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A Single Subject Design Study; Utilizing Visual Schedules to Reduce Behaviors During Hallway Transitions

A Project Presented to The Graduate Faculty at Minnesota State University Moorhead

By

Nicole Amber Degner

In Partial Fulfillment of the Requirements for the Degree of Master of Science in Curriculum and Instruction

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"People who lack the clarity, courage, or determination to follow their own dreams will often find ways to discourage yours. When you change for the better, the people around you will be inspired to change also...but only after doing their best to make you stop. Live your truth and don't ever stop.

-Steve Maraboli

There are numerous people whom deserve my utmost gratitude in the completion of this paper. But, without my four children none of this would have happened. This paper is dedicated to them; my heart, my soul and the very reason I am exactly where I am today. Maddie, Mason, Talya and B-ray the four of you are my everything. I love being your mom and I love having you as my children. The truth in the quote above is known to the five of us. It is for this very reason I strive to be the very best mom possible. Each of you make me so proud. I love you with all that I am always and forever. Be true, Mom

Abstract

This study examined whether a Visual Activity Schedule would aid in reduction of disruptive behaviors during hallway transitions. Subject of this study was a six-year-old, Caucasian male, diagnosed with Oppositional Defiant Disorder. The study used a single-subject experimental design to determine baseline, intervention phase and removal of intervention phase. Specifically, the study revealed intervention strategies of a Visual Schedule was associated with 100% reduction of disruptive behaviors. Relationship development between paraprofessional and Student was found to be a secondary factor.

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Chapter 1 Introduction

General Problem

This study examined whether a Visual Schedule will aid in successful hallway transitions. In Special Education the phrase "behaviors tell us something" is used often to remind us that there is a reason a student is displaying disruptive behaviors. The goal becomes dissecting the behavior to figure out the trigger in order to help the student. The process of examining behaviors is exhaustive. A plethora of factors come into play resulting in a complex system. The researcher can create a hypothesis only to explore that avenue and discover something completely different. With the expectation of transpiring a beneficial result for the student in achieving the goals and objectives outlined in the Individualized Education plan in the undertaking. Transformation as a reflective practitioner in the process prepares the educator for future materializing behaviors and how to implement best practice for each individual student. This also aids in training support personnel who work directly with students on how to accurately apply interventions.

Research reveals that Kindergarten is the cornerstone in education. The shaping of patterns and views in the foundational beginning will dictate the years to come with peer relationships, teacher interactions and the students' sense of self (Lash, 2008). Breeman et al. (2015) state, "teacher-child relationships have consistently been identified as key factors for the social and behavioral development in children" (p. 787). The structure of school days is learned with anticipation that the student will take ownership of their education while gradually gaining independence (Bryan, Gast, 2000). This requires forethought on the part of the teacher, strong communication skills with support staff and detailed plans for classroom management. In those

commencing days of Kindergarten behaviors appear. Deshais, Fisher and Kahng (2018) report that "50% of the problem behaviors reported to school administrators originate in non-classroom settings such as hallways, bathrooms, the playground, and the cafeteria" (p. 50). Deshais et al. go on to reason that less coverage and structure in these locations are prospective factors for behaviors evolving. Hallway transitions are sited as one of the instances that behaviors arise. The precipitating implication result in needing to regain the class and loss of instructional time (Deshais et al.). Positive and negative routines are established in the early years through these scheduled procedures. Addressing these behaviors through the use of research-based interventions from the start becomes an important aspect of Kindergarten.

Students are required to inherently comprehend the skills necessary to transition independently. Throughout the school day there are a multitude of instances that require transition which over the course of a day accumulate and can be time consuming, especially when behavior challenges arise (Olive, 2004). Transitions do not come naturally for all students, especially those with behavior disorders (Sullivan, Martens, Morley, Long, 2017). This current project sought to understand the impact a Visual Schedule would have for a special education Student displaying disorderly behaviors during hallway transitions

Subject

The research participant is a six-year-old, Caucasian male, Kindergarten Student. An evaluation was administered by an Early Childhood Special Education teacher when the Student was four years old. The Student met Minnesota eligibility criteria for Developmental Delay in the areas of cognition and motor skills in February of 2017. The Student has a diagnosis from an outside source of Oppositional Defiant Disorder. An annual Individualized Education Plan (IEP)

was conducted with the team in October of 2018. The team consisted of the District's Qualified Representative (Principal), classroom teacher, Occupational Therapist, Emotional/Behavioral Disorder teacher (myself), the family's in-home therapist, student, student's three-year-old sister and mom. Attending to tasks, completing tasks, following directions, remaining with the group and hallway transitions were the focus of the annual IEP meeting.

In school direct services are provided by myself, Emotional/Behavioral Disorder (EBD) Teacher. The Student receives push-in services in the general education classroom three times a week (Monday, Wednesday, Friday) for twenty-minute increments and one pull-out for twenty minutes (Wednesday) in the resource room. The concentration for these services is to address the Students need for self-regulation, strategies to assist with transitions, on-task behavior and following directions. The team determined the focus of the Student's goals and objectives based on the evaluation, observations, data sheets and input from team members. Indirect services from the Occupational Therapist involve observations in the natural school environment and meetings with myself to discuss teacher's current concerns for the Student. The family's therapist goes into the Student's home on a weekly basis and comes into the school setting three times a week during lunch (Mondays) and Physical Education (Tuesday and Thursday). The therapist and myself meet on a weekly basis to discuss current needs of Student.

Selection

At the beginning of the school year the student displayed behaviors that were dangerous to himself, and others during classroom transitions in the hallway; running around the school, locking himself in bathroom stalls, climbing to the top of stalls, hiding under tables, running across tables, swearing at teachers, hitting, kicking, spitting at peers and adults. The Student's

annual IEP was due in January of 2019. Due to the level of behaviors the team determined it was necessary to address these issues and have the annual IEP at the beginning of the school year. The student was chosen as the focus of this study based on the fact that a Visual Schedule was determined to be a research-based intervention to address the behaviors the Student was displaying during hallway transitions by the team members during the annual IEP. As the Student's case manager, I am responsible for push-in, pull-our services, implementation of intervention and direct training for paraprofessionals who work with this Student. This made the Student a natural choice to be the focus of this study.

