



4-23-2016

Transitioning Children with Autism from a Discrete Trial Classroom to a Group Classroom

Alexandra Ennis

Western Michigan University, alexandra.j.ennis@gmail.com

Follow this and additional works at: http://scholarworks.wmich.edu/honors_theses

 Part of the [Applied Behavior Analysis Commons](#), [Child Psychology Commons](#), [Developmental Psychology Commons](#), and the [Experimental Analysis of Behavior Commons](#)

Recommended Citation

Ennis, Alexandra, "Transitioning Children with Autism from a Discrete Trial Classroom to a Group Classroom" (2016). *Honors Theses*. 2892.

http://scholarworks.wmich.edu/honors_theses/2892

This Honors Thesis-Open Access is brought to you for free and open access by the Lee Honors College at ScholarWorks at WMU. It has been accepted for inclusion in Honors Theses by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.



Transitioning Children with Autism from a Discrete Trial Classroom to a Group Classroom

Western Michigan University

Alexandra Ennis and Rachel Ferbezar

Abstract

The goal of this project was to prepare children diagnosed with autism for the transition to group learning environments by teaching them to sit in their chair and attend while the teacher is at least five feet away. This is a skill that will help kids succeed when they make the transition from an early intervention program to a group learner environment because it allows the teacher to focus more on learning important skills. A proximity procedure was put in place for two children that focused on gradually increasing the distance between the tutor and the student with use of a prompter. In addition to the increased distance between the teacher and the child, the distance between the prompter and the child was also increased throughout the procedure. The goal was to implement this procedure before a child moves to a group learner environment so they can be more successful in that learning environment.

Transitioning Children with Autism from a Discrete Trial Classroom to a Group Classroom

Introduction

Early intervention programs for children with autism are beneficial both to the child and loved ones of the child. The transition of children with autism from preschool to a setting more like kindergarten takes careful planning and preparation on the part of classroom teachers and the parents of the child (Denkyirah & Agbeke 2010). When these children are ready to move to a classroom setting with more children, there are many environmental differences to adjust to.

In a study designed to determine what aspects were most important in the transition of children with autism from preschool to kindergarten, it was determined that planning ahead and having resources available for the families and children were the most recommended techniques (Denkyirah & Agbeke 2010). One way to plan for this transition is to make sure the child has some of the necessary skills in their repertoire to succeed in kindergarten.

One of the most important skills for a child in this situation to learn would be to sit in their chair when the teacher is a few feet away from them while still attending and following directions. This is a skill that children might have trouble with after coming from a discrete trial classroom in which each child has one-on-one time with a tutor. Moving from this environment, to one where there are multiple children per teacher might be a difficult transition.

A study was done using this technique by Conroy, Asmus, Ladwig, Sellers and Valcante (2004). The purpose of this study was to determine what children with autism would do as their teacher increased the distance between them. The children used in this study were in regular education settings and all had specific problem behaviors that were causing a disruption in the classroom (Conroy 2004). This study shows that the distance between teacher and student did

affect the behavior of three of the students in the experiment. This information is useful for this study to help determine the types of behavior changes that have occurred in the past when teachers have increased proximity from their students. These types of behaviors are what this study is aiming to change or prevent, in order to benefit the students as they transition to different classrooms. We knew the two children in our study would behave differently and have different skills sets, so these differences were taken into account when changing the procedure to best fit the children.

Using an alternating treatments design, a study was conducted by Werts, Zigmond and Leeper (2001) to study the behavior of children when their teacher is either two or five feet away. This study was done with children who have some sort of mental disability. The study also focused on the teachers and paraprofessionals as well in relation to the students they were working with. It was found that the closer the adult was to the student, the more the student was on task (Werts 2001). This is a problem our study aimed to solve by gradually increasing the distance between the tutor and the student, and then gradually increasing the distance between the prompter and the student.

These studies have used proximity procedures to determine how the behavior of a child might be affected when the distance between to teacher and student is increased. We used this information when conducting our own study. Our goal was to prepare children for kindergarten or similar classroom settings by implementing a proximity procedure before they make the transition. This procedure increased the distance between the teacher and the student while instructions being given. The idea was that by the end of the procedure, the teacher or tutor would be able to stand at least five feet away and give a direction and the child would remain attending and follow that direction without having to be prompted. . We used a prompter for this

procedure and after the tutor was able to stand five feet away, the prompter was faded out. This was done by gradually increasing the distance between the prompter and the student from one foot to three feet to five feet.

