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The Relationship Between Exposure to Specialized Staff in a Classroom Setting and Observable Behaviors among Students with Special Needs

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The Relationship Between Exposure to Specialized Staff in a Classroom Setting and
Observable Behaviors among Students with Special Needs

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Human Environmental Sciences

by

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Abstract

This study aims to identify differences in the later integration of children with mild to moderate special needs based on their exposure to specialized staff regardless of the type of preschool they attended. This is done by observing the behaviors exhibited by those students with special needs and the proportion of the student's day in a traditional classroom. One of the most noted issues with students who have special needs is their lack of appropriate early intervention with specifically-trained staff. This may attribute to those students delay in social emotional skills, and cognitive skills. Transitions, specifically those from one classroom setting to another, can be difficult for those students with special needs. The schools that were examined in this study were specialized preschools which have a fully trained specialized staff, and inclusive preschools which are more designed for those students that are typically developing. Parents/guardians of students with special needs may enroll their children with special needs into a preschool that is specifically created with specialized staff, which are termed specialized preschools. Parents/guardians can also enroll their child into a traditional preschool. Within this traditional preschool setting, the student with special needs will receive early intervention services allowing students with special needs to be educated alongside their typically developing peers. This is an example of an inclusive preschool. The current study used a modified version of the Classroom Behavior Continuum Scale (CBCS) that utilized secondary data from the student's teachers. Overall, the study found that there were no significant differences between the amount of exposure each student with special needs had with specialized staff and their observable behavior. It was also found that due to lack of information, we were unable to conclude any significance with the type preschool attended and its effect on the behaviors of student with special needs.

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Dedication

Special thank you to my dedicated and loving husband Angelo and my beautiful daughter Vivian, you pushed me to accept this challenge head on.

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I. INTRODUCTION

The first five years of an individual's life are the most imperative for development. Children are growing at an exponential rate during this time; habits are learned and cognitive development can flourish. The first five years can also be referred to as the child's sensitive period (Philips & Shankoff, 2000). At this time, the brain develops the main network of pathways used to receive and transmit the information. These pathways are important for later development of future networks within the brain (Philips & Shankoff, 2000).

These sensitive periods of brain development are concurrent with the time frame that defines early intervention. Early intervention encompasses the services that are provided during the ages of birth to five (Raver, 2009). The services that can be provided with early intervention include but are not limited to: speech therapy, occupational therapy, behavior analysis and modification. These measures are aimed at preventing prenatal disabilities, ensuring neuro protection and providing optimal environmental conditions (Bonnier, 2008). These services may be administered by parents, teachers, aids, special education staff or therapists (Bonnier, 2008; Raver, 2009).

The common age group for preschool attendance is three to five years old. This developmental period is significant to both students who are typically developing, as well as those students with special needs. Students with *Special Needs* or *Disabilities* are defined by the Individuals with Disabilities Education Act of 2004 or IDEA, as those diagnosed with

(i) with mental retardation, hearing impairments(including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (referred to in this title as 'emotional disturbance'), orthopedic impairments, autism, traumatic brain injury, other health impairments, or

specific learning disabilities; and (ii) who, by reason thereof, needs special education and related services (p.23).’

Early intervention may provide students with special needs the skills and behaviors necessary to transition from a preschool program and into a traditional elementary school classroom.

Preschool options are limited for those students with special needs. These options include: specialized preschools, half-day programs, specialized/half-day inclusive, and fully inclusive preschools. The types of schools that were examined within this study are *specialized* preschools, which have a fully trained specialized staff, and *inclusive* preschools which are more designed for those students that are typically developing. Parents/guardians of students with special needs may enroll their children with special needs into a preschool that is specifically created with specialized staff, which are termed specialized preschools (Turnbull & Winton, 1983). Parents/guardians also have the option of enrolling their child into a traditional preschool. Within this traditional preschool setting, the student with special needs will receive early intervention services allowing students with special needs to be educated alongside their typically developing peers. This is an example of an inclusive preschool (Gargiulo & Kilgo, 2000; Raver, 2009).

Parents or guardians may add preschool as part of their child’s early intervention regiment in addition to therapies, coaching, and other interventions that they may be implementing in the home. The Individuals with Disabilities Education Act (IDEA) of 2004 passed an amendment that included preschools as an addition to elementary and high school, as an educational option that cannot exclude students with special needs. This meant that those students younger than five could have an individual education plan or IEP. The IDEA of 2004 stresses the need for the highest level of inclusion. Educators will then assess a child’s cognitive

ability as well as the individual's behavior utilizing tools approved by the IDEA of 2004. At this early stage of education, parents make the choice of where and when to send their children to preschool. Schwinhart (1994) found in his research of students who attended preschool that they were more likely to graduate from high school. Another benefit of preschool is its ability to potentially predict later successes in educational gains, positive behavior skills, cognitive development, and language ability (Dale, Jenkins & Mills, 2006). Those students who lack early intervention may be lacking the cognitive skills necessary to function properly in a traditional elementary classroom (Muro, 2011). When students lack these skills, they may not be able to fully integrate with their typically developing peers within a traditional elementary classroom.

