

KINDERGARTEN ENTRY AGE: EFFECTS ON KINDERGARTENERS'
ACADEMIC SUCCESS

A Research Study Submitted
in Fulfillment of the Requirement
for EDMA 5683

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July 2012

Abstract

Kindergarten Entry Age and Academic Success

The following study analyzes what affect, if any, kindergarten entry age has on a student's academic achievement within their kindergarten year and whether or not their pre-kindergarten experience has any effect on their achievement. Students were broken up into two groups; Group O are older students whose birthdays are in the fall and winter and Group Y, students whose birthdays are in the spring and summer. Their DIBELS (Dynamic Indicators of Basic Early Literacy Skills) scores were analyzed from the beginning of the year, mid-year and end of year, looking particularly at letter recognition, initial sound fluency, phonemic segmentation fluency, and nonsense word fluency. Separately, their sight word recognition was analyzed. Students' parents also filled out a survey indicating where their student went to pre-school and for how many years. The results showed that by the end of the year more than half of the students in Group Y were at or above the benchmark, however, there were also more students in Group Y in the support category. Furthermore, Group Y had more students at or above the benchmark than did Group O. It further showed that more students in Group Y went to academic based pre-schools. The conclusion drawn from these results is that kindergarten entry age does not affect students' academic achievement to a great degree; their pre-school may be more of a factor in their academic readiness and achievement in kindergarten.

Table of Contents

Introduction.....	1
Literature Review.....	2
Research Question.....	11
Methodology.....	11
Data.....	17
Analysis.....	26
Implications/Recommendations.....	29
Conclusion.....	30
References.....	31

List of Tables and Figures

Table 1: DIBELS Scores Beginning of Year.....	18
Table 2: DIBELS Scores Mid-Year.....	19
Table 3: DIBELS Scores End of Year.....	20
Table 4: Sight Word Recognition January.....	21
Table 5: Sight Word Recognition March.....	22
Table 6: Sight Word Recognition April.....	23
Table 7: Sight Word Recognition End of Year.....	24
Table 8: Pre-school History.....	25

Introduction

It is the first week of kindergarten. Carly has just celebrated her birthday; she turned five two days before school started. So far, she is enjoying kindergarten. During recess the kindergarteners have started a game of jump rope. Carly loves to jump rope and decides to join the game. Dozens of children are gathered around the jump rope activity. Everyone is counting the number of jumps out loud, including the child jumping rope. Then the girl in line before Carly messes up and it is Carly's turn. She has to beat 30 jumps. Carly hesitates, but eventually takes her turn. She begins to jump, counting out loud with everyone, as she nears 10 jumps, she begins to get nervous. Just before she reaches her eleventh jump, Carly gets tangled up in the rope. She could have jumped more, but she can't count past ten.

The entry age for kindergarteners has been an issue of debate in the education system for decades. Some experts believe that students should not enter kindergarten until they have shown they are ready for the academic rigors it requires. Others contend that entry age makes no difference to a child's academic success. There are strong arguments for both sides.

Research has found that students who enter kindergarten early can be at severe disadvantage academically, not having received the same amount of time in pre-school and/or not having developed behaviorally either (Fleischman, 2007). It has become more common these days for parents to put their children into kindergarten before they are ready. The cut-off date for kindergarten has crept closer and closer to the beginning of the school year. Many students entering kindergarten today are barely five years old.

Many experts believe that they have not had time to develop their basic skills and are noticeably lagging behind their classmates (Fleischman, 2007).

In contrast, a growing trend in schooling has been “academic redshirting” in which parents hold their children back a year before putting them into kindergarten in the hope that they will have an academic advantage (McNamara, 2004). Some believe that having that extra year will give students an edge once they enter kindergarten and allow them to succeed and surpass their classmates in the academic arena.

Does the entry age of a kindergartener determine his/her academic success? In studying kindergartners’ performance in literacy in the classroom and looking at students’ pre-school history, I hope to shed more light on this dilemma. According to various studies, it has been concluded that kindergarten entry age has no bearing on a student’s success or failure; these studies suggest that academic achievement is dependent on the child’s developmental age and pre-k education, not their chronological age. However, other research dictates that kindergarten entry age contributes a great deal to a kindergartner’s academic achievement at the kindergarten level and beyond. I hypothesize that the students’ entry age when they enter kindergarten is a major contributing factor to their academic achievement in their primary year of formal schooling.

Literature Review

Each school district in the United States has a cut-off date for students entering kindergarten. For the majority of the states, this cut-off date is at the beginning of September. There has been an ongoing debate over the benefit of holding students back an extra year before entering them into kindergarten if their birthday falls on or very

close to that cut-off date. Some parents and teachers believe it will benefit the student because they will be more mature and will be more likely to absorb the information they are learning in the classroom. There are also some who think that students who enter kindergarten too young e.g. their birthdays are too close to the cut-off date will be at an academic disadvantage. Whereas, some believe that the student's chronological age has nothing to do with their ability to absorb the information, but rather where they are developmentally and how they spent their pre-k years. The following review of the research literature is organized by several themes: chronological age vs. developmental age, academic "redshirting", benefits of academic "redshirting", disadvantages of academic "redshirting", benefits for young kindergarteners, and drawbacks of younger students.

Chronological Age vs. Developmental Age

The age of the student is the issue at hand, thus chronological age versus developmental age becomes a relevant discussion. Fleischman cites Ilg's study when discussing the fact that although students may have reached their fifth birthday it, "does not insure that a child is ready for school nor does it guarantee a specific level of development" (2007, p.27). However, it is possible that students who are five years old are developmentally ready for kindergarten and will find success. Fleischman points out that there are some who believe assessing a student for readiness before they enter kindergarten is more appropriate than just looking at their chronological age (Fleischman, 2007). Although some would disagree, Fleischman, citing Shank, asserts that readiness assessment tests should be used to determine readiness for school entry (2007). Fleischman goes further, using a study by Breznitz and Teltsch, to argue that there is not

a significant difference in social or emotional development between the older kindergarteners and the younger ones (2007).

The National Institute of Child Health and Human Development (NICHD) did an extensive study focused on whether chronological age and/or age of entry were a factor in students' academic success in their first year of school. They identified that, "children who began school at older and younger ages developed at different rates" (2007, p. 27). Thus, it is difficult to determine students' future success based on their birthday. They went further in their study in trying to identify whether students' age had any effect on their social and emotional development and again concluded that it had no bearing whatsoever (NICHD, 2007). They did find that students who were older scored higher on their cognitive tests early in the kindergarten year (2007). According to their comprehensive study, they quantitatively found that older kindergarteners performed better than their younger classmates (NICHD, 2007).