Methods

Participants

The participants in this study are two children, ages three and four, enrolled in the discrete trial classroom at WoodsEdge Learning Center. Participant 1 was a four year old child that has been in the discrete trial classroom for over a year. He would sit in their chair for long periods of time and had quite a few skills in their repertoire such as color names, animal sounds and body parts. He was also skilled at differentiating between directions. Since this child had already mastered sitting in their chair for long periods of time, we decided to work on attending. Participant two was a three year old child that has also been in the discrete trial classroom for six months. He also has quite a few skills in their repertoire such as generalized imitation, vocal imitation, direction following and identifying objects. This child had problem behavior that consisted of sliding out of his chair or running across the room. Sitting for five minutes and following directions with only socials as reinforcement is a difficult task and we would often see problem behavior or behavior that was not the desired behavior. With these specific children we counted these behaviors as incorrect and whenever the child would correctly respond to the tutor, the behavior was marked correct.

The two participants were chosen based on their progression through the classroom curriculum and the likelihood of moving on to a group skills classroom within the next six months. The participants in this study have had difficulty in the past with attending and getting out of their seats. They will benefit from the procedure we are running because sitting in their

chairs and attending while the teacher is a few feet away are skills that will help them succeed when they move on to group learning environments.

Setting & Materials

This study took place at WoodsEdge Learning Center in the Discrete Trial Classroom. The study was done in a variety of locations including a room with several booths and an open area in the middle, a smaller room with booths and a playroom. In the open area of the larger there were two u-shaped tables and a few chairs, which is where the procedure took place. In the other two rooms, we used a small, square table and two chairs to run the sessions.

Materials that were used consisted of one table, either u-shaped or square, two chairs, a list of directions for the tutor to use, cards with letters, numbers and words on them and tangible reinforcers that the child was interested in. The reinforcers participant 1 used were puzzles, building toys and an iPad. Participant 2 mainly used the iPad but would sometimes be more motivated by a puzzle or another toy. To collect data we used a simple timer, writing utensils, a clipboard and a data sheet.

Experimental Design

Our study used an AB experimental design. We had baseline sessions for each child. During baseline, the student sat at the table in the middle of the classroom and the tutor sat across from the student, five feet away. The prompter sat behind the student, out of sight and also five feet away. We ran five-minute sessions, in which the tutor would run several trials with the student and only provide social reinforcement. The trials consisted of simple directions, animal sounds, body part identification, vocal imitation, and motor imitation. Each time the student did not provide the correct response, they were prompted using least-to-most prompting by the

prompter. Once baseline behavior was stable, we ran our treatment phase, which consisted of a proximity procedure designed specifically for our experiment.

Reinforcers included socials, toys and an iPad based on the current preferences of the specific child. If the child did not follow the direction, they were prompted using a least-to-most hierarchy of prompting, followed by a neutral “good.” If the child got out of their chair, they were also prompted using least to most prompting, which was also followed by a neutral “good.”

Procedure

The proximity procedure developed for this study involved a tutor, who ran procedures with the child, and a prompter, who prompted the child when they left their seat or were not attending. The tutor gave simple directions to the child such as “What does a dog say?” and “Clap hands.” These directions came from a list that was prepared ahead of time so that the tutor could reference throughout the procedure. The student was required to follow the direction, and received social praise after each correct trial. After about five correct trials, the child would receive the tangible reinforcer. The student would have access to the reinforcer for about 15 seconds and then another set of trials would begin. If the student made an incorrect response, the prompter would prompt the student using least-to-most prompting. This type of prompting starts with prompting that is less invasive and gradually moves to prompting that is more invasive. We first used a gestural prompt, which could be anything from pointing to modeling the correct response for the child. Next we would use a partial physical prompt. This method requires the prompter to move the child slightly toward the correct response but not all the way. Students should be able to complete the response by themselves. The last prompt used is a full physical prompt. When using this method, the prompter completes the entire correct response for the child. After some or all of these prompts were completed, the trials were ended with a neutral

“good.” The tutor would then immediately go into another trial to gain a correct response or a few correct responses and deliver the reinforcer to the child.

Sessions were run twice a week and two sessions were run each day. Each session lasted five minutes and whole-interval recording was used to collect the data. Every 10 seconds the data collector would mark the trial correct, with a plus (+), if the student remained attending and followed directions. The recorder would mark the trial incorrect, with a minus (-), if the child engaged in problem behavior or simply did not respond to the request of the tutor. The phase change criteria for this procedure were 80% correct trials for three sessions and 90% correct trials for two sessions. After either of these criteria were met, the following phase of the procedure was implemented.

