



University of North Dakota
UND Scholarly Commons

Theses and Dissertations

Theses, Dissertations, and Senior Projects

January 2014

A Study Of Parents' Retrospective Opinions On Kindergarten Enrollment

Christopher D. Swenson

Follow this and additional works at: <https://commons.und.edu/theses>

Recommended Citation

Swenson, Christopher D., "A Study Of Parents' Retrospective Opinions On Kindergarten Enrollment" (2014). *Theses and Dissertations*. 1717.

<https://commons.und.edu/theses/1717>

This Dissertation is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact zeinebyousif@library.und.edu.

A STUDY OF PARENTS' RETROSPECTIVE OPINIONS ON KINDERGARTEN
ENROLLMENT

by

Christopher David Swenson
Bachelor of Science, Concordia College, 2000
Master of Education, University of North Dakota, 2005

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Education

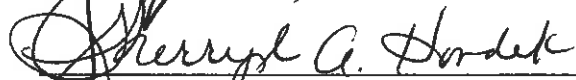
Grand Forks, North Dakota
December
2014

Copyright 2014 Christopher David Swenson

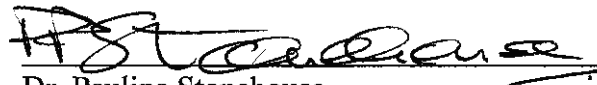
This dissertation, submitted by Christopher David Swenson in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.



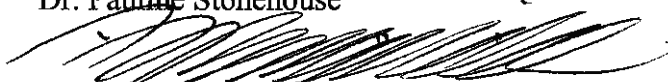
Dr. Gary Schnellert, Chair



Dr. Sherryl Houdek



Dr. Pauline Stonehouse




Dr. William Siders



Dr. Pamela Beck

This dissertation is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.



Wayne Swisher

Dean of the School of Graduate Studies



Date

PERMISSION

Title A Study of Parents' Retrospective Opinions on Kindergarten Enrollment

Department Educational Leadership

Degree Doctor of Education

In presenting this dissertation in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my dissertation work or, in his absence, by the chairperson of the department or the dean of the Graduate School. It is understood that any copying or publication or other use of this dissertation or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and the University of North Dakota in any scholarly use which may be made of any material in my Dissertation.

Signature __Chris Swenson_____

Date __12/3/2014_____

TABLE OF CONTENTS

LIST OF TABLES	viii
ACKNOWLEDGEMENTS	ix
ABSTRACT	xii
CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	2
Purpose of the Study	3
Research Questions	4
Importance of the Study	4
Scope of the Study	4
Definition of Terms	5
Delimitations	5
Assumptions	6
Researcher's Background	6
Organization of the Study	7
II. LITERATURE REVIEW	
Introduction	9
Historical Review of Kindergarten Programs	9
Relative Age Research	12
Enrollment Trends	13

	Enrollment Effect Research.....	15
	On-Time Kindergarten Enrollment Research	16
	Delayed Kindergarten Enrollment Research	19
	Stakeholder Beliefs.....	22
	Teachers’ Beliefs	22
	Parents’ Beliefs	23
	Summary	23
III.	RESEARCH METHODS	
	Introduction	25
	Researcher’s Role.....	26
	Population.....	26
	Data Collection.....	27
	Parent Surveys	29
	Data Analysis	30
	Summary	31
IV.	RESULTS	
	Review of Research Questions.....	32
	Demographics.....	33
	Parent Surveys.....	34
	Research Question 1	37
	Research Question 2.....	42
V.	SUMMARY AND DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	
	Findings and Discussion.....	45

<i>Research Question 1(a): Was There a Difference Between the Perceptions of Parents Who Enrolled Their Child on-time Compared to Those Who Waited a Year to Enroll Their Child?</i>	46
<i>Research Question 1(b): Was There a Difference in the Perceptions of Parents When Gender Differences Were Considered?</i>	48
<i>Research Question 2: What Reflections Do Parents Have on Their Kindergarten Enrollment Choice For Their Child?</i>	49
Limitations.....	52
Recommendations	53
For Researchers.....	53
Survey Distribution	53
Importance of Adequate Sample Size	54
Research Design.....	54
For School Districts	55
For Parents	57
 APPENDICES	
A: Letter To School Superintendents	60
B: Letter To Parents	61
C: Follow Up Letter To Parents	62
D: IRB Approval Letter.....	63
E: Survey	64
REFERENCES	67

LIST OF TABLES

Table	Page
1. Number of Parent Participants ($N = 37$) by Gender of Child and Enrollment Choice	33
2. Enrollment Choice Percentages by Gender of Child ($N = 37$)	34
3. Parent Responses to Questions Concerning Social and Emotional Development	35
4. Parent Responses to Questions Concerning Academic Development and Reflection of Enrollment Decision.....	36
5. Correlation of Constructs and Measures of Internal Consistency	37
6. Comparison between parent evaluations	39
7. Comparison between parent evaluations and gender of the child.....	41
8. Comparison between parent evaluations for males using enrollment age.....	42

ACKNOWLEDGEMENTS

The trip through the process of receiving a doctoral degree is a venture not possible without the support of many people. This will be my attempt to somehow put my gratitude into words.

Over four years ago, I walked into my first class with my cohort. On that day I was told the people in the room with me would become some of my very best friends. At the time, I really did feel it was an exaggeration. I couldn't have been more wrong. While there were fewer people in the cohort in the end, those that remained have become a very big part of my life. These people became mentors, mentees, colleagues, and most importantly friends. I would not have completed this journey without their guidance and support. It is my hope that I was able to give the same support in return.

The administrators who became my contacts for my research were extremely helpful and cooperative. Their willingness to assist with my study was pivotal and I will be forever grateful. I would like to thank the following for their assistance: Mr. Rob Lech, Superintendent of Jamestown Public School District; Dr. Mark Vollmer, Superintendent of Minot Public School District; Jeff Lind, Assistant Superintendent of Mandan Public School District; Mrs. Beth Slette; Assistant Superintendent of Elementary Education of West Fargo Public School District; and Mr. Jody Thompson, Assistant Superintendent of Teaching and Learning of Grand Forks Public School District.

The dedicated members of the University of North Dakota instructional staff have provided great professional expertise throughout my courses and dissertation writing. While the committee makeup may have changed a time or two, the support was always

there. Dr. Sherryl Houdek has been a mainstay in my graduate journey. From the beginning of my master's coursework to the completion of my doctoral work, Dr. Houdek has selflessly given her time and guidance to me and it is something I will always be indebted to her. It is my hope her faith in me has been validated by completing this trip. Dr. Gary Schnellert and Dr. Pauline Stonehouse were instructors and members of my committee. I, just like many of my cohort members owe you a thank you for the countless hours you have dedicated to all of us. I would especially like to thank Dr. Schnellert for his willingness to take me on as an advisee so late in the process. Dr. William Siders provided me a tremendous amount of expertise in regards to the statistical analysis. Statistical analysis is not something I would prefer to do in my free time, but you did help make it a very smooth route. Dr. Pamela Beck was a late addition to my journey, but I am glad you were willing to jump on board. To all of you, I know it seems like I have said it a lot already, but I really do mean it...thank you.

A special thank you is extended to Sharon Fields. Sharon is the rock that is the Educational Leadership department at the University of North Dakota. I have known her for over 10 years and hold her in the highest regard. Her years of dedication to my education as well as the hundreds of other students who have been part of this department will not be forgotten.

Finally, I would not have arrived at this point without my entire family. This degree has come at a cost of missed birthdays, family gatherings, and other events. I didn't realize at the start how much I would have to give up. Those missed opportunities will make me relish all of the future events. When I began the doctoral program, I had just married my wife Aileen. Now four years later, we have added our three sons. In the beginning, it was my intent to finish this program before they really were aware I was not

around every other weekend. I look forward to weekends with my wife, Aileen and our boys. Aileen, you have been incredibly understanding throughout this all and I will hopefully provide you the same support as you complete your graduate work as well. You have sacrificed so much and now I will be here to do the same for you.

ABSTRACT

Should children born during the summer months be enrolled in kindergarten on-time or should they be delayed a year? The purpose of this comparative case study was to formulate recommendations for parents and schools based on parent perspectives who made the enrollment choice, but also have had four to five years to evaluate their decision. The research identifies points of consideration for parents and schools regarding kindergarten enrollment decisions for children born shortly before the enrollment cutoff date.

The researcher gathered data from parents who previously made this decision and had the option to enroll their child on-time or delay kindergarten enrollment for a year, creating two subgroups: 4th and 5th graders during the 2013-14 school year. The parents were asked to complete a survey concerning their child's academic, social, and emotional development.

The first research question focused on parents' perceptions of their own children's academic, social, and emotional development. The responses indicated little difference in how parents perceived their children's academic, social, and/or emotional development, regardless of enrollment choice.

The second research question focused on parents' reflection of their original enrollment decision. Parents of female students remained comfortable with their choices and did not desire to change their initial decision. However, 50% of the parents of males enrolled on-time expressed an interest in changing their decision. In other words, if they

could do it over, they would choose to delay the entry of their son into kindergarten by a year. The findings encourage the need for further qualitative research.

Keywords: Kindergarten, Delaying, Enrollment, Redshirting

CHAPTER I

INTRODUCTION

Every year, parents of preschool-aged children born close to kindergarten enrollment cutoff dates are required to make a decision. The decision centers on when to enroll their child in kindergarten. While the option to enroll or delay entry into kindergarten is approached differently for parents, it appears to be important to make an educated choice.

The term “readiness” has been debated by those with contradicting philosophical beliefs. Maturationists believe time creates a readiness in students, while interactionists such as Piaget and Vygotsky believe that experiences hold the key to development (Marshall, 2003). The debate around school readiness has created a clouded definition, and readiness now encompasses more than merely the child’s capabilities. Readiness means different things to different parents. High-standards parents place great value on social and academic identifiers while another group of parents places less emphasis on academics and more focus on social skills (Kim and Murdock, 2005).

The modern definition of readiness now includes much more than a student’s abilities. They are now examined alongside the readiness of the school and the community (Montes, Lotyczewski, Halterman, and Hightower, 2011).

Another aspect of this dilemma is the academic effect of enrolling on-time or delaying entry. Many studies (March, 2005; Narahara, 1998; West, Meek, and Hurst, 2000) have been conducted over the years resulting in conflicting findings. Certain

studies have found, statistically there is little to no academic advantage for delaying enrollment of students. Various studies have determined that, while there is an initial academic advantage for those children who are delayed, the advantage diminishes after just a couple years and is non-existent later in a child's educational path (Barnard-Brak, 2008; Black, Devereux, and Salvanes, 2011; Elder and Lubotsky, 2009; Oshima and Domaleski, 2006; Stipek and Byler, 2001; Verachtert, Fraine, Onghena, and Ghesquière, 2010). Still other studies have concluded there are resulting academic benefits for students who are delayed (Bedard and Dhuey, 2006; Crosser, 1991; Datar, 2006; McEwan and Shapiro, 2008; Puhani and Weber, 2007). Finally, studies have even shown a negative effect of delaying enrollment on academic outcomes (Deming and Dynarski, 2008; Grissom, 2004; Malone, West, Flanagan, and Park, 2006). With a wealth of conflicting data, it is clear that more research is required in order to provide parents with more information.

The previously mentioned research has considered numerous variables such as age, gender, parents' background, family financial situation, pre-kindergarten programs, and other demographic information. Many roots for academic achievement exist; thus, it is appropriate that research must continue to contribute to the knowledge base laying the foundation for kindergarten readiness.

Statement of the Problem

There are conflicting findings on studies of the academic effects of delaying enrollment of kindergarteners. A majority of the research conducted has been more than five years ago, and the landscape of kindergarten instruction has changed. Kindergarten is no longer viewed as preparation for schooling. Teacher-directed activities, especially in literacy and math skills, and standardized testing are now becoming very common (Miller

and Almon, 2009). With this increased emphasis on academic skills, new research must continue to monitor the academic progress of the delayed enrollment and on-time students.

While continued research is needed on the academic effects of delaying enrollment of kindergarteners, there is limited research devoted to the parent perspective. The academic results are just part of the story in determining the effectiveness of delayed enrollment. The parent perspective and reflection on the enrollment decision could be very useful feedback for parents making the same decision in the future.

Since the current North Dakota Century Code establishes August 1st as the cut-off date for prospective kindergarten students (they must be five by August 1st to enroll in kindergarten), The research focused on parents of students born in the month of July (Sanstead, 2011). The students born in July of 2002 would either be in fifth grade (on-time enrollment) or fourth grade (delayed enrollment) during the 2013-14 school year. It is acknowledged that some students born in July of 2003 may no longer be in the grouping due to promotion or retention. In addition, continuous enrollment in the student's respective school is required in order to gather consistent information.

Purpose of the Study

This study provides a resource based on the perspectives of parents who have not only had to make the same enrollment choice, but also have had four to five years to evaluate their decision. The purpose of this comparative case study was to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students "on-time".

This study utilized quantitative case study methods to identify parent perceptions of the results of their choices to enroll or delay enrollment of their child.

Research Questions

The research questions that will guide this study include:

1. How do parents' perceived differences in children's academic, emotional, and social development differ between those who enrolled their child on-time and those who delayed their child's entry?
2. What reflections do parents have on their kindergarten enrollment decision for their child?

Importance of the Study

The frequency of parents choosing to delay the kindergarten enrollment for their young child has grown from around four percent in 1968 to 16 percent in 2005 (Deming and Dynarski, 2008). It is safe to assume that the parents had reasons for that decision to delay, and the school may have provided some input. However, studies have not conclusively proven if the practice of delaying kindergarten enrollment is in the best interests of the child. It is because of this ambiguity that research must continue.

