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Does participation in special education services in pre-kindergarten mitigate the need for services beyond third grade?

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DOES PARTICIPATION IN SPECIAL EDUCATION SERVICES IN PRE-KINDERGARTEN MITIGATE THE NEED FOR SERVICES BEYOND THIRD GRADE?

By

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A Thesis

Submitted to the
Department of Education
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In partial fulfillment of the requirement
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Thesis Chair: Margaret Shuff, Ed. D

Dedication

I would like to dedicate this manuscript to my husband, Vincent LaMonaca.

Acknowledgements

I would like to express my appreciation to Mrs. Heather Worrell who saw great value in my research and provided support and guidance throughout the writing process. The lessons learned working under her will be carried on where ever my path may lead.

I would also like to thank my loving husband and children for their unwavering love and support through this journey.

Abstract

Cynthia Ann LaMonaca

DOES PARTICIPATION IN SPECIAL EDUCATION SERVICES IN PRE-KINDERGARTEN MITIGATE THE NEED FOR SERVICES BEYOND THIRD GRADE?

2018-2019

Margaret Shuff, Ed. D

Master of Arts in Learning Disabilities

The purpose of this study was to analyze the change of the special education classroom placement status rate of students in a Southern New Jersey school district over a seven-year period. To gather this information, the classroom placement data from the current 6th grade class was gathered from select years of their schooling going back to preschool. Special education services were analyzed retroactively for this group of students beginning at the pre-kindergarten year (2011-2012), and again in their first grade (2013-2014), third grade (2015-2016) and current sixth grade (2018-2019) placements. The goal was to compare the number of students from the current 6th grade class who were determined to be eligible for special education services in preschool as preschool disabled and what their intensity of classroom placement was with those same students' classroom placements by sixth grade. Additionally, data was collected for students in this class who were found eligible once they were school age and what their classroom placements were initially and compare that to their placement in sixth grade. The major question being, does earlier determination of eligibility for special education services mitigate the amount of time a student requires more restrictive special education services? A one tailed t-test revealed no statistically significant change in the intensity of classroom placement for either group of students over time.

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Chapter 1

Introduction

In recent years, there has been a noticeable push for high quality preschool programs throughout our nation. Between 2002 and 2010, enrollment in state funded preschool programs doubled, with a total of 40 states serving more than 1.3 million children. This represents a dramatic growth in a ten-year period. (Hill, Gormley, & Adelstein, 2015). While there is little argument from the general public that there are benefits to the child who is given the opportunity to develop early literacy and math skills before entering kindergarten, the benefits of special education services in the preschool setting have not been quantified. Are special education services in the preschool setting helping pre-school-aged children to develop the skills they need to perform in the general education setting? Is the receipt of special education services in preschool mitigating the need for special education services beyond third grade? The goal of special education is to assist individuals in reaching their fullest potential in the least restrictive environment. For many students who qualify for special education services, this least restrictive environment should be the general education setting. It is not the presupposition that all children must perform at the same level of proficiency, as all individuals have their own strengths and weaknesses, but rather that with the proper, early intervention techniques, students will reach a level of academic proficiency so that they may have a change in their eligibility status in terms of special education.

Purpose of the Study

In this study, I intend to analyze the change of the special education classroom placement status rate of students in a Southern New Jersey school district over a seven-year period. To gather this information, the classroom placement data from the current 6th grade class will be gathered from select years of their schooling going back to preschool. Special education services will be analyzed retroactively for this group of students beginning at the pre-kindergarten year (2011-2012), and again in their first grade (2013-2014), third grade (2015-2016) and current sixth grade (2018-2019) placements. The goal is to compare the number of students from the current 6th grade class who were determined to be eligible for special education services in preschool as preschool disabled and what their intensity of classroom placement was with those same students' classroom placements by sixth grade. Additionally, data will be collected for students in this class who were found eligible once they were school age and what their classroom placements were initially and compare that to their placement in sixth grade. The major question being, does earlier determination of eligibility for special education services mitigate the amount of time a student requires more restrictive special education services? My hypothesis is that the special education classroom placement rate will be more restrictive for those students who were identified later in their educational career than for those who were identified earlier. Any student who entered the district after kindergarten with an IEP in place will not be counted as part of the study group. However, if a student enters

the district after kindergarten without an IEP and subsequently obtains one, he/she will be included in the study. There will be no direct contact with the students for this research as all data is available within district databases.