Setting

The intervention took place at Washington Learning Center (WLC). WLC houses the Districts seven Kindergarten classrooms, Early Childhood Family Education, three and four-year-old preschool programs, Head Start, Little Kids Connection (school run daycare program through Kindergarten), District programs, and outside agencies. The Kindergarten classrooms are located on the second floor. The second floor has an intervention/STEM classroom, the Social Worker's office, one of the two Speech Pathologists office, the Occupational Therapists office, the Autism Special Education teachers resource room, the Emotional/Behavioral Disorder teachers resource room, a sensory room, calm down spot and bathrooms for boys and girls at both ends on the floor.

The first floor of the building houses the Early Childhood Preschools for three and four year old children, a Head Start program, an independent organization through Greater Minnesota Family Services program called SEEDS (Social Emotional Enrichment and Development Programs), the Theo Wright Center for students with Autism, a resource room with a sensory

area, SMART room for preschool, Art classroom for Kindergarten students, staff lounge, staff workroom, three rooms that are set up for Early Childhood Family Education; a parent education room, a parent/child classroom and an Early Childhood room for students, there is a parent waiting area, calm down room, lunch room, Media/Tech classroom for Kindergarten students, Music classroom for Kindergarten students, Physical Education Classroom for Kindergarten students, an office for the maintenance workers, bathrooms, school offices that contain the Special Education Team, school nurse, secretaries, Early Childhood Director, Principal of the school, conference rooms and three outside sources offices.

The basement of the building contains the Playroom, SMART room for Kindergarten, the District run daycare program, a calm down room, storage and community-based programs. The stairs leading down to the basement are on the opposite end of the building from Kindergarten. This requires the Kindergarten students to go from the second floor, all the way through the first floor in order to reach the stairs to go to the basement. During these periods there are kindergarten classes, preschool classes, head start and daycare transitioning in the hallway simultaneously. Walking in a line from one end of the building to another when there are other classes in the hallway can make a transition last between one and five minutes. A clear picture of the environment is vital in understanding the challenges the Student is exhibiting during transitions.

Informed Consent

As the Student's case manager, I am employed to carry out the fulfillment of the IEP.

This includes, but not limited to; providing data collection sheets for the paraprofessionals, train the paraprofessionals on how to fill in data sheets and use interventions written in the

accommodations/modifications portion, teach students to recognize their emotions and strategies to deal with them in a positive manner. I spoke with the Student's mom and explained that I would like to use her son as the focus of my study. I let her know that I would be carrying out the items in the IEP regardless. It was completely voluntary for her to allow me to use the information I received through different avenues of data collection through the implementation of the Visual Schedule outlined in the IEP, she could change her mind at any time. I received permission from the Students mom in writing at the annual IEP meeting. The study was in the Students natural school setting and provided the Student with the Least Restrictive Environment that was identified in his IEP. All paraprofessionals involved were trained to use best practices and data was collected in the same manner had I not used the Student as the focus of my study. I received a letter from the school Principal granting me permission to conduct my research project at the school I am employed at. The information that was extracted from the data collection procedures was kept confidential between myself and the paraprofessionals that filled them out.

Chapter 2 Literature Review

Review

A large percentage of the school day involves transitions. This includes transitions between activities and subjects in the classroom to walking in the hallway to lunch, recess, physical education, music, art, and other specials the school includes in daily routines (Watson & DiCarlo, 2016). Transitions are an unstructured period of time when a presumed understanding of what students should do is assumed by educators and support staff in order for students to achieve an expected outcome without any formal instruction occurring to give them those guidelines (McIntosh, Herman, Sanford, McGraw & Florence, 2004). These frequent moments of transition naturally become a stretch of time when behaviors occur (Hemmeter, Ostrosky, Artman & Kinder, 2014). Generally, transition time is difficult for a majority of students until they become familiar with the routine and hidden curriculum involved with learning how to transition with appropriate behaviors (Banerjee & Horn, 2013). A student who meets criteria for special education services that is diagnosed with Oppositional Defiant Disorder, potentially has a challenge understanding the stressful feelings that are occurring in their body due to demands placed on them and therefore do not know how to respond to those requests positively (Schoorl, van Rija, Wied, van Goozen & Swaab, 2018). The ramification for this is that the teacher spends extra time dealing with the disruptions during transition which ultimately affects the timing for the rest of the classes and activities scheduled for that day. It is imperative to properly train paraprofessionals to manage behaviors' and implement effective interventions for efficient transitions to occur.

Definition of Terms. For purposes of this study, the following terms are defined:

Transitions: A transition is a set time in the daily classroom schedule that marks the end of one activity or class to begin a different activity or class. This can involve movement within the class or movement from the classroom to another location in the building. Transitions account for up to half of a students' school day and are an integral part of the school setting (Fewster, 2010).

Oppositional Defiant Disorder: Severe behaviors in an individual that manifest when conditions involve a person considered to be in an authoritative position give a direction or place a demand on them (Schoorl et al.).

Paraprofessional: An individual that supports students with academics and behaviors in an educational setting under the tutelage of licensed teachers (Cobb).

Visual Activity Schedules: A Visual Activity Schedule (VAS) is a strategy which uses pictures, symbols and drawings to give clear directions on what students are expected to do. They offer students a concrete visual of what is required of them, along with a clear beginning and end to activities and classes. A VAS is a tool used to increase student independence with activities, routines, transitions in the classroom and outside of the classroom (Watson et al.).

Transitions

A smooth classroom transition involves students moving from one location to another without the presence of undesired behaviors (Davis & Reichle, 2001). According to Olive (2004), "children may experience as many as 15-20 transitions between activities each day that collectively consume up to 70 minutes of instructional time" (p. 11). The amount of time which transitions monopolize requires intentional planning on the part of the educator to ensure they are accomplished without extra hindrances (Olive). This includes the details and responsibilities for

each adult in the room, where each adult will be stationed in respect to students, advance preparation of materials for the day, which students will be by each other, which students need to be separated and what will be used as the signal to prepare students for the different changes that occur throughout the day (Olive). This requires a great deal of forethought and organization on the part of the teacher. Although time consuming and somewhat monotonous the intentional transition planning will garner benefits that will outweigh the preparation time needed to effectively put them in place.