STATEMENT OF THE PROBLEM

One of the most noted issues with students who have special needs is their lack of appropriate early intervention with specifically trained staff. This may attribute to those students delay in social emotional skills and cognitive skills (Aronowitz, 2010). Transitions, specifically those from one classroom setting to another, can be difficult for those students with special needs. Bronfenbrenner observed transitions and found that the interactions prior and following each transition have a definite effect on an individual's development (1979). The preschool environment that most effectively prepares students with mild to moderate special needs for the transition from preschool to full inclusion is still unknown. Specifically, the comparative benefits of specialized preschool with specialized staff or inclusive preschool for providing a learning environment that will allow students with special needs to integrate into traditional classrooms at an early grade level must be determined.

STATEMENT OF THE PURPOSE

This study aims to identify differences in the later integration of children with mild to moderate special needs based on their exposure to specialized staff regardless of the type of preschool they attended. This is done by observing the behaviors exhibited by those students with special needs and correlating them back to the amount of exposure they have with specialized staff.

II. Theoretical Frameworks

Introduction

Throughout their educational career, students will have encountered several transitions, specifically the transitions from one classroom setting to another. This study will specifically focus on the proportion of the school day that the students with special needs spends in the traditional elementary school classrooms setting or with specialized staff, as well as their observable behaviors. In a study done by Connor, Guralnick, Hammond, and Neville (2008), these kinds of transitions were observed and a positive correlation between inclusive preschool and later inclusion was found. The students in this study, however, continued to receive similar services in their elementary classrooms as they did within their inclusive preschool (Connor et al., 2008). Early exposure to learning opportunities, such as teacher-directed activities, peer interactions, and daily schedules is proposed to prepare students with mild to moderate special needs for later integration into elementary classroom and may dictate their future educational successes. The preschool environments for early intervention are becoming more accessible for students with special needs.

A. LAW PERTAINING TO SPECIAL EDUCATION

Prior to the 1970's, preschool options for students with special needs were unavailable (Dunlap, 2009; Meisels & Shonkoff, 2000; Raver, 2009). Children with special needs had very limited educational opportunities, and it was legal to deny students with special needs into public schools. However, with the passage of the Section 504 of the Rehabilitation Act in 1973, the needs of these students with special needs were legally recognized by schools (Dunlap, 2009; Raver 2009). Prior to the passing of this act, many children with special needs were placed into institutions where they received little to no formal education. These children were also segregated from the rest of the community (Meisels & Shonkoff, 2000). The Section 504 ensured that students with special needs had access to federally funded programs. The Education for all Handicapped Children Act, passed in 1975, mandated that students with special needs be afforded all the rights of those typically developing students (Raver, 2009). This act began the legal changes to the educational system that would create opportunities for students with special needs within the United States and it would eventually become the Individuals with Disabilities Education Act (IDEA).

The Individuals with Disabilities Education Act (IDEA) was initially passed in 1997, and was most recently amended in 2004. With its passage, students with special needs were given opportunities to be a part of their local public educational community (Meisels & Shonkoff, 2000; Raver 2009). IDEA created legislation that made education easier to obtain. It did this by defining the *Least Restrictive Environment* (LRE). According the United States Department of Education (2007), the LRE was defined as the setting to which the student with special needs was given the opportunity to the greatest extent, to be educated with typically developing peers. In addition, each student is to be provided with Free and Appropriate Public Education or FAPE

(US Department of Education, 2007). The IDEA does not specifically define inclusion, however, with the definition of FAPE:

(A) the maximum extent appropriate, children with disabilities, including children in public or private institution or other care facilities, are educated with children who are non-disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environments occurs only when the nature of the severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (118 SAT.2647)

It can be inferred that inclusion is a part of FAPE.

The IDEA (2004) mandated that students with special needs were required to have a curriculum that reflected the same goals as those typically developing students. Also, those students with special needs were required to take part in state wide assessments.

In order to ensure that the same curricula are being used, those students with special needs receive an *individual education plan* or IEP. An individual education plan (IEP) is a document that is specifically developed for students with special needs. An IEP contains the individual student's learning objectives (Sattler, 2001), that are developed following formal assessment and diagnosis. The goals are to include, but are not limited to, progress in the general curriculum, proportion of the day spent in general education classroom, exposure to specialized staff, annual goals, and participation in nonacademic activities. IDEA developed tools to measure the student's progress and further needs. One of the tools is the Functional Behavior Assessment (FBA; 1997). This assessment was developed to ensure that the student received appropriate interventions for both positive and negative behaviors that may impact their learning, and those interventions would be outlined within their IEP (Yell & Katsiyannis, 2000). The IEP also includes the time frame in which these services will start, as well as the duration of any

given service, and how often the services will be provided. The learning goals are also to be measurable, and therefore are capable of being evaluated. A change made in the individual education plan requires a new IEP meeting (Dunlap, 2009). Those involved with creating the IEP are part of the multi-disciplinary team including students' parents, teachers, therapists, administration and any other individual that can set an objective for the student for whom the IEP was developed (Chiri, Tahar, Toran, & Yasin, 2010). IDEA has mandated that IEP be available for those students diagnosed prior to preschool or during preschool (2004). This means that a student may have an IEP as early as three years old.