Academic "Redshirting"

The trend of "redshirting" has been in effect in the arena of athletics for decades. This is widely known to entail holding an athlete back a year before giving them play time to give them an extra edge. This method has spilled over into the academic arena. According to McNamara, many parents and teachers support this trend because they think it will enable their children to mature for another year and, like athletes, give them an edge once they enter their formal schooling (2004). Yet, it is still hotly debated whether or not the practice of "redshirting" is an effective tool. "A great deal of debate has ensued as a result of the practice of academic redshirting, and there is widespread

disagreement among policymakers, educators, and parents about whether or not this practice is effective” (McNamara, 2004, p. 129).

Although much research has been done in response to academic “redshirting”, a team of researchers, Noel and Newman, went further seeking to better understand the reason behind it by interviewing mothers who held their children back an extra year (2008). In their data collection they separated the groups into PV, parent variable (in which the parent or mother decided to hold the child back very early in the child’s life) and CV (child variable, which was based upon the child’s experience in pre-school or behavioral problems and the decision was made very close to school entry) (Noel & Newman, 2008). In their study, Noel and Newman found that the PV mothers who held their children back “de-emphasized the importance of formal school experience” (2008, p.296).

In sum, six CV mothers were more focused than most PV mothers on preparing their children for kindergarten. Many more children of CV mothers were enrolled in preschools and the hours/days that these children spent in preschool were substantially longer than the PV children (Noel and Newman, 2008, p. 300).

From this study, Noel and Newman determined that not all pre-k students who are “redshirted” actually prepare for kindergarten in that extra year (2008). However, Zill and West discuss the role of pre-school academics and how it affects students’ readiness for kindergarten (2001). Citing Siegler and Richards, Zill and West contend “students who have mastered these skills [rudimentary] in the preschool years are more likely to read, write, and calculate earlier and more proficiently” (Zill & West, 2001, p. 7).

Benefits of Academic “Redshirting”

Done properly, there seem to be benefits to academic “redshirting”. Looking strictly at test scores, Elder and Lubotsky (2009) did quantitative research on the kindergarten entrance age and children’s academic achievement. They found, consistently that, “Children who are older at the beginning of kindergarten, will tend to be more skilled because they will have had more time to accumulate human capital during their preschool years” (Elder & Lubotsky, 2009, p. 646). Their continued analysis of the quantitative test scores of the kindergartners found that the older kindergarteners who had been held back an extra year, consistently scored higher on their tests (Elder & Lubotsky, 2009). Additionally, they looked at the benefits of being held back a year in terms of behavioral maturity and found that not only did the older students’ maturity spill over to the younger students, but, “an older class may have fewer disruptions or allow a teacher to focus on more advanced material” (Elder & Lubotsky, 2009, p. 667).

A study conducted by Malone, West and Denton further support what Elder and Lubotsky found in their study. According to Malone et al., “children whose kindergarten entry was *delayed* demonstrate slightly higher overall reading knowledge and skills” (2006, p. 6). They further explain that students with delayed entry have certain specific reading skills conducive with first graders and also demonstrate higher math skills (Malone et al., 2006).

Disadvantages of Academic “Redshirting”

Although Elder and Lubotsky found evidence to support the practice of academic “redshirting”, they also found evidence to suggest that entry age did not matter in the

long-run (2008). Some of their quantitative analysis supported the benefits of academic “redshirting” while other data suggested that entrance age only provided a significant advantage for children with wealthy parents (Elder & Lubotsky, 2008). However, Elder and Lubotsky also concluded that, “We find no evidence to support the popular notion that older children learn at a faster rate, which corroborates other recent evidence that there are no long-term beneficial effects or earnings from entering kindergarten at an older age” (2008, p. 674).

According to Elder and Lubotsky, holding a student back a year from kindergarten is only beneficial for a short period of time and provides no benefit for the long-term.

Stipek and Byler came to similar conclusions in their analysis of “redshirted” kindergarteners. Although their test scores in kindergarten were significantly higher than their younger classmates, by the time they reached third grade, there was no significant difference in test scores (2001). According to Stipek and Byler’s study, they were able to conclude that, “Findings of eventual benefits of early entry suggest that a small advantage in biological age and the extra general experience enjoyed by relatively older children is overcome, in time, by the more potent effects of instruction” (2001, p. 186).

Parks’ study on reading readiness and entrance age further supports Stipek and Byler in which Parks found that “the differences between the scores of the youngest children (5 years 5 months and below) and the oldest children (5 years 6 months and above) were present but minimal (1996, p. 9). A study conducted by Lincove and Painter in which they looked at the long-term academic effects of academic redshirting concluded that, “With respect to long-term outcomes, young students have better

outcomes on average than redshirted students” (2006, p. 161). They further found evidence that the red-shirted students in their study had a higher drop-out rate, especially among girls (Lincove & Painter, 2006).

Benefits for Young Kindergarteners

Narahara wrote an extensive report on the academic achievement of younger students versus older kindergarteners and was unable to find a significant difference between the two groups’ academic achievement (1998). Through her analysis of a DeMeis and Stearns study, Narahara revealed that a similar number of younger students qualified for a gifted students program despite the fact that more older or “redshirted” students were referred (1998).

Narahara also discusses the issue of being developmentally ready for kindergarten even if the student is or is not chronologically ready (1998). She cites several methods of determining readiness, specifically the Gessell School Readiness Test and based on the test results, “Children who are deemed developmentally immature are recommended for delayed entry” (Narahara, p. 10). Narahara goes on to discuss the fact that this test deemed 50% of its age-eligible kindergarteners as not ready for school and was later disregarded as an accurate method to test a student’s readiness for kindergarten (1998). After analyzing data from both sides of the coin, Narahara concludes that: “most children should enter kindergarten when they are age eligible whether they will be younger or older than their classmates” (1998, p. 15).

Gullo and Burton found that a student’s chronological age has little or no effect on their academic achievement in kindergarten, but rather their pre-k preparation does (1992). Their study concluded that “prior preschool experience does make a difference”

(Gullo & Burton, 1992, p. 184). Gullo and Burton also found that there was not a significant difference in test scores between the older students and the younger students in kindergarten, thus disproving the popular theory that holding a child back a year is academically beneficial. Their general conclusion was that the difference in age made no real difference by the end of the kindergarten year and younger students who had attended preschool for at least a year before entering kindergarten were at a similar academic level to their older peers by the end of the kindergarten year (Gullo & Burton, 1992). Their study brought attention to the benefit of pre-k education, especially for students who are going to be the “youngest” of their class and are thus already incorrectly dubbed as disadvantaged (Gullo & Burton, 1992).

Drawbacks of Younger Students

Although some studies suggest that there is no real difference academically between the younger students and the “redshirted” students, there is plenty of evidence that points to the fact that the younger students are at a severe disadvantage. Mather reveals in his research concerning kindergarteners in Arizona who had entered school before turning five, 70% of them were held back another year (2008). These early-entry students had, “failed to demonstrate adequate progress within the required academic, behavioral, or social domains and were therefore suggested for retention” (Mather, 2008, p.21). Not only were these students not developing academically, but they were also behaviorally less advanced than their older classmates.

