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Observational Study and Treatment of Problem Behavior
Associated With Transitions of Two Elementary
School Children with Disabilities

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Abstract

I examined the effects of an intervention based on an observational study to treat two children's problem behaviors, which were associated with transitions. Participants were one 7 year old boy with the educational classification of intellectual disability, and a 10 year old girl with the educational classification of multiple disabilities. There were three phases in this project. In phase 1, a preliminary observational study was conducted to identify the antecedent and consequent events that seemed to be affecting the occurrence of problem behavior during transitions from one activity/location to another. Next was Phase 2, in which a preference assessment was administered to help determine activities/edibles to be used as reinforcers for appropriate behavior during the study. Phase 3 applied an intervention that was determined based on the data from the observational study and the preference assessment. The intervention was designed to address the function of the problem behavior and thereby decrease it.

Observational Study and Treatment of Problem Behavior Associated With Transitions

An event that occurs every day in our schools that affects our children with or without disabilities is transitioning from one activity or place to another. Many children with disabilities have a problem with transitioning (Waters, Lerman, & Hovanetz, 2009). Transitions, defined as a change from one activity or setting to another, can evoke disruptive behavior in some young children (Sainato, Strain, Lefebvre & Rapp, 1987).

Not only can disruptive behavior occur during transitions, but transitioning for even typically developing children can be time consuming. The importance of smooth transitions is demonstrated by data that indicates that children spend as much as 20% to 35% of their class time in transition from one activity to another (Sainato, Strain, Lefebvre & Rapp, 1987). Likewise, Fisher, Berliner, Filby, Marliave, Cahen, & Dishaw (1980) reported that excessive transition time is a common problem in the schools, with students spending over 70 min a day engaging in preparation and clean-up activities in some classrooms.

Many studies have focused on manipulating antecedent events to treat problem behaviors associated with transitions, but sometimes without successful results. For example, one study (Cote, Thompson, & McKerchar, 2005) examined the effects of using “warnings” prior to transitions from a play activity to a toileting area with three toddlers. The teacher gave a verbal warning “two minutes before going to potty.” When this antecedent strategy was implemented

alone, a near zero level of compliance was observed from all the participants. One limitation was that there was no prior analysis to try and identify the source of the problem behavior.

One study (Sainato, Strain, Lefebvre & Rapp, 1987) that had success in facilitating transitions taught children to ring a bell after transitioning to a new location. There were three locations in which the children transitioned: 1) circle time to lesson, 2) snack to bathroom, and 3) circle time to language. A bell was placed at the endpoint of the transition and the children rang the bell when the transition was complete. The bell seemed to have reinforcing properties since the children liked ringing it. This intervention of ringing the bell increased appropriate behavior from a baseline of 3.4 % of observed intervals of appropriate child behavior to 90.3%. Because the bell ringing had reinforcing properties, the intervention could be considered an antecedent intervention and also a consequent intervention.

In his study, Tustin (1995) suggested that advance notice of activity transitions can reduce problem behavior. Stan, a 28 year old man with autism, worked at a vocational center where he packed materials. Baseline procedures for transitioning from one activity to another were that the supervisor would approach Stan with new materials and present them to Stan while he removed previous materials. In the advance notice intervention, the supervisor would approach Stan with new materials and then ask if he would like to start work on new materials soon. If Stan did not respond, the supervisor would not remove previous materials and walk away for 2 min. Stan changed tasks within 2 minutes of the supervisor's request 90% of the time compared to 60% during baseline.

Findings from the above studies suggest that antecedent manipulations may, at least sometimes, reduce the likelihood of problem behavior during transitions. However, the authors were unable to identify why those procedures produced the observed changes in behavior (McCord, Thomson, & Iwata, 2001). Recent research, however, points to the importance of first trying to identify the circumstances that lead to problem behavior and, in some cases, the function they serve for the child. Then treatments can be developed based on these functions (Waters, Lerman, & Hovanetz, 2009).

For this reason, prior analyses need to be done prior to “choosing” an intervention. In such cases, the possible function of problem behavior would be identified and what seems like the most effective intervention can be implemented. To date, few studies have evaluated the utility of these analyses of aberrant behavior associated with transitions (Wilder, Chen, Atwell, Pritchard, & Weinstein, 2006). In their study, Wilder et al. (2008) conducted a preliminary analysis to identify which transitions occasioned tantrums. Based on the results of the analyses, transitions involving termination of preferred activities and initiation of non-preferred activities were used as contexts for treatment evaluation. Another study that conducted a preliminary analysis of transition behavior was McCord, Thomson & Iwata (2001). McCord et al (2001) stated, “Thus, the primary purpose of this study was to illustrate the use of functional analysis to identify reinforcers that maintain problem behavior during transitions, which were conceptualized as a change in activity, location, or both. In addition, we evaluated a progressive series of interventions (from least to most intrusive) suggested by results of the functional analyses.”