B. EARLY INTERVENTION

Early intervention can provide students with the skills to be successful. Early intervention “refers to the delivery of a coordinated and comprehensive set of specialized services to young children with developmental delays, or at risk conditions” (Gargiulo & Kilgo, 2000, p.30). These services are typically administered to those students with special needs between the ages of birth to five years old. Early intervention is a term to define all the measures that are aimed to create optimal environmental conditions, as well as to promote cognitive development and prevent perinatal disabilities (Bonnier, 2008). As they pertain to children with special needs, early intervention services were provided by an individual's parents, teachers, administrators, or therapists (Bonnier, 2008; Raver, 2009). Early intervention may also be administered within a group setting or individually. Early intervention promoted holistic development and promoted development across the domains for both students with special needs and those without special needs. Early intervention is also said to promote independence and social skills. With these skills, students with special needs are assumed to have an easier time transitioning into elementary school settings as well as into the community (Raver, 2009). While research has

found that early intervention has had positive effects for children with special needs, no empirical data has yet demonstrated comparative program efficacy (Bonnier, 2008; Connor et al, 2008).

Preschools, or programs serving children three to five in a group setting are considered early intervention (Raver, 2009), and this study will explore which preschool setting could potentially be the most effective in facilitating the transition into the traditional elementary classroom for students with special needs. For all students, preschool can provide opportunities for positive developmental growth. In a study done in 2006, Dales, Jenkins, and Mills found that preschool has had an ability to be a predictor for a student's achievements in cognitive and language growth. The majority of the students within Dales et al. (2006) study were students who were typically developing, with just a few students who had been diagnosed with a developmental delay or special need. Unfortunately, the aforementioned study lacked significant data that could be applied to those students with special needs. In Burger's (2010) research, he found that in the two out of the six studies he conducted, that those students with special needs that attended preschool had a reduced frequency of later enrollment into non-inclusive classrooms, and they were more likely to be integrated into classrooms at the elementary level with their typically developing peers. This study conducted by Burger did not specify the time frame of when those students were no longer in a nonexclusive classroom. Neither of these studies (Burger, 2010; Dales et al., 2006) specified the preschool program or the amount of time they spent with staff specifically-trained to work with those students with special needs or the design of their program. The present study will add to this literature by comparing the amount of exposure throughout the day with trained staff within inclusive and specialized preschools for behavioral outcomes of children with special needs.

Preschool curriculums are developed around the needs of their students. The Division for Early Child of the Council for Exceptional Children stressed the belief that preschool classrooms should be child directed. Thus, each daily activity would have to be created with the interest of the children in mind (Odom, 1994). The National Association for the Education of Young Children, or NAEYC, labeled this type of curriculum as emergent curriculum. An emergent curriculum is based on the idea that young children learn through actions, relationships, asking questions and repetition (Jones, 2012). Depending on the level of interactions and developmental levels of the students attending any given preschool, their emergent curriculums will vary. Some of these preschools will include students with special needs and some will not. There are preschool options for students with special needs when it comes to the type of student composition within their classrooms. The two types of preschools that were observed for the current study were traditional inclusive preschools and specialized preschools.

Inclusive preschool

Within a traditional classroom setting students with special needs were provided with opportunities to engage in learning experiences. In an inclusive classroom design, students with special needs were integrated with those students who are typically developing. Prior to inclusion, this type of classroom would have been labeled a mainstream classroom (Buyse Odom, & Soukakou, 2011). IDEA (2004) changed the terminology and inclusion means more than just placing students with special needs into classrooms with typically developing children. Inclusion allows students with special needs to be a part of the classroom community, and the students should have a “sense of belonging and membership, positive social relationships and friendships, and development of learning” (DEC/NAEYC, 2009, p.2).

Inclusive preschools then have the opportunity to provide a wide variety of personal interactions. According to Bronfenbrenner (2005), an individual's development is dependent on their interactions with those around them. Therefore, in an integrated classroom, students with special needs have the opportunity to interact not only with their teachers, but also with typically and non-typically developing students. In an inclusive setting there are opportunities for children with special needs to learn, observe and imitate the behaviors that are displayed by their peers and their teachers (Dunlap, 2009). These students with special needs may form dyads with their peers and teachers. A dyad is formed whenever a student observes another individual within their own environment, or when they interact with another individual within their own environment. The powers of these dyads are determined by the amount of developmental progress of each individual (Bronfenbrenner, 1979). Turnbull and Winton (1983) surveyed parents of students with special needs and found that those parents who enrolled their children in inclusive preschools felt that their child benefited greatly from the social interactions that were facilitated in this type of a preschool setting. These parents also felt that these interactions were a necessity because it offered their child an opportunity to experience real world situations, and subsequently cut parental worries in half (Davis, Johnson, & Serry, 2000; Winton, 1983).