Mather also suggests that the increase in more academically focused kindergarten curriculum has put younger students at a disadvantage (2008). He emphasizes, citing Blair, Isquith and Howse, “Academically oriented activities require a level of self-

monitoring, motivation, and regulation beyond the neurobehavioral capabilities of the young child” (Mather, 2008, p. 42). Not only are these children falling behind their older classmates, but they are also taking the time with the teacher away from these older students, thus creating a cycle of all students, older or not, falling behind (Mather, 2008).

Campbell affirms that age of entry contributes to academic failure in kindergarten (1985). Although he studied students who were in the seventh and eighth grade, the data Campbell uses is taken from cumulative records beginning in kindergarten (1985). “The proportion of younger entrants who earned a low rating on the Metropolitan Readiness Tests (MRT) was significantly greater than the proportion of older entrants who earned a low MRT rating” (Campbell, 1985, p. 2).

Campbell also discovered the rate of retention to be higher for the younger students than for those of the older students (1985). Since Campbell’s study was long-term, he tracked the students from kindergarten through eighth grade and found consistent evidence of the younger students lagging behind the older ones at each grade level (1985). Furthermore, a study conducted by Montz and Richardson which tested “early entry” or young kindergarteners and “late entry” or older kindergarteners found that, “There was a statistically significant difference between the "early entry" students and "late entry" students and their academic achievement, with the "late entry" students scoring significantly higher” (1985, p.23).

Kindergarten entry age continues to be an issue for educators, parents and students alike. Academic “redshirting” has become more and more popular, despite the fact that there is no profound evidence of its merit. Where do we draw the [age] line for kindergarteners? Does there need to be a cut-off date or is their academic success

contingent on pre-k education and not age? It is unclear. Is a kindergarteners' age the only criteria on which to base their readiness and academic achievement?

Research Question

The evidence from my literature review has not answered all of the questions surrounding this topic and leads me instead to more questions. How does a kindergartener's entry age affect their academic achievement during the kindergarten year? Secondly, what difference does it make if a child is held back an extra year and put into kindergarten an entire year older than his/her classmates; how is a child who has just reached the entry age compare to his/her older classmates in terms of academic achievement? Furthermore, how does a student's pre-k background affect the child's academic achievement in kindergarten?

Methodology

Method & Rationale

In this project I focused on the entry age of kindergarteners. I used a mixed methods approach to my research. Part of my study was conducted using the quantitative method. This method is necessary for looking at the age of the kindergarteners, their school records, test scores and grades. A quantitative study, "requires the reduction of phenomena to numerical values in order to carry out statistical analysis" (Gelo, 2008, p. 268). This method is helpful in looking at the age of the kindergarteners, their school records, test scores and grades.

I also used the qualitative method for part of my research. As opposed to quantitative research the researcher is more involved with their participants rather than just removed.

Morse (2003:833) points out that qualitative methodology is used when little is known about a topic, the research context is poorly understood, the boundaries of a domain are ill-defined, the phenomenon under investigation is not quantifiable, the nature of the problem is not clear, or the researcher suspects that the phenomenon needs to be re-examined. (Klopper, 2008, p. 62)

This is essential for my study as the research done on this topic is not well understood or defined. I observed my students, surveyed their parents and was significantly involved in their educational lives as their student teacher.

Sample

The data sample for this project included 20 out of 22 students from a kindergarten class at a local elementary school. I looked at only 20 students in the class. One student is severely autistic and his data would not be an accurate contributor to my study as it has to be looked at based on his disability. Another student's parents did not give permission to use their child's data. I broke the students in the class into two groups by age. The groups are identified by birthdates, younger kindergarteners and older kindergarteners. This sample makes sense for my project because I am looking at kindergarteners' age and how it relates to their success both behaviorally and academically. I also studied their school records, DIBELS (Dynamic Indicators of Basic Early Literacy Skills) literacy test scores, and sight word recognition in relation to their age. It is a perfect sample for my project because it is a diverse group of students in age, pre-school experience, and academic ability.

Instrumentation

As stated in my sample section, I separated the students into two groups by birthdates. The younger birthdates are March through August and the older birthdates are September through February. One student's birthdate fell in the young birthday group, however, he was held back a year, thus started kindergarten at age 6 and qualified to be in the older group. I used artifacts such as their DIBELS test scores which are given at three different times throughout the year and test their initial sound fluency, letter naming fluency, phonemic segmentation fluency, and nonsense word fluency. I also looked at their sight word recognition scores which were also assessed several times throughout the year. Their beginning of year scores helped me to determine their basis of academic knowledge in relation to their age. I also utilized observation, taking field notes of the class interacting with one another, with the teacher, and also noting their behavior with each other and the teacher during lessons.

An important piece to my study is the students' individual pre-k education. I sent home a questionnaire to the students' parents. Parents were asked to indicate what type of pre-school, if any, the student attended and for how long before entering kindergarten. I also observed, interacted with students, reviewed my field notes, distributed and collected questionnaires.

Parent Questionnaire

Please indicate answers by filling the blank or circling appropriate response

1. *What is your child's name?*

2. *Did your child attend pre-school prior to entering kindergarten? (if the answer is “no”, you do not need to fill out the remainder of the questionnaire)*

Yes No

3. *What type of pre-school did your child attend? (if more than one, please indicate)**

a. *Play Based*

i. *Child learns through play based activities, children are able to choose their own activities.*

b. *Montessori Based*

i. *Individual learning, multi-age classrooms, work activities*

c. *Waldorf*

i. *Group-oriented, learning through imitation, repetition, and creative play, focuses on creativity and the arts.*

d. *Co-Op Preschools*

i. *Parent involvement, close-knit with community*

e. *Reggio Emilia Based*

i. *Project-based curriculum guided by the interests of students*

4. *How many years did your child attend pre-school?*

Thank you for filling out this questionnaire. Please keep in mind that your child’s name will not appear in any written materials. Their anonymity will be protected at all times.

**If you’re not exactly sure what category your child’s preschool falls under, just make your best guess.*

Although the questionnaires ask for each individual student to be identified by name, their anonymity is preserved because they are broken into two different groups based on their birthdates. The young birthday group is Group Y and consists of 11

students and the older birthday group is Group O, consisting of 9 students. I did not single out specific students in my study, thus I refer to the students by group name only. The school in which I conducted the study has been given an alternative name, Hillbrand Elementary, to protect anonymity of my study participants.

Analysis/Validity

For the quantitative portion of my study, I focused on the students' literacy skills as this was a main focus for students in kindergarten. At Hillbrand, they have a rigorous literacy program once students reach first grade, thus literacy is greatly emphasized in kindergarten. I analyzed students' DIBELS scores which included four different subtests and sight word recognition scores from the beginning of the year through the end of the year. These test scores are important for my research because they give my study a starting off point, and allow me to track students' progress throughout the year. The DIBELS tests have a clear baseline according to the time of year which allows me to track their progress. The sight word recognition also has a baseline and increases throughout the year, however, testing for sight word recognition did not begin until January, which was considered beginning of year scores. I analyzed students' scores in relation to their birthday group. In addition, I compared test scores with students' pre-k educators' curriculum. Based on common knowledge, the play, co-op and Reggio Emilia-based curriculums are less academically based, while the Waldorf and Montessori-based pre-k curriculums are more academically based. Thus I analyzed literacy skills in relation to their pre-k education as well.

