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A Ray of Light: A Mixed-Methods Approach to Understanding Why Parents Choose Montessori Education

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A RAY OF LIGHT:

A MIXED-METHODS APPROACH TO UNDERSTANDING WHY PARENTS CHOOSE MONTESSORI EDUCATION

by

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A RAY OF LIGHT: A MIXED-METHODS APPROACH TO UNDERSTANDING WHY PARENTS CHOOSE MONTESSORI EDUCATION

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This study explored why parents choose Montessori schools for their children. Parents from two public (n = 40) and two private (n = 10) Montessori schools responded to a written survey designed to discern what characteristics parents valued in making their decision. Descriptive statistics, t-tests, and chi-square tests were used to understand the trends present in parents' responses. Comparisons were made between public and private Montessori parents to explore the overarching themes and to determine differences that existed between the two types of parents. The researcher conducted thirteen interviews designed to elicit additional information about why the parents chose Montessori programs and to confirm the results of the quantitative data. Open-ended survey items and interview transcripts were coded using content analysis. Public and private Montessori school parents valued similar factors and characteristics with a few significant differences. Public Montessori parents valued diversity and free tuition while private Montessori parents placed higher value on academic programming. Information obtained from the participants indicated several areas of opportunity for schools to develop creative marketing strategies and to employ innovative strategies for improvement.

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Chapter 1

Introduction

"And such is our duty toward the child: to give a ray of light and to go on our way."

-*Maria Montessori*, The Montessori Method, *p. 72*

Setting the Context

In September 2008, I dropped my daughter off for her first day of preschool – her first school experience. As an educator, I knew the importance of early education experiences and the benefits they offer a student. As a parent, and with no free public school option for preschool, the options for where to send her were overwhelming…and expensive. I found myself weighing the cost of a preschool education against the quality of the program. Would I give my child an advantage dependent upon where I send her to preschool? If so, how long would that advantage last? Through kindergarten? Through college? Will she be more successful in one type of preschool than another? If the preschool tuition was expensive, what, if anything, would our family have to give up in order to send her to that school? And, as a parent, what do I value most in a preschool education?

I spoke with other parents about their decisions to send their children to preschool, or not. We talked about why they chose specific schools. In the end, for our family, it came down to what other parents knew of the school reputation, the curricula, and the cost. For some families I spoke with, it only mattered that the philosophy matched what the parents had hoped for. For others, it was a matter of location or cost alone. I utilized every resource

that I knew to use: word of mouth, my own past experiences, online resources, and I quickly discovered how complicated school choice can be.

I attended a private, church-based preschool program; my husband attended a private, home-based preschool. Ultimately we chose to send our daughter to a preschool program run through the local school district. This particular program integrates children with special needs and children who are developing at age-appropriate levels while following the state's public school curriculum standards.

A close friend of mine only briefly considered anything other than Montessori and she opted to send her sons to a local Montessori school. She spoke so adamantly in support of the Montessori philosophy that I began to wonder what made this philosophy so special. I was able to see a difference in the outlook and behavior or her older son within weeks of beginning school. In kindergarten, I saw how articulate he had become and how he excelled in reading and writing.

My friend who sent her children to a Montessori school inspired me to think about and to do some research into the Montessori philosophy. The more I read and the more I observed the changes in her son, the more curious I became. Why has the Montessori philosophy been so successful? Why is it so popular in some geographical areas? What are the long-term effects of attending Montessori? Who chooses to send their children to Montessori schools and why?

Although I am a supporter of public school, I am of the opinion that school choice can and does define, in part, school reform and improvement initiatives. At the preschool level, school choice is the only option, and with no wide-spread public school option in the traditional sense of having a child attend the neighborhood school at no cost, school choice is

a necessity. Parents are left with the decision as to whether or not to send their child to a preschool program and then with another decision to make about where the child would attend. They must know where to get the information they need to make the best decision possible. They must also consider such factors as curriculum, cost, accessibility, and potential long-tem outcomes for their children.

Problem Statement

Given the past research supporting the idea that school choice can lead to school reform and improvement (Ogawa & Dutton, 1994), I chose to focus my doctoral research on why parents choose specific early learning opportunities for their children. Specifically, I focused on what elements of Montessori draw parents to the programs and what differences exist between parents who chose public Montessori versus private Montessori.