Hypothesis

It is expected that students identified prior to 3rd grade will show a higher rate of decreased need for more restrictive classroom environments however; it is recognized that certain variables are out of the control of the study. A student's level of success is greatly dependent upon both his/her own efforts as well as his/her support system. The school district in which this study will be conducted is very diverse ethnically, culturally, and socioeconomically. These factors will have at least some impact on the success rate of the students within the district. Another variable that will not be within the control of this study are the specific teachers each student encountered throughout his/her instructional years. It is understood that teachers will have differing success rates with students in the classroom, and this is not a factor that can be changed in this type of study.

Chapter 2

Literature Review

The Individuals with Disabilities Education Act (IDEA) clearly defines the process by which an individual can be found eligible for special education services. Children must be evaluated by qualified individuals to determine their educational needs and if there is a significant discrepancy between their potential and their performance. Preschool aged children can be found eligible for special education services if they demonstrate a 33% delay in one developmental area or a 25% delay in two or more developmental areas. These areas are; Physical (gross/fine motor; sensory), Cognitive, Communication, Social/Emotional, and Adaptive. The only descriptive category available for preschool aged children in the state of New Jersey who qualify for special education services is that of “Preschool Child with a Disability”. Once a child has reached school age, they must be evaluated again to determine their Special Education eligibility. At that time, if a child qualifies for services, he/she is categorized in one of thirteen descriptive categories. These categories are; Auditorily Impaired, Autistic, Cognitively Impaired, Communication Impaired, Emotionally Disturbed, Multiply Disabled, Deaf/Blindness, Orthopedically Impaired, Other Health Impaired, Social Maladjustment, Specific Learning Disability, Traumatic Brain Injury, and Visually Impaired. In contrast, however, the criteria for dismissal from those services is not as clearly defined. Only that a school district or other public agency must evaluate a child with a disability before making the determination that a child is no longer a child with a

disability in need of special education services. Even with those less than clear expectations set forth by the IDEA, many children do receive special education services for a period and then stop (Daley & Carlson, 2009).

There has been some research in this area of special education and the change in the level of services needed by students as they progressed through their schooling. The question of early intervention services mitigating success of students and their participation in regular education settings at a faster rate than those students who are identified as needing services later has some literature. However, most research found has been a general look at the benefits of quality preschool programs for typically developing children. Some research has focused specifically upon the benefits of special education services in the preschool years.

In 1988, Edgar et. al. conducted a longitudinal study that looked at the educational placement of students after moving into the early elementary grades post special education services in preschool. They replicated a study that had been conducted in Washington State in 1981. The Washington State study found that of the children who received special education in preschool, 16% were placed in regular education, 19% were placed in resource rooms and 65% were placed in self-contained special education classrooms (Edgar, Heggelund, Fisher, 1988). In their own study, which ranged from 1984-1987, Edgar et. al. continued to collect data on graduates of public special education programs in Washington State. They found that 13% of the students were placed in a regular education placement with no special education supports following

preschool and an additional 19% were placed in regular education with special support services such as minimal pull-out for special help. So, a total of 32% of the total student sample returned to regular education following completion of their preschool program (Edgar, Heggelund, Fisher, 1988). This study attempted to answer two questions; What are the initial and ongoing placements of these children? And how stable is the initial placement over time? The researchers attempted to longitudinally follow students who had been placed in a special education preschool setting for a total of three years following their exit from preschool. The researchers followed students from 10 separate school districts across the state of Washington. Over the three years, they were able to track the stability of the student's placements along the continuum of educational settings including regular education setting with no support, regular education with some supports, and special education, which included self-contained or resource room settings.

Overall, this study demonstrated a high stability rate for initial placements of students following preschool special education. They did note however, that when movement between placements did occur, many of those movements were to less restrictive settings. This study also noted, that further observation was necessary to see if this stability remained throughout schooling. They cited a trend of increased referrals to special education surrounding fourth and fifth grade years. This demonstrates the need for data analysis about placement of students beyond third grade.