In the qualitative portion of the project, I sent home a questionnaire to the parents about which pre-school their student went to and how long they attended said school. As

stated above, I also looked at the general background of academia for these schools and compared them to each other. In addition, I simply observed the students in the classroom, taking field notes of their interactions among the students from the two different groups. Further, I observed how much the older and younger children interacted between groups, if it made a difference, behaviorally and/or developmentally, which students gravitated toward one another. I listened to how they interacted, what words they used, observed games they played and how they behaved with one another. I looked for patterns and differences in their behavior toward one another.

I also observed the students as they partook in lessons from me and their regular teacher; I kept an eye out for body language, facial expressions, and participation as they absorbed the information. I took note of the students who required more attention from the teacher, and noted which group they were in. Observing the students at their tables as they worked on lessons together was also part of my data analysis. I watched if students from one group were more able to help the students from another.

I know that the data I collected is valid because the DIBELS scores are district mandated tests, however, they are conducted in a way that students are unaware they are being tested, at least for the assessments from the beginning of the year. They are measurements of their basic literacy knowledge. The observations are valid as well, as I took copious and careful notes and my cooperating teacher reviewed the notes to ensure they were accurate. I did my best to ask her to review notes promptly after the observation was finished.

I did have some biases toward one student as he is related to me. I know that he is an outlier for my study. I am also swayed toward the view that age does not have much

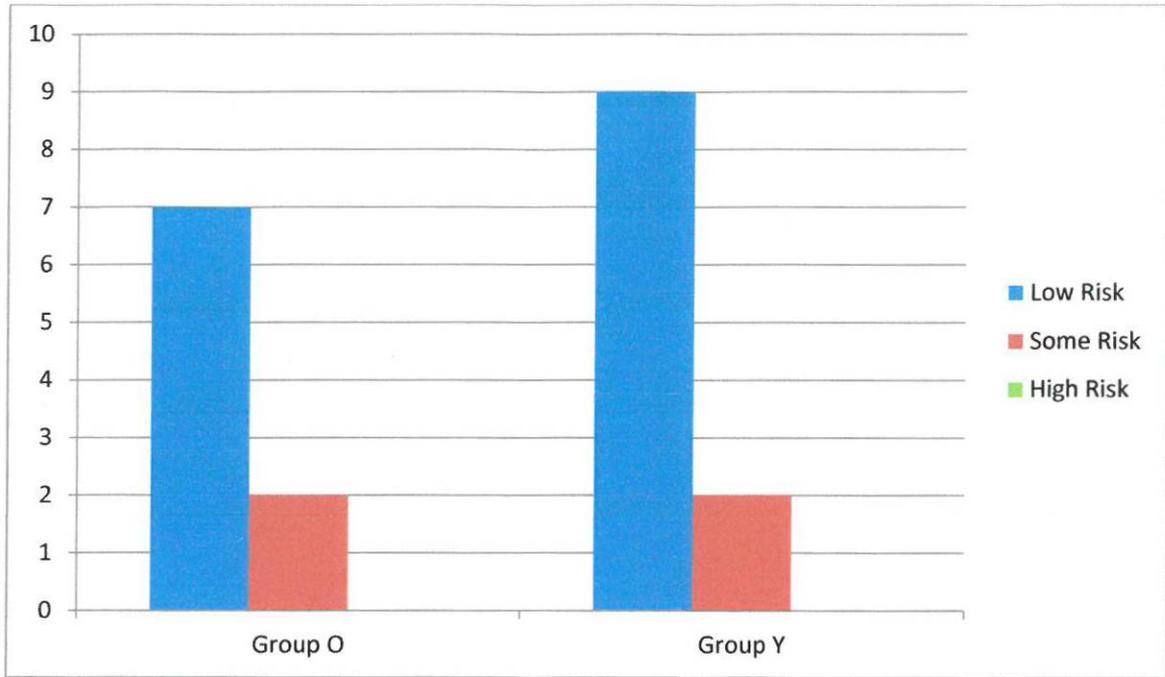
to do with a child's academic success. I think that a student's pre-k background, parent involvement and genetics play a bigger role in their academic readiness and achievement. However, there is evidence to suggest otherwise, and I am curious enough to conduct my own study. I am also biased against academic "redshirting". I am skeptical that it has any merit. It seems to me that it is just a trend, another way for parents to try to give their child an edge, but does nothing for their benefit. I did as much as I could to put these biases aside when analyzing my data.

Data

Beginning with DIBELS scores the data shows that at the beginning of the year Group O had 7 students in the benchmark category which means they are at or above the goal score and considered low risk for one or more of the subtests. However, there were 2 students from Group O in the strategic support category which meant they were slightly below the goal score and considered at some risk in one or more subtests. The percentage of students in Group O at low risk was 78%. Group Y had 9 out of 11 who were in the benchmark category and 2 in the strategic support category. The percentage of students in Group Y at or above the benchmark was 81%. Strategic support means they are at some risk in one or more subtests, but not significant risk for not reaching the goal for the next round of scoring. As shown in Table 1, both Groups O and Y had the same number of students in the "some risk" category.