Parents of the students were surveyed in order to gauge their opinions on the effectiveness of their choices. Testing scores are simply one piece of the puzzle, and the experiences and opinions of the parents would be useful information to any parent faced with the same situation.

Scope of the Study

This comparative study focused on the surveys from parents of students born in July of 2003 who are now enrolled at five of the largest North Dakota school districts. This study surveyed parents using questions to gather information concerning their reasoning in the initial decision and any resulting changes to their viewpoints as well as their evaluation of their child's academic, social, and emotional development.

Definitions and Terms

Many terms have been used to describe the practice of delaying entry into kindergarten including redshirting, delaying entry, developmental retention, and parent retention. The following terms are integral to this study, and these definitions clarify their meanings within the context of this study:

Preschool Program—Organized educational setting for children too young for elementary school.

Kindergarten Readiness—The child’s level of development across multiple domains needed for optimal performance in school (Montes, Lotyczewski, Halterman, and Hightower, 2012)

Delaying Entry or Redshirting—The individual decision of parents and teachers who choose to keep children out of kindergarten even when they are legally eligible to attend (Deming and Dynarski, 2008). Developmental retention and parent retention are also used to describe this practice. This study used the terms delaying entry or delayed enrollment throughout this study.

On-time Enrollment—Enrollment in kindergarten or first grade in accordance with school district and/or state entrance dates.

Cutoff Date—Deadline date that requires students to meet the age requirement set forth by the school district and/or state (Narahara, 1998)

Delimitations

This study gathered data using an online survey compilation system. The survey was created using questions from the Social Competence Scale-Parent Version instrument from the Conduct Problems Prevention Research Group (CPPRG). Academic questions were added to the survey with the permission of the CPPRG.

The five North Dakota school districts were identified due to their large enrollments (Fall Enrollment, Teachers, and Average Teacher Salaries for 2011-12). The top five schools in kindergarten enrollment were asked to participate in the study. Three of the five largest districts agreed while two chose not to participate. Two schools were then chosen from the next largest schools to keep the total school districts participating at five. The Fargo, Jamestown, Mandan, Minot, and West Fargo public school districts agreed to be the participating school districts.

Finally, the previous research listed in the introduction has incorporated the variables of gender, race, family economics, level of parent education, family make-up, amount of books in the home, and pre-enrollment history to study the academic impact of age of school entry. This study used only the variables of gender and kindergarten enrollment choice.

Assumptions

The basic assumptions for the study are focusing on two areas. First, it was assumed the schools chosen followed through on the identification of all eligible study participants and distribution of the survey. Second, it was assumed that parents answered the parent survey honestly.

Researcher's Background

The researcher is the superintendent of the Wyndmere (N.D.) Public School district. His professional career in education has spanned three years as a high school business education teacher, five years as a high school principal, and four years as a superintendent. Having worked as an administrator in a small school district, the researcher has not only developed an understanding of kindergarten enrollment policies and procedures, but also have worked with kindergarten students in substitute teaching

and other day to day interactions. Through this experience, the researcher has developed a personal and professional opinion supporting the practice of delaying kindergarten enrollment for students whose birthday falls near the cutoff date.

The researcher has professional relationships with various administrators at all five school districts used for the study. However, the researcher has no direct relationship with any other key stakeholders of the districts.

On a personal note, the researcher's oldest son was born in July. In the researcher's opinion, this doesn't create a bias but instead creates a vested interest in the results of this study.

Organization of the Study

Chapter I has provided an overview of previous research of the academic effects of delaying the enrollment of kindergarteners as well as a brief history concerning the concept of kindergarten readiness. This chapter has stated the purpose of the study, defined the terms related to kindergarten readiness and delayed enrollment, and outlined the importance of the study, limitations, delimitations, researcher bias, and organization of the study.

Chapter II will provide a literature review beginning with a historical review of kindergarten enrollment. This will include kindergarten readiness philosophies, enrollment date restriction changes, and trends in kindergarten enrollment. Next, the researcher will review the current research on the enrollment effects of both delayed and on-time kindergarten enrollment. An emphasis will be placed on the research in the areas of academic, social, and emotional development. Finally, the researcher will review the current research on the beliefs of stakeholders.

Chapter III will introduce the quantitative methods research design of the study. This chapter will discuss the researcher's role, case selection, data collection, data analysis, verification, and ethical considerations.

Chapter IV will present the findings of the test data and the effects of the variables on the data. The results of the parent survey will compare and contrast the parents' viewpoints on the initial enrollment decision and any changes to the viewpoints years later.

Chapter V will provide the summary, conclusions, and discussion of the study. Recommendations will be made for school districts and also for parents faced with the decision to enroll or delay the enrollment of their July-born child. These recommendations will be based on parent feedback from the survey.

CHAPTER II

LITERATURE REVIEW

Introduction

Every year, parents of five-year-olds are faced with the decision of kindergarten enrollment. For most, the decision is an easy one, and the children start kindergarten as soon as they can. However, for some parents the decision is not so easy. For these parents who have children born shortly before the cutoff date (August 1st in North Dakota), the choice is not so clear. In an effort to make the decision easier, some parents may choose to look at the existing research. A study of this literature can reveal what is known about kindergarten enrollment and the academic, social, and emotional effects of the choices parents make.

This literature review will begin with the changes in kindergarten enrollment over the years. This will include kindergarten readiness philosophies, enrollment date restriction changes, and trends in kindergarten enrollment. Next, the researcher will review the current research on the academic effects of both delayed and on-time kindergarten enrollment. Finally, the researcher will review the current research on the social and emotional effects of the same enrollment decision.

Historical Review of Kindergarten Programs

Kindergarten readiness has been defined as having two parts: readiness of the child to learn and readiness for school (Kagan, 1990; Lewitt and Baker, 1995). In both cases, the readiness rests in the child to be developmentally ready to learn and able to fit into a structured setting such as a school.

Two main paradigms on child development and its role in kindergarten readiness are maturationist and interactionist. Maturationists believe there to be certain absolute developmental foundations that must be in place before children can learn concepts (Graue and DiPerna, 2000). Certain cognitive, social, and physical abilities must be in place for a student to be deemed ready. The development of these abilities can't be taught, but rather the "passage of time" will produce readiness (Marshall, 2003). This theory is similar to the "idealist" or "nativist" conceptualization of school readiness (High, 2012). Environment has little to do with the development of a child, and the child merely needs more time. Those who recommend delaying enrollment often are supporters of these philosophies. This is usually related to Piaget's theory of development in that children need to be at the appropriate developmental stage to be ready for kindergarten (Kagan, 1990). While this is partly true, Piaget's viewpoint advocates that the readiness results from the interaction between the child and the world around him or her (Marshall, 2003; Liben, 1987).

This slightly different take on Piaget's theory conforms with the interactionist approach to child development. Vygotsky believed readiness required guidance and instruction, not the "passage of time". Furthermore, learning actually precedes development, and schools aid in the process (Vygotsky, 1978). Environmentalists maintain supporters of this theory believe students don't need to be ready for school; it is the schools that need to be ready to guide, support, and instruct the children (Marshall, 2003). If this were the case, on-time enrollment would be preferred, as the interactions a child would receive at school would aid in developing the child more rapidly.

At the 1989 Education Summit, national education goals were established, with one goal being that by the year 2000, all children in America would start school ready to

learn (American Association of School Administrators, 1990). But what is the more current viewpoint on kindergarten readiness?

One aspect of the modern viewpoint of kindergarten readiness still focuses on the child. The National Education Goals Panel emphasized five dimensions of development: physical well-being and motor development, social and emotional development, approaches to learning, language use, and cognition (Kagan, Moore, and Bredekamp 1995).

The child is still evaluated on readiness for school and learning, and this now includes physical well-being, motor development, social and emotional development, language and speech development, general knowledge, self-regulation, and socio-emotional functioning (Montes, Lotyczewski, Halterman, and Hightower, 2012, p. 542).

Two other facets of kindergarten readiness are now considered. First the school's readiness is examined. Specifically, the policies and practices of a school in educating children at various stages of development are contemplated. The second and third areas are familial and community school readiness and their ability to support early child development (Montes, Lotyczewski, Halterman, and Hightower, 2012, p. 542). Research has shown that kindergarten readiness and ultimately higher academic achievement is related to the skills children acquire prior to kindergarten (Elder and Lubotsky, 2007). This ranges from as early as the level of prenatal care to preschool options available to parents for their children.

Parents have also taken a more active role in determining kindergarten readiness. This is a change from the past when school entrance age was once a non-negotiable subject. Regardless of maturity, previous experience, or socio-economic background, a child entered kindergarten if he or she turned five by a cutoff date (Narahara, 1998).

Parents now evaluate their own child's readiness for school and learning. Parents who believe students must have a mastery of academic skills before entering kindergarten may tend to redshirt their children (Meisels, 1992). Others may choose to focus on physical and social maturation and opt for delaying enrollment. This extra year is sometimes referred to as the "gift of time" and is done in the hope that maturation will help in a child's readiness (Eisenhart and Graue, 1990; Shepard & Smith, 1988).

Relative Age Research

The concept of relative age refers to the difference in ages between children in the same age group that results from their different birthdates throughout the year (Barnsley, Thompson, and Legault, 1992). Numerous studies have been conducted to gauge "relative age effects" or the effects of grouping children by age of entry into particular activities (Thompson, Barnsley, and Battle, 2004). A 1985 study of Canada's Junior A hockey leagues found there to be four times the players born in January through March than in October through December. The trend was also found to be true in the National Hockey League (NHL) (Barnsley, Thompson, and Barnsley, 1985). It should be noted the cutoff date for being eligible to play the lowest level of hockey in Canada is January 1st. Thus a higher percentage of hockey players were older than their counterparts when they began hockey for the first time. A study of 7,313 Edmonton Minor Hockey Association players found older players tended to keep playing while the younger players were more likely to drop out. Also when looking at the elite teams, the rosters were filled more with relatively older players (Barnsley and Thompson, 1988). Similar relative age effects were also found in college football (Glasmer and Marciani, 1990) and Little League Baseball (Thompson, Barnsley, and Stebelsky, 1991). When looking at the 1989 Under-20s World Cup Soccer Tournament, nearly half of the participants were born in the first quarter of

eligibility, and another third were born in the second quarter. Similar numbers existed in the Under-17s teams as well (Barnsley, Thompson, and Legault, 1992). Relative age effects were found in the NHL again in a 2007 study (Baker and Logan, 2007). However, no relative age effect was found for MVP of male professional sports (Ford and Williams, 2011). To see if the relative age effect is still existent, the rosters for the 2013 United States Under-18 men's and women's soccer teams were analyzed. On the men's team, athletes born between January and March accounted for 37.5 percent of the roster. The next calendar quartile accounted for an additional 37.5 percent. The final two quartiles had 15.6 percent (July through September) and less than 10 percent (October through December) (United States Men's Soccer, 2013). The women's team had slightly more even numbers. The athletes born between January and March totaled 34 percent of the team. The number continued to drop through the other three quartiles and finished with 18 percent of athletes being born between October and December (United States Women's Soccer, 2013). All of these organizations use a system that creates an assigned relative age similar to school systems which often base enrollment solely on an individual's birthdate relative to a school entry cut-off date (Bedard and Dhuey, 2006; Datar, 2006).

Enrollment Trends

A brief history of kindergarten enrollment can be derived from two separate topics. This section will first provide a summary of the enrollment restrictions established by the states and conclude by examining the trends in parental enrollment choice.

In 1958, the legal age for school entrance was 4 years 9 months (Park, 1996). Cutoff dates were often around February 1st in the 1960s (Robinson and Lyon, 1994). In the 1980s, the states began to roll back the cutoff date (Meisels, 1992). Years later the

trends for cutoff dates and enrollment age have shifted towards a starting age of five for kindergarten enrollment and an earlier cutoff date in the school calendar. By 1975, nine states required students to have turned five by September 1st or earlier. In 1990, 28 states required students to have turned five by September 1st or earlier, and the number rose to 33 states by 2005 (Colasanti, 2007). As of January 2013, five states require the child to be five before August 1st. Another 14 states set the cutoff date of turning five sometime in August, and 22 other states have a cutoff date in September. Only one state chose October as its cutoff date while another selected January. The remaining states leave the choice up to local education agencies (Education Commission of the States, 2013).