Purpose Statement

The purpose of this research was to explore why parents choose Montessori schooling as their school of choice. It was also to more specifically determine what elements of the Montessori philosophy attract parents to this type of education.

Research Questions

Central Question

- What elements of Montessori education lead parents to choose this as the schooling option for their children?

Secondary Questions

- Does the practice of the multi-age classroom positively affect parents' choice?
- Do Montessori schools attract a certain demographic profile of students?

Methodology

This study was conducted using a mixed quantitative and phenomenology qualitative approach. Parents at four Montessori schools, two public and two private, were asked to complete a written survey with items designed to answer the research questions. Multiple schools were chosen to represent diverse geographical backgrounds (i.e., West Coast, Midwest, and East Coast). Using four schools allowed the researcher to better understand why families are choosing the Montessori *method* rather than examining why parents are choosing a specific Montessori *school*. The geographic diversity allowed the researcher to examine broad trends in why parents choose Montessori programs rather than finding potential reasons related to geographically specific issues. To best understand the parents' perspectives, the survey was comprised of several types of questions including: Likert Scale, ranking, best answer, and open-ended.

At the conclusion of the quantitative portion of the study, 13 Montessori parents representing all four participating schools participated in an interview with the researcher. The purpose of interviewing the 13 parents was two-fold. First, the data obtained in the survey could be confirmed through the parents comments; and, second, additional trends could be identified through the interview responses. The qualitative aspect of this study was

designed to gather more in-depth information about parents' thoughts about choosing Montessori.

Definition of Terms

Montessori – "A holistic educational approach where the teacher acts as a guide and the multi-age classroom is filled with self-teaching objects to develop high levels of self-esteem, self-confidence, and competence" (Corry, 2006, p. 12)

Montessori School – A school, not necessarily affiliated with AMS or AMI, but that follows the Montessori educational philosophy. These schools may be public schools.

General education – "A traditional approach where the teacher delivers district-prescribed curriculum using a variety of instructional methods to reach all students in his/her classroom" (Corry, 2006, p.12)

Learning – meaning making (Loeffler, 2002)

Multi-age classrooms – Classrooms with students of multiple ages – not defined by a specific school grade

Ungraded classrooms – Classrooms with students of multiple ages – not defined by a specific school grade

Practical Life –Experiences in which the children do real world activities (i.e., cutting, ironing, sweeping) (Chattin-McNichols, 1992)

Sensorial exercises – "Those exercises pertaining to the development of the five senses and to providing a foundation for speech, writing, and arithmetic…" (Hainstock, 1997, 109)

Cycle of activity – When children work on and complete a particular task (Hainstock, 1997)

Formative years – Montessori defined the formative years as ages 0-6 (Hainstock, 1997). Specifically, Montessori defined ages three to six as being particularly influential in a child's development (Montessori, 1995).

Isolation of difficulty – One aspect of a task that the student can work toward mastering in order to gain a better understanding of the task (Hainstock, 1997)

Control of error – How a child uses self-correcting materials to learn self-discipline (Montessori, 1995)

Early childhood – For the purposes of this study, early childhood was defined as preschool through grade three.

Magnet Schools – Magnet schools are schools within a public school system that focus on a specific curriculum area (i.e., math and science, the arts) and enroll students from the public school district (Goldhaber, 1999).

Assumptions

The researcher assumed that parents were honest in their responses to the questions about school choice and their experience with Montessori education. She also assumed that the parents being surveyed made the choice to send their children to Montessori as opposed to other school programs. Finally, the researcher assumed that parents will have to make

another choice regarding their child's education experience. Private Montessori programs do not typically continue past third grade, and many public Montessori programs do not continue past elementary school (i.e., fifth or sixth grade), so parents must decide when to move their children and to what type of program.

Delimitations

This study focused on four Montessori schools on the West Coast, in the Midwest, and on the East Coast. Social, political, economic, and philosophical factors specific to each these geographic regions may have differed between one research site and the others and compared to the same factors in other geographic regions of the United States. The deliberate choice to four, geographically diverse sites allowed the researcher to look at why parents choose the Montessori *method* rather than limiting the results to one specific school or geographic region.