The development of interventions based on the results of preliminary analyses has become a hallmark of current behavior analytic research on the assessment and treatment of problem behavior. When the possible function of a problem behavior is identified, an intervention can be designed that addresses that function. One such study was conducted by Waters, Lerman, & Hovanetz (2009). This study illustrated the importance of doing both a preliminary functional analysis and a preference assessment to identify reinforcers that maintain behavior. Based on those preliminary analyses, an appropriate intervention was phased in and evaluated. Their research shows how helpful it can be to understand the function of a behavior prior to designing an intervention as well as to identify potent reinforcers.

Preference assessments are used by educators to help them identify reinforcers that are most likely to motivate students. There has been extensive research that focuses on identifying preferences of individuals with developmental disabilities (Cote, Thompson, Hanley, & McKerchar, 2007). There are various types of preference assessments, usually differentiated by the number of items presented. One item is a single stimulus, two items is a paired stimulus, and 3 or more items is a multiple stimulus preference assessment. A multiple stimulus preference without replacement assessment will be used for the current study. The procedure that is used for multiple stimulus preference assessment entails presenting approximately 4 to 7 items at one time to the student at a desk/table. Once the student chooses an item, that item is removed and ranked #1. The remaining items are presented to the student. The item chosen next is ranked #2 and is removed. This process continues until all items have been selected and ranked. This procedure is repeated with the same items for at least 3 sessions. The results are averaged according to the items' rankings. For example, if 5 items were presented and the subject chose

one item first (ranked 1) during the first session, then chose that same item third (ranked 3) during the second session, and finally chose the same item first (ranked 1) for the third session, that item's average ranking across the three sessions would be 1.66. The ranks for each item are averaged and put in order from high preference to low preference. The goal is to use high preference items during intervention to produce more motivation, compared to arbitrarily selecting items as reinforcers.

The purpose of this study is to illustrate the use of a preliminary observational study and a preference assessment to address the problem behavior(s) of two elementary age children, one with multiple disabilities and one with intellectual disabilities during transitions. Based on the results of the observational study, an intervention was designed to address the problem behavior. Specifically, the following questions were addressed: 1. Did the preliminary observation study and preference assessments contribute to the design of interventions for transitioning behavior? 2. Once the probable function of one or more behaviors was determined through an observational study and highly motivating reinforcers were identified through a preference assessment, did the intervention based on these decrease problem behavior during transitions?

METHODS and RESULTS

Participants and Settings

Participants were one 7 year old boy who had the educational classification of intellectual disability, and a 10 year old girl with the educational classification of multiple disabilities. Both attended the same public school and were enrolled in regular education classes.

Both participants had engaged in problem behavior reported to occur during transitions. These transitions were to and from various settings within the school: the special needs classroom where they received specialized instruction, the outside play area, gym, the lunchroom, and their respective regular education classrooms. Both participants also engaged in problem behavior reported to have occurred during transitions from activity to activity.

Joe can communicate well with age appropriate speech. He was reading on a first grade level, and is on a kindergarten level in math. Joe required constant supervision to remain on task. Mary is a young, nonverbal Hispanic girl with some receptive language skills (e.g., listening to simple one step requests). She was learning pre-academic skills such as matching shapes and recognizing colors. Mary is visually impaired and has had multiple surgeries to help her eyes tract straight. She was assessed by the school psychologist as having the intellectual ability of approximately a two year old.

Joe's schedule consisted of arriving at school and going to breakfast by himself. After breakfast, Joe went to his regular education classroom with peers for about an hour. After that, he transitioned into the special needs room where he was with other students with severe disabilities. He remained in the severe unit program until lunch. When lunch was over, Joe returned to the regular education setting with an aide in the classroom for support. Mary was also educated in the severe unit until noon, but she was assisted by an aide at breakfast and then was helped down to the severe unit. Mary spent the entire morning in the severe unit being assisted by aides with her individual needs/goals. After lunch, Mary was one on one with an aide and did various activities which required multiple transitions. Both students spent a majority of their day in the severe unit, which only functioned 8:00 to 12:00.

It is important to understand the way the severe unit functioned. The severe unit had eight children with severe disabilities ranging from five to twenty years old, these eight children were in a classroom with a curriculum designed to serve students with special needs. The room is approximately 30 feet by 40 feet staffed with a part-time severe teacher and 4 aides.

There were three phases in this project described below. These included: (1) a preliminary observational study; (2) a preference assessment; and (3) intervention.

Phase 1: Preliminary Observation Study

A three week preliminary observation phase (Phase 1) was implemented which was used to examine all of the transitions that the two students underwent between 8:00 AM and 12:00 PM, Monday – Friday.