In addition to changes in restrictions, parents have begun to redshirt at a higher rate than in the past. Years ago, the recommended starting age was a commonly accepted barometer of a child's readiness to start kindergarten. In the 1970s, more than 90 percent of five-year olds were enrolled in kindergarten. By 2003, the number had dropped to less than 80 percent (Deming and Dynarski, 2008). This drop was the result of the rate of delaying enrollment growing. Various studies have shown different estimates of the rate of delaying enrollment. One study found 23 percent of boys and 12 percent of girls were over-age for their grade cohort (Mergendoller, Bellisimo, and Horan, 1990), while another listed the same groups at 20 percent and 10 to 13 percent, respectively (McCaig, 1990). Those numbers are high compared to the data from the 1993 and 1995 National Household Education Survey (NHES) in which parents reported that nine percent of all first and second graders had been held out of kindergarten (West, Meek, and Hurst, 2000; Zill, Loomis, and West, 1995). The 2007 NHES Survey showed seven percent of parents planned to redshirt their children (O'Donnell, 2008). It is important to look deeper into the numbers as well. Most often, parents of students who are delayed in enrollment are

“disproportionately wealthy, white, English-speaking, better educated, and own more books at home” (Aliprantis, 2011, p. 329). Additionally, a student whose enrollment is delayed is more likely to have a mother who works less outside the home. Boys’ enrollment is also delayed at a higher rate than girls (Dobkin and Ferreira, 2007; Deming and Dynarski, 2008; O’Donnell, 2008) It should be noted that the percentage of delayed enrolling prevalence accounts for all children meeting the cutoff date. Students born in August were grouped with students born in June and July. Little research has been found that breaks down the delayed enrollment frequency by birth month. Nevertheless, the changes in restrictions and parental choice have changed the demographics of kindergarten classes. The result is children being older when entering kindergarten, often called the “Graying of Kindergarten” (Bracey, 1989). The trend now results in four-tiers of kindergarten: regular-age children, children retained by parents for an extra year of kindergarten, children retained by the school for an additional year, and a fourth group, the children who were held out of kindergarten for an additional year (Meisels, 1992). The age of students in a kindergarten class could now range as much as 24 months in difference.

Enrollment Effect Research

Better academic, behavioral, and social success early in school increases the likelihood that children will later be productive citizens as measured by increased independence and social confidence (Huffman, Mehlinger, and Kerivan, 2000). Therefore, in addition to the academic effects of delaying enrollment or not, the social and emotional effects should be considered as well. Children who are socially and emotionally ready for school generally have improved school outcomes, better odds of future school and vocational success, improved future social and emotional development, and an easier

time developing relationships with their peers (Lainer, 2009). The following is a summary of the research findings concerning the academic, social, and behavioral effects of the kindergarten enrollment decision.

On-Time Kindergarten Enrollment Research

In regards to the effects of on-time enrollment, some researchers have found a negative effect. The effect of starting age on skill development can have a lasting impact on a student's academic progress. Chronologically younger children in kindergarten showed less skill in letter-sound relationships. This same letter-sound relationship skill is developed through experience and has been found by research to be a strong predictor of reading level (McNamara, Scissons, and Simonot, 2004). In an example where the cutoff date is September 1st, students born in September scored 14 percent higher than the younger students in the same grade with August birthdates (Elder and Lubotsky, 2009). Being younger is not only a hindrance in skill progression, but also in grade progression. Attendance problems have been proven to be more prevalent in younger students (Cobley, McKenna, Baker, and Wattie, 2009). Poor attendance rates by the youngest of children could be compared to the studies of Canadian hockey where the youngest begin to lose interest.

Younger students also have a higher rate of being referred for special services as they are overrepresented among the population of students needing learning support or those given a specific learning difficulty diagnosis (Elder and Lubotsky, 2009; Cobley, McKenna, Baker, and Wattie, 2009). Others found that 20 percent of the youngest in the cohort were retained or referred to special education by the end of second grade (Verachtert, De Fraine, Onghena, and Ghesquiere, 2010). The disadvantages the children begin with, as the youngest in their cohort, is very difficult to overcome.

Gladwell finds strong similarities to his previously mentioned studies on hockey. The advantage older children have at the onset of school persists and locks children into patterns of achievement and encouragement for older children and underachievement and discouragement for the youngest (Gladwell, p. 28). The negative effects can even last years after the students leave kindergarten. In a study of post-secondary education, students in the subgroup with the youngest relative age were underrepresented by more than 11 percent (Bedard and Dhuey, 2006).

However, while other researchers have acknowledged a negative impact of enrolling a student on-time, the effects eventually diminish and cause no long-lasting harm. In a 1999 study by Warder, older students performed better overall, with the exception of phonemic awareness and writing in the first grade. Twenty-seven percent of students born between January and April were at or above reading grade level compared to 20 percent of students born between May and August, and 11 percent of students born between September and December, indicating that older students in general performed better. This link between academic performance and relative age diminished by second grade when ability didn't correlate well with the birth month (Warder, 1999). Others have found the effects in reading achievement to last until second or third grade before the younger students reach comparable achievement levels (Narahara, 1998; Graue and DiPerna, 2000; Verachtert, De Fraine, Onghena, and Ghesquiere, 2010). The same could be said about the initial lower performance levels in math (Stipek and Byler, 2001). Some researchers see the effects lasting into the fourth or fifth grade before dissipation (West, Denton, and Germino-Hausken, 2000; Oshima and Domaleski, 2006; Kurdek and Sinclair, 2001). It has even been shown that the younger students pass the older students

in math achievement by the fourth grade (Narahara, 1998). According to some, the effects can last until high school before finally disappearing (Grissom, 2004).

There are fewer studies that acknowledge a positive effect of starting as the youngest in a cohort. However, some still do point to the rapid progress the youngest children can make in the first year of school (Stipek and Byler, 2001).

Beyond the scope of academic effects, researchers have also taken a closer look at the social and emotional effects of enrolling the youngest in the cohort. Younger students were more likely to learn the skill of listening than the oldest counterparts (West, Denton, and Reaney, 2000).

On the other side of the argument, youth suicides were more prevalent in the younger half of school-entry cohorts than those who formed the older half (Thompson, Barnsley, and Dyck, 1999). These studies are supportive of the self-concept hypothesis. Children who are less mature (physically, emotionally, and cognitively) have more difficulty socially interacting with their teachers and peers in school. This results in a higher probability of having feelings of social inadequacy (Martin, Foels, Clanton, and Moon, 2004). The results should be a concern to parents for numerous reasons. For example, social problem frequency has a similar supposed effect on the likelihood of exhibiting a psychiatric disorder among adults (Thompson and Bland, 1995). Social and emotional problems as a child tend to lead to the same as an adult.

Yet not all studies found positive or negative findings, as some found no correlation at all. A study of 476 kindergarteners and first graders found that “being the youngest” was not related to children’s social acceptance (Spitzer, Cupp, and Parke, 1995).

Delayed Kindergarten Enrollment Research

On the other side of the spectrum is the research on the students whose enrollment was delayed by their parents. The findings are just as inconclusive as some have found negative and positive effects, and in some cases, no effect at all.

The negative effects of delaying enrollment have been found to exist in not only achievement, but also in placement of programs and have a great impact on the rest of a student's life. Students who have been delayed in enrollment have been found to score lower on math tests in first grade than their classmates (Malone, West, Flanagan, and Park, 2006). The younger students earn higher test scores than their older counterparts by high school (Lincove and Painter, 2006). Some research (Grissom, 2004) has found academic performance declines for delayed enrollment students as average performance for students who are a year older than their classmates declines. The decline continues the older the student gets older for their grade, students can score higher in disengagement, lower in homework completion, and lower in performance scores (Martin, 2009). Not only are there achievement effects of delaying enrollment, but also those who are delayed are more likely to be deemed to need additional services. Children who are delayed in enrollment are more likely to need special education services than non-delayed-entry students (Brent, May, and Kundert, 1995; Offenbergl and Holden, 1998; Graue and DiPerna, 2000). This finding is especially interesting because referring back to previously mentioned studies (Elder and Lubotsky, 2009; Verachtert, De Fraine, Onghena, and Ghesquiere, 2010), the youngest students who enrolled on-time were also more likely to need special education services. The results can also effect the students for the rest of their lives as students who are old for their grade are more likely to drop out (Grissom,

2004; Deming and Dynarski, 2008) and less likely to go to college and earn a degree (Lincove and Painter, 2006).

Conversely other researchers have found positive effects of a parent's choice to redshirt his or her child. Some effects are immediate as delayed enrollment students scored higher on math and reading tests in kindergarten and first grade (Datar, 2006). The higher test scores continued into fourth grade where the older children scored higher on math and science tests (Bedard and Dhuey, 2006; Black, Devereux, and Salavanes, 2011). In addition to higher test scores in fourth grade, the advantage has even been shown to carry into eighth grade testing (McEwan and Shapiro, 2008). The practice of delayed enrollment has been shown to especially be a positive decision for boys. On fifth and sixth grade testing, boys who were delayed showed a statistical advantage in math and reading over the other boys who enrolled on-time (Crosser, 1991). The advantage the delayed enrollment children may have might also be an asset to the younger students in the class. Cascio and Schanzenbach (2007) conducted a study in which the findings suggested having older students in a class increases the younger students' test scores. In addition to test score advantages, students who are delayed are less likely to be required to repeat a grade later in school (May, Kundert, and Brent, 1995; Lincove and Painter, 2006). Furthermore, while some research on delayed enrollment confirms a negative effect in terms of placement, other research shows a link to placement that is similar to sports. Schools do ability grouping very early on in childhood and place students in advanced reading and placement groups based on ability at a very early stage. Students who start with an academic advantage continue to reap the rewards of being older at the start of kindergarten in that they have a higher chance of taking college entrance exams and enrolling in a college or university (Bedard and Dhuey, 2006).

Some researchers (Graue and DiPerna, 2000; March, 2005) contend there are virtually no effects, positive or negative, from delaying the kindergarten enrollment of a child. The academic achievement results of children who were delayed were comparable to normally entered peers. This gives credence to the idea that there is no advantage from the practice of delayed kindergarten enrollment. The act in and of itself isn't beneficial and has more to do with what is done with the child while he or she remains at home for the extra year. If there is little stimulation at home, the child and parents will see no benefits (Elder and Lubotsky, 2009). This is especially true of students with learning disabilities. One study's findings pointed out the practice of delaying enrollment provided no benefit for children with special needs (Barnard-Brak, 2008). If this were true, then the practice of delaying enrollment would serve no purpose as an intervention. There is also research contradicting Gladwell's theory of relative age affecting entrance into gifted and talented programs. There was no significant correlation between relative age and enrollment in gifted and talented programs in a study done in 2012 (O'Reilly and Matt, 2012).

However, numerous studies have determined there are positive effects of delaying the enrollment of a child. Parents of children who were delayed entrance into kindergarten received less negative feedback about their children. Feedback included activity in the classroom and perceived maturity (West, Meek, and Hurst, 2000). Research has argued that children who are held back are socially and emotionally better adjusted than their younger classmates (Spitzer, Cupp, and Parke, 1995). Older students in the Edmonton Canada School District were found to have exhibited better self-esteem (Thompson, Barnsley, and Battle, 2004). This increased self-esteem level was found in other studies as well. "The late entrants realized the highest self-esteem of all"

(Thompson, Barnsley, and Battle, 2004). Studies have shown relative age effects in the development of social and emotional skills. In one study, the oldest students participated as a leader five percent more in high school and believed they possess more leadership skills than their youngest peers (Dhuey and Lipscomb, 2008). Whether or not they in fact possessed more leadership skills is sometimes inconsequential. The behavior of children is perceived to be better by teachers as well.

However, not all studies have shown delaying enrollment to have a positive effect on children. Many in fact have found delayed enrollment to have a negative influence on the child's social and emotional behavior. Even in the case of listening skills, there seems to be a relative age effect. Delayed enrollment students were reported by parents to have higher rates of bullying, temper issues, depression, and getting along with their peers (Byrd, Weitzman, and Auinger, 1997).

Stakeholders' Beliefs

Teachers' Beliefs

The effect of kindergarten enrollment age can also be seen in teachers' attitudes towards the children. In a study examining the youngest children in a class (those born between June and August), 25 percent of the students were retained for an additional year of kindergarten (Martin, Foels, Clanton, and Moon, 2004). When analyzing teachers' decisions to retain a child in a grade, researchers have found that the issue of whether the child was young for the grade is one of the most frequently identified reasons, both as a justification or explanation for the child's poor functioning (Shepard and Smith, 1986). Furthermore, in some cases, teachers have a negative image of their youngest students. Educators can put a negative spin on relative youth and find those students less acceptable (Graue, Kroeger, and Brown, 2003).

Teachers describe children who are closer to age six than age five upon entering kindergarten as more likely to engage in cooperative behavior and less likely to be argumentative or combative (Zill and West, 2001). The feelings appear to be mutual because the oldest students have been shown to have more positive feelings about their teachers (Stipek and Byler, 2001).

Parents' Beliefs

One study asked parents to decide if they would label their children as having behavior problems. Parents of delayed enrollment children were labeled with behavior problems 20 percent of the time as opposed to 14 percent of on-time enrolled parents (Montes, Lotyczewski, Halterman, and Hightower, 2012, p. 544). There is little additional research regarding the parent's viewpoints on practice of delayed enrollment into kindergarten. This gap in the research results in the parents' opinions not be used in the current policy making and enrollment decisions.

Summary

Chapter II presented a literature review, which examined three areas associated with the kindergarten enrollment decisions: (a) kindergarten readiness philosophies, enrollment date restriction changes, and trends in kindergarten enrollment, (b) the current research on the enrollment effects of both delayed and on-time kindergarten enrollment, and (c) the current research on stakeholders' beliefs.

Chapter III will introduce the quantitative research design of the study. This chapter will discuss the researcher's role, case selection, data collection, data analysis, verification, and ethical considerations.

Chapter IV will present the academic results gathered from the data that supported or failed to support the practice of delaying kindergarten enrollment. The data analysis will compare and contrast the testing results of recorded by two subgroups of students.

Chapter V will provide a summary, conclusion and discussion of the findings of the study as well as recommendations to parents faced with the decision to delay entry or enroll their child “on-time”.

CHAPTER III
RESEARCH METHODS

Introduction

This study attempts to identify the relationship between the age and gender of the child and how a kindergarten enrollment decision affects academic, social, and emotional development. The purpose of this comparative case study was to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students “on-time”.