In 2013, Ma et. al. investigated the efficacy of preschool interventions and the long- and short-term impact on school readiness and performance. They analyzed the data gathered by the Supporting Partnerships to Assure Ready Kids initiative (SPARK).

While the study itself revealed no statistically significant long-term effects of the interventions implemented, there was some evidence that the short-term effects of age-appropriate well-designed learning materials was effective in the overall conceptual development of children in the study. They proposed, that the resources being devoted to early childhood interventions and services should be evaluated based upon the impact those services are making on a child's ability to thrive academically once in a school aged setting. They further stated that the goal should be to place children who have the need for special education services in an inclusive pre-kindergarten setting. (Ma, Nelson, Shen, & Krenn, 2013). The preschool setting in the district to be examined in this current study does, in fact have an inclusive setting as one option for children receiving services. There are, however, more restrictive environments for students who are deemed to require more intensive and individualized instruction. For the purposes of this study, the placements will be identified as self-contained, pull-out resource, in-class resource, and mainstreamed.

In 2012, Sullivan and Field looked at the effect of preschool special education on kindergarten reading and mathematics skills. They did this by using a propensity score weighting analysis comparing the early academic skills at kindergarten of those children who received special education services in preschool against those who did not. The study compared students with similar cognitive profiles, some that received services and others who did not. Ultimately, their study indicated that the receipt of special education services in preschool had a “statistically moderate negative effect on children’s kindergarten skills in both reading and mathematics” (Sullivan & Field, 2012, p 243).

This finding is in direct conflict with the hypothesis that early intervention is beneficial to children with developmental delays or disabilities. We as special education providers want to believe that we are providing our students with the tools that will help them to succeed both in education as well as beyond into adulthood. The study conducted by Sullivan and Field suggests that we may better serve our students with mild developmental delays and disabilities in a regular education setting with strong peer models.

Peers et. al. in 2014 looked at the effects of increasing the early literacy skills of children with developmental delays or disabilities in pre-kindergarten. They cited the major goal of early childhood special education as reducing the need for special education services once the child is school aged. The hope should be to ready the child to enter general education rather than to continue needing special education services. In their study, children were exposed to an intensive two-month program covering the gap in services between the end of preschool services and kindergarten. This program, Kids in Transition to School program (KITS), focuses specifically on school readiness abilities as well as critical early literacy skills. The intervention did show an increase of children who were found at low risk for difficulties in reading as measured by the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), standard benchmarks that typically are valid predictors of later reading acquisition. There were children who continued to be at risk for reading difficulties based upon their DIBELS benchmarks. The authors suggested that the potential reason for some children still struggling with early literacy skills after the intervention could be due to the need of the KITS program to

remediate other school readiness abilities such as behavior or social needs thus reducing the amount of time spent focusing on the early literacy skills with those children. It is not just the academic developmental needs that must be addressed in a classroom. In fact, more frequently the social and emotional needs of students trump those of academic skill building. This could be one contributing factor to those students who did not show the expected growth with the KITS program (Pears et. al., 2014).

In this current study, the effects of the district's preschool program will be retrospectively analyzed in terms of the level of continued need for special education services, by looking at the changes in students' classroom placements along the continuum of least restrictive environment. Students in the current sixth grade class will be retrospectively analyzed for their participation in special education services and the classroom placement associated with that participation, beginning in their age four preschool year and on through this current school year. Special education placements will be analyzed retroactively for this group of students beginning at the pre-kindergarten level (2011-2012), and again in their first grade (2013-2014), third grade (2015-2016), and current (2018-2019) placements. A comparison of the rates of change of special education placements will be made based upon the initial identification for the need for services. Specifically, students identified in pre-kindergarten as compared to students identified for services once they were school aged. There is not opportunity for randomization as this is a retroactive, longitudinal study. This study will show the trends related to special education programming and placements in the district and will help to inform district personnel charged with identifying individuals with eligibility for special

education services and the placements that these children receive those services in.