Measurement

There were two types of behaviors measured during each transition: (1) Appropriate Transition Behavior, defined as the child engaging in appropriate food, toy, or task related behaviors, even if asked to change area/location. Appropriate transition behavior was defined as the child going straight to the desired area without stopping, grabbing objects or engaging in stereotypic behavior. The transition was terminated once the child engaged with the food, toy, or task in the desired area/location for 3 min. (2) Inappropriate transition behavior was defined as any behavior which prevented the child from moving or making progress in a meaningful way towards the desired food, toy, task or area/location. This included dropping to knees, lying on floor, not leaving a particular area or no engagement with food, toy, or task.

If problem behavior occurred 3 min before, during, or 3 min after transition, the trial was ended and the participant was returned to the pre-transition activity/location, put on extinction, or timed out. For severe cases of problem behavior, in-school suspension was used. This occurred twice during the study. During in-school suspension the student was “turned over” to the principal who would take the student and place him/her in a room approximately 8’ X 10’. The room was located in the office area of the school. The room was empty with only a chair and a desk. The door had a half window in it so the principal could monitor the student. The student was placed in the room and given work provided by the regular education teacher. Once the work was completed and the student’s behavior was satisfactory, the principal would allow the student to return to his/her schedule. When there were no problem behavior(s) before, during, or after the transition, the trial was ended.

Data were collected each morning for all transitions. Data were reported on the percentage of transitions with problems per week. The percentage was obtained by taking the total number of trials observed with inappropriate transitioning behavior per week and divided by the total number of trials. For example, eight trials observed with problem behaviors / 12 total transitioning trials x 100= 66%. Further, data for all transitions were disaggregated for each type of transition to permit more detailed analysis of the contexts for problem behavior and a more detailed examination of treatment effects.

Data were gathered for each transition including: (1) locations before and after each transition; (2) the activities before and after each transition, (3) the time, and (4) whether or not problem behavior occurred. When problem behavior(s) were present during the transition, additional data were taken on the types of problem behaviors that were observed and how they

were handled. Data were observed and recorded on the “Transition Observation Form” by the special education teacher, the regular education teacher(s), and the aides to whom Joe and Mary were assigned. The special education teacher, regular education teachers and aides had a folder with one week’s worth of blank transition observation forms for the student(s) with whom they were working; Joe and/or Mary. When a transition or activity occurred, the behavior was observed and recorded on the transition observation form. So, the special education teacher, aides, and regular education teachers observed and recorded different transitions and activities for Joe and Mary. The forms were partially filled out with the transitions and activities that each person observed. Then, each day, the special education teacher met with the regular education teachers and the aides, collected their data sheets and aggregated all the data onto one transition observation form. (See appendix A for a sample data collection form for Joe and for Mary.)

Preliminary Observation Study

The daily activities, the transitions, and the occurrence of problem behavior for the 3 week preliminary observation study for Joe and Mary can be seen below in Tables 1 & 2, respectively.

	<u>Time</u>	<u>From</u> (location/ Activity)	<u>To</u> (location/ Activity)	<u>Number of</u> <u>observations</u>	<u>Number of</u> <u>Problem</u> <u>Behaviors</u>	<u>Percent of</u> <u>transitions</u> <u>with problem</u> <u>behaviors</u>
1.	7:50- 8:10	Drop Off Area	Lunch Room/ Breakfast	14	2	14
2.	8:10- 8:15	Breakfast	Regular Ed. Classroom	13	3	23

3.	8:15-8:45	Bell work	Reading	13	3	23
4.	8:45-9:30	Reading	Phonics	14	0	0
5.	9:30-9:35	Regular Ed. Classroom	Special Needs Room	14	5	43
6.	9:30-10:00	Arrival in the special needs room	IEP Goals	14	9	64
7.	10:00-10:20	Special Needs Room	Regular Education Classroom	14	0	0
8.	10:20-10:25	Regular Education Classroom	Outside/ Recess	14	0	0
9.	10:25-10:35	Recess/ Outside	Special Needs Room/ Snack	14	7	50
10.	10:35-11:00	Snack	Goals	14	5	36
11.	11:00-11:55	Special Needs Room	Regular Education Classroom	13	3	23
12.	11:55-12:00	Regular Education Classroom	Lunchroom/ Lunch	14	0	0
13.	11:55-12:00	Lunch Room	Outside/ Lunch Recess	14	1	7

Table 1. Summary of Joe's daily activities and problem behavior during the Preliminary Observation Study.