This study utilized quantitative case study methods to identify (a) parents’ perceptions of their child’s academic development; (b) parents’ perceptions of their child’s social and emotional development; and (c) parents’ reflections on their kindergarten enrollment decision for their child. The parents included in the study were parents of children born between July 1st and July 31st, 2003.

Quantitative research is conducted by collecting data from individuals or groups and analyzing the data to determine if there are any relationships among them (Slavin, 2007, p. 7). This study was an experimental research design including two independent variables. The first independent variable was the current grade of the students, either fourth grade or fifth grade. The other variable was gender.

Chapter III presents the research design of the study including the researcher’s role, case selection, data collection, data analysis, verification, and ethical considerations.

Data collection included demographic information and survey results from a select population to answer both research questions.

Researcher's Role

In quantitative research, participants in the study do not know the researcher, and their biases and participant characteristics are hidden from the research (Johnson and Christensen, 2008). The researcher's role is to enhance understanding of the practice of delayed kindergarten enrollment to aid in future enrollment decisions and policies. The researcher is the superintendent of the Wyndmere (N.D.) Public School district. His professional career in education has spanned three years as a high school business education teacher, five years as a high school principal, and four years as a superintendent. Having worked as an administrator in a small school district, the researcher has not only developed an understanding of kindergarten enrollment policies and procedures, but also have worked with kindergarten students in substitute teaching and other day to day interactions. Through this experience, the researcher has developed a personal and professional opinion supporting the practice of delaying kindergarten enrollment for students whose birthday falls near the cutoff date.

The researcher has professional relationships with various administrators at all five school districts used for the study. However, the researcher has no direct relationship with any other key stakeholders of the districts.

Population

The researcher chose to focus the case selection on five of the largest school districts in North Dakota in an attempt to ensure similarities in enrollment, culture, and structure. The number of schools was chosen in order to attempt to reach a population of

a minimum of 100 parent responses. Parents were selected based on one requirement: a child with a birthdate between July 1st and July 31st, 2003.

To determine willingness to participate in the study, an email describing the study was sent to the superintendent at each of the selected school districts. Three of the schools initially targeted for participation agreed to be included in the study. The two remaining schools opted to not participate. The next school chosen to seek permission from opted to not participate as well. The sixth and seventh schools the researcher contacted both agreed to be part of the study, resulting in five participating schools.

Data Collection

The case study used one source of data to formulate findings. The data source for this study was a parent survey and included (a) student demographic information, (b) parental perception of his/her child's academic, social, and emotional development, and (c) reflections on the initial kindergarten enrollment choice. The survey was administered online. This section reviews the decision behind choosing each data collection method.

The researcher received approval for research involving the use of a parent survey with the Institutional Review Board (Appendix D, IRB-201403-356). The superintendents of the selected school districts were contacted to discuss the study. The superintendents who agreed to participate in the study then designated themselves as the contact or provided the contact information for the staff contact for the school. The contact person received a letter describing the study as well as a copy of (a) the survey introduction letter for parents and (b) the survey for parents. Two schools required a research proposal to be submitted to the school; the proposal was provided and approved. The three remaining schools provided a signed consent letter on school letterhead. All

five of the agreements indicated a school district's understanding of (a) purpose of the study and (b) the research methods outlined in the study.

Each designated contact person provided mailing information for the parents of the students who were born between July 1st and July 31st, 2003. Four schools opted to allow the researcher to send the letters to the parents, while the remaining school mailed the letters from their school. Each parent received a summary of the research being conducted in conjunction with the survey. The summary included the purpose of the survey and a statement informing the parent that he/she was under no obligation to participate in the study. The letter informed parents that their decision to complete the survey offered implied consent to be part of the study. The letter also included the online web address for the survey.

The web-based survey was generated using Qualtrics software, version of the Qualtrics Research Suite (Qualtrics, Provo, UT). Qualtrics then was used to create a spreadsheet to record student demographic information. The classification of gender and grade was used to categorize the students. The demographic information was required in order to provide further analysis of results of the data collected. Neither the researcher, nor readers of the research, knew the identity of the students or parents. Parent responses were recorded by a numbered system, and the parent's or student's identity was not known.

The data were documented using the online survey results and all data analyses were performed using SPSS version 21.0 (IBM Corp., Armonk, NY). The researcher will keep the results of the survey in an electronic file for a minimum of three years after the completion of the study. The files are to be deleted after three years. Only the

researcher's advisor, the IRB audit personnel, and the researcher are to have access to the information.

Parent Surveys

It was the researcher's intent to incorporate parent feedback into the research through the use of an online survey. The reflective thoughts of parents who have made the decision to delay enrollment or not in the past can provide helpful information for future decisions.

The survey for this study combined a survey used in previous research along with additional questions created by the researcher. First, the Social Competence Scale – Parent Version was used to allow parents to evaluate the social and emotional development of their child. The survey was a 12-question survey measuring the constructs of social and emotional skills used during the Fast Track Project. The Fast Track Project is an intervention project designed to look at how children develop during their lives (Fast Track Project, n.d.). The researcher created the remaining questions on the survey. These questions consisted of three questions posed to have parents evaluate his or her child's academic development and three final questions that asked parents to reflect on their decision to enroll on-time or delay enrollment. The survey was piloted using parents from the researcher's district as well as a couple additional neighboring districts. Responses supported the validity of the study and the finalized survey is shown in Appendix E.

Once finalized, a parent information letter (Appendix B) with the description of the study and link to the online survey was provided to the designated contact at the five schools in order to show what was to be sent to the parents. The informational letter was then mailed to parents. The survey window remained open for a period of 60 days. The

initial mailing did not result in 30 percent rate of return, and the designees from the schools were contacted in regards to a follow-up letter (Appendix C). The purpose of the second mailing was to thank the parents for their participation and to remind them about the website address. Two schools chose not to send the follow-up letter. There was very little additional increase from those two schools after the second mailing. The other three schools sent the follow-up letter via email. Two out of the three schools saw a boost in response rate after the email was sent. The parent survey was closed after 60 days and resulted in a 19.89 percent participation rate.

Data Analysis

The data analysis was completed to answer two research questions: (a) Is there a perceived difference in the children in academic, emotional, and social development in the eyes of the parents?, and (b) How have the results affected the parents' viewpoint on their decision? The researcher downloaded the responses, created an SPSS data set, and ran descriptive statistics. A series of tests was run to seek findings for Research Questions 1. A correlation of the constructs and Cronbach Alpha tests were run between the constructs. Independent samples *t* tests were run to compare the constructs by age of kindergarten enrollment, gender, and combine age and gender. A one-way between subjects analysis of variance (ANOVA) was conducted to compare the effect of gender and age on the parents' evaluations of their children's emotional, social, and academic development.

To produce findings for Research Question 2, three independent samples *t* tests were done: one to investigate the effect of a child's gender, one to investigate the effect of a child's age, and one to investigate the parent's choice to change their enrollment decision.

Summary

Chapter III reviewed the research design of the study including quantitative methods researcher's role, case selection, data sources, data collection, data analysis, verification, and ethical considerations. The sources of data will include testing data collection and an open-ended survey.

Chapter IV will present the findings from the data results. The testing data will be compared by the variables of gender, grade, free/reduced/non lunch coding, special education identification, and pre-schooling enrollment. The survey results will also be examined to identify any common themes with parents' opinions.

Chapter V will provide the summary, conclusions, and discussion of the study, including recommendations for parents and school districts to use when choosing to delay or enroll children in kindergarten on-time.

CHAPTER IV

RESULTS

This study provides a resource based on the perspectives of parents who have not only had to make the same enrollment choice, but have had four to five years to evaluate their decision. The purpose of this comparative case study was to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students “on-time”.

Review of Research Questions

To answer Research Question 1 parents were asked to evaluate their own child’s development in terms of academic, emotional, and social progress through a series of survey questions. Was there a difference between the perceptions of parents who enrolled their child on-time compared to those who waited a year to enroll their child? Was there a difference between the perceptions of parents when gender and age were considered together?

To answer Research Question 2 parents were asked to reflect on their decision to enroll their child in kindergarten. Did the parents feel their enrollment choice had benefitted the development of their child? Did they feel enrollment age had an effect on the development of children? Finally, given what they had seen, would parents make the same decision if they had a chance to go back and enroll their child again?

The results of the survey pertaining to the study’s research questions are reported in this section.

Demographics

A total of 186 survey invitations were distributed. All survey invitations were mailed to the parents of children who were born in July of 2003. No surveys were returned with undeliverable addresses. The letter invited parents to participate in an online survey. Thirty-seven people visited the site and completed the survey. There were no surveys left incomplete.

The majority of the surveys were completed by mothers, $n = 30$ (81 percent) while fathers accounted for the remainder of the completed surveys, $n = 7$ (19 percent) as there were no surveys completed by guardians.

The distribution of parents who completed the online survey ($N = 37$) of male ($n = 22$) and female ($n = 15$) students based on enrollment choice, on-time or delayed, for the child is reported in Table 1. Overall, 25 parents elected to enroll their child on-time ($n = 25$, 67.6 percent) of the time, while 12 parents ($n = 12$, 32.4 percent) opted to delay kindergarten enrollment.

Table 1. Number of Parent Participants ($N = 37$) by Gender of Child and Enrollment Choice.

Gender of Child	On-Time Enrollment		<i>Delayed Enrollment</i>	
	<i>n</i>	%	<i>n</i>	%
Male	12	32.4	10	27.0
Female	13	35.2	2	5.4
Total	25	67.6	12	32.4

To determine the prevalence of delayed entry into kindergarten, it is important to look at the enrollment choices based on gender. As shown in Table 1, 22 parents ($n = 22$; 59.4 percent) of male students and 15 parents ($n = 15$, 40.6% percent of female students

completed the survey. It is important to take a separate look at the enrollment choices based on gender as well. Table 2 shows the enrollment choice rate of each gender based on completed surveys. The parents of males were almost evenly split in their enrollment choices as 12 parents ($n = 12$; 54.5 percent) elected to enroll their son on-time while 10 ($n = 10$; 45.5 percent) opted to delay kindergarten enrollment. A large majority of parents of female students chose to enroll their daughter on-time ($n = 13$, 86.7 percent) and only two parents ($n = 2$, 13.3 percent) decided to delay the kindergarten enrollment of their daughter.

Table 2. Enrollment Choice Percentages by Gender of Child ($N = 37$).

Enrollment Choice	Male		Female	
	<i>n</i>	%	<i>n</i>	%
On-Time	12	54.5	13	86.7
Delayed	10	45.5	2	13.3

Parent Surveys

Asking a parent to evaluate his or her own child's development is by no means a fail proof method to determine developmental progress. Personal biases are possible and often expected. However, as mentioned in Chapter II, little research has been done to seek this type of input from parents. The parents were asked to complete a survey using 12 questions from the Social Competence Scale – Parent Version (Fast Track Project, n.d.). These 12 questions focused on the social and emotional development of the child. Three questions were also posed to have parents evaluate his or her child's academic development. Three final questions asked parents to reflect on their decision to enroll on-

time or delay enrollment. Table 3 shows the results of the questions concerning emotional and social development.

Table 3. Parent Responses to Questions Concerning Social and Emotional Development (Not At All = 1, Very Well = 5).

Survey Questions	% Some Form of Agreement (Rated 4 or 5)	<i>M</i>	<i>SD</i>
Emotional			
Q1. My child can accept things not going his/her way.	62.2	3.7	0.88
Q2. My child copes well with failure.	48.6	3.3	0.94
Q3. My child thinks before acting.	51.4	3.5	0.96
Q5. My child can calm down himself/herself when excited or wound up.	56.8	3.7	0.93
Q6. My child does what he/she is told to do.	67.6	3.7	0.80
Q8. My child controls his/her temper when there is a disagreement.	54.1	3.5	1.07
Social			
Q4. My child works out problems with friends or brothers or sisters on his/her own.	40.5	3.3	0.94
Q7. My child is very good at understanding other people's feelings.	70.3	3.9	1.04
Q9. My child shares things with others.	86.5	4.1	1.00
Q10. My child is helpful to others.	85.5	4.4	0.79
Q11. My child listens to others' points of view.	70.5	3.9	0.97
Q12. My child can give suggestions and opinions without being bossy.	64.9	3.9	0.97

While the Social Competence Scale – Parent Version was able to evaluate perception of emotional and social development, questions had to be created to gauge the perceived academic development of the child. The survey concluded with three questions asking parents to reflect on the initial enrollment decision for their child and philosophy of kindergarten enrollment. Table 4 shows the responses to the academic development survey questions.

Table 4. Parent Responses to Questions Concerning Academic Development and Reflection of Enrollment Decision (Strongly Disagree = 1, Strongly Agree = 5).

Survey Questions	% Some Form of Agreement (Rated 4 or 5)	<i>M</i>	<i>SD</i>
Academic			
Q13. My child demonstrates stress about academics.	27.0	2.4	1.19
Q14. My child does not like to do homework.	54.1	2.6	1.14
Q15. My child does not perform at or above academic grade level.	16.2	1.5	0.84
Reflection			
Q16. I feel my child has benefited because of my choice to enroll in kindergarten.	73.0	4.2	1.12
Q18. Given the opportunity again, I would make the same decision about my child's kindergarten enrollment age.	78.4	4.2	1.38
Q20. I feel kindergarten enrollment age has an effect on the future development of a child.	62.2	3.9	1.11

The emotional construct (six items; $\alpha = .87$) and the social construct (six items; $\alpha = .87$) were both found to be highly reliable. The academic construct consisted of three items ($\alpha = .64$), and the reflection construct also consisted of three items (three items; α

= .64). The reliability of the reflection construct would have increased dramatically had Q20 not been used ($\alpha = .90$).