Table 1

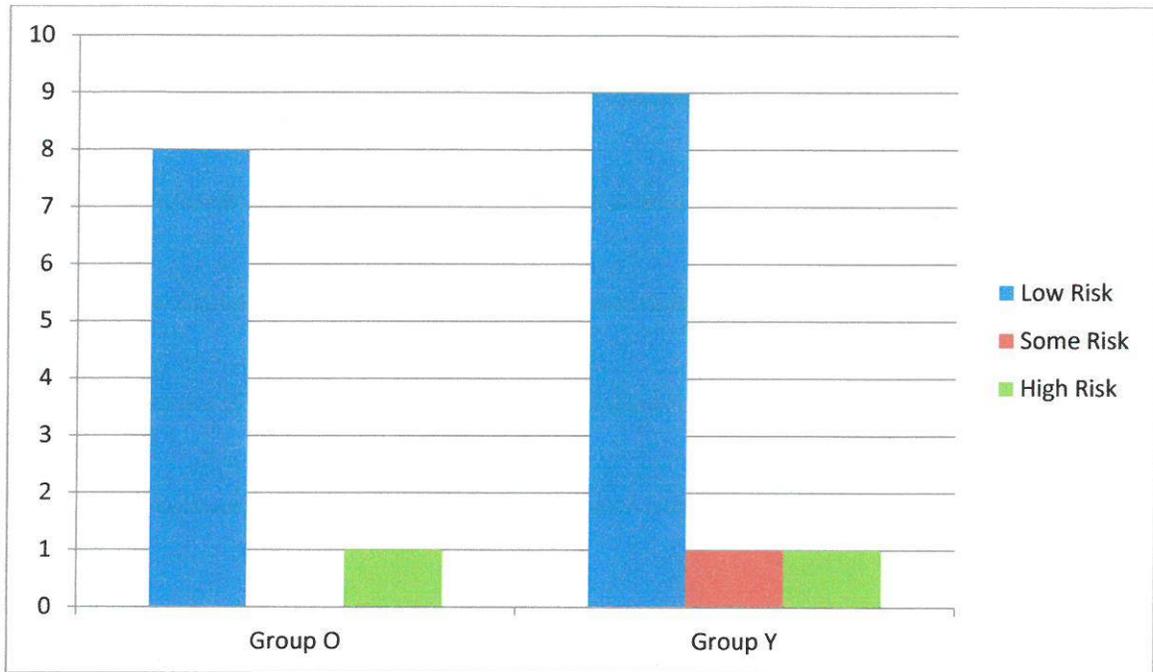
DIBELS Scores Beginning of Year



At mid-year, Group O had 8 out of 9 students at or above the benchmark, zero students in the strategic support category and one student in the intensive support category, which means they are at high risk or significantly below the goal score in one or more subtests. At mid-year 88% of Group O were at or above the goal. For Group Y, 9 out of 11 students were at or above the benchmark, one student was in the strategic support category and one student was in the intensive support category. At mid-year, 81% of Group Y was at or above the benchmark. However, as seen in Table 2, one student for Group Y went from “some risk” at the beginning of the year to “high risk” by mid-year. On the other hand, Table 2 shows that one student from Group O went from “some risk” at the beginning of the year to “low risk” at mid-year.

Table 2

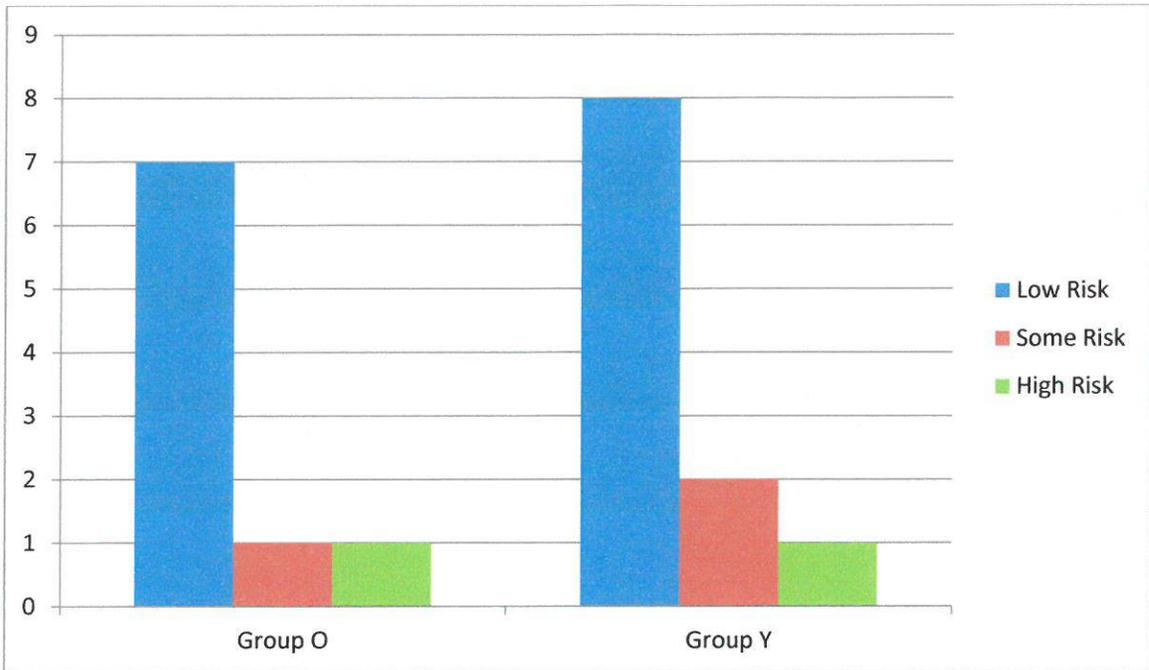
DIBELS Scores Mid-Year



At the end of the year, Group O had 7 students out of 9 at or above the benchmark, one student in the strategic support category, and one student in the intensive support category. At the end of the year, 78% of Group O was at low risk and 11% at high risk. For Group Y the end of year test scores showed 8 students out of 11 at or above the benchmark, two students in the strategic support category and one student in the intensive support category. At the end of the year 72% of Group Y was low risk, 18% were at some risk and 9% at high risk. As shown by Table 3, the number of “low risk” students has decreased throughout the year for Group Y, while Group O shows the same results of “low risk” students as they did at the beginning of the year.

Table 3

DIBELS Scores End of Year



Following along with the literacy criteria, the data in Table 4 is from the sight word recognition assessment beginning in January. The categories for tables 4 – 7 are “recognize all” which means a student recognizes every sight word learned thus far. The second category “recognizes most” means they recognize all but 3 words learned so far. The category “recognizes some” means that they recognize at least half and “recognizes few” means they recognize less than 5 words.

In January, the students should have been able to recognize 18 sight words. In Group O, 66% or 6 out of 9 students knew all 18 words, 2 students knew 10 or more words, and one student knew less than 5. For initial assessment for Group Y, 55% of students or 6 out of 11 knew all 18 words, 2 knew 15 or more, one knew 10 or more and 2 knew less than 5 words. In March, students were expected to recognize 21 sight words. Group O had 7 out of 9 students or 78% recognize all 21, one student recognize 13 and

one student recognize less than 5. Table 4 shows that the same number of students in each group recognize all of the sight words, while significantly more students in Group Y recognize only a few sight words.

In March students were expected to know 22 words. Table 5 includes data from March. Group Y had 8 out of 11 students or 72% recognize all 21, 1 student more than 10, one student recognized 9 and yet one student still only recognizing less than 5. As Table 5 shows, fewer students in Group O recognize all of the sight words as compared to Group Y, however, Group Y has more students who only recognize some of the sight words.