This type of longitudinal study of the effects of pre-kindergarten special education services as students' progress beyond third grade, would help the field of education both in regular education settings as well as the continuum of special education settings. The retrospective approach will help the district to analyze the effectiveness of its programming as well as to plan for future programming and placement decisions. When a student receives the appropriate services, it is believed that he/she will show the most progress toward his/her full potential as a contributing member of society.

Chapter 3

Methodology

Setting and Participants

This study included current sixth grade students in a southern New Jersey school district. Data from the enrollment in special education services of these students was gathered through child study team files and databases, specifically, Frontline (formerly known as IEP direct) as well as archived information from IEP tracker. Data was gathered about the current sixth graders going back to his/her four-year-old preschool year to see which students were identified before school age as being eligible for special education services and what level of services they received on the continuum of placements. Only students who currently attend school in the district as sixth graders were used in this data collection. Any student who left the district prior to this current year was not included in the data analysis. Data was again collected from this same class for his/her first grade and third grade years to compare his/her placement on the continuum of service.

These placements are, self-contained special education classroom, pull-out resource classroom, in-class resource, and no direct special education services. The self-contained classroom consists of only students who have Individualized Education Plans (IEPs) and is run by a certified special education teacher. All the academic instruction for these students is done in this separate classroom without the presence of general

education peers. The pull-out resource classroom also consists of only students who have IEPs, however the students do not remain in this classroom for the entire day. These students receive instruction in core subjects such as mathematics and language arts literacy in this separate classroom in a small group setting, but also participate in instruction in a general education classroom for science and social studies. These students spend more time with his/her general education peers throughout the school day. The in-class support classroom consists of students with IEPs as well as general education students. The classroom is taught by two teachers, one general education teacher and one special education teacher. The students are taught at the pace of a general education classroom, however students with IEPs are provided accommodations for his/her needs by both teachers. Small group instruction is also provided within the classroom as needed. This special education classroom setting allows for the most time spent with general education peers.

Procedures

Four data collection periods have been identified for the study. The 2011-2012, 2013-2014, 2015-2016, and the 2018-2019 school years. For each data collection point the students identified in the study have been assigned a number of points based upon his/her placement along the continuum of services. 6 points for a self-contained placement, 4 points for a pull-out resource placement, 2 points for an in-class support placement and 0 points for no direct services received. Each of the three earlier collection periods was then compared to the current 2018-2019 data in a one-tailed t-test.

Students from the current sixth grade class were first identified so that students who no longer attended school in the school district were not counted in the groups. From that point, data bases were used to ascertain which students in the current sixth grade class were identified as eligible for special education and in what classroom placement they currently participated. The district database provided by OnCourse was able to generate a complete list of the current sixth grade students attending school in the district and the year that they began attending. This was helpful in narrowing down the search for students who may have had special education services beginning in his or her preschool year. As the students in this study began attending school in the district before the district began using IEP Direct, it was necessary to access archived files from the former program used, IEP Tracker. This was only necessary for the preschool and first grade data. Data for third grade and sixth grade was easily searchable through IEP Direct databases.

Variables

The dependent variable in this study is the movement of the students along the continuum of services. The independent variables include the students' classification categories, class sizes, and the specific teachers that are assigned to each child over each collection period. These variables can have both positive and negative effects upon a student's academic success which will in turn influence the level of support along the continuum that each individual student may need. For the purposes of this study we will not be looking at students' classification category as our main concern is the movement

along the continuum of classroom placements. The hypothesis set forth in the onset of this study was that students who began special education services during his/her preschool year would show more movement along the continuum of classroom placements toward a less restrictive environment, than those who began receiving services once they were school age.

Chapter 4

Findings

In this study the movement along the continuum of special education placements was examined for the current sixth grade class in a southern New Jersey school district. Data was collected from the class' pre-school, first grade, third grade and current classroom placements based upon those who were receiving special education services. Only students who are currently enrolled in the school district were counted in this study. If a student left the district before sixth grade, then he/she was not included in the data sets. The research questions to be answered were:

1. Are special education services in the preschool setting helping pre-school-aged children to develop the skills they need to perform in the general education setting?
2. Is the receipt of special education services in preschool mitigating the need for special education services beyond third grade?