Inclusive preschool classrooms provide supplementary early intervention services and create classroom modifications for those students with special needs (Costenbader & Holahan, 2000). Students with special needs will also be expected to adhere to the classroom schedule and planned transitions throughout the day (Connor, Guaralnick, Hammon, & Neville, 2008). Being subject to these typical schedules could have positive benefits for those students with special needs. Due to the fact that educational and social demands will increase as children move on from preschool, it is imperative to understand the challenges that will affect these children as

they move on to elementary school. Research has found that students with special needs who were fully integrated in preschool were likely to remain in full inclusion classrooms in their first years in elementary school (Connor et al., 2008).

Specialized preschool with specialized staff

Another preschool classroom structure choice would be a classroom that is specifically designed for those students with special needs (Hunder, Mahoney, Mundy, & Vernon, 1998; Turnbull & Winton, 1983). Atwater and Carta (1990) observed a specialized preschool and recorded the curriculum structure, as well as what parts of the curriculum that was emphasized. This study was initially conducted due to previous research that noticed that students with special needs were failing when transitioning into a traditional kindergarten (Atwater, Carta, & Schwartz, 1989). During their observations, Atwater and Carta (1990) found that within a normal day, the focus in a specialized preschool was on pre-academics and play. According to the University of British Columbia, pre-academics pertain to the cognitive development that occurs during early education (UBC, 2007). These skills include, but are not limited to: interest in books, scribbling, letter and number recognition, and the ability to complete simple and complex sequences. The students within Atwater and Carta's (1990) study spent nearly thirty percent of their day engaging in activities that were geared towards pre-academics. Play-based activities took up twenty five percent of their day, fine motor skill practice encompassed thirteen percent of the student's day, and the rest of the day was spent working on life skills and transitions from one activity to the next. In contrast to a traditional inclusive preschool classroom, where students have free choices during play time, a specialized preschool classroom provides more guidance to students with special needs. Teachers and specialized staff will guide each individual student to activities that related to the goals described within the students Individual Education Plan (IEP).

There is also a higher rate of interactions between students and specialized staff and teachers within a specialized preschool (Costenbader & Holahan, 2000; Hundert, Mahoney, Mundy, & Vernon, 1998). These teachers are also specifically trained to interact with students with special needs (Turnbull & Winton, 1983). Specialized preschools structure their classrooms in such a way as to allow their students to work in small groups, thus allowing peers to have controlled interactions. Teachers will provide many opportunities to work at tables rather than engage in floor activities; this choice creates a defined space for the children, and focuses back on the pre-academic skills that specialized preschools focus on. These classrooms may split the day's activities between teacher instruction and manual manipulation of materials (Atwater & Carta, 1990).

Further research on specialized preschool over inclusive preschool is limited. With the IDEA of 2004, children with special needs are to be admitted into an inclusive preschool setting. However, with the availability of specialized preschools, parents want to place their child into a program that will promote cognitive growth and support integration into a traditional elementary classroom setting. Specialized preschools provide smaller classes with higher adult to child ratios, specifically trained teachers, and typically a shorter day (Hundert et al., 1998). In contrast, parents expressed worry when their child was in an inclusive preschool due to the fact that the teachers were not as well trained as those who specifically work with children with special needs (Davis, Johnson, & Seery, 2000). When research is examining the benefits of specialized preschools, data were taken while the child is still in a preschool setting. Research is lacking on later integration from a specialized preschool into a traditional classroom. There is far more research on the transition from inclusive preschool to traditional elementary school classroom.

C. THEORY

Students with special needs are influenced by and influence their environments. According to Bronfenbrenner (1994) a child's environment affects his/her development. Bronfenbrenner's bioecological systems theory focuses on developmental outcomes, the individual and the environment to which that individual lives in (2005).

Those closest to the student are their parents, teachers, and peers. In the microsystem, the proximal processes function to produce or preserve development. The amount of positive development depends on the quality of interactions and structures of the individual's microsystem (Bronfenbrenner, 1994). The microsystem is comprised of the environments closest to the students. This system typically includes a student's parents or primary caregivers, teachers, and peers. For those students with special needs, the microsystem may also include occupational therapist, speech therapists, and any other individual providing services denoted in a student's IEP. Those functions of the microsystem do not function on an individualistic level. Each microsystem affects one another. The family provides the initial environment for the child to develop. In turn, the development of this environment affects the child's ability to develop within the classroom setting and vice versa. Each individual goes through several different setting transitions in a life time. Each of these transitions can be labeled as an ecological transition. Ecological transitions, as defined by Bronfenbrenner, (1979) are "shifts in role or setting" (p. 6). Examples of these shifts are the entrance to preschool, promotions to elementary school, and graduation from a program.