The constructs demonstrated some strong correlations as well. The emotional and social construct were strongly correlated, $r(35) = .76, p < .05$. There was no significant correlation between the reflection construct with either the emotional or social constructs. The academic construct did have a negative correlation of significance with all three of the other constructs. The academic construct was negatively correlated with the emotional, $r(35) = -.50, p < .05$, and social constructs, $r(35) = -.40, p < .05$. Furthermore, the academic construct was negatively correlated with the reflection construct, $r(35) = -.43, p < .05$. The negative correlations the academic construct had with the other constructs is explained by the scoring for the academic questions. A higher score on the academic questions denotes a more negative feeling. This is the opposite of the other constructs. The entire correlation results of the constructs are shown in Table 5.

Table 5. Correlation of Constructs and Measures of Internal Consistency

Construct	Subscale	C1.	C2.	C3.	α
Emotional	q1,q2,q3,q5,q6,q8				.874
Social	q4,q7,q9,q10,q11,q12	.756*			.867
Academic	q13,q14,q15	-.501*	-.402*		.642
Reflection	q16,q18,q20	.318	.323	-.426*	.639

Note: Correlations marked with an asterisk (*) were significant at $p < .05$

Research Question 1

A one-way between subjects analysis of variance (ANOVA) was conducted to compare the effect of gender and age on the parents' evaluations of their children's emotional, social, and academic development. After breaking the results into four

subgroups (on-time male, delayed male, on-time female, and delayed female) the ANOVA did not show any statistical significance. There was not a significant effect of gender and age on parents' evaluation of the emotional development at the $p < .05$ level for the four conditions [$F(3, 33) = 1.57, p = ns$]. The same held true in the social construct [$F(3, 33) = 2.03, p = ns$] and academic construct [$F(3, 33) = 1.13, p = ns$]. Taken together, these results suggest that when the factors of gender and age are combined, there is little effect on how parents perceive the emotional, social, and academic development of their children. Whether the child was a male or female, on-time or delayed, the enrollment choice did not have an impact on how the child was perceived.

How does on-time or delayed enrollment affect a child's development in terms of academic, emotional, and social progress? This question was divided into two parts. Was there a difference between the perceptions of parents who enrolled their child on-time compared to those who waited a year to enroll their child? Was there a difference between the perceptions of parents when gender differences were considered? In regards to the first part of Research Question 1, the hypothesis was parents of students whose kindergarten enrollment was delayed would respond with more favorable responses to the emotional, social, and academic questions.

Knowing that the omnibus ANOVA was not statistically significant but to explore implications of practical importance, an independent samples t test was conducted to compare emotional, social, and academic development for students who were on-time (age five) and delayed (age six). These results are shown in Table 6. When using the emotional construct, there was not a significant difference in the scores for on-time students ($M=3.6, SD=.8$) and delayed students ($M=3.5, SD=.7$); $t(35)=-.41, ns$. This means parents of on-time enrolled kindergarteners scored their children to be more

emotionally developed than the parents of delayed kindergarteners scored their own children, but the difference wasn't significant. The same is true with the social construct where no significant difference was observed in the scores for on-time students (M=4.0, SD=.64) and delayed (M=3.7, SD=.87); $t(35)=-1.48, ns$. Students who were enrolled on-time were perceived to be more socially developed than their delayed enrollment peers; however, the difference was not significant.

Finally, comparison in the academic construct was not significant either. The on-time students (M=2.1, SD=.86) were scored lower than the delayed students (M=2.3, SD=.74); $t(35)=-0.64, ns$. This means the on-time students demonstrated a smoother development in terms of academic progress.

Table 6. Comparison between parent evaluations (Not At All/Strongly Disagree=1, Very Well/Strongly Agree=5)

	Larger # means...	<i>On-time</i>	<i>Delayed</i>	<i>P (sig 2 tailed)</i>	<i>d</i>
Emotional	Shows Emotional Maturity	3.61	3.50	.68	0.15
Social	Demonstrates Needed Social Skills	4.04	3.67	.15	0.49
Academic	Child Does Not Handle Academic Duties Well	2.12	2.31	.52	-0.23

* $p<.05$

The results shown in Table 6 mean there was no significant difference in perceived emotional, social, and academic development between on-time and delayed students when evaluated by parents. However, the social construct has a fairly large

effect size with a relatively low p value. While the data isn't statistically significant, Cohen's effect size value ($d = .49$) suggests moderate practical significance. Parents of students who were enrolled on-time perceived their children to have higher social skills.

The second part of Research Question 1 stated: Was there a difference between the perceptions of parents when gender differences were considered? The hypothesis raised by this second part of the question was boys who are delayed would benefit from one additional year before enrolling.

Still looking for practical importance and in order to determine if gender had an additional effect on the construct scores, an independent samples t test was conducted to compare emotional, social, and academic development for boys and girls. These results are shown in Table 7. Using the emotional construct, females ($M=3.8$, $SD=.67$) received higher scores than males ($M=3.4$, $SD=.76$); $t(35)=-1.35$, ns . While the females did score higher, the difference was not statistically significant. The results using the social construct were not significant either. Females ($M=4.1$, $SD=.70$) were once again given higher scores than the males ($M=3.8$, $SD=.74$); $t(35)=-1.33$, ns . While the scores for females were higher, the difference was once again not significant. The third construct, academic, showed favorable results on the scores for the females. Males ($M=2.3$, $SD=.82$) were deemed to have more concerns in academic development than the females ($M=2.0$, $SD=.79$); $t(35)=1.4$, ns . Just like the first two constructs, the difference was not statistically significant.

Table 7. Comparison between parent evaluations and gender of the child (Not At All/Strongly Disagree=1, Very Well/Strongly Agree=5)

Subscale Constructs	Larger # means...	Male	Female	<i>P</i> (sig 2 tailed)	<i>d</i>
Emotional	Shows Emotional Maturity	3.44	3.77	.186	-0.46
Social	Demonstrates Needed Social Skills	3.79	4.11	.191	-0.45
Academic	Child Does Not Handle Academic Duties Well	2.33	1.96	.169	0.47

* $p < .05$

When gender and age of the child upon entering kindergarten were analyzed independently, there was no statistically significant difference. Cohen's effect size value for all three constructs: emotional ($d = .46$), social ($d = .45$), and academic ($d = .47$) all suggest moderate practical significance. In all three cases, parents of males rated their sons less favorable.

The second part of Research Question 1 asked if there was a difference when age and gender are considered together. Table 1 showed the breakdown of the students when using age and gender as criteria. Thirteen females were enrolled in kindergarten on-time while only two females were delayed a year before enrolling. With such a small group in the delayed female demographic, analysis of the data could be misleading. However there were larger numbers for the males in both groups. Table 8 shows the results of an independent sample *t* test when comparing the parent survey results of males who were

enrolled on-time and delayed. Males who were delayed received more favorable scores for the emotional and academic constructs. Neither construct demonstrated a statistical significance.

Table 8. Comparison Between Parent Evaluations for Males Using Enrollment Age (Not At All/Strongly Disagree=1, Very Well/Strongly Agree=5)

Subscale Constructs	Larger # means...	<i>On-Time Male</i>	<i>Delayed Male</i>	<i>P (sig 2 tailed)</i>	<i>d</i>
Emotional	Shows Emotional Maturity	3.32	3.58	.432	-0.34
Social	Demonstrates Needed Social Skills	3.81	3.77	.906	0.05
Academic	Child Does Not Handle Academic Duties Well	2.44	2.20	.498	0.30

* $p < .05$

Research Question 2

What reflections do parents have on their kindergarten enrollment choice for their child? More specifically: Did the parents feel their enrollment decision had benefitted the development of their child? Did they feel enrollment age had an effect on the development of children? Finally, given what they have seen, would parents make the same decision if they had a chance to go back and enroll their child again? The hypothesis was parents who decided to enroll their child on-time would be more likely to question the initial enrollment decision. Parents were asked not only to reflect on views of enrollment age for kindergarten, but also to rate the likelihood of making the same

enrollment decision again. To answer this research question three *a priori* analyses were done: one to investigate the effect of a child's gender, another to investigate the effect of a child's age, as well as one to investigate the parent's choice to change their enrollment decision.

In order to determine if a child's gender was a factor in the parents' responses, an independent samples *t* test was conducted to compare the responses of the three parts of Research Question 2 for parents of males and females. When asked if the child benefited because of the enrollment choice, parents scored females ($M=4.7$, $SD=.72$) higher than males ($M=4.0$, $SD=1.25$); $t(35)=-2.19$, $p < .05$. Based on parent responses, female children were more likely to benefit from the enrollment choice. This result required further analysis as it was unclear what this truly means. The same question was analyzed using enrollment age, and there was no statistically significant difference between those enrolled at age five ($M=4.0$, $SD=1.2$) and age six ($M=4.7$, $SD=.65$); $t(35)=-2.01$, *ns*. Although the numbers were nearly identical in the two tests, the results didn't provide anything clear. In order to gain a better understanding, the same question was used in an independent samples *t* test using both gender and age of kindergarten enrollment. As mentioned previously, the lack of females entering kindergarten at age six makes it difficult to analyze the females. The number of surveys completed by parents of males provided a larger population to analyze. When asked if the child has benefitted from the enrollment choice, parents of males who delayed entry ($M=4.8$, $SD=.42$) provided much more favorable responses than those of males who enrolled on-time ($M=3.3$, $SD=1.3$); $t(22)=-3.92$, $p < .05$. This means parents who delayed the enrollment of a male felt the perceived benefit his/her son got was statistically significantly more than those who enrolled a male on-time.

The parents were then asked if they would make the same enrollment decision for their child again. There was no statistically significant difference between the answers from parents of males ($M=3.9$, $SD=1.6$) and parents of females ($M=4.7$, $SD=1.6$); $t(35)=-1.89$, *ns*. While there was nothing significant in this data, the results of the previous part of Research Question 2, when comparing on-time males and delayed males, warrants the same test to be done with this question. When asked if they would make the same enrollment choice again, parents of males who delayed entry ($M=4.7$, $SD=.68$) provided much more favorable responses than those of males who enrolled on-time ($M=3.3$, $SD=1.9$); $t(22)=-2.50$, $p < .05$. This would lead us to believe the parents who enrolled their son on-time were having more reservations about the initial enrollment choice than those who delayed the enrollment of his/her son. Fifty percent ($n = 6$) of the parents who enrolled his/her son on-time answered with a “disagree” or “strongly disagree” when asked if they would make the same enrollment choice again. The lowest score given by parents who delayed the enrollment of their son was a “neither agree nor disagree” provided by one parent. Every other parent in this subset agreed that they would make the same decision again.

The results of parents being asked if enrollment age has an effect on the future development of a child did not present any statistically significant data.

Chapter V provides a summary and discussion of the study with its findings. Additionally, Chapter V presents recommendations for policy makers and researchers.

CHAPTER V

SUMMARY AND DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate parent perceptions of the emotional, social, and academic development of children who were either enrolled in kindergarten on-time or delayed for a year. By asking the parents to evaluate their children, we are given another viewpoint with which to make informed decisions about kindergarten enrollment choice. Independent samples *t* tests were conducted to compare the responses regarding emotional, social, and academic development based on enrollment age and gender. The data showed the relationships between age, gender, and both age and gender and the perceived development of the child.

Findings and Discussion

Survey data were collected on how parents perceived the development of their child. The survey was designed to collect data from parents in four areas: emotional development, social development, academic development, and reflection of the initial enrollment decision.

This study was guided by two research questions. The first examined the parents' responses to the development of their child. The second focused on the reflective aspect of the enrollment decision. Findings for both questions are reported and discussed separately.

Research Question 1(a): Was there a difference between the perceptions of parents who enrolled their child on-time compared to those who waited a year to enroll their child?

The hypothesis was parents of students whose kindergarten enrollment was delayed would respond with more favorable responses to the emotional, social, and academic questions. In looking back to Table 5, we see that the parents of students who were delayed responded with less favorable responses in all three constructs. While the differences in the subgroup responses were not statistically significant, the responses from the parents would not support the initial hypothesis. These findings would support the claims from research that show there to be no advantage to delaying enrollment of a child in terms of emotional, social, and academic development. If anything, based on the responses from the parents, there is a disadvantage to delaying enrollment centered on the responses from parents. This is interesting because fewer studies acknowledged a positive effect of starting as the youngest in a cohort.

Taking a look at the three developmental areas and how they relate to previous research is important. First, the parents who enrolled their child on-time provided more favorable responses to the emotional construct questions. In providing less favorable response to the emotional construct questions, the parents who delayed enrollment supported the theory that older students experience an increase in behavioral problems as over-age students. In response to an open-ended question regarding the enrollment choice, a parent who delayed the enrollment of his/her child stated, "I wonder if he behaves goofier because many of his classmates are younger".

The responses to the social construct questions presented similar findings. The parents who enrolled their child on-time once again provided more favorable responses to the social development questions. This would seem to contradict the self-concept

hypothesis. Children who are less mature (physically, emotionally, and cognitively) have more difficulty socially interacting with their teachers and peers in school. The parent responses do not support this notion. The findings would not disprove this theory because the results were not statistically significant.