There is a total of 48 students who receive or did receive at some point over the past seven years, special education services along the continuum from the total sixth grade class. Of those 48 students, 13 of those students began receiving services during pre-school. The time between preschool and first grade yielded the addition of 2 more

students identified and receiving services and 2 students no longer receiving services who had been in preschool. The time between the first-grade year and third grade year saw the addition of 14 more students who were receiving services (including the 2 who had stopped receiving direct services and then returned to special education services), and 2 students no longer receiving services who had been receiving services in preschool. The years between third grade and sixth grade saw an addition of 20 students receiving services somewhere along the continuum (including one student who had previously dismissed, but then returned to special education services), but also the exiting of 3 students from direct special education services.

Results

Table 1 shows the mean of the total in each year's grouping of students. If the student was enrolled in the district but was placed in a general education classroom during a given year, their score of 0 was included in the mean for that grouping. These means were derived from the numerical values applied to each classroom setting. Self-contained = 6, Pull-Out Resource = 4, In-Class Resource = 2, No direct special education services = 0.

Table I

Mean for each student grouping

	2011-2012	2013-2014	2015-2016	2018-2019
# of students included	13	35	37	48
Mean for group	4	1.82	2.75	2.63

Table II breaks down each grouping by placement. Students are identified by numbers 1-48.

Table II

Placement Data

Student	2011-2012	2013-2014	2015-2016	2018-2019
1	2	4	4	4
2	2	4	4	4
3	6	6	4	2
4	2	0	2	2
5	6	6	4	2
6	6	6	4	2
7	6	4	4	4
8	6	6	6	4
9	6	0	4	4
10	2	4	4	4
11	0	6	4	0
12	6	6	0	0
13	2	4	0	2
14		0	0	0
15		0	0	2
16		6	6	4
17		2	4	2
18		0	4	2
19		0	4	2
20		0	2	2
21		0	0	0
22		0	0	2
23		0	0	2
24		0	4	4
25		0	6	2
26		0	4	2
27		0	6	4
28		0	4	0
29		0	4	4
30		0	0	2
31		0	0	2
32		0	0	4
33		0	0	2
34		0	0	2
35		0	0	2
36			4	2
37			6	4
38				4
39				4
40				4
41				2
42				4
43				4
44				2
45				2
46				4
47				4
48				4

Table III shows the t-test results after comparing each data set both as full sets and as equal sets only counting the students in the current class with the same number identified in the year being compared.

Table III

T-Test results

	Preschool – 6 th grade	1 st grade -6 th grade	3 rd grade – 6 th grade
Full set data	.003	.033	.367
Equal set data	.041	.145	.188

A t-test was run to compare the difference between the sixth-grade data set, and each of the other three data sets. In the pre-school vs sixth grade grouping in two ways, the first was to compare both full sets. This comparison yielded a t-score of .003, which is not a statistically significant difference in the level of support along the continuum between the two groups. The second comparison was only between the full data set in pre-school and only those students again from the sixth-grade data set. This comparison yielded a t-score of .041, which again is not a statistically significant difference.

This same procedure was followed for both the first grade and third grade data. In first grade, the full set data yielded a t-score of .033 and the equal set data yielded a t-score of .145. Again, these results reveal no statistically significant difference in the

change in the level of support along the continuum. Results were similar for the third-grade full set data, which yielded a t-score of .367, and the equal set data, which yielded a t-score of .188.

While the t-test results reveal that there is no significant statistical difference in the change of classroom placement over the years for any of the data sets, there was movement seen along the continuum by individual students. However, movement was made by students even if they were not identified in preschool.

Chapter 5

Discussion

This study examined the movement along the continuum of special education placements over a seven-year period for the current sixth-grade class in a Southern New Jersey school district. The current students enrolled in the district were the only students counted in this study, as data for students who left the district was not readily available. The total number of students included in the study who received special education services at some point during the seven-year period was 48. Thirteen of those students began receiving services during their pre-school year. Each collection period saw a change in the number of children identified as receiving services. However, the change from preschool to first grade was noted to have the same number of students being served. Two students had begun services and two others had stopped receiving services. Between first grade and third grade there was an addition of 14 students receiving special education services along the continuum. Two of these students had previously been dismissed from services, but again required services. Over this span two students who had been receiving services since their preschool year, no longer required direct special education services. The years between third and sixth grade also saw an increase in the number of students receiving services along the continuum. This time, 20 students, including one student who had previously received services, were added to the list of students receiving special education services. During this time there were also three students who no longer required direct special education services.