<u>Trials</u>	<u>Time</u>	<u>From</u> (location/ Activity)	<u>To</u> (location/ Activity)	<u>Number of</u> <u>observations</u>	<u>Number of</u> <u>Problem</u> <u>Behaviors</u>	<u>Percent of</u> <u>transitions</u> <u>with problem</u> <u>behaviors</u>
1.	7:45- 8:00	Drop Off	Breakfast/ Lunchroom	14	0	0
2.	8:00- 8:05	Breakfast	Special Needs Room	14	2	14
3.	8:05- 8:15	Arrival in Special Needs room	Free Time	14	0	0
4.	8:15- 8:30	Free time	Opening	14	2	14
5.	8:30- 9:30	Opening	Goals	13	2	15
6.	9:30- 10:00	Goals	Group Time	14	2	14
7.	10:00- 10:20	Group Time	Recess	14	2	14
8.	10:20- 10:25	Recess	Special Needs Room	14	2	14
9.	10:25- 10:35	Arrival in Special Needs room	Snack Time	14	2	14
10.	10:35- 11:00	Snack Time	Arts/Crafts	14	4	29
11.	11:00- 11:55	Arts/Crafts	IEP Goals	14	4	29
12.	11:55- 12:00	Goals in Special Needs room	Lunchroom/ Lunch	14	1	7

Table 2. Mary's daily activities with transitions and problem behavior during the

The observational data for each participant were analyzed to pinpoint how frequently problem behavior occurred, where there was the most need for intervention, and to formulate ideas about intervention strategies. The observational data for Joe suggested that he was having the most problem behavior when he transitioned from the general education classroom to the special needs room where high demand activities were asked of him. The data showed that Joe was engaging in problem behavior 43% of the time when he transitioned from the general education classroom to the special needs room. Once in the special needs room, he had a higher rate of problem behavior (64%) when he transitioned to his work area to start on his IEP goals. Also note the high rate of problem behavior when he transitioned from recess/outside to special needs room (50%) and from snack to IEP Goals (36%) (see Table 1). I decided to target the transition from the general education classroom to the special education class for intervention.

Mary had two transitions where she engaged in problem behavior(s) 29% of the time (see Table 2). One was transitioning from Snack time to Arts and Crafts, and the other from Arts and Crafts to IEP Goals. Since these were the most frequent occurrences of problem behavior(s), I decided that these transitions were where we would implement interventions.

Deciding Intervention Targets

Baseline data derived from the 3 week preliminary observation studies was used to decide intervention targets. The data were put into the formula of the total number of transitions for the 3 week observation study divided by the number of problem behavior(s) X 100. A percentage was calculated for each particular transition.

Joe

For example, Joe had 14 transitions from his sixth location/activity “Arrival in the special needs room” to “IEP Goals” during the 3 week baseline/preliminary observation study. Out of those 14 transitions, he had 5 appropriate transitions and 9 inappropriate transitions/problem behaviors, so a percentage of 64% was obtained by dividing $9 / 14 = 64\%$.

Below is a graph of Joe’s Baseline/preliminary observation study data for the 3 transitions targeted for intervention.