The academic construct findings were not statistically significant either but didn't support the hypothesis. There was little difference in the responses from parents who enrolled on-time compared to those who delayed entry. However, researchers could argue this lack of difference in various ways. Some studies have shown there is a difference in academic development for children who enroll on-time compared to those who delay entry. Those same studies also indicate the achievement gap has been closed by the second or third grade (Narahara, 1998; Graue and DiPerna, 2000; Verachtert, De Fraine, Onghena, and Ghesquiere, 2010) or even into the fourth or fifth grade (West, Denton, and Germino-Hausken, 2000; Oshima and Domaleski, 2006; Kurdek and Sinclair, 2001). The findings of this study cannot necessarily support the previous research because no baseline was taken when the student entered kindergarten, but there is a possible link to these studies in the answers the parents provided. It could also be that there was no relationship between academic development and enrollment age. The findings from this study do not support the theory of delaying entry into kindergarten having a positive effect on academic development.

While there are many studies supporting the practice of delaying enrollment into kindergarten, the results of this study provided no support for this practice. When using enrollment age as the sole criteria, parents perceived their children to be at comparable emotional, social, and academic development levels.

Research Question 1(b): Was there a difference in the perceptions of parents when gender differences were considered?

The second part of Research Question 1 stems from the belief that males benefit more from the extra year before being enrolled in kindergarten. Males are delayed entry into kindergarten at a higher rate than females (Dobkin and Ferreira, 2007; Deming and Dynarski, 2008; O'Donnell, 2008; and Aliprantis, 2011). The data shown in Table 2 demonstrates that this is indeed true as 45.5 percent of parents of male students chose to delay entry into kindergarten while only 13.3 percent of parents of female students made the same choice. This was a higher rate than expected as previous research had shown around 20 percent of male students were enrolled in kindergarten a year late. The question remains: Did the parents of male students enrolled a year late perceive the development of their child any different than those who enrolled their son on-time?

To answer that question, the researcher refers to Table 8. It is noted the differences in mean scores were not statistically significant. But for discussion, the differences in mean is interesting to analyze. In the areas of emotional and academic development, the parents who delayed their son's entry into kindergarten provided more favorable scores than those who enrolled their son on-time. Parents felt their son demonstrated more emotional maturity and handled academic duties better than the parents who enrolled their son on-time. This would support the findings of Crosser in 1991 who found boys who were delayed showed an advantage in math and reading over their peers who enrolled on-time. However, the perceived impact was not just in academic development.

There were also more favorable scores in emotional development. Research showed mixed opinions on if there is an advantage in being delayed entry in terms of

emotional development. Numerous studies reported higher levels of self-esteem, and leadership skills as well as fewer behavioral problems. This would seem to be supported by the data from this study. It is further reinforced by answers to an open-ended question regarding the benefits and/or concerns of the enrollment choice. One parent of an on-time enrolled student noted a regret that the child struggled to catch up with the older students and didn't enjoy school. Another parent of an on-time enrolled child described the difference in maturity levels between his son and the other classmates.

Statistically speaking, this difference previously discussed was not large enough to prove the hypothesis. It is unknown if this same difference would become statistically significant in a larger sample size.

Research Question 2: What reflections do parents have on their kindergarten enrollment choice for their child?

To answer Research Question 2 parents were asked to reflect on their decision to enroll their child in kindergarten. Did the parents feel their enrollment decision benefitted the development of their child? Did they feel enrollment age had an effect on the development of children? Finally, given what they have seen, would parents make the same decision if they had a chance to go back and enroll their child again? The hypothesis was parents who decided to enroll their child on-time would be more likely to question the initial enrollment decision. The responses were initially split between two subgroups: males and females. The findings were not statistically significant, and the low response rate of parents of female students prompted another independent samples *t* test. This time the parents of males who were delayed provided much more favorable responses than those parents of males who were enrolled on-time. When asked if the child had benefitted from the enrollment choice, parents of males who delayed entry

($M=4.8$, $SD=.42$) provided much more favorable responses than those of males who enrolled on-time ($M=3.3$, $SD=1.3$); $t(22)=-3.92$, $p < .05$.

This difference in mean response is very interesting to me. When you refer back to Research Question 1(b), there was no statistically significant difference in how parents perceived the emotional, social, and academic development of the male students. Regardless of if the child was enrolled on-time or delayed entry, the responses were very similar. Yet when asked if they felt their son had benefitted from the enrollment choice, the parents who delayed the entry of their son believed it was a great benefit to the child. The numbers don't seem to correlate. It is possible the parents who enrolled their son on-time may not have felt enrollment age has an effect on the future development of a child. If this were true, the parents would probably not respond with a more favorable answer when asked. This is not the case here as there was no statistically significant difference in how the two subgroups answered question 20 (I feel kindergarten enrollment age has an effect on the future development of a child) on the survey. Both subgroups answered that question with comparable scores. Why then do the parents who delayed enrollment feel so strongly their choice benefitted the children while parents who enrolled their son on-time have a more neutral feeling on the subject?

The answer could be as simple as feeling. The responses about the emotional, social, and academic growth given by parents of sons who were delayed were comparable to the other parents. Since that is the case, the parents may just have a better perception of the "idea" of delaying enrollment. When asked specific questions about the growth, there is no distinguishable advantage. However, when asked about the general concept of enrollment choice, the parents felt there was a definite advantage to delaying enrollment.

These parents agreed with the practice of delaying enrollment and have been given no reason not to continue supporting the concept.

But is the same true for parents of boys who were enrolled on-time? By answering question 18, parents of boys were asked to go back in time, so to speak. If given the chance, would they make the same decision about the kindergarten enrollment of their child? The answers were intriguing. Not a single parent who delayed the enrollment of their son in kindergarten would change his/her mind if given the chance again. However, 50 percent of the parents who enrolled their son on-time either chose “disagree” or “strongly disagree” when posed with that question. This once again creates some confusing questions. If these parents provided similar responses on the emotional, social, and academic questions, why then would they wish they could change their child’s enrollment choice? The answer could lie in the questions posed. It is possible the parents have reasons that aren’t identifiable from the questions they were posed. It might not be an issue of emotional, social, or academic development. The parents were given a chance to provide comments regarding the enrollment choice. The parents who wished they could change provided some vague answers such as, “I would have waited until he was six,” and “I would probably wait another year”. Other parents were more specific, citing “competition in sports” and “we ended up holding him back anyway”. Another parent cited the maturity issues her son has had in relation to his older classmates. Regardless of the reason, half of the parents wished they could change the initial enrollment choice. As shown in Table 8, this desire to change is not supported by the responses to the emotional, social, and academic constructs, but the desire still remains.

Limitations

The results of this study have been limited due to the reliability and validity of the instrument designed in this study. The survey was designed after reviewing the survey. The survey questions dealing with social and emotional development were taken from the Social Competence Scale—Parent Version, created by the Fast Track Project. The Cronbach Alpha scores for these constructs were very solid. The questions in the academic construct were created after a review of the literature and used in a pilot survey. Unfortunately the Cronbach Alpha score for this construct was less than desirable.

The study population for the study was initially intended to be from the five largest school districts in the state of North Dakota. Only three of the initial five agreed to participate, resulting in having to add smaller school districts to the study.

The method of distributing the survey also had an impact on the rate of participation in the study. All surveys were initially mailed out to the parents in an effort to seek participation. The number of participants after the initial mailing was not adequate for the study. Only three schools allowed a second mailing, which thanked parents for their participation and reminded other parents they could still participate, to be sent. Of the three schools that allowed the second mailing, only one school's participation rate increased significantly. This school allowed the survey to be mailed via email.

Ultimately the researcher received a 20% return rate on the surveys. This low number is a limitation when it comes to the validity and statistical significance of the findings. If the study had received a larger sample size the statistical significance would have been higher due to the robust effect sizes. There are however practical implications that can be taken from the results.

Recommendations

For Researchers

Three general observations may be made about the study that could be of benefit to subsequent research on this topic as well as other research. The first observation is that mail-distributed surveys may no longer be the most effective way to send out a survey request. Second, ensuring an adequate response rate is vital toward validating any findings. Finally, when analyzing parent choice, using a qualitative rather than quantitative research design may produce better data to understand parents' feelings on the effect of the kindergarten enrollment choice for their child.

Survey Distribution

As mentioned previously, the survey response rate was not very high after the initial mail-distributed survey request, and the researcher has different theories about this. First, the explanation of the survey may have been confusing, or it may have not created the desire for parents to take the time to complete the survey. Another theory is that parents chose to not take the time to type the website address for the survey into their web browser. This may seem like a trivial task, but the second mailing of the survey provided more insight into this theory.

Three school districts allowed a second mailing to be sent to the parents. All three schools opted to have the survey distributed by electronic mail (email). This second round of mailing (through email) created a swell in response rate. The researcher's theory is the ease of simply clicking on a link in an email eliminated a deterrent to completing the survey. This is of course a theory, but with the availability of technology to the masses, the need for further research on this practice would be of great importance.

Importance of Adequate Sample Size

When looking at the participants of the study, the return rate did not meet the desired 30 percent participation rate. This is concerning as the number of responses makes it difficult to quantify results. Low return rates make it more difficult to find reliability in the data from the study. Rather than finding statistically significant differences, researchers are left with a level of doubt in the validity. This is unfortunate as there may be trends and statistics worth reporting. However, these trends and statistics can be examined for practical implications in the field and future studies.

The numbers of the subgroups also became debilitating. This was shown in the analysis of the female students. Referring back to Table 1, the breakdown of the female students was 13 who were enrolled on-time compared to only two who were delayed. With only two students in the delayed female subgroup, the researcher didn't feel any comparison of this data could be used. The opinion of either parent carried too much weight in this subgroup.

Overall, a larger sample could have created different results and ultimately a higher level of reliability. The responses of certain groups could not be used in certain analysis. More responses might have led to a clearer picture of some findings and increased the validity. The previous observation about survey distribution could play a key role in improving response rates.

Research Design

After completion of data analysis, there were some holes that could not be explained. For example, if there was no statistically significant difference in the response rates for the subgroups, why did a larger number of parents in the on-time boys' group elect to change their enrollment choice if given the chance? Yes, there was an open-

ended response section, but the responses didn't provide much clarity about this discrepancy. It is the researcher's belief a qualitative approach would yield better information, as it would allow the parents to expand upon their thoughts. The brevity of the survey seemed to inhibit that. Qualitative research on this subject could be conducted in a numerous ways. First, a research examining the rationale for parents wanting to change their mind on enrollment could be done through interviews with the parents. Another possible study could focus on interviewing young adults or adults who were enrolled on-time or delayed in their enrollment. In both cases, more insight into the positives and negatives of their experiences could prove to be very useful for future enrollment decisions and policies.

The academic construct questions did not create the validity the researcher would have hoped to achieve. There was a drop-off in the Cronbach Alpha scores from the other two constructs, and this would lead me to believe some of the questions on the survey were poorly constructed questions. The researcher recommends looking for a more established survey to use in place of the academic questions posed in the survey. The emotional and social questions were from a reputable organization and produced statistically sound data.

For School Districts

From this study, the researcher has two observations for school districts. First, the kindergarten enrollment trends of students born in July should be noted. Second, when having discussions with parents who are deciding between enrolling their children on-time or delaying enrollment a year, it is useful to look at the research, including the findings of this study as well as parent surveys.

The rate of delayed enrollment in a school district is especially important information to the district. Previous research has shown varying rates of this practice in schools. Males are twice as likely to be delayed in their enrollment than are females (Mergendoller, Bellisimo, and Horan, 1990; McCaig, 1990). As mentioned previously, there is little research done on delaying enrollment by birth month. Most studies group students together in an “over-age” group. This allows students who were born a month, two months, or even more before the cutoff to be part of the delayed enrollment group. This study only used students born in July, but the results were similar. Males were more likely to be delayed in kindergarten enrollment. In fact, nearly half of the eligible July-born males was delayed in kindergarten enrollment by their parents. This information is useful to school districts in determining enrollment trends.

The responses of the parents can be used to help parents through the difficult decision of kindergarten enrollment. The results of this study show there is little difference in how parents perceive their child’s social, emotional, and academic development, regardless of enrollment choice. Parents can look at studies of how kindergarten enrollment age can affect test scores, graduation rates, etc., but getting parent perceptions of the process can be quite informative as well. The rate at which parents of on-time enrolled males wished they could now change their decision would be a great piece of information for parents who may be on the fence and can’t make a decision.

Finally schools have a wealth of knowledge at their disposal if they choose to seek it out. Parents have been making this kindergarten enrollment decision for their child for years. School districts should be seeking out feedback from these parents to not only

offer insight to future parents but also to improve programs currently in place to ease the transition for children into kindergarten and beyond.

Parents often look to teachers and administrators for guidance when making a decision on when to enroll their child in kindergarten. It is the duty of these professionals to become educated on the trends and issues involving the choice. In schools becoming more educated, parents can receive the best possible information to weigh their options.

For Parents

As a parent of a child born in July, it was the researcher's hope that this study would have uncovered some groundbreaking discovery in the research of this topic. It did add credence to the theory of kindergarten enrollment age having little long-term impact of the development of a child. That information would hopefully be comforting to any parent tasked with the decision to enroll their child in kindergarten or not.

The piece of information that would give concern to parents is that of the parents of on-time males desire to change their decision. Half of the parents in this subgroup wished they could do it over a different way. The answers they provided in the emotional, social, and academic constructs didn't support this decision, yet they still wished they could change their decision. It could be that these parents were unsure from the start, and they have carried that apprehension with them through the years. Anytime a problem may come up for their child, they might see it as a repercussion of sending their child too early. This is an assumption and further research may uncover more on this topic.