When it comes to delivering the instruction to those students with special needs, Schuster, Hemmeter, and Ault (2001) found that the teacher in the traditional classroom was not able to continuously address objectives within a student's IEP. They found that most of the

teaching that happened that addressed IEP objects were performed by specialized staff. Other studies also show that the student with special needs also benefit socially, academically and behaviorally from being integrated within the traditional classroom. (Hundert, Mahoney, Mundy, & Vernon, 1998)

When examining socio-economic status and special education, research has found that early intervention has a positive impact on transitions from one classroom setting to another. The family's socio-economic status or SES holds a noticeable constant in the interactions between families, students, and educational development. Students who have a higher SES are more likely to attend wealthier schools. These students show greater initiative and independence (Bronfenbrenner, 1986). In an investigation of how the family structure and income changes a child's behavior, Steinburg (1986) found that there is a higher rate of antisocial behavior for those students that lived within a lower income bracket. Another study found that students within a lower SES have difficulties with language acquisition and school readiness. Early intervention had positive results and allowed students to gain positive growth with their letter recognition, and school readiness (Bonnier, 2008; Wilson, Dickinson, & Rowe, 2013). Early intervening produced the largest effects for children with special needs, in particular with low income families (Bonnier, 2008).

Purpose of the study

This study aimed to identify behavioral differences in children with special needs based on their amount of exposure to trained staff in specialized and inclusive preschools. This is done by observing the amount of time at which students with mild to moderate special needs spend in their classrooms with specifically-trained staff, and the effects it has on their observable behaviors.

Research objectives

1. What are the behavioral effects for students with mild to moderate special needs who attend preschool?

Hypothesis

Null hypothesis: Regardless of exposure to special education staff in the classroom students with special needs would have the same behavioral responses.

Research hypothesis 1: Students with special needs who are exposed to special education staff have less positive behavioral responses in traditional classrooms compared to those students with special needs who spend the whole day in the traditional classroom.

Research hypothesis 2: Students with special needs who spend the whole day in the traditional classroom have less positive behavioral responses compared to those students with special needs who are more exposed to special education staff.

III. Methodology

The current study utilized designs found in Yu's research (2008) and Connor, Guralnick, Hammond, and Neville's research (2008). Both of these studies focus on students diagnosed with special needs and their integration into traditional classrooms with their typically developing peers. In this present study, integration occurs when students with special needs are completely incorporated into classrooms with their typically developing peers, and are no longer eligible to receive services defined by an Individual Education Plan or IEP (Garfiulo & Kilgo, 2000). The current study also utilized a modified version of the tool used in Crumps (2015) research that modifies the IDEA's Functional Behavior Analysis (FBA) survey and focuses on the child's behavior in comparison to their exposure to specialized staff during early interventions. The term *special needs* and *disabilities* are defined by the IDEA in 2004 as those diagnosed with

'(i) with mental retardation, hearing impairments(including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (referred to in this title as 'emotional disturbance'), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and (ii) who, by reason thereof, needs special education and related services (p. 23).

Those students with mild to moderate special needs are defined by having “impairment that is sufficiently mild so that generally normal functioning is possible when appropriate medical, educational, or other special services are provided” (Moroni-ITEP, 2012).

Inclusive preschools are designed to serve typically developing students and accommodate those students with special needs (Gargiulo & Kilgo, 2000). Specialized preschools are early education environments that are specifically designed to accommodate students with special needs. These preschools exclusively serve those students with special needs (Turnball & Winton, 1983).

Procedures

This study was conducted using ex-post facto design. It used student's gender, age, and diagnosis, and loss of eligibility, or IEP services while currently in the fifth grade. The data were retrieved directly from the current teachers of each child with special needs using an electronic survey. In order to pass out this survey, the district must first give written permission to contact the teachers of those students with special needs. Following this letter of approval, a letter containing the information to access the survey was emailed to each of the elementary schools within the district. IRB was approved by the primary institution where data were collected.

Population

The population of this study included elementary students that are diagnosed with mild to moderate disabilities who have individual education plans (IEPs), or 504 plans.