Data on Problem Behavior in Targeted Transitions

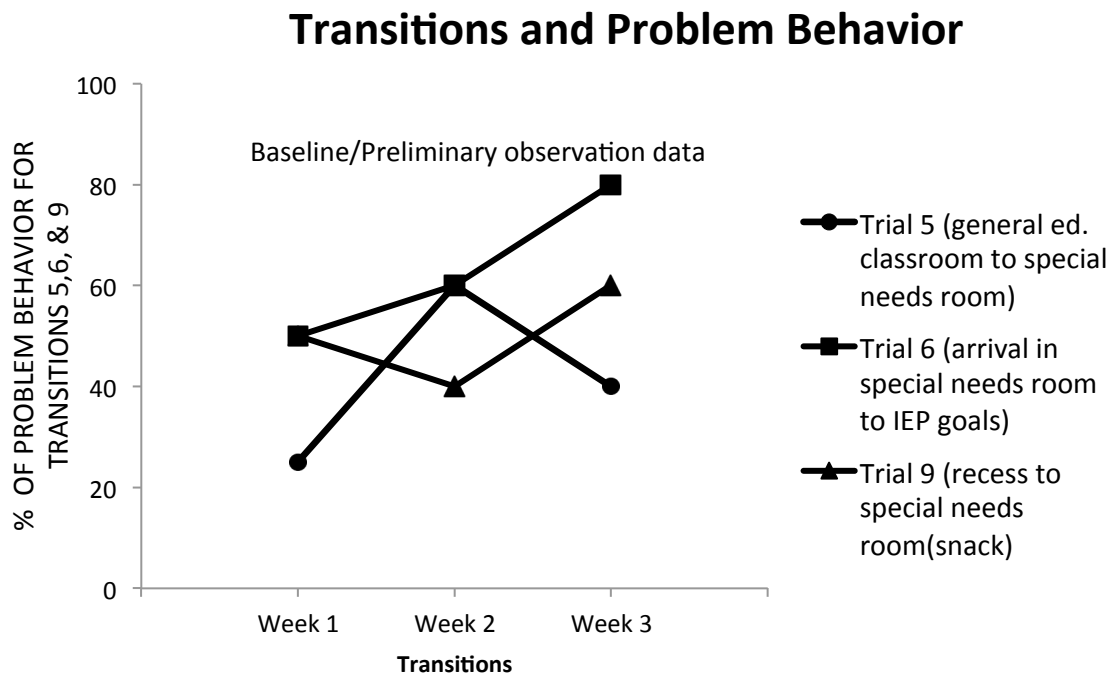


Fig. 1. Joes Baseline/Preliminary Data

Mary

Mary’s data for her transition from trial 10 “Snack Time” to “Arts and Crafts” shows that she also had 14 transitions during the 3 week baseline/preliminary observation study with 10 successful transitions and 4 unsuccessful/problem behaviors. Her percentage of transitions with problem behavior was calculated as $4 / 14 \times 100 = 29\%$. Figure 2 below presents the percentage of transitions with problem behavior for the two targeted transitions for Mary. It also indicates that there may have been a downward trend in the % of problem behavior for Mary over the 3 week observation study.

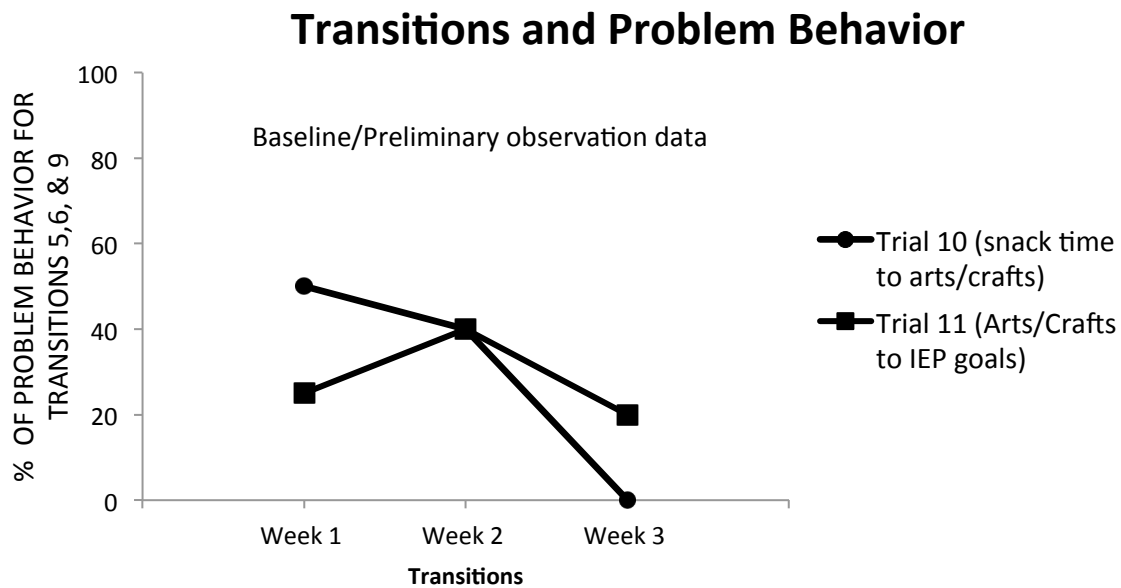


Fig. 2 Mary’s baseline/preliminary data

Phase 2: Preference Assessment

Preference Assessment Procedures

Preference for edibles, toys, and activities were assessed using a multiple-stimulus without replacement preference assessment. Five edibles, five toy items, and five activities were presented to each participant prior to the assessment in the special needs room at their own individual desk/table so they could sample each item. Activities were chosen through visual picture cards that represented an activity (for example a picture of a swing represents them being able to go swing). Three sessions were conducted and the items were ranked one to five, one being the most reinforcing and five the least.

Participants were in a familiar environment while the teacher presented the five edible items all at the same time on a desk/table in front of the participant. The participants were asked to choose his/her favorite item. Once the item was chosen, the participants ate it. The remaining four items were then randomly switched around and the participants were asked to choose another item. This process was continued until all items were eaten. The procedure for the toys was done in the same manner with all five toys being placed in front of the participants and them choosing an item.

The participants were allowed to play with the toy chosen for 1 min., then the toy was taken away and the remaining four toys were again randomly switched around in front of the participants. The participants were again asked to pick a toy and allowed to play with it for 1 minute. This process was continued until all five toys had been played with. The procedure for activities was done just like the edibles and toys. The participants were presented with five familiar picture cards that represented activities. The participants were asked what he/she wants to do. Once an activity had been chosen, the participants engaged in that particular activity for 5

minutes. Then the remaining four activity cards were then mixed around and the participants were asked to pick another activity and so on until all activity cards had been chosen.

The results were scored by ranking the items one through five based on the position in which they were chosen for all three sessions. The items average ranking were then computed and ranked from high preference to low preference for each category; edibles, toys, and activities

Preference Assessment Findings

The top 2 items in each category were used most of the time as the reinforcers in the intervention phase for Joe and Mary. The top six reinforcers mostly used in Joe's intervention were: M&M's, Popcorn, Drum, Blocks, Dancing, and Ipad. The Items assessed for Joe and Mary are presented below in Tables 4 & 5 along with their mean rankings.