Furthermore, this study focused on early childhood experiences because Montessori schooling typically ends no later than third grade in private schools and fifth or sixth grade in public schools. Though this complicated the ability to draw direct comparisons to public school programs, the researcher was able to find two public Montessori elementary schools with preschool options.

Limitations

Although parents were asked some open-ended questions, this quantitative study may have limited the depth of response of those parents who responded to those questions. There were some follow-up interviews conducted, but these interviews will not necessarily be

representative of all Montessori parents because not every parent was interviewed. Furthermore, the surveys were typically completed by the mothers of Montessori students. It is unclear how fathers' (or other adults') responses would have differed from the mothers' responses.

Significance

This study promises to provide an opportunity to better understand why parents are making the choices they are when it comes to their children's early education. With President Obama's plan to expand early learning opportunities, this study could provide direction to the creation and implementation of innovative early learning programs. The findings may also provide opportunities for policy makers to adapt the strengths of Montessori for their use in public school classrooms. Finally, the results may also be helpful to parents who are beginning the process of school choice, whether at a preschool or school-age level.

Chapter 2

Literature Review

This study focuses on the reasons parents choose Montessori education for their children. Extensive research has been done in the areas of school choice and Montessori schools, but there has been little research focused specifically on why parents choose a Montessori program. This review of the literature will begin with an introduction to historical trends in education reform, current trends in education, and school choice before exploring Maria Montessori, the historical context of the Montessori method, multi-age classrooms, and Montessori methodology as it is used in public school systems. In fact, Montessori believed strongly in education reform and focused her work on change in education rather than following the traditional norms (Hainstock, 1997).

Historical Shifts in Education Reform

Six major historical shifts have greatly impacted educational reform (Preuss, 2007) and given rise to the need for school choice. In 1954 the Supreme Court decision in Brown v. Board of Education desegregated schools and led to a battle for civil rights. The National Defense of Education Act in 1958 increased schools' focus on math, science, and foreign languages and represented the first federal mandates in public education. Title IX prohibited discrimination based on gender for any program receiving federal funding. The growth of teachers unions (i.e., National Educators Association and American Federation of Teachers) in the 1960s led to collective bargaining for teacher contracts. The 1975 Individuals with Disabilities Act guaranteed a free and appropriate public education to all students. Finally,

President Bush's No Child Left Behind Act of 2002 required student learning to be assessed in a standardized way and that data-driven decision making be used in improvement efforts.

The No Child Left Behind Act (NCLB) was signed into law on January 8, 2002 and increased federal funding to states by almost 25%. With the increase in funding came an increase in the federal mandates. NCLB represented the most expansive involvement the federal government has had in public education in American history. The act requires teachers to be highly qualified, research-based practices to be used for instruction, data to be used in making decisions, and states to be held accountable for their schools' performance (Yell & Drasgow, 2005).

Among the many titles of the law is one that promotes "informed parental choice and innovative programs" (p. 11). This title focused on developing innovative programming, increasing opportunities for the creation of public charter schools (publically funded schools that are not required to adhere to regulations as strictly as traditional public schools), assisting magnet schools (diverse and selective public schools that offer innovative programming), and funding educational improvements (Yell & Drasgow).

Current Education Reform Efforts

With the election of President Barack Obama in 2008 came new promises of educational reform. President Obama has spoken of the need for American students to be better prepared to enter college and to enter the workforce. To fulfill this need, the president has promised a renewed focus on improving K-12 education, making higher education more accessible, and preparing students for success in kindergarten (Organized for America, n.d.).

The American Recovery and Reinvestment Act was passed into law on February 18, 2009 (U.S. Department of Education, 2009). This act allocated $77 billion for elementary and secondary education. According to the official White House web site, President Obama indicated his support for charter schools, high academic standards and curricula, and incentives for supporting teachers (The White House, n.d.). Five billion dollars were set aside for use in early education programming. An additional $5 billion were meant for funding innovative and ambitious reform efforts designed to close the achievement gaps; and, $30 billion were to address issues relating to college accessibility (The White House). The 2010 fiscal year saw an increase in the budget for early childhood programming. The additional $300 million was for the Early Learning Challenge Fund to help states develop high quality early childhood programs (Duncan, 2009). Before any state can receive money from the American Recovery and Reinvestment Act, the state must demonstrate improvement in the effectiveness of teachers, improvement in the quality of academic standards, commitment to fixing the worst performing schools, and that a system has been created to track students across school years and schools (Duncan, 2009).