Sample. The study sample included students in kindergarten through fifth grade, with mild to moderate disabilities and IEPs or 504 plans. Teacher data were recorded from a single school district in North West Arkansas. This school district was comprised of eighteen elementary schools. Within this school district, there are public school specialized preschools as well as on site inclusive preschools located in the elementary school. Surveys were sent to approximately 100 teachers. The final sample included 38 teachers who participated in the online survey regarding their students. Twenty-six teachers identified their student as male (68%) and twelve identified their student as female (32%). Their students' ages ranged from 5 to 11, with a Mean age of 8.5 ($SD = 1.91$). The grades ranged from kindergarten to fifth grade. Teachers reported that 31 of the students participated in IEP, 12 students had a 504 plan, 11 students attended preschools, 3 attended inclusive preschools, 1 student attended specialized schools, and 6 did not attend any preschool; 17 teachers reported that they were unsure if their students attended a preschool, however. As for the proportion of time spent in the classroom, 23 teachers (61%) reported that their students spent most of the day in the their classroom with *some* special education staff, while 12 teachers (32%) reported that their students spent the whole day in their classroom (with *no* other staff), and 3 teachers (8%) reported that students spent the least amount of day in their classroom where *most* of the day was spent with special education staff.

Measures

The variables of interest for this study's research questions were the time spent with specialized education staff in the preschool classroom. Preschool groups included specialized preschool, inclusive preschool, or other unidentified preschools.

Exposure to specialized staff during the day was categorized as 0 = spent the whole day in the classroom with no specialized staff vs. 1 = spent part or most of the day out of the classroom with specialized education staff. Approximately, 12 teachers reported that their students spent the whole day in the classroom, while 26 teachers reported that their students spent most or part of the day outside the classroom with specialized education staff. These two groups were the independent variable.

Classroom Behavior Continuum Scale (CBCS) was modified for the current study and comes from secondary data from the student's teachers (Crump, 2011). This was a 25-item scale that measured behaviors needed for success in a classroom setting on a scale of 0 indicating that the student was more likely to display a negative behavior, to 4 indicating that the student was more likely to display a positive behavior. The total score for the scale ranges from 0-100. Item examples included social interaction with peers, classroom routine, verbal prompts by teacher, communication skills, behaviors, and help needed (see Appendix A for the full scale of items). The scale had overall good reliability ($\alpha = .96$; $M = 58.66$, $SD = 16.72$; Ranged 25 to 96) and was the dependent variable of interest for the study.

Control variables included gender and students' grade.

Plan of analyses included tests for normality of variables and bivariate correlation of all study variables to test for interrelationships (Tabachnick & Fidell, 2001). Any variables that demonstrated significant relationships with the outcome variables were included in analyses to

test the research questions. The main analysis included an analysis of the covariance (ANCOVA) (Fidell & Tabachnick, 2001), with behavioral responses as the dependent variable, and proportion of day in or outside the traditional classroom as the independent variable, while controlling for students' gender and grade.

IV. Results

First, correlations were run for all study variables, as shown in Table 1. Correlations were computed for age, gender, grade, proportion of day spent in classroom, and the total behavioral scale. Out of the 36 responses, none of the correlations were statistically significant. There was no association between the two variables of gender and the behavior scale ($r = .24, p = .15$). As well, there were no significant differences between age and the behavior scale ($r = -.21, p = .20$) or grade and behavior scale ($r = .38, p = .11$). Overall, there were no significant correlations between any of the independent variables and the behavior scale.

Next, in order to test the study hypotheses, an ANCOVA was tested. Findings indicated non-significant effects for both gender ($F = 1.80, p = .19$) and grade level ($F = .25, p = .62$). As for proportion of the day spent in the classroom, there were no significant differences ($F = .30, p = .59$) in behavioral responses between students who spent all day in the classroom ($M = 57.00, SD = 18.97$) and students who spent some or most of the day outside the classroom with specialized education staff ($M = 59.42, SD = 15.92$). Thus, the null hypothesis was supported, indicating that regardless of exposure to specialized staff, students with special needs would have the same behavioral responses.

V. Discussion

The current study focused on exposure to trained staff or with no exposure to trained staff, behavioral responses, and the proportion of the student's day in the traditional classroom

regarding special education. Overall, the study found that there were no significant differences between the amount of exposure to specialized staff and the student with special needs observable behavior. Due to the small sample size this lack of significance cannot be used to generalize the population. It was also found that due to lack of information from teachers, we were unable to conclude any significance with the type of preschool attended and its effect on the behaviors of students with special needs.

Perhaps the current study was unable to find differences in exposure to trained staff due to other factors that were not measured. For example, an emergent curriculum is based on the idea that young children learn through actions, relationships, asking questions and repetition (Jones, 2012). Depending on the level of interactions and developmental levels of the students attending any given preschool, their emergent curriculums will *vary*. So perhaps it would be more beneficial to follow-up with future research to examine each individual student's emergent curriculum, their time spent with trained staff, and their behavioral outcomes using a qualitative interview, rather than assessing as a quantitative study. Lastly, it is imperative that parents of children with special needs be assessed, as teachers in the current study did not have all the information needed to understand students' backgrounds regarding their preschool involvement.