EDIBLES		TOYS		ACTIVITIES	
Items	Rank	Items	Rank	Items	Rank
M&M's	1st	Drum	1st	Dancing	1st
Popcorn	2nd	Blocks	2 nd	IPad	2nd
Fruitloops	3rd	Ball	3rd	Coloring	3rd
Goldfish	4th	Car	4th	Swinging	4 th
Pretzels	5th	Puzzle	5th	Book	5th

Table 4. Joe's results on the preference assessment data.

The top six reinforcers mainly used in the intervention phase for Mary were; Goldfish, Fruitloops, Blocks, Cards, Ipad, and Coloring.

EDIBLES		TOYS		ACTIVITIES	
Items	Rank	Items	Rank	Items	Rank
Goldfish	1st	Cards	1 st	IPad	1st
Fruitloops	2nd	Blocks	2 nd	Coloring	2nd
Pretzels	3rd	Baby Doll	3 rd	Lacing	3 rd
M&M's	4th	Peg Board	4th	Playdough	4 th
Popcorn	5th	Ball	5th	Book	5th

Table 3. Mary's results on the preference assessment data.

Phase 3: Intervention

Intervention Procedures

Based on the results of the preliminary observation phase, interventions were designed specifically to treat the function of one problem behavior associated with transition for each participant. The data suggested that problem behavior for Joe was functioning to escape aversive stimuli. Moreover, the three transitions targeted for Joe's problem behavior were "general ed.

classroom” to “special needs room”, “arrival in special needs room” to “IEP goals”, and “recess” to “special needs room (snack),” since problem behavior was especially frequent in these three transactions.

Mary’s data suggested that she wanted to continue with the preferred activities and engaged in problem behavior to avoid going to a less preferred activity. The transitions targeted for intervention for Mary were, “arrival in special needs room” to “snack time” and “snack time” to “Arts & Crafts,” since problem behavior was especially frequent in those transitions.

Intervention DRA

Once the transitions in which the interventions were going to be applied were identified after the 3 weeks baseline/preliminary observation study, we implemented a DRA intervention for the problem behavior in these transitions. The six reinforcers for each child were all placed in a container so that they could be moved to the place where the transition was occurring. When Joe or Mary made a successful transition, he/she was able to access the reinforcer of his/her choice. If the child did not choose a reinforcer independently, then the professional would pick two and ask, “Which one do you want?” When the child had an unsuccessful transition (i.e.) exhibited problem behavior, he/she was returned to the pre-transition activity/location (when appropriate), put on extinction, or timed out (planned ignoring). If/when the child completed the transition successfully s/he was able to access the reinforcers.

The intervention phase continued for 10 weeks. Each week was unique in that school schedules changed a lot. Data were taken if the normal transition occurred during the specified time. There were schedule changes on many days due to assemblies, presenters, and drills etc.

Data were not taken on days in which transitions did not occur according to the “usual” schedule.

Figures 3 & 4 show the results of intervention during the 5 transitions for Joe and Mary,