Children who exhibit difficulty with transitions vary for a variety of reasons. Some students may want to finish the activity they are currently working on, they may need a more definitive end to a project in order to move on, the next class or activity may not be one they enjoy, too many commands are expressed at once, chaos caused by other students transitioning, or they may become discombobulated and unbalanced with the lack of structure (Buck, 1999). In other instances, they may have a difficult time dealing with change due to the way they are wired, are unable to effectively manage their time and lack the necessary skills to do so (Thelen & Kliffman, 2011). Challenges with transitions are not exclusive to children identified with a disability. The difference is students without disabilities will in due time acquire the necessary skills to transition efficaciously. Students with disabilities, such as Oppositional Defiant Disorder, need more time, attention, detailed instruction and typically require some type of extra help in the form of an intervention to eventually learn how to transition.

Oppositional Defiant Disorder

Students diagnosed with Oppositional Defiant Disorder (ODD) often display behaviors in the midst of environmentally stimulating situations, such as transitions. This is due in part to executive functioning (EF) skills that are not yet developed. Students with ODD lack the proper cognition necessary for them to control their emotions and regulate their behavior (Schoorl et al.). Schoorl et al. state, "EF makes it possible to adapt behavior in situations that are new, complex, unpredictable, or have a high load of information" (p. 298). Transitions include all of the predictors that would be triggers for students with ODD. This is often complex in that the student may not possess the skills necessary to transition seamlessly, yet the nature of the disability resists adult guidance and directives. This predicament produces reactions that are uncooperative and can make the environment dangerous for other students, staff and themselves (Jones, 2018).

Effects of Behaviors During Transitions. The repercussion for behaviors that ensue from transitions affect not only the student that displays them, but peers in the same class and possibly other classes, along with staff involved with the student. This impeding hindrance caused by behaviors reduces the amount of time teachers have for instruction, the ability to adequately acquire the desired skill being taught for all of the students and ample amount of time for students to complete assignments (Sullivan et al.). The behaviors themselves can affect the student's academics overall due to the stress the transition generates and how it alters their performance in the classroom (Buck). The behaviors can also cause negative relationships to develop between peers (Sullivan et al.). The lack of attention the teacher has for other students because of the time the student with behaviors consumes with the continuous need for redirection can play into negative relationships being built (Cirelli, Sidener, Reeve & Reeve, 2016). Schoorl et al. note "[c]hildren with ODD/CD are at risk for a variety of negative outcomes: school dropout, unemployment, criminality and other psychiatric disorders such as depression and anxiety" (p. 298). A great deal of focus placed on the early years of development and positive

relationship building in an educational setting (Breeman et al.) becomes a key component to assist students with ODD comprehend how to function in a structured environment to enhance the possibility of future success. When the foundation is intentionally laid with the proper helps put into place then students with ODD will learn to follow rules at school, including transitions in a constructive manner. The teachers and paraprofessionals thus become key players in this transpiring.

Paraprofessional Roles

The increased demands in classrooms has generated a necessity for extra support staff, this position is normally filled by paraprofessionals. Hughes and Martinez Valle-Riestra (2008) report that "more than half a million paraprofessionals are employed in public school settings throughout the USA, with a substantial and increasing number of paraprofessionals hired specifically to support children with disabilities" (p. 163). In most states a paraprofessional must have an Associate Degree and pass assessments that each particular state has set in place for qualification to accommodate students' needs in a classroom (Cobb). Stockall asserts the role of a paraprofessional is to "assist students in maintaining and generalizing learned skills, organize the environment for seamless teaching, and protect teachers' valuable instructional time" (p. 204) Hughes et al. discusses that paraprofessionals are the "primary person responsible for implementation of behavioral strategies, instructional interventions and providing one-on-one support" (p. 163). The responsibility for the majority of interventions put into practice to decrease undesirable behavior thus becomes the job of the paraprofessional to apply.

Paraprofessional Training to use Interventions. In order for a paraprofessional to carry out the proper use of these tools they must be trained to use them (Mesibov, Browder &

Kirkland, 2002). When paraprofessionals receive the training they need through the modeling of research-based interventions it has been documented that there are positive outcomes for students (Stockall). Paraprofessionals foster student independence and can encourage positive relationships within the classroom (Stockall) when trained to utilize interventions the proper way. The role of a paraprofessional for students with ODD becomes an integral part of their adaption in early years to how the school is run and how to transition. This makes training paraprofessionals adequately on how to use strategies such as a Visual Schedules a vital aspect for the role they play with students that have ODD.

Visual Schedules as a Transition Intervention

A Visual Schedule is an intervention that provides students displaying challenging behavior a concrete way to provide structure (Watson et al.) and prepare for what is coming next (McCoy. Mathur and Czora, 2010). McCoy et al. employ, "[r]esearch strongly suggests that visual supports, such as pictures, prompts, cue cards, story boards, graphic schedules, and diagrams, have been effective for providing instructional structure for a wide variety of children and for multiple activities" (p. 22). The use of a Visual Schedule is an effective way to cultivate appropriate behaviors, increase predictability and alleviate the anxiousness some students encounter during transitions (Cirelli et al.). The use of a picture to relay the next activity visually in order to support what was stated verbally (Thelen et al.), clearly relays expectations for students with cognition issues (Spiker, 2014) in a precise and orderly manner. This makes the utilization of a Visual Activity Schedule one intervention that can be used constructively with students who have ODD.

Conclusion

Research supports the use of a Visual Schedule to decrease problematic behavior in students with ODD during transition time. There are numerous other interventions that may be used in conjunction with a Visual Schedule to reinforce desired behavior. Further study on different tools to broaden the scope of knowledge on the part of educators to enhance preparation (Otten & Tuttle, 2011) when they encounter students that exhibit behavior that require more than a Visual Schedule or for students that a Visual Schedule is not the appropriate strategy to use. The goal with each intervention is to meet the individual needs of the student it is intended for (Breitfelder). Therefore, a range of different positive interventions would be beneficial to constructively deal with behaviors during transitions as they arise.

