects of self-management which may help, including:
 - Goal setting
 - Self-monitoring
 - Self-reinforcement
 - Self-instruction



Goal Setting

- If a student is aware of their areas of weakness or behavior concerns, talk about it with them.
- Help the student to identify goals.
 - It is important to set goals that are specific enough to be measured easily and are attainable.
 - At first, you may need to be the one to make the suggestions for goals and as the process becomes more familiar the student should have more input.
- In the early stages of goal setting, classroom staff will need to be involved to discuss if goals are being met and how future goals should be changed, whether to be more difficult or easier.






Self-Monitoring

- This is a strategy where students monitor and record their own progress.
- This can be a very eye-opening experience, since previously the teacher had taken most of the data.
- It has been noted that self-monitoring techniques work best when following successful teacher-implemented behavior charts.
- This may be a good strategy for a student who responds well to a token economy and now they can record the data (happy face, star) on their own.
- In the beginning, it will be important to remind students when they should make a recording, at a time interval, completion of a task, etc.

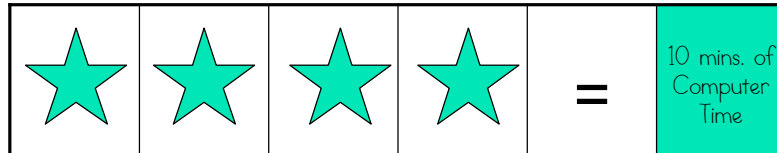


Self-Monitoring Ideas

This type of note can be used for behavior management and to keep parents informed of classroom behavior throughout the day.

Circle Time	Work Time	Free Time	Recess	Library
				
Art Project	Story Time	Lunch	Mainstreaming	Clean Up

Self-Monitoring Ideas



With this type of chart, a student could earn a star for a variety of reasons, which should be predetermined.

Here are some ideas:

Worksheet page completion, 2 minutes of independent work, raising hand when help is needed, etc.

Self-Monitoring Ideas

A self-monitoring sheet like this can be used with a high-functioning student, who always wants reassurance before turning in his assignments.

√ Check My Work √	
1.	Write my name _____
2.	Write the date _____
3.	Answer all questions _____
4.	Give myself a sticker _____
If I have 4 √ 's, turn into Finished Work!	



Self-Monitor Ideas

Now, you saw some examples
and ideas of self-monitoring
strategies I use...

Would anyone like to share any
others?



Self-Reinforcement

- Just like the contingencies set up in a classroom by the teacher, students can set up their own reward systems.
- Students can be involved in self-reinforcement in a variety of ways.
 - They can pick what they want to work for.
 - Determine how much work needs to be completed to earn reinforcers (This may need some shaping by staff at first.)
 - Help in choosing which behaviors should be modified.



Self-Instruction

- Self-Instruction allows students to guide themselves through a difficult problem.
- Training must occur to teach students about what types of problems this technique can be used for.
- The hope is that our students, when faced with a previously seen problem, would be able to self-instruct themselves their way through it.



Self-Instruction

- When a problem arises that can be handled through self-instruction, it is important to teach the student how they would handle it on their own.
 - Explicitly identify the problem to them
 - Talk through what the steps would be to correct it
 - Have the student go through the steps on their own
 - Practice again
 - Monitor, if and when, the problems presents itself



Self-Instruction

Traditionally, self-instruction is meant to be at a whisper or just kept in the head but that can be difficult for young students. Use your best judgment. Do not expect a 1st grader to be able to keep everything in their head but encourage a whisper.



Ideas for Self-Instruction Activities

- Math Problems
 - I have a student who uses the number line to add and subtract. He knows how to do it by talking himself through it. "First I go to the bigger number, then count 4 more..."
- Drawing a Picture
 - We sing a song as a class that helps us with body parts so a student might sing the song while drawing.
- Writing
 - A student might talk themselves through some grammar reminders, "Did I use a capitol, period...?"
- Cuing Card
 - If a student has the visual cue in the desk, they will know what to do upon completion of a task.



Self-Management Techniques Overview

- There are a variety of techniques, which may work for students with ASD.
 - Goal setting, Self-Monitoring, Self-Reinforcement and Self-instruction
- We put the responsibility of behavior management onto the students who are ready.
- Students become more independent.
- Students have the opportunity to generalize the effects of their behavior into different settings.



Any Questions???

Handouts and References for Training Modules

Task Analysis Activity

List all steps needed to make a Peanut Butter and Jelly sandwich.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____


ABC Activity

1. Read the paragraph about Jenni.
2. Identify the behaviors and list them in the “B” column.
3. Identify antecedents and list them in the “A” column.
4. Identify consequences and list them in the “C” column.
5. Share with group.

Whenever Jenni cried and hit herself, many of the other students would come over to her and speak nicely to her. The other students who have wanted the toy she had always relinquished their request. They would find something else to play with. Often children would ask her what other types of things she might like and she would have more interesting toys to examine. But, when Jenni was quiet and not fussing, children would generally ignore her.

ABC Activity Worksheet

Student Name: _____

 Antecedent	 Behavior	 Consequence

Useful References

Autism Society of America

<http://www.autism-society.org/>

This website has very useful information. They provide background information on ASD, resources, research and much more. You can sign up for a newsletter and they have neat “Tips of the Day” that can be useful for working with students with ASD.

Center for Disease Control and Prevention

<http://www.cdc.gov/ncbddd/autism/>

This website is very resourceful and provides information and statistics on ASD. It also has a section on news and highlights to keep the public updated.

Association for Science in Autism Treatment (ASAT)

<http://www.asatonline.org/>

This association provides a website that again is very resourceful. This site provides a suggested reading list, which is compiled with many good books and articles. There is also a Media Watch section that references and responds to current media publications to keep the public informed.

Autism Speaks

<http://www.autismspeaks.org/index.php>

Autism Speaks is an organization that is working hard to bring the autism community together and keep the public involved and informed. Not only do they provide information on ASD, they also provide opportunities to get involved and donate.

Journal of Applied Behavior Analysis (JABA)

<http://seab.envmed.rochester.edu/jaba/>

The Journal of Applied Behavior Analysis is a psychology journal that publishes research articles on ASD, behavior analysis and much more. There are great research articles available to download and read.