Table 4

Sight Word Recognition January

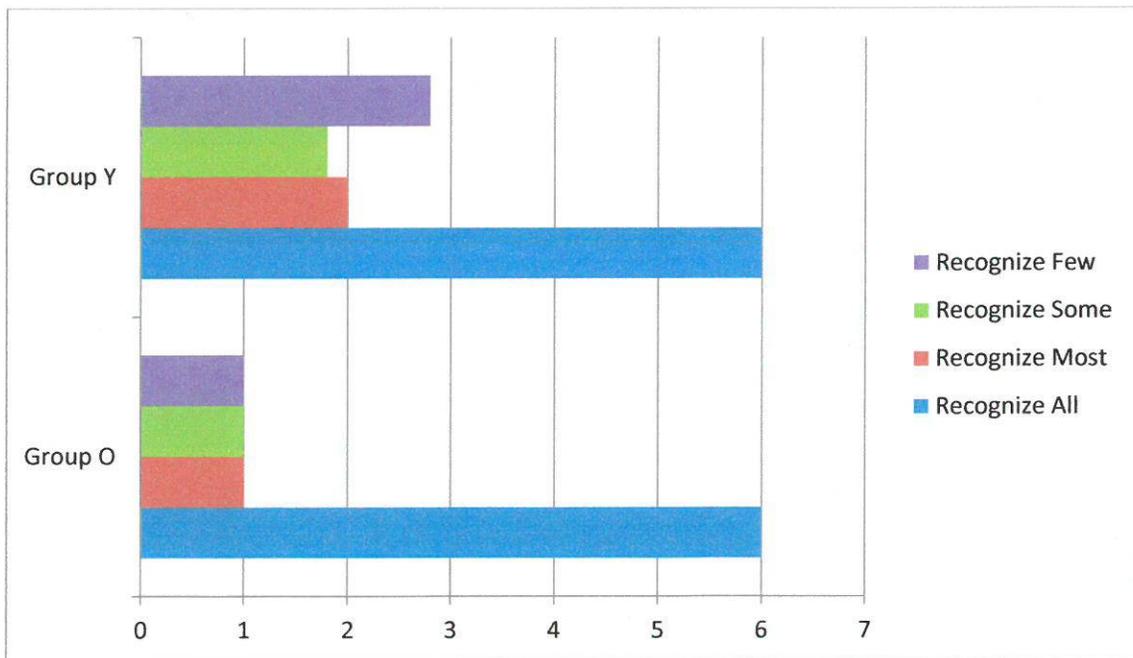
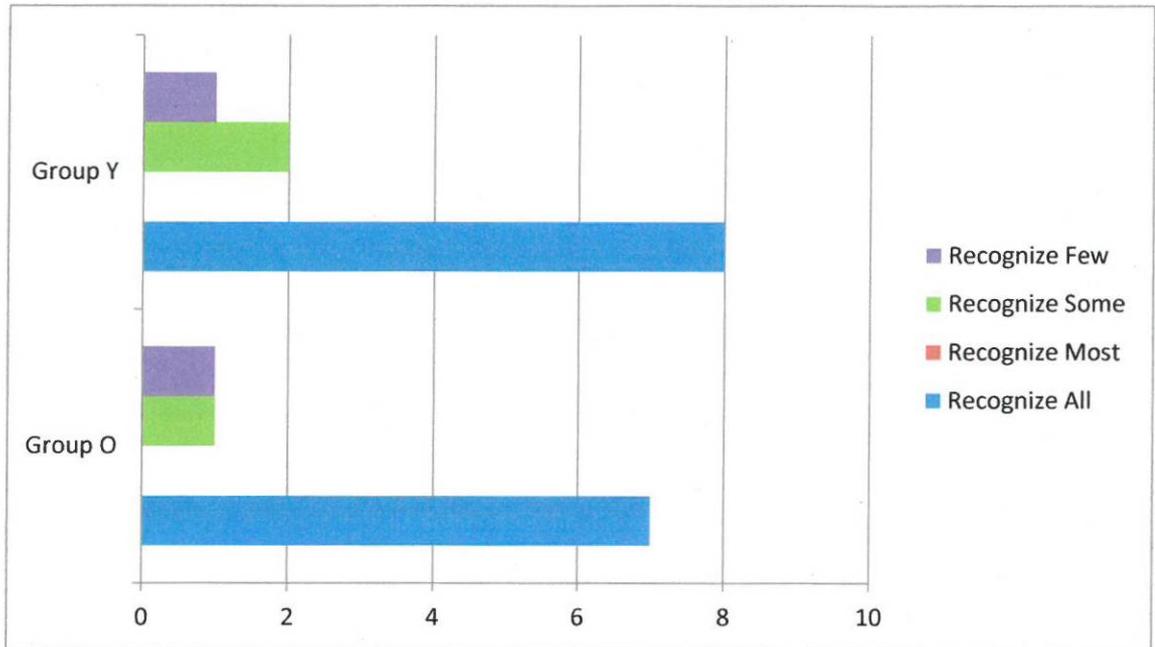


Table 5

Sight Word Recognition March



In April, students were expected to recognize 27 sight words. Group O had 6 out of 9 or 66% recognize all 27, one student at 25, one at 18 and one still recognized less than 5 words. For Group Y, 8 out of 11 or 72% recognized all 27 words, two students recognized 13 and 16, while one student remained less than 5. According to Table 6, Group Y still reveals more students recognizing all of the words, however, it still has a higher number in the two lower categories. Group O maintains more students in the two highest categories.

During the end of year assessment in May, students should have recognized all 36 sight words. Group O showed 5 out of 9 students recognizing all 36, two students recognizing above 30 words, one student above 20, and one student at 7 words recognized. Group Y revealed 7 out of 11 students recognized all 36 words, one above 30 recognized, one at 20, one between 10 and 20 and still one at 5 words recognized.

Looking at table 7, the same pattern is revealed. More students in the “recognizes all” category for Group Y, and yet they also have the most in “recognize some” category.