Hypothesis Statement

Student will show reduction in behaviors and increased independent success during hallway transitions when a Visual Schedule is utilized.

Chapter 3 Methodology

Paraprofessional training has long been criticized as an underdeveloped area in education. They are expected to implement research-based interventions and strategies that Special Education teachers determine are best practice for particular students. The IEP team discusses the data collected through observations and charts, based on these findings they come up with a plan to help the student in those areas. Yet, the person who carries these protocols out is not present at those meetings, but are expected to use the strategies to distinguish those behaviors. The lack of training paraprofessionals receive creates a disconnect between other staff and with students.

As an educator I witnessed this gap in training and the trickling effects it has with students while carrying out this study. Often times paraprofessionals do not possess the confidence to assertively administer the tools they have been given to help students. This creates a hesitation, which students can feel. The lack of background knowledge on how to administer best practice and even why we chose the avenue we did to help the student become hurdles. It then becomes my job as an educator to impart the information I have gleaned through college classes and my own research to assist the paraprofessionals in carrying out their job. I need to equip them in order for them to equip the students.

The issue that ensues with training paraprofessionals is time. I am educated with the appropriate wisdom to impart the training necessary to decrease doubt and bolster confidence, but not given enough time in the day to carry this out. Due to the time dilemma I concluded that the best way for me to train the paraprofessionals with the time I had was to observe the scenario during baseline data collection. By watching the paraprofessionals, I was able to gather information regarding how they reacted to behavior-based situations with the Student. This

helped me to develop a plan and properly train the paraprofessionals for the intervention phase, along with the student. Although the student is the focus there are more people involved in the equation to implement research-based interventions to achieve the greatest outcome.

Research Questions

Based on these ideas, the following questions were formulated:

- 1. What is the impact of implementing transition strategies on challenging behaviors with a 6-year-old student with ODD?
- 2. What impact will a Visual Schedule have on a 6-year-old boy in regards to independence during transitions?

Research Plan

Methods. Single subject design was used to conduct research. This method examines a student's behavior in relation to themselves as the control, rather than a group in special education (Alnahdi, 2015). The goal is to determine the effectiveness of an intervention to replace a target behavior by visually analyzing the data in each phase (Alnahdi). In light of the flexibility and ability to highlight the behavior and the response the Student displays in each phase this approach fit best.

A frequency of behavior time study was used to determine baseline data. The paraprofessional in the classroom collected the data for baseline data, intervention data and for the removal of the intervention period. Frequency of behavior time sheet was broken down into fifteen-minute increments to determine what transitions Student was displaying disruptive behavior. After baseline data was analyzed a weekly data collection sheet was developed. The weekly data collection sheet was broken down by four different transitions that the Student

displayed disruptive behavior. There was a total of four varying classes each day which the student attends that behavior was occurring. These classes required him to transition from one classroom to another room in the school, they are; Media/Tech (T/TH), SMART room (M/T/TH), Playroom (M/T/W/TH/F), Art (W/F), Physical Education (M/T/W/TH/F) and Music (M/W/F). A plus (+) was used to denote that the student transitioned from the general education classroom to the other classroom and a minus (-) was used to show that the student did not transition. The data sheet contained a section below each class that required the paraprofessional to mark whether the Visual Schedule was utilized or not. A plus (+) shows the Visual Schedule was used and a minus (-) shows that it was not used. A "first then" Visual Schedule was used with a picture and the word for the class that the student transitioned to. The same data sheet that was used during the intervention phase was utilized for the removal of intervention phase. A minus (-) marked the usage of a Visual Schedule for all transitions to show that it was not utilized during this period of the study.

Schedule. The research study was completed over a period of eight weeks. Baseline data was gathered over a two-week period, totaling nine school days. Intervention lasted for a total of four weeks, equating to eighteen school days. Removal of the intervention phase was carried out over a two-week period, ten school days.

At the beginning of baseline, I trained the paraprofessionals on how to use the frequency of behavior chart. They were already familiar with filling out the behavior log. The initial meeting took place on the Monday morning baseline began. Paraprofessionals are allotted fifteen minutes each week to have a meeting with the Special Education teachers. This meeting is on Wednesdays. The time is designated for myself and the other Kindergarten Special Education teacher to train and answer questions with the thirteen paraprofessionals that work in

the seven Kindergarten classrooms. This limited the amount of time I had to train the paraprofessionals for this study to about five minutes extra each week. Wednesday meetings occurred throughout the study. The week prior to the implementation of the Visual Schedule I explained when, how and what phrase to use with the Visual Schedule. During the intervention phase approximately five minutes on Monday and Friday mornings was used to check in with the paraprofessionals and answer any questions. I touched based with the paraprofessionals as often as I could throughout the week.

Push-in services with the Student were on Monday, Wednesday and Friday for twenty minutes. I went in to the classroom on Monday and Friday prior to Playroom. Pull-out services were on Wednesday prior to the student going to the Playroom.

Ethical considerations. Research requires ethical implications to be utilized. One consideration for the current study involves information collected for Students IEP as data for research purposes. Behavior pattern data for Students with ODD is routinely collected to document progress and write Behavior Intervention Plans. The data collected was used to provide best practice for paraprofessional training and strategies for development of Visual Schedule needs. The ethical piece of my research design was to fulfill the requirements for the IEP. For the purpose of this project, approval from the Institutional Review Board was obtained prior to analysis to use this data for research purposes. Approval combined with strategies to deidentify information minimizes possible risk to Student.

Finally, though not technically an ethical issue, there is possible reason for bias in this research design. Paraprofessionals may react negatively to behaviors and document excess instances. Frustration levels may impact their ability to respond positive to student. Voice

fluctuations and tone may come across as angry to the student, therefore provoking him to react. Students response to paraprofessionals may be different then response to teachers. Another limitation was parent reward Student for disruptive behaviors occurring at school in order to prevent disruptive behaviors at home. As a result, feedback from paraprofessionals, teacher and parents may influence the outcome of the Students data. This limitation may need to be considered when analyzing study results.