Limitations

Within the current study, several limitations became apparent. A significant obstacle was the sample size. The teachers within the school district self-selected if they wanted to participate in the study. With only thirty-eight teachers responding to the survey, it was difficult to find any significant correlations in student's behavior and time spent with specialized staff. Also within this sample size, a majority of the teachers did not have information on the type of preschool that each student with special needs attended, thus making it difficult to examine early intervention

and its effects on the behaviors and time spent in the traditional class room of those students with IEPs or 504 plans.

Future Directions and Implications

Future studies would benefit from identifying the importance of time spent with specialized staff during the sensitive period of development as well as during their current day in a traditional classroom. The research on the success rate of children with special needs and the time spent with specialized staff in preschool is lacking. Current research focuses on a child's likelihood to graduate high school and their general attendance to preschool (Schwinhart, 1994). Previous research has also focused on developing positive behaviors with early intervention and used only small sample sizes of those students with special needs (Dale, Jenkins, & Mills, 2006). Also, it can be noted that this study focused on students with IEPs where as other studies focused on those students who could be categorized as having severe special needs (Schuster, Hemmeter, & Ault, 2001; Hundert, Mahoney, Mundy, & Vernon, 1998). Thus, more data needed to be collected that specifically focuses on students with special needs in order to have more meaningful results.

Conclusion

Although the current study found that exposure to trained staff for children with specialized needs was not relevant to their behavioral responses, it is still important to remember that the first five years of an individual's life are the most imperative for development. Children are growing at an exponential rate during this time; habits are learned and cognitive development can flourish. Caregivers and time spent with all children are important, especially for children with special needs. These pathways are important for later development and further research is warranted to understand which pathways are most successful.

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Table 1. Correlation Table of Study Variables

		sex	age	grade	DAY	TOTAL BEHAVIOR AL SCALE
sex	Pearson	1	-.230	-.192	-.026	.241
	Correlation					
	Sig. (2-tailed)		.164	.247	.879	.146
	N	38	38	38	38	38
age	Pearson	-.230	1	.959**	.260	-.214
	Correlation					
	Sig. (2-tailed)	.164		.000	.114	.198
	N	38	38	38	38	38
grade	Pearson	-.192	.959**	1	.223	-.109
	Correlation					
	Sig. (2-tailed)	.247	.000		.179	.514
	N	38	38	38	38	38
DAY	Pearson	-.026	.260	.223	1	.068
	Correlation					
	Sig. (2-tailed)	.879	.114	.179		.684
	N	38	38	38	38	38
TOTAL BEHAVIORA L SCALE	Pearson	.241	-.214	-.109	.068	1
	Correlation					
	Sig. (2-tailed)	.146	.198	.514	.684	
	N	38	38	38	38	38

Appendix A

Study Survey

Survey instructions: Please fill out the below survey to the best of your knowledge. Please use one survey for each student. Several surveys will be provided. Survey will be distributed and collected by researcher.

Student's gender: _____ Student's Age _____ Grade: _____

Date: _____

Check all that apply to student

Student has IEP

Student has 504 plan

Student attended the districts preschool.

Student attended an inclusive preschool, outside of the district, that had both traditional students and those with special needs

Student attended specialized preschool, specifically for those students with special needs

Student did not attend preschool

Check which one applies

Student spends whole day in your classroom

Student spends most of the day in your classroom and some with special education staff

student spends some of the day in your classroom and the rest of the day with special education staff

Students spends the least amount of time in your class and the most with special education staff

1. During non-preferred activities, the student is:

Not on task		On task		
0	1	2	3	4
Always off task	Usually off task	Sometimes on task	Usually on task	Always on task

2. During social interaction with peers, the student is:

Despondent		Engaged		
0	1	2	3	4
Always despondent	Usually despondent	Sometimes	Usually engaged	Always engaged

3. Following the classroom routine, the student is:

Non-compliant		Compliant		
0	1	2	3	4
Always non compliant	Usually non compliant	Sometimes	Usually compliant	Always compliant

4. When the teacher gives verbal prompts to the whole class, the student is:

Non-compliant	Compliant
---------------	-----------

0	1	2	3	4
Always non-compliant	Usually non-compliant	Sometimes compliant	Usually compliant	Always compliant

5. When the student protests, the student is most likely to engage in

Inappropriate verbal protest		Appropriate language skills		
0	1	2	3	4
Always uses inappropriate language skills	Usually uses inappropriate language skills	Sometimes uses appropriate language skills	Usually uses appropriate language skills	Always uses appropriate language skills

6. This students communications skills can be described as

nonverbal		verbal		
0	1	2	3	4
Always non verbal	Usually non verbal	Sometimes verbal	Usually verbal	Always verbal

7. The student is considered:

Impulsive		Focused		
0	1	2	3	4
Always impulsive	Usually impulsive	Sometimes focused	Usually focused	Always focused

8. The student transitions from location to location:

Eloped/non-compliant		Appropriate transition		
0	1	2	3	4
Always Eloped/non-compliant	Usually Eloped/non-compliant	Sometimes appropriate	Usually appropriate	Always appropriate