Table 6

Sight Word Recognition April

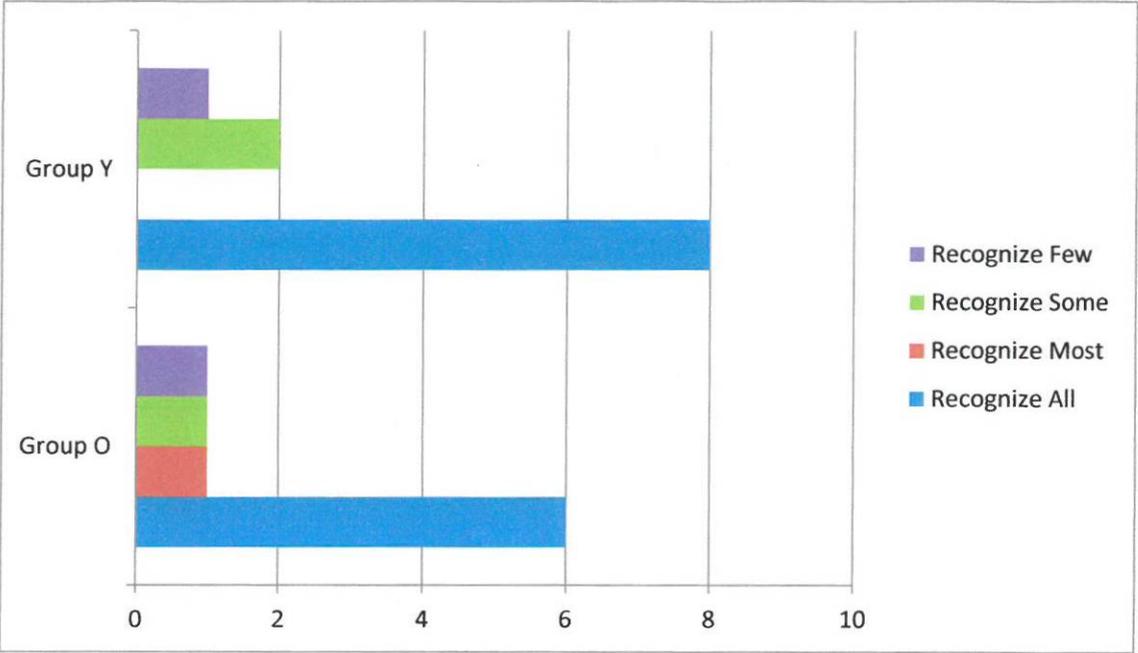
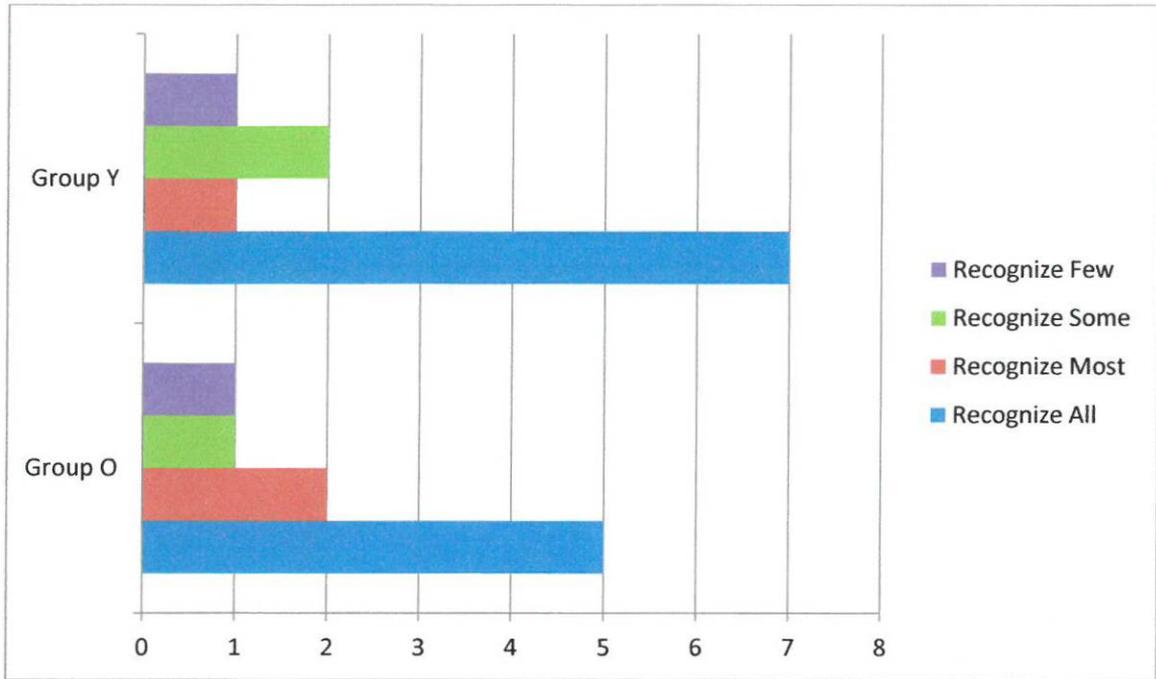


Table 7

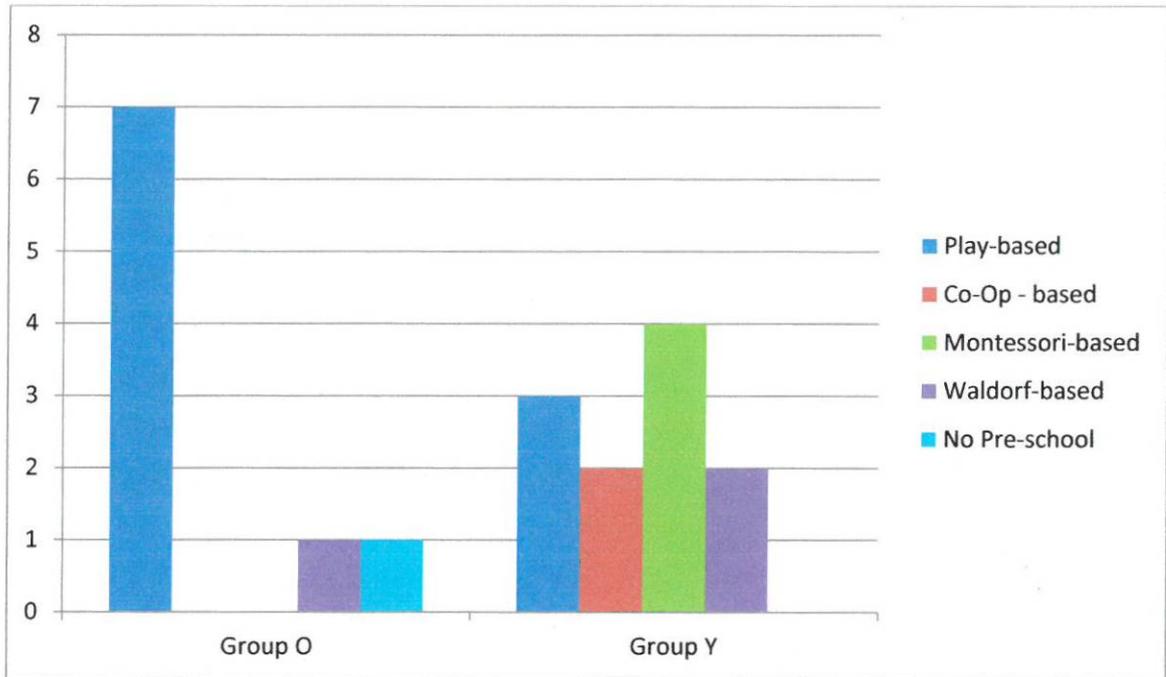
Sight Word Recognition End of Year



The parent questionnaire showed that the majority of students in Group O went to less-academically focused pre-schools. The majority of Group O went to play-based pre-schools for 2 years or more. The only student in Group O that went to a more academically focused pre-school only attended for one year. In Group Y, more than half of the students went to a more academically focused pre-school for 1 ½ to 2 years. These students went to either Montessori or Waldorf-based pre-schools versus the play or co-op-based pre-schools. As seen in Table 8, more students in Group Y went to academically-based pre-school and their literacy scores continually reflected higher scores. There is a direct correlation between Group Y's pre-school experience and their literacy scores.