It was hypothesized that students who began receiving special education services during their preschool year would move along the continuum of special education towards the least restrictive environment at a faster rate than their peers who were identified once reaching school age. The data suggests that this hypothesis was incorrect. While some students were observed to move along the continuum throughout the seven-year data collection period, there was not a statistically significant difference in the rate of movement along the continuum towards the least restrictive environment.

This appears to corroborate the study conducted by Edgar et. al in 1988 which found a high stability rate for initial placements of students following preschool special education services. Interestingly, however, the students in this current study showed a relatively stable rate for initial placement as well regardless of placement during their preschool year or once they had reached school age. Once the child was identified as needing services, there was statistically insignificant change in what that placement looked like.

If, however we take away the statistics and look at each child individually, there are cases of children who began in the most restrictive environment defined in the study, that of a self-contained classroom, who over time moved along the continuum to an in-class resource classroom. This illustrates the success of the instruction as well as the child's ability to generalize the skills being taught within the more restrictive environments. Additionally, there are students who fluctuated between two different levels of service depending upon the year of data collection. This could have been due to

outside factors such as health, staffing, or parental influence. Most frequently, students in this study demonstrated stable placements over time. It cannot be ignored that parental influence could have influenced a child's placement along the continuum. Parents are key members of a student's child study team, and as such can influence the placement of their child. The extent of parental input upon the placement of the students in this study is not quantifiable.

Limitations

Although the results of this study invalidated the hypothesis set forth, the number of participants in the study was small. The total group of 48 sixth grade students provided a limited amount of data on the mitigating effects of preschool special education services on the placement of students along the continuum of special education services beyond third grade. Since only 13 of those 48 students were provided special education services during their preschool year, the sample size is again limited. Had neighboring districts been included in the study a larger sample size could have been obtained and a more generalized trend in the effectiveness of preschool special education services could have been studied.

Another limitation of this study was the influx of students to the district being studied, who already had an IEP before moving into the school district. These students, because of the parameters set forth in the study, were not counted in the data due to the potential that it may skew the results. The relative stability in the placement of students along the special education continuum within the district may very well be the reason

there is such an influx of students needing special education services into the district in question. Additionally, during this study students in the sixth-grade class were undergoing child study team initial evaluations and had not yet been identified as needing special education services. This may have changed the overall outcome of the study; however, this is highly unlikely.

Finally, classification categories may also have played a role in limiting the study. While classification categories were not considered for the purposes of identifying placement along the continuum, the needs of students with certain classification categories tend to remain constant, thus contributing to a lack of movement along the continuum of services. It cannot be ignored that some individuals will always need a higher level of support to be successful. While progress is made with these students where they are, they may not ever reach the point where they are independent enough to thrive in a classroom environment that moves at the general education pacing. Fundamentally, this is the purpose of providing a continuum of services. The least restrictive environment is, in fact, different for each individual and therefore, everyone's needs are considered before decisions are made about placement.

Practical Implications

The district looked at during this study showed statistically insignificant changes over time in the movement on the continuum of services for students receiving special education. This is useful information as the district can then further examine the reasons behind this static state. Students' independent skills as well as academic skills can be

targeted in a way to potentially increase the movement along the continuum for more students toward the least restrictive environment. This is not to suppose that all students will find success in an in-class resource setting, however with more focus on the skills that all students, general and special education alike, require for independent success, the district may be able to grow these programs.

Future Studies

There is some research into the effectiveness of preschool programming in the United States, and some incorporates the pros and cons of special education services at the preschool level. However, there is less research into the specific mitigating effects of preschool special education in the long term. How will these students continue to progress beyond their sixth-grade year? A larger population should be examined to determine if the placements along the continuum continue to remain static, or if, over time, these placements gradually move toward the in-class resource model or beyond to a general education model for some students. Would the results of this study have been the same had surrounding school districts been included in the study? What if students had been followed up through twelfth grade? Would there then have been a difference in those students who were identified earlier?