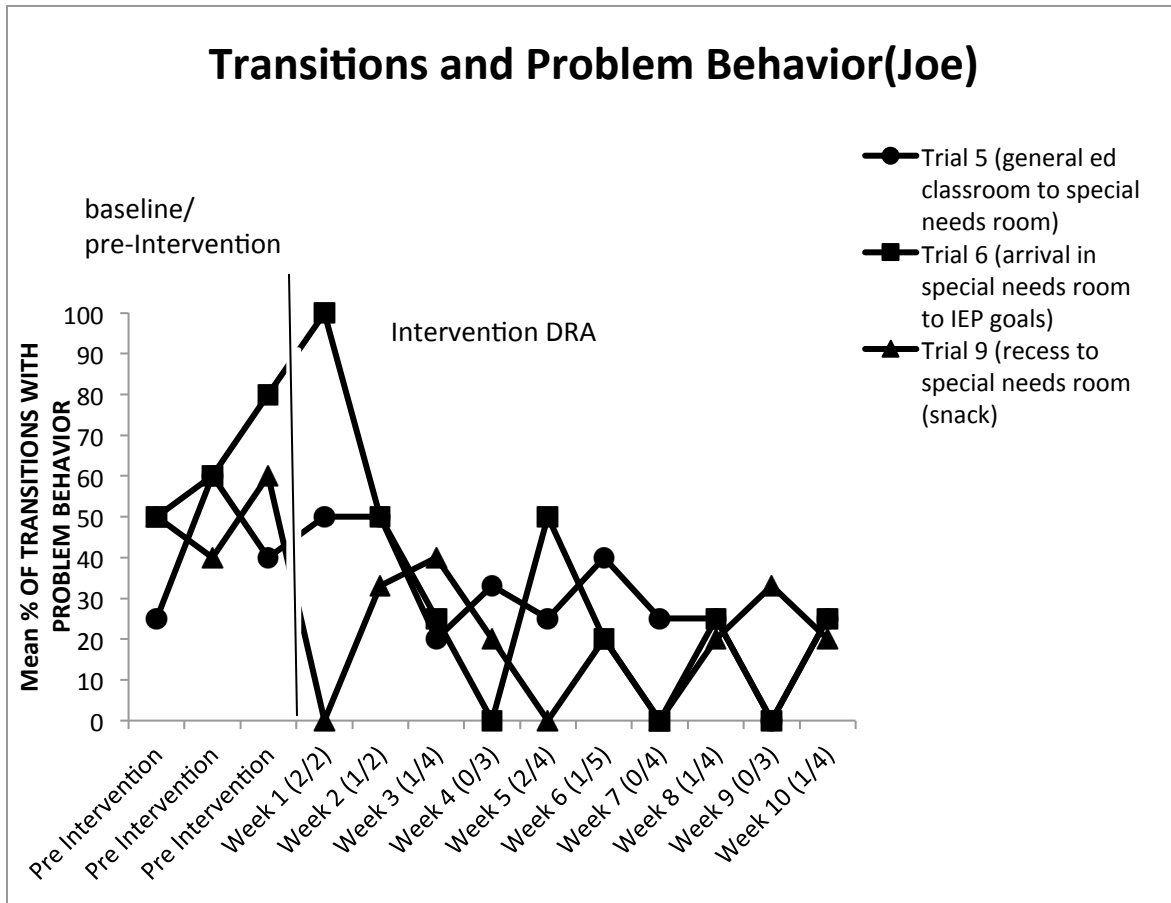


Fig. 3 Percentage of transitions with problem behavior across baseline and DRA for Joe during each of three targeted transitions.

As may be seen in Fig. 3, the percentage of transitions with problem behaviors during the baseline (i.e., the observation phase) for Joe was stable at 43% to 64%. By the third week of intervention, problem behavior had begun to decrease for each of the three transition targets. Percentage of problem behavior stabilized at reduced rates through the remainder of the study.