In the first phase of the study, the tutor sat one foot away from the student to deliver instructions and reinforcement for correct trials. In the second phase, the tutor was required to be two feet away from the student. Everything else was exactly the same including the prompting, delivery of reinforcers and the time with the reinforcer. The only thing that might have changed is the type of reinforcer that was used depending on the preference of the child. The same phase change criteria were also used and when the child met these criteria they were moved to phase three. In the third phase of this study the tutor sat three feet away from the student. Everything was identical to the previous two phases except for the new distance. The fourth and fifth phases were also the same except for the increased distances between the tutor and the student of four feet in phase four, and five feet in phase five. During all of the phases the prompter stood directly behind the child, out of their line of sight.

After the child met the phase change criteria for these phases, the first portion of the procedure was complete. During the second portion of the procedure, we started to fade out the

prompter. In phase six, the tutor was sitting at least five feet away and delivering instructions. The prompter was required to stand one foot away from the student. They were still required to be behind the student, and out of sight. The phase change criteria remained the same throughout this portion of the procedure as well. In the seventh phase, the prompter was required to stand three feet away. In the eighth phase, the prompter stood five feet away. Throughout this portion of the procedure, the prompting, reinforcers, and the time with the reinforcer stayed the same. After all of the phases were completed the procedure was considered mastered. We were able to run a maintenance probe with participant 1 about a week after he mastered the procedure. For this probe, the tutor was five feet away from the student and the prompter was five feet away from the student. This was done to determine whether our procedure would maintain over time.

Results

The purpose of this study was to teach kids in a discrete trial setting how to sit in their chairs for longer periods of time to prepare them for group learning environments. This is a skill that is useful in these classrooms because there is more than one student per teacher so the students have to learn how to stay seated in their chairs and still attend to the teacher.

In the baseline phase of the study, Participant 1 showed an average of 50.5% of correct responses. Responding gradually went up during baseline and then dipped down for the first few sessions of interventions. This variability was the main reason Participant was used in this study. A child needs to be on task and attend consistently in group-learning environments to be successful in the classroom.

In phase one of the intervention, the average percent of correct trials for participant 1 was 65%. In the intervention phases, Participant 1 showed an increase in correct responses as the intervention went on. For phase two, the average percentage of correct trials was 81%. For phase

three, the average percentage of correct trials was 83.25%. The average percentage of correct trials for phase 4 was 80%. For phase phase five, it was 86%. Since we saw consistent responding from participant one through the first five phases, we decided to move directly to phase eight. For this phase, the average percentage of correct responses was 89%. Responding gradually went up as the intervention went on and then was stable throughout the entire intervention.

In the baseline phase for Participant 2, out of seat behavior was often observed. In the first and second session, the participant performed correctly on 37% and 50% of the trials. In the third and fourth sessions, they performed correctly on 43% and 47% of the trials. This was the main reason Participant 2 was chosen for this study. In a group-learning environment, participant 2 would have to stay seated for periods of at least five minutes.

During the intervention phase, the average number of correct responses increased and remained at a steady rate for the rest of the intervention. In the first phase, the average percentage of correct trials was 95%. In phase two, the average percentage was 98.5%. For the third phase, the average percentage of correct trials was 86.6%. In the fourth phase, the average correct percentage was 90%. In the fifth phase, the average percentage was 85.3%. For the first part of the procedure, participant 2 was correctly responding at a high and steady rate. This continued throughout the second part of the procedure starting with an average of 90% in the sixth phase.

When visual stimuli were used, we noticed more attending than with verbal stimuli. Specifically for participant 1, more attending and on task behavior was observed when the number, letter and word cards were used. When verbal directions or verbal imitation were used, more off task and problem behavior occurred.

Figure 1.