In the end, no statistical advantage was found from the data due to sending the child to kindergarten on-time or delaying the enrollment. In the researcher's eyes, this would support any decision the parent chooses to make. There are of course many other factors that could come into consideration, but in terms of this study, age and gender

didn't play a role in how parents perceived their children years after they were enrolled in kindergarten.

APPENDICES

APPENDIX A

LETTER TO SUPERINTENDENTS

March 4, 2014

Dear Superintendent

I am writing you in regards to my research study that I will be conducting under the direction of Dr. Sherryl Houdek, Advisor, of the University of North Dakota. The purpose of this comparative case study will be to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students “on-time”. This study will identify the relationships between the gender and age of a child and the perceived academic, social and emotional growth of the child. This research study will be completed over an 8-week period of time beginning as soon as possible this spring.

With the assistance of your school district, I will be providing a link to a survey (attached) to the parents of students born between July 1, 2003 and July 31, 2003. The purpose will be to seek parent responses regarding his or her child’s academic, social, and emotional development. Responses will also include a parent’s reflection on his or her kindergarten enrollment choice for his or her child. Parent participation is voluntary and all responses are confidential. Only myself, the advisor, and people who audit UND Institutional Review Board procedures will have access to the data. No students, parents, or family will be identified. After three years, I will delete the data from the stored jump drive.

For the purpose of my research I respectfully ask you to designate a contact from your district for me to work with. The contact would be asked to determine what students meet the criteria for me study. The contact would then disperse information to the parents about the study, including the link to the survey, and instructions on how to complete the survey.

If you have time I would welcome the chance to discuss this study with you and seek written approval from your district. Approval will be granted with a approval for the study on your school district’s letterhead. If you have any questions regarding this research project, please contact my advisor, Dr. Sherryl Houdek or me using the information listed below.

Sincerely,

Chris Swenson
Doctoral Student
University of North Dakota
701-238-0233 (Cell)
chris.swenson@sendit.nodak.edu

Dr. Sherryl Houdek
Assistant Professor
University of North Dakota
701-777-2394
sherryl.houdek@email.und.edu

APPENDIX B

LETTER TO PARENTS

Dear Parents/Guardians

I am a doctoral student in Educational Leadership at the University of North Dakota. I am conducting a comparative case study to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students “on-time”. This study will identify the relationships between the gender and age of a child and the perceived academic, social and emotional growth of the child.

Years ago, you had to make an important decision about the enrollment of your child. Since your child had a birthday in July, your child had a birthday that fell just before the North Dakota kindergarten enrollment cutoff of August 1st. Your child either enrolled “on-time” or you chose to wait a year to enroll your child. Regardless of your choice, your knowledge concerning the development of your child could provide important feedback for other parents who are faced with the same enrollment decision you once faced.

This survey is being sent to parents/guardians of students born in July of 2003. Five school districts around the state, including your district are being included in the study. Please take a few minutes to answer the online survey. Your response is very important to the success of the study. The following link will bring you to the online survey and will be available for six weeks.

https://und.qualtrics.com/SE/?SID=SV_3CSJb9GuX9ANczz

Parent participation is voluntary and all responses are confidential. Only myself, the advisor, and people who audit UND Institutional Review Board procedures will have access to the data. No students, parents, or families will be identified. After three years, I will delete the data from the stored jump drive.

If you have any questions regarding this research project, please contact my advisor, Dr. Sherryl Houdek or me using the information listed below.

Thank you for your time.

Sincerely,

Chris Swenson
Doctoral Student
University of North Dakota
701-238-0233 (Cell)
chris.swenson@sendit.nodak.edu

Dr. Sherryl Houdek
Assistant Professor
University of North Dakota
701-777-2394
sherryl.houdek@email.und.edu

APPENDIX C

FOLLOW UP PARENT LETTER

Dear Parents/Guardians

I am a doctoral student in Educational Leadership at the University of North Dakota. I am conducting a comparative case study to formulate recommendations for parents and schools concerning the decision to delay entry for kindergarten students or enroll students “on-time”. This study will identify the relationships between the gender and age of a child and the perceived academic, social and emotional growth of the child.

A few weeks ago, you received a letter detailing my study and providing a website to take the survey for my study. The survey link has been included below to provide easy access to the survey.

https://und.qualtrics.com/SE/?SID=SV_3CSJb9GuX9ANczz

If you have already completed the survey, I want to thank you so much for your willingness to participate. If you are a parent who has not yet taken the survey, I hope this reminder and direct link makes it as easy as possible to participate in the study. The survey should only take a few minutes.

Parent participation is voluntary and all responses are confidential. Only myself, the advisor, and people who audit UND Institutional Review Board procedures will have access to the data. No students, parents, or families will be identified. After three years, I will delete the data from the stored jump drive.

Thank you for your time.

Sincerely,

Chris Swenson

APPENDIX D
IRB APPROVAL LETTER



DIVISION OF RESEARCH & ECONOMIC DEVELOPMENT

UND.edu

**Institutional Review Board
c/o Research Development
and Compliance**
Twamley Hall, Room 106
264 Centennial Drive Stop 7134
Grand Forks, ND 58202-7134
Phone: 701.777.4279
Fax: 701.777.6708

March 20, 2014

Christopher D. Swenson
606 Gilead Avenue
Wyndmere, ND 58081

Dear Mr. Swenson:

We are pleased to inform you that your project titled, "A Study of Parents' Retrospective Opinions on Kindergarten Enrollment" (IRB-201403-356) has been reviewed and approved by the University of North Dakota Institutional Review Board (IRB). The expiration date of this approval is June 30, 2014.

As principal investigator for a study involving human participants, you assume certain responsibilities to the University of North Dakota and the UND IRB. Specifically, any adverse events or departures from the protocol that occur must be reported to the IRB immediately. It is your obligation to inform the IRB in writing if you would like to change aspects of your approved project, prior to implementing such changes.

When your research, including data analysis, is completed, you must submit a Research Project Termination form to the IRB office so your file can be closed. A Termination Form has been enclosed and is also available on the IRB website.

If you have any questions or concerns, please feel free to call me at (701) 777-4279 or e-mail michelle.bowles@research.und.edu.

Sincerely,

A handwritten signature in cursive script that reads "Michelle L. Bowles".

Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/jle

Enclosures

APPENDIX E

SURVEY

Qualtrics Survey Software

2/5/14 4:01 PM

Default Question Block

District in which your child is enrolled:

- Bismarck Public Schools
- Fargo Public Schools
- Grand Forks Public Schools
- Minot Public Schools
- West Fargo Public Schools

Your relationship to child:

- Mother
- Father
- Guardian

Your child's gender:

- Male
- Female

When entering kindergarten, my child was

- Age 5
- Age 6

Question Block 1

	0	1	2	3	4
	Not At All	A Little	Moderately	Well	Very Well
My child can accept things not going his/her way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child copes well with failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child thinks before acting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child works out problems with friends or brothers or sisters on his/her own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question Block 2

	0 Not At All	1 A Little	2 Moderately	3 Well	4 Very Well
My child can calm down himself/herself when excited or wound up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child does what he/she is told to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child is very good at understanding other people's feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child controls his/her temper when there is a disagreement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question Block 3

	0 Not At All	1 A Little	2 Moderately	3 Well	4 Very Well
My child shares things with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child is helpful to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child listens to others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child can give suggestions and opinions without being bossy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question Block 4

	0 Strongly Disagree	1 Disagree	2 Neither Agree nor Disagree	3 Agree	4 Strongly Agree
My child demonstrates stress about academics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child does not like to do homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child does not perform at or above academic grade level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel by child has benefited because of my choice to enroll in kindergarten

- 0 - Strongly Disagree
- 1 - Disagree
- 2 - Neither Agree nor Disagree
- 3 - Agree
- 4 - Strongly Agree

Comments regarding the benefits or concerns of your child's enrollment choice

Given the opportunity again, I would make the same decision about my child's kindergarten enrollment age

- 0 - Strongly Disagree
- 1 - Disagree
- 2 - Neither Agree nor Disagree
- 3 - Agree
- 4 - Strongly Agree

Comments regarding any change of opinion on enrollment choice

I feel kindergarten enrollment age has an effect on the future development of a child

- 0 - Strongly Disagree
- 1 - Disagree
- 2 - Neither Agree or Disagree
- 3 - Agree
- 4 - Strongly Agree

REFERENCES

- Aliprantis, D. (2012). Redshirting, compulsory schooling laws, and educational attainment. *Journal of Educational and Behavioral Statistics*, 37(2), 316-338.
doi:10.3102/1076998610396885
- American Association of School Administrators, A. A. (1990). Some Points To Make When You Talk About the Summit.
- Baker J. and Logan A. J., (2007) Developmental contexts and sporting success: Birthdate and birthplace effects in national hockey league draftees 2000-2005. *British Journal of Sports Medicine* 41: 515-517
- Barnard-Brak, L. (2009). Academic redshirting among children with learning disabilities. *Learning Disabilities: A Contemporary Journal*, 7(1), 43-54. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ865608&site=ehost-live&scope=site;http://www.ldam.org/publications/contemporary.html>
- Barnsley, R. H. and Thompson, A. H. (1988). Birthdate and success in minor hockey: The key to the NHL. *Canadian Journal of Behavioral Science*, 20, 167-176
- Barnsley, R. H., Thompson, A. H., and Barnsley, P. E. (1985). Hockey success and birthdate: The relative age effect. *Canadian Association for Health, Physical Education, and Recreation Journal*, 51, 23-28Y.

- Barnsley, R. H., Thompson, A. H., and Legault, P. (1992, March). *Family Planning: Football Style. The Relative Age Effect in Football*. Retrieved from <http://irs.sagepub.com/content/27/1/77>
- Bedard, K., and Dhuey, E. (2006). The persistence of early childhood maturity: International evidence of long-run age effects. *Quarterly Journal of Economics*, *121*(4), 1437-1472. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=24091802&site=ehost-live&scope=site>
- Bracey, G. (1989). Age and achievement. *Phi Delta Kappan*, *70*(9): 732.
- Black, S. E., Devereux, P. J., and Salvanes, K. G. (2011). Too young to leave the nest? The effects of school starting age. *Review of Economics & Statistics*, *93*(2), 455-467. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=60276806&site=ehost-live&scope=site>
- Byrd, R., M. Weitzman, and P. Auinger. (1997). Increased behavior problems associated with delayed school entry and delayed school progress. *Pediatrics* *100* (4): 651-61
- Cascio, E., and Schanzenbach, D. W. (December 2007). First in the class? Age and the education production function. *NBER Working Paper No. 13663* Retrieved from <http://www.nber.org/papers/w13663.pdf>

Chapter 15.1-22; Kindergarten, North Dakota Century School Code U.S.C. (2011).

Cobley, S., McKenna, J., Baker, J., and Wattie, N. (2009). How pervasive are relative age effects in secondary school education? *Journal of Educational Psychology*, 101(2), 520-528. doi:10.1037/a0013845

Colasanti, M. (2007). *Kindergarten entrance ages: A 30 year trend analysis*. Retrieved from http://inpathways.net/kindergarten_trend_analyses.pdf

Consortium, S. (2010). *Empowering the 21st century superintendent: Themes and action steps for technology leadership*. Retrieved from <http://www.cosn.org/Portals/7/docs/Superintendents/COSNSuptToolkit%20FINAL.PDF>

Crosser, S. L. (1991). Summer birth date children: Kindergarten entrance age and academic achievement. *Journal of Educational Research*, 84(3), 140. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=5812564&site=ehost-live&scope=site>

Datar, A. (2006). Does delaying kindergarten entrance give children a head start? *Economics of Education Review*, 25(1), 43-62. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ724519&site=ehost-live&scope=site>; <http://dx.doi.org/10.1016/j.econedurev.2004.10.004>

Deming, D., and Dynarski, S. (2008). The lengthening of childhood. *Journal of Economic Perspectives*, 22(3), 71-92. doi:10.1257/jep.22.3.71

- Department, D. (2011). *Fall enrollment, teachers, and average teaching salaries for 2011-12*. Retrieved from http://www.dpi.state.nd.us/resource/finfacts/2012/FinFacts_I.pdf
- Dhuey, E., and Lipscomb, S. (2008). What Makes a Leader? Relative Age and High School Leadership. *Economics of Education Review*, 27(2), 173-183.
- Dobkin, C., and Ferreira, F. (2007, July). Do school entry laws affect educational attainment and labor market outcomes? *Mimeo*. University of Pennsylvania.
- Dockett, S., and Perry, B. (2009). Readiness for school: A relational construct. *Australasian Journal of Early Childhood*, 34(1), 20-26. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=39055010&site=ehost-live&scope=site>
- Dougan, K., and Pijanowski, J. (2011). The Effects of Academic Redshirting and Relative Age on Student Achievement. *International Journal of Educational Leadership Preparation*, 6(2),
- Education Commission of the States (2013, January). *Kindergarten Entrance Age*. Retrieved from <http://ecs.force.com/mbdata/mbquestU?SID=a0i70000004J3cq&rep=Kq02&Q=Q3195>
- Education, U. S. D. o. (1995). *National goals for education*. Retrieved June 14, 2012, from <http://www2.ed.gov/pubs/EPTW/eptwgoal.html>

Eisenhart, M.A. and Graue, M.E. (1990). Socially constructed readiness for school.