Chapter 4 Results

Description of Data

The purpose of this research is to examine whether the utilization of a Visual Schedule will aid in hallway transitions. A major component of this study was training paraprofessionals; this included data collection, determining the baseline behavior, intervention strategies, usage of a visual schedule, and removal of intervention. There were three stages of reviewing data in this study that spanned a total of eight weeks. Baseline lasted for nine days equaling two school weeks. Intervention phase lasted for eighteen days covering four weeks. Removal of intervention phase lasted for ten days over two school weeks. At the completion of the removal of intervention phase, the goal was to determine if the implementation of a Visual Schedule during the intervention phase had helped the student with hallway transitions.

Data Collection

For this study, a frequency behavior data sheet was filled out over a two-week period, totaling nine school days, by classroom paraprofessionals to gather baseline data. All data was collected by the two paraprofessionals in the morning from 8:00 am to 10:45 am and the paraprofessionals in the afternoon from 10:45 am to 2:50 pm. The frequency behavior data sheet contained three days' worth of data collection areas. Collection began at 7:45 AM and ended at 2:45 PM, was broken down into fifteen-minute increments in order to determine the times the student was displaying behaviors. During data collection, the student was at breakfast and then joined a club from 7:45 am to 8:10 am. Paraprofessionals stationed at these locations were directed to contact myself, the student's case manager, if there were any behaviors prior to school beginning. Behaviors were documented on a separate sheet that included the date, time,

what occurred and a tally chart section for when the student hit, kicked, pushed, pinched, bit, or scratched.

Once the baseline was determined the Intervention phase was set into place. A weekly data collection sheet was used. The top of the data collection sheet had the title of the document, date range for that school week and the student's name. The table contained class transitions with a +/- underneath it and then a separate column for each day of the school week (Monday through Friday). The rows on the data collection sheet contained the location the student was transitioning to baseline data was used to determine: Playroom, Music, Media/Technology, SMART room, and Physical Education. Under each class there was a row for the paraprofessional to document if the Visual Schedule was used. At the bottom was a row for results. A plus (+) was used to show a successful transition and a minus (-) was used to show that the student did not transition to the class. A plus (+) showed the Visual Schedule was used prior to the transition and a minus (-) showed if the Visual Schedule was not used to alert the student of the upcoming transition. For the purpose of fulfilling the accommodations portion of the students IEP the Visual Schedule was used to prepare the student for all transitions, this study only documented the ones that baseline results determined the student was struggling with. To the right of the data collection area there were five boxes labeled with Monday, Tuesday, Wednesday, Thursday and Friday. The paraprofessionals used these boxes to relay information for changes in the schedule, if the student did not transition within the classroom between activities, if the student did not transition at other times of the day, if there was a substitute teacher or paraprofessional/s in the classroom that day, if the student transitioned but did not participate once he went to class, and any other information that might be useful in helping understand how the school day went for the student.

The same weekly data sheet was used during the removal of intervention phase. Instead of the "used visual schedule" row of the data sheet being blank, the paraprofessionals placed a minus (-) in the column to show the visual schedule was not used during this time.

Baseline Data Analysis

There was a total of seventeen transitions in the school day from 7:45 am to 2:45 pm. The Frequency Behavior Data sheet was analyzed by highlighting the areas in the day that the student was not transitioning. Then, comparing those time to the class schedule to see what the times corresponded with. The time and class the student was transitioning to was written down on a separate sheet of paper for each baseline day.

A clear pattern developed upon analyzing the baseline data, the student was having challenges with the following transitions: classroom to the playroom Monday through Friday, at 10:00 am, playroom to Music Monday, Wednesday and Friday at 10:30 am, playroom to Media/Technology on Tuesday and Thursday at 10:30 am, classroom to the SMART room Monday, Tuesday, and Thursday at 12:15 pm, SMART room back to the classroom to Rest/Read-A-Loud time at 12:45, classroom to Art on Wednesday and Friday at 12:15 pm, classroom to Physical Education on Monday through Friday at 1:15 pm. Classroom to playroom (10:00 am) and classroom to Physical Education (1:15) are high traffic time for multiple Kindergarten and Preschool rooms transitioning in the hallway. Kindergarten classes are going to specials, the morning and afternoon Preschool programs are heading out to recess. This causes congestion in the hallway, provoke chaos and long wait periods.

The student did not present behaviors from Music (Monday, Wednesday, Friday) or Media/Technology (Tuesday, Thursday) at 11:00 am during hallway transition to lunch.

Behaviors were not displayed from Physical Education (Monday through Friday) to milk/snack break at 1:45 pm or from Milk/Snack break to recess at 2:00 pm. Through the baseline data collection process, it was determined that breakfast, morning clubs, lunch, milk/snack break and recess were preferred activities the student wanted to partake in as there were no behaviors documented during these transitions.

Table 1

Frequency Behavior Data Sheet Baseline Analyzation, +Transitioned -Did not Transition

Day	Playroom	Music	Media/Tech	SMART Room	Art	Physical Education
1	+	+		+		-
2	-		-	-		-
3	-	-			+	-
4	-		-	-		-
5	-	-			-	-
6	-	-		-		-
7	-		-	-		-
8	-	-			-	-
9	-		-	-		-

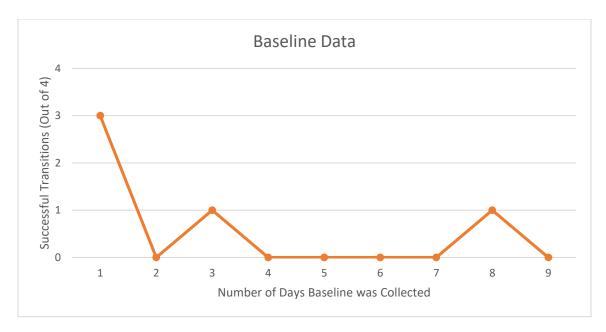


Figure 1. Students successful transitions out of 4 baseline phase data Graph

The baseline data behaviors that were displayed included: hitting, kicking, pushing peers and adults, running from floor to floor, locking himself in the boys bathroom stalls and climbing to the top, taking miscellaneous items within his reach and throwing them, hiding under tables, climbing across tables, refusal to leave a room, giving adults the finger, and using phrases such as: "can't catch me sucker," "no, I don't have to go to that classroom," "you can't make me," "I'm not going," "I hate school," and curse words. The paraprofessionals noted that prior to transitions occurring from the classroom to another location in the school, the student appeared to become agitated, started to squirm in his seat, and would begin to chew on the neck or sleeves of his shirt.