9. The student transitions form activity to another activity:

Eloped/non-compliant		Appropriate transition		
0	1	2	3	4
Always Eloped/non-compliant	Usually Eloped/non-compliant	Sometimes transitions appropriately/compliant	Usually transitions appropriately/compliant	Always transitions appropriately/compliant

10. The student engaged in repetitive/ Stimming behavior:

STIMS		none observed		
0	1	2	3	4
Always STIMS	Usually STIMS	Sometimes STIMS	Usually or few observed	None observed

11. During preferred activities, student is:

Off-task		On-task		
0	1	2	3	4
Always off task	Usually off task	Sometimes on task	Usually on task	Always on task

12. During non-preferred activities, student:

Requires prompts to complete task		Completes task independently		
0	1	2	3	4
Always Requires prompts to complete task	Usually Requires prompts to complete task	Sometimes Completes task independently	Usually Completes task independently	Always Completes task independently

13. During difficult activities, the student:

Is disruptive		Attempts task/ Is compliant		
0	1	2	3	4
Always Is disruptive	Usually Is disruptive	Sometimes Attempts task/ Is compliant	Usually Attempts task/ Is compliant	Always Attempts task/ Is compliant

14. During class time the student engages in:

Disruptive behavior		Appropriate behavior		
0	1	2	3	4
Always has disruptive behaviors	Usually has disruptive behaviors	Sometimes has appropriate behavior	Usually appropriate behavior	Always appropriate behavior

15. During class participation, the student:

Does not engage		Actively engages		
0	1	2	3	4
Never engages	Usually does not engage	Sometimes actively engages	Usually is actively engaged	Always actively engaged

16. When the student needs help:

Do not ask for help		Appropriately asks for help		
0	1	2	3	4
Never asks for help	Usually does not ask for help	Sometimes asks for help	Usually asks for help	Always appropriately asks for help

17. Given a non-preferred assignment, the student:

Requires prompts to start		Starts task on own		
0	1	2	3	4
Always Requires prompts to start	Usually Requires prompts to start	Sometimes Starts task on own	Usually Starts task on own	Always Starts task on own

18. When given a preferred assignment, the student:

Requires prompts to start		Starts task on own		
0	1	2	3	4
Always Requires prompts to start	Usually Requires prompts to start	Sometimes Starts task on own	Usually Starts task on own	Always Starts task on own

19. During social interactions, the student,

Appears withdrawn		Appears engaged		
0	1	2	3	4
Always Appears withdrawn	Usually Appears withdrawn	Sometimes Appears engaged	Usually Appears engaged	Always Appears engaged

20. Student exhibits:

Impulsive behavior		Displays impulse control		
0	1	2	3	4
Always Impulsive behavior	Usually Impulsive behavior	Sometimes Displays impulse control	Usually Displays impulse control	Always Displays impulse control

21. When student is in close proximity to peers, the student:

Inappropriately engages		Appropriately engages		
0	1	2	3	4
Always Inappropriately engages	Usually Inappropriately engages	Sometimes Appropriately engages	Usually Appropriately engages	Always Appropriately engages

22. Student engages in:

Repetitive behaviors		No repetitive behaviors observed		
0	1	2	3	4
Always Repetitive behaviors	Usually Repetitive behaviors	Sometimes No repetitive behaviors observed	Usually No repetitive behaviors observed	Always No repetitive behaviors observed

23. The student engages in:

Aggressive behaviors		Non-aggressive behaviors		
0	1	2	3	4
Always Aggressive behaviors	Usually Aggressive behaviors	Sometimes Aggressive behaviors	Usually Non-aggressive behaviors	Always Non-aggressive behaviors

24. During classroom instruction/ routine, the student;

Does not participate in the routine		Participates appropriately in routine		
0	1	2	3	4
Never	Usually Does not	Sometimes	Usually	Always

participates in the routine	participate in the routine	Participates appropriately in routine	Participates appropriately in routine	Participates appropriately in routine
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25. During social interactions, the student:

Inappropriately touches peers/ invades space			Appropriate social distance	
0	1	2	3	4
Always Inappropriately touches peers/ invades space	Usually Inappropriately touches peers/ invades space	Sometimes Appropriate social distance	Usually Appropriate social distance	Always Appropriate social distance

Add up the total number _____

Appendix B

IRB Protocol Approval



UNIVERSITY OF
ARKANSAS

Office of Research Compliance
Institutional Review Board

September 13, 2016

MEMORANDUM

TO: Rachel Prisco
Jennifer Henk

FROM: Ro Windwalker
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 16-08-051

Protocol Title: *Correlations between Early Interventions and Special Needs Children's Success in Transitioning into Traditional Classrooms*

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 09/13/2016 Expiration Date: 09/12/2017

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<https://vpred.uark.edu/units/rscp/index.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 60 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.