International Journal of Qualitative Studies in Education, 3(3), 253-269

Elder, T. E. and Lubotsky, D. H. (2009). Kindergarten entrance age and children's achievement: Impacts of state policies, family background, and peers. *Journal of Human Resources*, 44(3), 641-683. Retrieved from

<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ846140&site=ehost-live&scope=site;>

<http://www.ssc.wisc.edu/jhr/>

Elson, J., Donley, M., and Towle, L. H. (1989). The redshirt solution for some children, delaying kindergarten is the right choice. *Time*, 134(20), 102. Retrieved from

<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=57900618&site=ehost-live&scope=site>

Fall Enrollment, Teachers and Average Teacher Salaries for 2011-2012. (2011).

Retrieved from http://www.dpi.state.nd.us/resource/finfacts/2012/FinFacts_I.pdf

Fast Track Project. (n.d.). Retrieved from <http://fasttrackproject.org>

Ford, P. R. and Williams, A. (2011). No Relative Age Effect in the Birth Dates of Award-

Winning Athletes in Male Professional Team Sports. *Research Quarterly For*

Exercise and Sport, 82(3), 570-573.

Gladwell, M. (2008). *Outliers: The story of success*. New York, NY: Little, Brown.

- Glasmer, F. D. and Marciani, L. M., (1990) The importance of relative age to college football participation. Paper delivered at the annual meeting of the Mid-South Sociological Association, Hot Springs, Arkansas, October, 1990.
- Graue, M. E. and DiPerna, J. (2000). Redshirting and early retention: Who gets the “gift of time” and what are its outcomes? *American Educational Research Journal*, 37(2), 509-534. doi:10.2307/1163532
- Graue, M. E. and Kroeger, J., Brown, C. P. (2003). The gift of time: Enactments of developmental thought in early childhood practice. *Early Childhood Research & Practice*. Retrieved from <http://ecrp.uiuc.edu/v5n1/graue.html>
- Grissom, J. B. (2004). Age and achievement. *Education Policy Analysis Archives*, 12(49)
Retrieved from
<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ853516&site=ehost-live&scope=site>
- High, P. C. (2008). School readiness. *Pediatrics*, 121(4), e1008-15. Retrieved from
<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=2009894263&site=ehost-live&scope=site>
- Holloway, J. H. (2003). When children aren't ready for kindergarten. *Educational Leadership*, 60(7), 89-90. Retrieved from
<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ666037&site=ehost-live&scope=site>

Huffman, L. C., Mehlinger, S. L., and Kerivan, A. S. (2000). *Risk factors for academic and behavioral problems at the beginning of school*. Bethesda, MD: National Institute of Mental Health.

IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.

Johnson, B. and Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches*. Thousand Oaks, CA: Sage Publications.

Kagan, S. L. (1990) Readiness 2000: Rethinking rhetoric and responsibility. *Phi Delta Kappan*, 72, 272-279.

Kagan, S.L., Moore, E., and Bredekamp S., eds. 1995. *Reconsidering children's early development and learning: Toward common views and vocabulary*. National Educational Goals Panel. Goal 1 Technical Planning Group. Washington, DD: U.S. Government Printing Office

Katz, L. G. & ERIC Clearinghouse on Elementary and Early, Childhood Education. (2000). *Academic redshirting and young children. ERIC digest*. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED447951&site=ehost-live&scope=site>

- Kelly, V. L. (2009). The impact of technology on superintendent communication. *Journal of School Public Relations*, 30(4), 309-324. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ916864&site=ehost-live&scope=site;http://rowman.com/page/JSPR>
- Kim, J., Murdock, T., and Choi, D. (2005). Investigation of parents' beliefs about readiness for kindergarten: An examination of national household education survey. *Educational Research Quarterly*, 29(2), 3-17. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=19283883&site=ehost-live&scope=site>
- Kurdek, L.A. and Sinclair, R.J. (2001). Predicting reading and mathematics achievement in fourth-grade children from kindergarten readiness scores. *Journal of Educational Psychology*, 93, 451-455.
- Lanier, E. S. (2009). The effect of the kindergarten admission date on students' academic, social and behavioral skills. Retrieved from <http://dl.uncw.edu/etd/2009-1/r1/laniere/elizabethlanier.pdf>
- Liben, L.S. 1987. *Development and learning: Conflict or congruence*. Hillsdale, NJ: Erlbaum.
- Lincove, J. and Painter, G. (2006). Does the age that children start kindergarten matter? Evidence of long-term educational and social outcomes. *Educational Evaluation and Policy Analysis*. 28(2) 153-179.

- Lloyd, J. E. V., Irwin, L. G., and Hertzman, C. (2009). Kindergarten school readiness and fourth-grade literacy and numeracy outcomes of children with special needs: A population-based study. *Educational Psychology, 29*(5), 583-602.
doi:10.1080/01443410903165391
- Lewitt, E. M. and Baker, L. S. (1995). School readiness. *Critical Issues for Children and Youths. 5*, 128-139.
- Malone, L. M., West, J., Denton, K. F., Park, J., National Center for, E. S., and Education Statistics, S. I. (2006). *The early reading and mathematics achievement of children who repeated kindergarten or who began school a year late. Statistics in brief. NCES 2006-064*. National Center for Education Statistics. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED491697&site=ehost-live&scope=site>
- March, C. (2005). Academic redshirting: Does withholding a child from school entrance for one year increase academic success. *Issues in Educational Research, 15*(1), 69-85. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ807973&site=ehost-live&scope=site;>
<http://www.iier.org.au/iier15/2005conts.html>
- Marcoux, E. (2009). The 10-week memo and technology. *Teacher Librarian, 37*(2), 82-83. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=llf&AN=502992470&site=ehost-live&scope=site>

- Marcoux, E. (2009). The 10-week memo and technology. *Teacher Librarian*, 37(2), 82-83. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=llf&AN=502992470&site=ehost-live&scope=site>
- Marshall, H. H. (2003). Opportunity deferred or opportunity taken? An updated look at delaying kindergarten entry. *Young Children*, 58(5), 84-93. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ837037&site=ehost-live&scope=site>; <http://journal.naeyc.org/search/item-detail.asp?page=1&docID=2862&sesID=1240497532207>
- Martin, A. J. (2009). Age appropriateness and motivation, engagement, and performance in high school: Effects of age within cohort, grade retention, and delayed school entry. *Journal of Educational Psychology*, 101(1), 101-114. doi:10.1037/a0013100
- Martin, R. P., Foels, P., Clanton, G., and Moon, K. (2004). Season of birth is related to child retention rates, achievement, and rate of diagnosis of specific LD. *Journal of Learning Disabilities*, 37(4), 307-317. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=2004209263&site=ehost-live&scope=site>
- May, D.C., Kundert, D.K., and Brent, D. (1995). Does delayed school entry reduce later grade retentions and use of special education services? *Remedial and Special Education*, 16, 288-294.

- McCaig, R. (1990). *The practice of holding back children from entry to kindergarten. How widespread is it?* Unpublished manuscript, Grosse Point (MI) Public School System.
- McEwan, P. J. and Shapiro, J. S. (2008). The benefits of delayed primary school enrollment. *Journal of Human Resources*, 43(1), 1-29. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=keh&AN=28747369&site=ehost-live&scope=site>
- McNamara, J. K., Scissons, M., and Simonot, S. (2004). Should we “redshirt” in kindergarten? A study of the effect of age on kindergarteners’ reading readiness. *Alberta Journal of Educational Research*, 50(2), 128-140. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ689611&site=ehost-live&scope=site>; <http://www.education.ualberta.ca/educ/journals/ajer.html>
- Meisels, S. (1992). Doing hard by doing good. Iatrogenic effects of early childhood enrollment and promotion policies. *Early Childhood Education Quarterly*, 7, 155-174
- Mergendoller, J.R., Bellisimo, Y., and Horan, C. (1990, April). *Kindergarten holding out: The role of family background, school characteristics, and parental perceptions*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

- Miller, E., Almon, J., and Alliance, f. C. (2009). *Crisis in the kindergarten: Why children need to play in school*. Alliance for Childhood. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED504839&site=ehost-live&scope=site>
- Montes, G., Lotyczewski, B., Halterman, J., and Hightower, A. (2012). School readiness among children with behavior problems at entrance into kindergarten: Results from a US national study. *European Journal of Pediatrics*, 171(3), 541-548.
doi:10.1007/s00431-011-1605-4
- Narahara, M. (1998). *Kindergarten entrance age and academic achievement*. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED421218&site=ehost-live&scope=site>
- O'Donnell, K., (2008). *Parents' reports of the school readiness of young children from the national household education surveys program of 2007*. (NCES 2008-051. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED502265&site=ehost-live&scope=site>
- O'Reilly, F. L. and Matt, J. J. (2012). The Selection of Gifted Students: Did Malcolm Gladwell Overstate the Role of Relative Age in the Gifted Program Selection Process? *Gifted Child Today*, 35(2), 122-127.

- Offenberg, R. and Holden, B. (1998, August). Kindergarten enrollment age and achievement: Overage enrollment. 106th, San Francisco, CA: Paper presented at the Annual Convention of the American Psychological Association.
- Oshima, T. C. and Domaleski, C. S. (2006). Academic performance gap between summer-birthday and fall-birthday children in grades K-8. *Journal of Educational Research*, 99(4), 212-217. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=20417614&site=ehost-live&scope=site>
- Puhani, P. and Weber, A. (2007). Does the early bird catch the worm? *Empirical Economics*, 32(2-3), 359-386. doi:10.1007/s00181-006-0089-y
- Qualtrics. Released 2014. Qualtrics Research Suite. Provo, UT: Qualtrics
- Robinson, S. L. and Lyon, C. (1994). Early childhood offerings in 1992: Will we be ready for 2000?. *Phi Delta Kappan*, 75(10), 775-78.
- Shepard, L., Graue, M. E., and Catto, S. F. (1989, March). *Delayed entry into kindergarten and escalation of academic demands*. Paper presented at the American Education Research Association, San Francisco.
- Shepard, L. and Smith, M. (1988). Escalating academic demand in kindergarten; Counterproductive policies. *The Elementary School Journal*, 89, 135-145
- Slavin, R. E. (Ed.). (2007). *Educational research in an age of accountability* (1st ed.). Boston, MA: Allyn & Bacon.

- Spitzer, S., Cupp, R., and Parke, R.D. (1995). School entrance age, social acceptance, and self-perception in kindergarten and first grade. *Early Childhood Research Quarterly*, 10, 433-450.
- Stipek, D. and Byler, P. (2001). Academic achievement and social behaviors associated with age of entry into kindergarten. *Journal of Applied Developmental Psychology*, 22(2), 175-189. doi:10.1016/S0193-3973(01)00075-2
- Taylor, A. S. (2003). What to do with Lee? Academic redshirting of one kindergarten-age boy. *Young Children*, 58(5), 94-95. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ679116&site=ehost-live&scope=site>
- Thompson, A. H., Barnsley, R. H., and Dyck, R. J. (1999) A new factor in youth suicide: The relative age effect. *Educational Research*, 14, 56-60
- Thompson, A. H., Barnsley, R. H., and Battle, J. (2004). The Relative Age Effect and the Development of Self-Esteem. *Educational Research*, 46(3), 313-320.
- Thompson, A. H., Barnsley, R. H., and Stebelsky, G. (1991). Born to play ball: The relative age effect and major league baseball. *Sociology of Sport Journal*, 8, 146-151.
- Thompson, A. H. and Bland, R. C. (1995). Social dysfunction and mental illness in a community sample, *Canadian Journal of Psychiatry*, 40, 1-6.

United States Men's Soccer (2013). – 2013 Under-18 Player Pool - U.S. Men's Soccer.

Retrieved from <http://www.ussoccer.com/teams/youth/us-under18-men/player-pool/2012-player-pool.aspx>

United States Women's Soccer (2013). 2013 Under-18 Player Pool - U.S. Women's

Soccer. Retrieved from <http://www.ussoccer.com/teams/youth/us-under18-women/player-pool/2013-player-pool.aspx>

Verachtert, P., De Fraine, B., Onghena, P., and Ghesquière, P. (2010). Season of birth

and school success in the early years of primary education. *Oxford Review of Education*, 36(3), 285-306. doi:10.1080/03054981003629896

Vygotsky, L. [1930–35] 1978. *Mind in society: The development of higher psychological*

processes, eds. & trans. M. Cole, V. John-Steiner, S. Scriber, & E. Souberman. Cambridge, MA: Harvard University Press.

Warder, K. (1999, December). *Born in December: Ready for school?*

West, J., Denton, K., & Germino-Hausken, E. (2000). *America's kindergarteners:*

Findings from the early childhood longitudinal study, kindergarten class of 1998-1999, Fall 1998. Washington, DC: Department of Education.

West, J., Denton, K., Reaney, L. M., National Center for, E. S., and Education Statistics,

S. I. (2000). *The kindergarten year: Findings from the early childhood longitudinal study, kindergarten class of 1998-99*. Retrieved from

<http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED447933&site=ehost-live&scope=site>

West, J., Meek, A., Hurst, D., National Center for, E. S., and Education Statistics, S. I. (2000). *Children who enter kindergarten late or repeat kindergarten: Their characteristics and later school performance*. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED443570&site=ehost-live&scope=site>

Zill, N., Loomis, L. S., and West, J. (1997). *The elementary school performance and adjustment of children who entered kindergarten late or repeated kindergarten: Findings from national surveys* (Statistical analysis report NCES 98-097). Washington, DC: US Department of Education, Office of Educational Research and Improvement. [ED 414 076](#).

Zill, N. and West, J. (2001). *Entering kindergarten: A portrait of American children when they begin school*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved July 31, 2013, from <http://nces.ed.gov/pubs2001/2001035.pdf>