Intervention Phase

A weekly data collection sheet was placed in the student's manila folder at the beginning of the school week. The paraprofessionals in the classroom filled out the data collection sheet throughout the school day after transitions occurred; noting any pertinent information in the

designated area for that day of the week. During the intervention phase the student was shown a "first-then" Visual Schedule two to three minutes prior to a transition occurring, after the classroom teacher gave the signal to the whole class that a transition would begin. A two to three-minute alert with a gentle touch was intentionally used with the "first-then" Visual Schedule (Humphries, Rains, 2017) based on research that supports decrease in behaviors with advance preparation (Waters, Lerman, Hovanetz, 2009). The paraprofessional first gained the students attention by stating his name. When the student's eyes were on the paraprofessional then the paraprofessional said to the student, "first you have (insert class) then you have (insert class)." The paraprofessional waited for the student to acknowledge that he had heard what she said by giving a nod, saying ok or asking a question. Questions that were asked; "will I have time to finish this later," "do we have Music today or Media," "when is lunch," "do we have art today," "what is for lunch," "is it outdoor recess." If the student did not respond the paraprofessional stated his name again and asked if he had heard what she said. If he said yes, then the paraprofessional did not repeat the "first-then" Visual Schedule, if he said no then the paraprofessional restated the "first-then" Visual Schedule, asked the student if he had heard and waited for an acknowledgement. At the end of the school week the data collection sheets were picked up.

Intervention Data Analysis

The columns of the intervention data were separated by whether the student transitioned and the used visual schedule row at the bottom of the table in the results section for each day of the week by a back slash. The pluses (+) for the transitions were totaled and given a percentage by dividing the number of classes the student transitioned to by the four classes that day. The pluses (+) for the used visual schedule row were added up and divided by the four classes for that

day. The data for the intervention section over the four-week period showed that the student transitioned 100% of the time and the Visual Schedule was used 100% of the time (refer to *Figure 2*). The notes from the paraprofessionals revealed that the student was not participating once he got to Physical Education and occasionally Art. The student was needing multiple redirections for not following directions, keeping his hands to himself, staying on task, and running around the classroom.

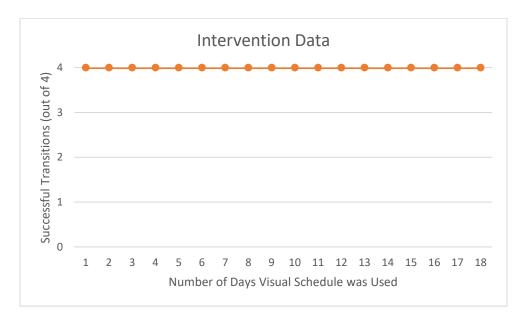


Figure 2. Students successful transitions out of 4 Intervention phase data Graph

Removal of Intervention

A weekly data collection sheet was placed in the student's manila folder at the beginning of the week. The paraprofessionals were directed not to use the Visual Schedule with the student and to place a minus for each area that was designated for the "used Visual Schedule" portion of the table. The only preparation the student had for transitions during this phase of the intervention was the classroom teacher alerting the whole class for the upcoming transition.

Removal of Intervention Data Analysis

The data was analyzed the same way it was for the intervention portion. At the beginning of the two-week period of collecting data for removal of intervention, one of the paraprofessionals resigned. This required a shift in paraprofessionals throughout the building and the new person to be trained on procedures. There were eight days that a substitute took the place of a regular paraprofessionals in the classroom (refer to Table 2 for Day: 1, 2,3,4,5,7,8,9). The classroom teacher was absent for three days (refer to Table 2 for Day: 3,4,10). The student's birthday was the weekend prior to the removal of the intervention. His mother warned me that it might not be a good day because the student's father had told him he would be at his birthday party but did not end of attending, calling to wish the student a happy birthday or explain why he was unable to be at the birthday.

The paraprofessionals noted on the weekly data collection charts the afternoons were particularly difficult for the student (refer to Table 2 and *Figure 3*); he required more redirections than during the morning. Transition from the classroom to Physical Education is a noted time for mass transitions that result in overcrowded hallways and excess stimulation (refer to Table 1 and Table 2).

Table 2

Weekly Data Collection Sheet Removal of Intervention Analyzation, +Transitioned -Did not Transition

Day	Playroom	Music	Media/Tech	SMART Room	Art	Physical Education
1	+	+		+		-
2	+		+	+		+
3	+	+			+	-
4	+		+	+		+
5	+	+			+	+
6	+	+		+		+
7	+		+	+		-
8	+	+			+	-
9	+		+	+		+
10	+	+			+	-

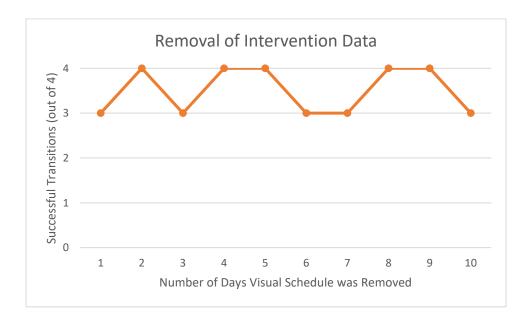


Figure 3. Students successful transitions out of 4 removal of Intervention data Graph

Conclusion

Within this classroom there were a total of seventeen noted transitions, eight of them requiring the Student to change rooms. The students spent forty-seven percent of the school day out of the general education classroom. Fifty-three percent of time in the classroom; four of those periods were in the morning and three in the afternoon. The morning subjects were completed without hallway transition interruption; Arrival/Self-Help, Morning jobs, Seat Work, Community Building Calendar, Whole Group Reading, Guided Reading/Daily 5 Centers. Math was an afternoon class that came directly after lunch and prior to going to the SMART Room. Rest/Read-A-Loud and Writing followed each other, but were between SMART room and Physical Education.