Conclusion

In this study two questions were to be answered. First, are special education services in the preschool setting helping preschool aged children to develop the skills they need to perform in the general education setting? This question was not directly

answered by the t-test conducted, however when looking at the individual students within the preschool group, it is noted that their placements remained relatively static over time, with some movement to less restrictive environments, but only one student from this group entering a setting where no direct special education services were being provided and remaining in that setting. Two students entered a setting where no direct special education services were provided for a time, but ultimately returned to in-class resource and pull-out resource settings in later years. Second, is the receipt of special education services in preschool mitigating the need for special education services beyond third grade? According to the data, there are no significant mitigating effects to receiving special education services in the preschool year. The students in the sixth-grade class, regardless of the year they were identified for special education services appeared to be placed in a setting that most matched their needs and over time, for most those needs remained consistently met in that environment. When movement did occur, it was from a more restrictive environment to a less restrictive environment for individual students. Because of the size of this sample, the movement trends were not significant enough to show statistical significance. If this study was continued beyond sixth grade for these students, there may be potential for further movement to be seen as these students move into the middle school environment.

References

- Arteaga, I., Humpage, S., Reynolds, A. J., & Temple, J. A. (2014). One year of preschool or two: Is it important for adult outcomes? *Economics of Education Review*,*40*, 221-237. doi:10.1016/j.econedurev.2013.07.009
- Buckrop, J., Roberts, A., & Locasale-Crouch, J. (2016). Children's preschool classroom experiences and associations with early elementary special education referral. *Early Childhood Research Quarterly*,*36*, 452-461. doi:10.1016/j.ecresq.2016.01.016
- Daley, T. C., & Carlson, E. (2009). Predictors of Change in Eligibility Status among Preschoolers in Special Education. *Exceptional Children*,*75*(4), 412-426. doi:10.1177/001440290907500402
- Delgado, C. E., Vagi, S. J., & Scott, K. G. (2006). Tracking Preschool Children With Developmental Delay: Third Grade Outcomes. *American Journal on Mental Retardation*,*111*(4), 299. doi:10.1352/0895-8017(2006)111[299:tpcwdd]2.0.co;2
- Edgar, E., Heggelund, M., & Fischer, M. (1988). A Longitudinal Study of Graduates of Special Education Preschools. *Topics in Early Childhood Special Education*,*8*(3), 61-74. doi:10.1177/027112148800800306
- Hill, C. J., Gormley, W. T., & Adelstein, S. (2015). Do the short-term effects of a high-quality preschool program persist? *Early Childhood Research Quarterly*,*32*, 60-79. doi:10.1016/j.ecresq.2014.12.005

- Johanson, M., Justice, L. M., & Logan, J. (2015). Kindergarten Impacts of a Preschool Language-Focused Intervention. *Applied Developmental Science*,*20*(2), 94-107.
doi:10.1080/10888691.2015.1074050
- Ma, X., Nelson, R. F., Shen, J., & Krenn, H. Y. (2014). Effects of preschool intervention strategies on school readiness in kindergarten. *Educational Research for Policy and Practice*,*14*(1), 1-17. doi:10.1007/s10671-014-9163-y
- Pears, K. C., Kim, H. K., Fisher, P. A., & Yoerger, K. (2016). Increasing pre-kindergarten early literacy skills in children with developmental disabilities and delays. *Journal of School Psychology*,*57*, 15-27. doi:10.1016/j.jsp.2016.05.004
- Sullivan, A. L., & Field, S. (2013). Do preschool special education services make a difference in kindergarten reading and mathematics skills?: A propensity score weighting analysis. *Journal of School Psychology*,*51*(2), 243-260.
doi:10.1016/j.jsp.2012.12.004
- Twardzik, E., Smit, E., Hatfield, B., Odden, M. C., Dixon-Ibarra, A., & Macdonald, M. (2018). Limited access to special education services for school-aged children with developmental delay. *Research in Developmental Disabilities*,*72*, 257-264.
doi:10.1016/j.ridd.2017.12.008