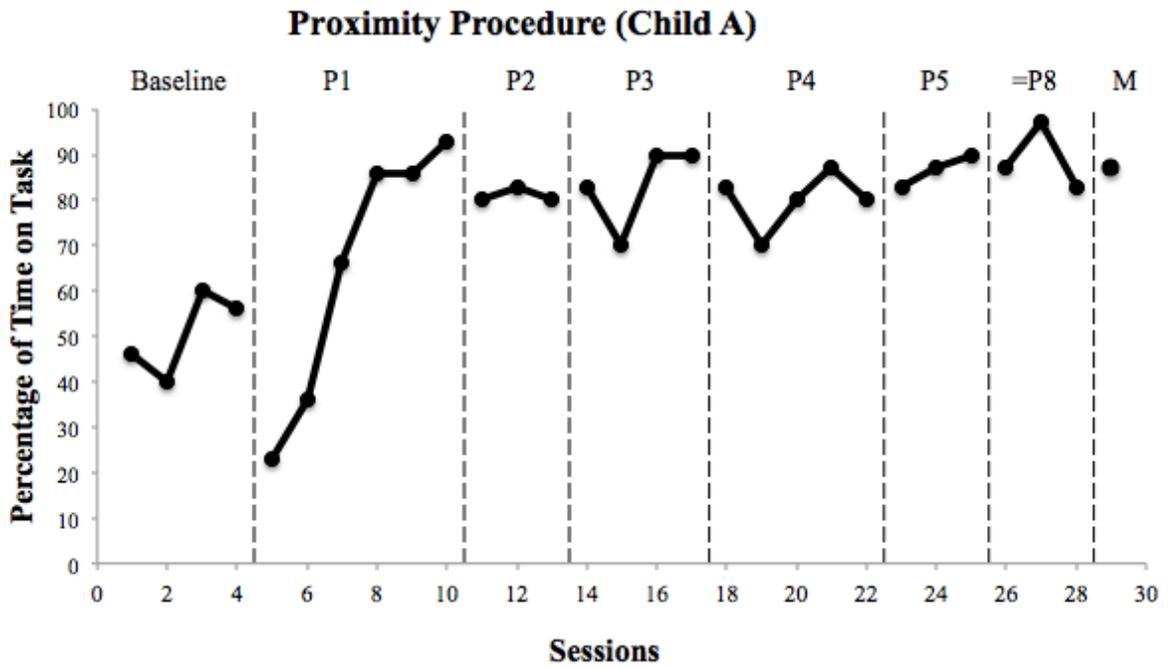
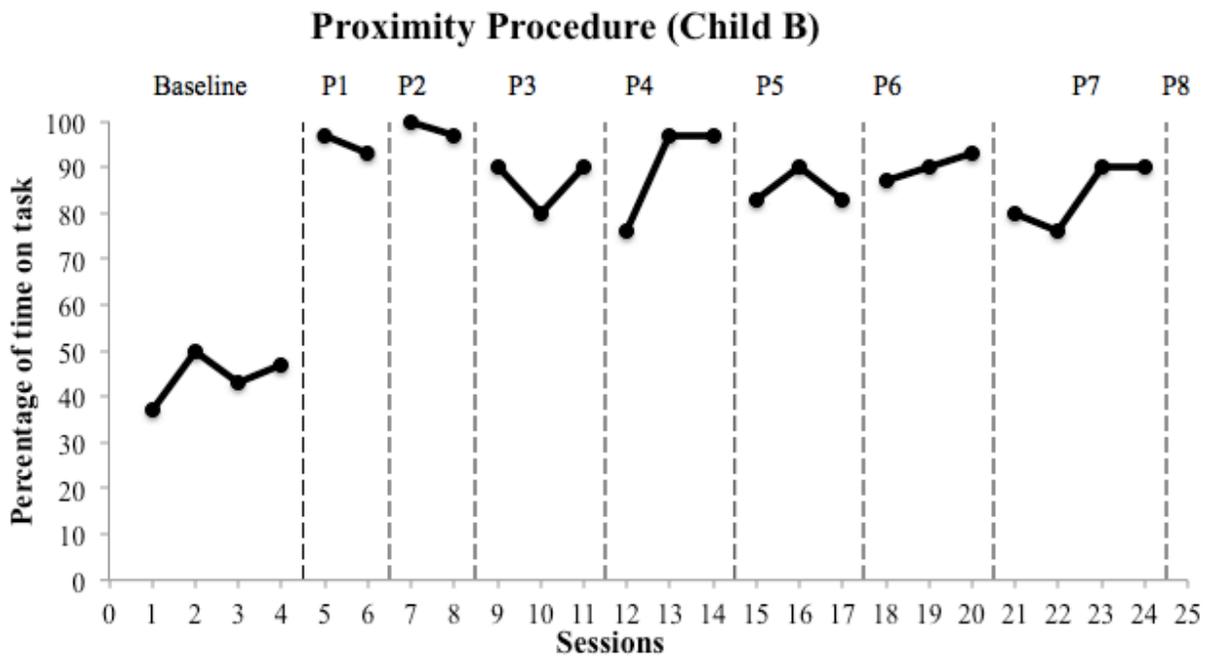


Figure 2.