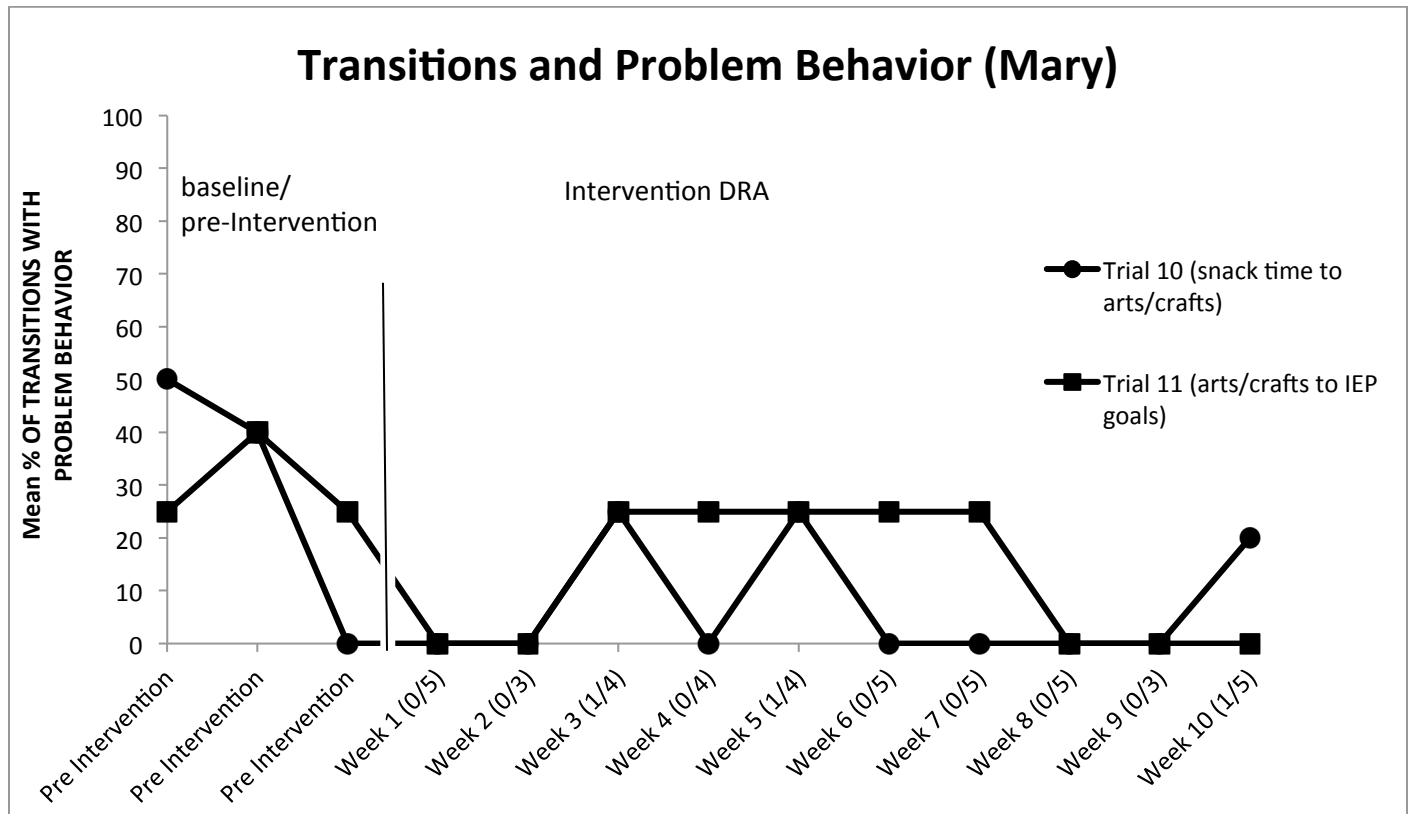


Fig 4. Percentage of transitions with problem behavior across baseline and DRA for Mary during each of two targeted transitions.

Mary’s data shows that her baseline for both trials was decreasing at the last baseline point . The intervention had an immediate effect with trial 11 going to 0% for the first two weeks of intervention. Trial 10, snack time to arts/crafts transition, declined to 0% after the 6th week with no problem behavior occurring except one time in the last week. The arts/crafts to IEP goals transition took a little bit longer to reach 0% but remained constant the last 3 weeks with 0% of problem behavior occurring.

DISCUSSION AND CONCLUSIONS

Systematically Choosing Reinforcers Seems to Increase the Efficacy of Intervention

This study addressed a common, difficult, and serious issue with children with severe disabilities; that is, problem behavior occurring during transitions from one locale or activity to another. A three phase approach was employed. First, a preliminary observational study was conducted to identify the transitions that were most problematic and to collect baseline data on the frequency of the problem behavior during each transition. Second, a systematic preference assessment was conducted to identify a variety of potent reinforcers that were later used to strengthen adaptive, positive responses that would replace the problem behaviors. Finally, the knowledge gained from the observational study and the preference assessment was used to design an intervention targeted on the most problematic transitions for the two participants.

These interventions successfully decreased problem behavior for every targeted transition for each of the two participants. For one participant, Joe, the percentage of transitions with problem behavior went from over 50% in baseline to 24% at the end of the intervention phase. The percentage of problem behavior during transition for the 2nd participant, Mary, declined from 29% during baseline to less than 10% at the end of intervention.

Based on anecdotal evidence from working with children with problem behaviors in the past, it seemed very advantageous to systematically choose highly motivating reinforcers before applying an intervention. When interventions were done in previous attempts, reinforcers were often chosen in less than systematic ways. It seems that the preference assessment yielded

highly motivating reinforcers that increased the likelihood of success, and also that using a variety of highly motivating reinforcers prevented satiation on any one item.

Length of Time Data were Recorded

Another item of discussion is the length of time that data were collected for this study. I believe it was important to track these participants over a long period of time. We started in late October and went until early March. Many times data are best taken over a long period of time so as to insure the representativeness of the behavioral observations. Tracking participants over a longer period of time allowed me to see the different dynamics of the intervention being applied and how it affected the student's behavior (i.e. when a student was reprimanded at home during the weekend and it carried over to school). Thirteen weeks of data is quite a significant amount of time in one school year, especially when you are coping with changes in school schedules and other unplanned events that happen quite often from year to year or even month to month in a public school.

Another interesting point is that we saw that the percentages of problem behavior decrease in the trials/transitions where an intervention was applied and also in most of the other trials/transitions in which intervention was not conducted. We believe this happened because highly motivating reinforcers were decreasing problem behavior in targeted transitions and this caused a "ripple" effect to other transitions.

In conclusion, this study suggests that collecting preliminary observational data and using it in conjunction with a systematic preference assessment can be helpful when designing an intervention that addresses problem behaviors in children with severe disabilities. Based on the

data on problem behavior obtained from the preliminary observational study, we deduced the function of the behavior and based on that designed an intervention to teach an alternative, more appropriate replacement behavior. This new behavior was strengthened by reinforcers known to be highly motivating based on the preference assessment, thus making it likely that the alternative, more appropriate behavior, would reliably replace the problem behavior.

Appendix A: Transition Observation Form

NAME _____

DATE _____

OBSERVER _____

	<u>Time</u>	<u>From</u> (location/Activity)	<u>To</u> (location/Activity)	<u>Problem</u> <u>Behavior</u>	<u>Unusual</u> <u>Transition</u> <u>Circumstances</u>	<u>Problem Behavior</u> <u>after Transition</u>
1.						
2.						
3.						
4.						
5.						

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