The data shows during the intervention phase that the Student transitioned to Physical Education but consistently struggled when he was in class with behaviors. Data for the removal of intervention reveals that the Student transitioned to Physical Education six out of ten days, sixty percent of the time. The Student continued to struggle once he entered the class with participation and behaviors. When the data is compared to the research in the Literature Review the results support that stressors with transitions make it difficult for the student to emotionally regulate his behavior when multiple stimulators are involved (Schoorl et al. 2018). Transitions in the hallway being the initial stressor, noise and activity level continuing once entering Physical education being the secondary stressor. These back to back stressors did not provide the student the break necessary to make adjustments after the transition to successfully participate in the class. Physical Education is at the end of the school day when students tend to be exhausted from a full day of activities, this could add to the Students ability to regulate his behavior at this time when mixed with the over stimulating environment.

Research conducted by Breeman et al. (2015) reveals that "teacher-child and peer relationships have consistently been identified as key factors for the social and behavioral development in children (p. 787). Although the data gives the impression the Visual Schedule was a success. It is possible that the one-on-one attention and relationship building that developed between the Student and the paraprofessional may have been the main influence. The removal of the intervention leads me to conclude that the Student had begun to rely on the consistency and structure that the paraprofessional provided when checking in with the Visual Schedule. The baseline data was gathered at the beginning of the school year, prior to the paraprofessionals having time to build trust with the Student (refer to Figure 1). The intervention process allowed the Student and the paraprofessionals to interact with each other, discuss the school day, answer questions, have time to get to know each other and build a relationship (refer to Figure 2). Removal of the intervention involved change in personal working with the Student, along with a personal situation with the Student (refer to Figure 3). The first week of removal the paraprofessional who had generally implemented the Visual Schedule in the morning was absent. This paraprofessional had learned the cues exhibited by the Student when he became overwhelmed and learned how to assist him in calming down. The substitute that replaced the morning paraprofessional did not have the knowledge and training that the full-time staff member demonstrated to help the student. The afternoon paraprofessional had resigned which left a new staff member in the afternoon. Neither of these individuals had history with the Student or had time to build a relationship, mix in the stress from transitions and it may have been too much for the Student. The substitute and new classroom paraprofessionals radioed me to assist with behaviors as they arose. I have had time to develop an understanding of the Student and build trust. When I entered the location, I was able to assist the Student and

help him get back on track within five minutes without incident. Had the original team of paraprofessionals worked with him during the removal of the intervention, the results would have been different. The teaching style of the substitute teacher could have been an additional change in the daily routine leading to the behaviors the Student had during the removal of intervention stage.

There were too many variables during the removal of intervention phase to conclusively determine if the Visual Schedule had been effective. In order to determine if the Visual Schedule worked, the intervention would need to be implemented again. Data collected would need to focus on relationships between the student and the paraprofessionals. A questionnaire filled out by the paraprofessional and classroom teacher, along with observations could be used to collect the necessary data. This would help determine if relationships impacted the results or if it was solely the Visual Schedule. There was only one Student in this study. Using a Visual Schedule with additional students at the same time would have provided data that may have given more insight into the data derived from this Student. The Student's participation in classes once transition occurred is also a concern that needs to be addressed. Interventions that provide the student a break for self-regulation due to overstimulation, along with positive reinforcers for following directions, on task behavior and completion of tasks are possible strategies to encourage desirable replacement behavior.

Chapter 5 Implications for Practice

Action Plan

Literature was reviewed and initial study was administered to explore whether a Visual Schedule would assist a Student transition in the hallway without disruptive behaviors. Results revealed that a Visual Schedule does reduce behaviors and encourage successful hallway transitions. The data also uncovered a possible connection between the use of a Visual Schedule and the development of a relationship between the paraprofessionals and the student enhancing its effectiveness. It is possible the disruptive behaviors displayed by the student were expressing the need for attention from adults. The Visual Schedule offered a positive approach to fill the need for attention in a constructive manner.

Based on the examination of these findings, two possible steps are presented. The first step is research on how relationship between paraprofessionals and the Student impact the use of classroom interventions for behavior, such as Visual Schedules. The second is researching other interventions that can be utilized to encourage participation in the classroom after the student has made a successful transition. The findings of this current study are promising, for solidifying results future research needs to be implemented with larger study groups.

The next action is to implement the Visual Schedule with the student again with an added component that examines the relationship between the paraprofessional and the student. The intervention will be reinstated over a four-week period of time with the same weekly data collection sheet. The data collection sheet will add a section for the paraprofessional to mark a positive interaction with the student or a negative interaction when showing the Visual Schedule two to three minutes prior to transitions. The positive will be marked with a (+), a negative will

be marked with a (-) for each transition period. At the end of the four-week period the intervention will be removed to determine the effectiveness and document the behavior of the student without the additional paraprofessional support. To facilitate participation a positive reinforcer will be added at the end of the school day. In order to earn the reinforcer, the student will follow directions, begin and complete tasks for nine out of the thirteen daily class periods on the schedule. When the student has had five days of success with nine out of thirteen classes the reinforcer will be added for ten classes. The number of classes the student succeeds in will gradually increase until it is all of the classes. After the student has been following directions, beginning and completing tasks for two weeks the reinforcer will be faded. As a result of these interventions, the student will transition to class and participate in the classes.

Plan for Sharing

Paraprofessionals often become discouraged in the course of a day with the amount of behaviors they encounter. On numerous occasions I have had paraprofessionals express their wonder if they are making a difference. I believe this study would be an encouragement to share with paraprofessionals to support their position in the classroom. It could potentially be a motivator for personal professional development and revitalize the paraprofessionals I work with in their daily work. I can summarize the information found in research articles to explain the pivotal role paraprofessionals play in students' lives. The question often arises from paraprofessionals on why they need to do certain interventions with students. Findings from this study offer a platform to address that question with paraprofessionals in a positive manner and link it to the importance of relationships with students. The Kindergarten Special Education Teachers meet with paraprofessionals on a weekly basis I can present these findings at that time.