Table 8

Pre-school History



Socially and behaviorally, I observed that developmental age seemed to affect play between boys more than girls. I noticed that the younger boys tended to play together and the older boys tended to play together. The play tended to be more juvenile for the younger boys, but there was no consistent pattern that supported this observation. Younger students tended to be more tentative around the teacher in one-on-one situations regardless of gender while older students were more likely to approach/speak to the teacher without hesitation. However, age did not play a factor in lesson cognition or focus, this tended to be random. Some lower-achieving students tended to have less focus during lessons at times and the lowest achieving students needed consistent teacher involvement and would become noticeably frustrated when they were not performing at the level of their peers. Age also did not factor in when students required help. The higher-achieving students helped regardless of their age group.

Analysis

Looking at the DIBELS scores for Group O, throughout the year, they tended to have fewer students at or above the benchmark, however, they also tended to have fewer students in strategic or intensive support categories. Although it appears that their level of success was slightly less than that of Group Y, there were fewer students in the below standard categories, which leads me to believe that their age could have been a factor in this. This also seems to reflect that they were more successful because they were improving, not just maintaining a basis of achievement. While Group Y's DIBELS scores show a higher percentage of students at or above the benchmark, they also tend to have a higher percentage of students in the strategic and intensive support areas. In fact, one student in Group Y moves from strategic support, signifying they are at some risk of falling behind at the beginning of the year, to intensive support, they are at high risk of falling behind, at mid and end of year assessment. This can only lead me to believe that age is a definite contributing factor in Group Y's data.

Group O remains consistent, with high scoring children remain high scoring and in fact one student from Group O moved from strategic support at the beginning of the year to the benchmark by mid-year and remained there at the end of the year. Group Y tends to have little fluctuation among the high-scoring students and yet there is more movement for their low scoring kids and the trend tends to be going from a higher level to a lower level. For Group Y, as the year goes on and the achievement goal is raised, more students fall behind than in Group O. For Group O as the achievement goal rises, one student improves scores, while only two fall lower. From this analysis it only seems

viable that their age level helps them to either stay at a high-achieving level throughout the year, or to improve their skills as the year goes on.

For Group Y, it seems that although they have a higher-percentage of high-achieving students, they have zero students who improved from mid- or low-level and several students deteriorate to even lower levels as the expectations are raised. This leads me to believe that age is a contributing factor because they are unable to recognize and/or help themselves to improve. They are not properly prepared, mentally or academically, to rise to the challenge.

A similar pattern seems to be present in the data collected on sight word recognition. For Group O, there tended to be fewer students who knew all or most of the sight words at the 4 intervals of assessment. However, as shown in the DIBELS analysis, Group O also tended to have far fewer students in the “recognize some” and “recognize few”, especially at the end of year assessment. There were only 2 students who knew less than 30 words whereas Group Y had three. Again, it seems that the core group of high-achieving students in Group Y maintained their high-achievement throughout the year, but there was a greater margin of fluctuation for the lower-achieving students. Their improvement was minimal and their final scores were far below standard.

Looking at this data in relation to each group’s pre-school background is quite revealing. It seems that the core group of high-achieving students in Group Y came in with a stronger background; their pre-school experience was a more academic-based pre-school and this contributes to their high-achievement. However, the low- and mid-achieving students in Group Y did not have a strong pre-school background and they are younger, therefore they are not achieving near or above standard on their literacy skills

during the year. Because of their age and lack of preparedness, they are beginning at a disadvantage and their improvement is slow because they are younger.

The majority of students in Group O came to kindergarten with a less academically-based pre-school background. In contrast to Group Y, however, Group O who were low- and mid-achieving have more of an advantage to improve because they are older and are more developmentally ready to take on bigger challenges. The low-achieving students in Group Y also showed their lack of confidence and self-motivation in that they became increasingly frustrated if they did not know something that their peers did. Furthermore, they were less inclined to ask for the teacher's help and remain in a frustrated state versus the low-achieving students in Group O. These students in Group O, consistently sought the teacher's help if they were struggling or tried to work out their problems on their own. Very rarely did the low-achieving students in Group O sit and do nothing like several of the low-achieving students in Group Y. This directly correlates to lack of maturity and confidence as would be major characteristics of their age.

Interestingly, age tended to remain a factor when it came to socializing between the groups, especially among the boys. The boys in Group Y tended to socialize with one another as did the boys in Group O tend to socialize with one another. This showed that although some boys in a play group were academically superior, they preferred to play with someone at their similar age level. This pattern was not prevalent among the girls in the class. Although, two of the highest-achieving girls in Group O tended to have some difficulty socializing with other girls in Group O and the girls in Group Y.

Implications/Recommendations

The implications of my study are complex. Does the entry age of a kindergartener affect his/her academic achievement within their kindergarten year? The answer is certainly. However, it affects students differently. From my study, I found that the younger students tended to out-perform the older students based purely on percentages, but that the older students were more inclined to rise to the challenges put before them instead of shying away. Older students tend to have more confidence and/or are more developmentally mature to face the rigors of a current kindergarten curriculum. They tend to be more consistent, focused, and improve at a greater rate than younger students. For older students, pre-school background does not seem to be a factor. Their age helps them develop the skills they need for kindergarten and their age also helps them to focus and work out problems easier. With that in mind, however, younger students are still capable of achieving at a high level in kindergarten, especially if they have had a strong pre-school background that is more academically-focused. The younger students who struggle are those that don't have the strong pre-school background. Without this background, they lack the confidence to seek help, develop at a slower rate, and tend to get frustrated by this lack of development.

Based on this study, I would tend to agree that kindergarten entry age does affect a student's academic achievement in kindergarten. Although it does not dictate if a student is a high-achiever or not, it does dictate what type of student they are and their propensity for improvement. With that in mind, I think that holding children back a year can be both beneficial and detrimental. I do not think that it can be a blanket "good" or "bad" practice. It must be an individualized assessment by parents. For some students

whose birthdays are late in the summer, waiting another year would be highly beneficial, for others, it might hold them back or at least keep them from reaching their potential.

My study leaves me with several questions still; are parents able to accurately assess whether or not their child is ready for kindergarten? Is it more important to have a strong pre-school background before entering kindergarten regardless of age? Should younger students not performing at grade level standard repeat kindergarten? Is it more important for students to perform academically in kindergarten or to become more socially confident? How do you accurately assess a student's academic success?

Conclusion

Kindergarten entry age is not a black and white issue. There are many gray areas when it comes to assessing a kindergartener's academic success. Although studies have shown that young students are at a severe disadvantage and others have shown that they are not, it is difficult to give a blanket answer to the question. From my study it seems that the major contributing factor to young students in kindergarten is their pre-school experience. With a strong pre-school background, young students can be more successful. However, it remains a common trend to simply hold a student back another year to give them an "advantage". This too, can deter from a student's academic success, believe it or not. The answer to kindergarten entry age question is clear, parents with children on the cusp of possibly being too young for kindergarten must determine if their child is ready. Only they know if their child is developmentally, academically, socially and cognitively ready for kindergarten, or if they need another year. Although many would like to put the burden of ensuring academic success on the teacher, the parents must also play this vital albeit less recognized role.

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