Discussion

Our hypothesis was proven correct by our data. This intervention was effective in teaching our two participants to sit in their seats and attend for at least five minutes. This will be a skill that will help these children succeed in group-learning situations. There were a few dips in our data mainly for participant 1. The reason for these results could be due to the switching the content of the procedure. This participant was originally only required to complete simple directions such as, “clap hands.” We decided to switch to more complex tasks such as identifying letters, numbers and simple words because these skills will be more beneficial to the child when they move on to a group-learning environment. When these tasks were implemented, more problem behavior was seen with participant 1. We tailored the procedure to fit each of the children we were working with to ultimately benefit the child. Our main goal was to help the child succeed as opposed to having good data. Another factor that contributed to less correct responses was the amount of distractions in the room. We ran the sessions in a variety of different rooms and when there were several people in the room with us, the amount of correct responses decreased. This is also beneficial to the child because these skills will be generalized to many different environments and an environment with more people mimics the environment of group learning more closely. Overall our goal for this procedure was to help kids make the transition from one-on-one learning environments to group learning environments.

A few things could have been done differently to make our data stronger. When we started the study, we had not done anything like it before. We changed aspects of the procedure as we went along. Our data would be stronger if we repeated this procedure with several more children now that we have mastered how to implement this procedure.

In future replications of this research the duration of the procedure could be increased to 10 minutes. This would be more like a group learning setting, in which the children would be required to sit and attend for longer periods of time. It would also be beneficial to have more independent tasks such as activity folders and worksheets. This would help the child become more independent in their learning.

With the results of our study, this particular autism classroom will be able to implement this procedure for many other children before those children transition to other classrooms. This will expand the amount of children that are benefitted by this procedure and will make the lives of teachers in group-learning environments easier. These teachers will be able to help their children succeed academically if they are able to sit and attend for at least five minutes at a time. The two children used for this study will have an easier transition to a group-learning environment and, because of that, will be more successful in this type of learning environment.

References

- Conroy, M.A., Ladwig, C.N., Sellers, J.A., Valcante, G. (2004). The effects of proximity on the classroom behaviors of students with autism in general education settings. *Behavioral Disorders (29)2*, 119.
- Denkyirah, A.M., Agbeke, W.K. (2010). Strategies for transitioning preschoolers with autism spectrum disorders to kindergarten. *Early Childhood Education Journal (38)*, 265-270
- Forest, E.J., Horner, R.H., Palmer, T.L., Todd, A.W. (2004). Transitions for young children with autism from preschool to kindergarten. *Journal of Positive Behavior Interventions. (2)*, 103-112.
- Jewett, J., Turtell, L., King-Taylor, M., Parker, D., Tertell, L., Orr, M. (1998). Four early childhood teachers reflect on helping children with special needs make the transition to kindergarten. *The Elementary School Journal. (98)9*, 329-338.
- Quintero, N., McIntyre, L.L. (2011). Kindergarten transition preparation: A comparison of teacher and parent practices for children with autism and other developmental disabilities. *Journal of Early Childhood Education. (38)*, 411-420.
- Werts, M.G., Zigmond, N., Leeper, D.C. (2001). Paraprofessional proximity and academic engagement: Students with disabilities in primary aged classrooms. *Division on Autism and Developmental Disabilities (36)4*, 424-440.

Appendices

Appendix A: Data Sheet

Appendix B: Direction List

Appendix A: Data Sheet

Initial			Initial		
Trial	Date	Task	Trial	Date	Task
	+/-			+/-	
1: 5:00			1: 5:00		
2: 4:50			2: 4:50		
3: 4:40			3: 4:40		
4: 4:30			4: 4:30		
5: 4:20			5: 4:20		
6: 4:10			6: 4:10		
7: 4:00			7: 4:00		
8: 3:50			8: 3:50		
9: 3:40			9: 3:40		
10: 3:30			10: 3:30		
11: 3:20			11: 3:20		
12: 3:10			12: 3:10		
13: 3:00			13: 3:00		
14: 2:50			14: 2:50		
15: 2:40			15: 2:40		
16: 2:30			16: 2:30		
17: 2:20			17: 2:20		
18: 2:10			18: 2:10		

19: 2:00			19: 2:00		
20: 1:50			20: 1:50		
21: 1:40			21: 1:40		
22: 1:30			22: 1:30		
23: 1:20			23: 1:20		
24: 1:10			24: 1:10		
25: 1:00			25: 1:00		
26: 50			26: 50		
27: 40			27: 40		
28: 30			28: 30		
29: 20			29: 20		
30: 10			30: 10		
	%			%	

Appendix B: Direction List

Directions:

Echoics	Verbal Directions	Colors	Animal Sounds
Colors	Arms Up	Blue	Cow
Animals	Tap Table	Green	Horse
Simple Words	Clap Hands	Orange	Cat
Sounds	Stand Up	Purple	Dog
	Sit Down	Pink	Owl
	Stomp Feet	Yellow	Sheep
	Body Parts		Pig
			Duck
			Owl