Findings from this work will also be shared with the Special Education staff to stress the use of Visual Schedules with their students.

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APPENDIX A

 $\label{thm:continuous} Table~1$ Frequency~Behavior~Data~Sheet~Baseline~Analyzation,~+Transitioned~-Did~not~Transition

Day	Playroom	Music	Media/Tech	SMART Room	Art	Physical Education
1	+	+		+		-
2	-		-	-		-
3	-	-			+	-
4	-		-	-		-
5	-	-			-	-
6	-	-		-		-
7	-		-	-		-
8	-	-			-	-
9	-		-	-		-

APPENDIX B

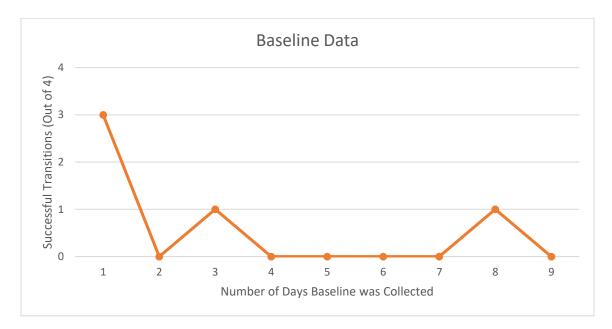


Figure 1. Students successful transitions out of 4 baseline phase data Graph

APPENDIX C

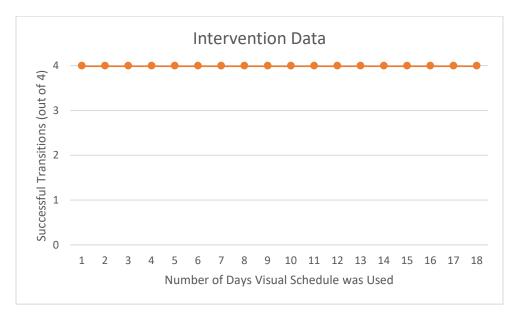


Figure 2. Students successful transitions out of 4 Intervention phase data Graph

APPENDIX D

Table 2
Weekly Data Collection Sheet Removal of Intervention Analyzation, +Transitioned -Did not Transition

Day	Playroom	Music	Media/Tech	SMART Room	Art	Physical Education
1	+	+		+		-
2	+		+	+		+
3	+	+			+	-
4	+		+	+		+
5	+	+			+	+
6	+	+		+		+
7	+		+	+		-
8	+	+			+	-
9	+		+	+		+
10	+	+			+	-

APPENDIX E

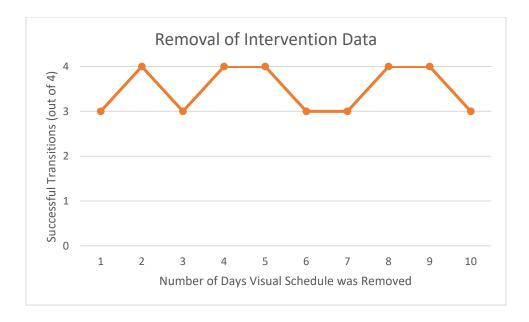


Figure 3. Students successful transitions out of 4 removal of Intervention data Graph

APPENDIX F

Frequency Behavior Data

Target Behaviors: Transitioned between activities/classes

	Time	/		/		/	
	7:45 - 8:00	Yes	No	Yes	No	Yes	No
	8:00 - 8:15	Yes	No	Yes	No	Yes	No
	8:15 - 8:30	Yes	No	Yes	No	Yes	No
	8:30 - 8:45	Yes	No	Yes	No	Yes	No
	8:45 - 9:00	Yes	No	Yes	No	Yes	No
**	9:00 – 9:15	Yes	No	Yes	No	Yes	No
Date:	9:15 – 9:30	Yes	No	Yes	No	Yes	No
_	9:30 - 9:45	Yes	No	Yes	No	Yes	No
	9:45 - 10:00	Yes	No	Yes	No	Yes	No
	10:00 - 10:15	Yes	No	Yes	No	Yes	No
	10:15 - 10:30	Yes	No	Yes	No	Yes	No
	10:30 - 10:45	Yes	No	Yes	No	Yes	No
	10:45 - 11:00	Yes	No	Yes	No	Yes	No
	11:00 - 11:15	Yes	No	Yes	No	Yes	No
	11:15 - 11:30	Yes	No	Yes	No	Yes	No
	11:30 - 11:45	Yes	No	Yes	No	Yes	No
	11:45 - 12:00	Yes	No	Yes	No	Yes	No
	12:00 - 12:15	Yes	No	Yes	No	Yes	No
	12:15 - 12:30	Yes	No	Yes	No	Yes	No
	12:30 - 12:45	Yes	No	Yes	No	Yes	No
	12:45 - 1:00	Yes	No	Yes	No	Yes	No
	1:00 - 1:15	Yes	No	Yes	No	Yes	No
Student Name:	1:15 - 1:30	Yes	No	Yes	No	Yes	No
	1:30 - 1:45	Yes	No	Yes	No	Yes	No
	1:45 - 2:00	Yes	No	Yes	No	Yes	No
	2:00 - 2:15	Yes	No	Yes	No	Yes	No
ŧ	2:15 - 2:30	Yes	No	Yes	No	Yes	No
ē	2:30 - 2:45	Yes	No	Yes	No	Yes	No
SE.		/28 =	%	/28 =	%	/28 =	%

APPENDIX G

Date:			St	udent:			
Time	What O	ccurred?					
Tally Cha	rt:						
Hit:		Kick:		Pinch:	Bite:	Scratch	

APPENDIX H

Weekly Data Collection								
For the week of:								
Student:								
Class Transitions (+/-)	M	Т	W	Th	F			
Transitioned to Playroom								
Used Visual Schedule								
Transitioned to Music								
Used Visual Schedule								
Transitioned to Media/Tech								
Used Visual Schedule								
Transitioned to SMART								
Used Visual Schedule								
Transitioned to Art								
Used Visual Schedule								
Transitioned to Phy Ed								
Used Visual Schedule								
Results:								