Leadership and Reform Efforts

College readiness rates have become a crisis because of the "skills needed in today's knowledge economy" (Wagner, et al., 2006, p. 3). Most people earn their living through knowledge rather than hard labor and that today's students require a new set of skills to become successful. Wagner, et al. named three categories of beliefs and behaviors that must be changed in order to transform schools: responsiveness (i.e., reacting to constituent needs), leading and following (i.e., lack of collaboration and/or follow-through), and

autonomy (i.e., teachers valuing independence in their work or not engaging in collaborative discussions regarding their work). In light of these beliefs and behaviors, the authors named seven disciplines that can be used to strengthen instruction:

1. "Urgency for instructional improvement using real data" (p. 28)
2. "Shared vision of good teaching" (p. 29)
3. "Meetings about the work" (p. 29)
4. "Shared vision of student results" (p. 29-30)
5. "Effective supervision" (p. 30)
6. "Professional development" (p. 31)
7. "Diagnostic data with accountable collaboration" (p. 31-32)

The increased emphasis on data-driven decision making that arose from the passage of NCLB aligned with Wagner, et al.'s (2006) instructional improvement disciplines. Preuss (2007) defined this use of data as a "system of deeply rooted beliefs, actions, and processes that infuses organizational culture and regularly organizes and transforms data to wisdom for the purpose of making organizational decisions" (p. 118). The practical implication of data-driven decision making in school systems was to improve student performance and learning by identifying areas of need. Data may have come from many sources including demographic data, constituents' perceptions of their experiences within the school system, artifacts of student learning (i.e., standardized tests, grades, teacher-made assessments), and school system statistics (i.e., retention and dropout rates, attendance rates, graduation rates).

The National Study of School Education (2003) released a guide for school systems to focus their improvement efforts on student learning. They defined the process of improvement as "comprehensive and continuous" (p. 1) and noted that the use of data is

critical to the improvement. The four main components of improvement efforts were stated as:

1) *Building a shared vision*. The values and beliefs, mission, and desired future of the school system should be defined as a collaborative process using data to help define the vision.
2) *Developing the profile*. Data, including student achievement, effectiveness of instructional and/or organizational methods, constituents' perceptions, and demographic information, must be used to create a profile of what the system looks like.
3) *Designing the plan.* The plan should be based on the vision and profiled and should identify a few key areas for desired improvement. How and when the improvement plan will be implemented is a critical piece of this step.
4) *Implementing and documenting results.* The improvement process should be evaluated to determine successes and areas needing additional resources. It is important to document the improvements that have been made.

Deal and Peterson (1999) and Fullan (2008) all argued that leadership is a key factor in determining school culture and the success of change or improvement processes. A positive environment is necessary to see the best student results, and the school's culture shapes, both positively and negatively, how people believe and behave (Deal & Peterson). According to these researchers, a leader can influence the development and refining of school culture.

Fullan (2008) articulated six secrets that leaders can employ to help their organizations successfully navigate change. First, the organization (i.e., school) must love its employees. That is, the employees (i.e., teachers and other staff members) must know they are valued. Second, the leader should make purposeful interpersonal connections focused on results. Third, improvement must always be a focus when developing new resources and motivating employees. While ineffective policy and practice must be identified and addressed, the focus should be on the positive aspects of improvement. Fourth, professional learning (i.e., professional development) must be put into practice. It is not enough to attend workshops and classes without putting that learning into practice within the classrooms. Fifth, there must be transparency in results. Finally, the learning must come from within the system.

An additional aspect of Wagner, et al.'s (2006) seven disciplines that has received much attention in schools in recent years is the practice of Professional Learning Communities (PLC). A PLC is a group of educators who meet to collaboratively explore and discuss issues relating to student learning and how to use data to support and ensure student learning (DuFour, 2005). Sparks (2005) suggested that a leader can influence conversations by modeling articulating points of view using what he called "Teachable Points of View." He claimed that teachers have traditionally been unhappy with professional development and that there should be more focus on meaningful professional development opportunities that encourage dialogue and collaboration. The implementation of PLCs, however, faces challenges as well. DuFour, Eaker, and DuFour (2005) acknowledged that there are three main challenges that advocates of PLCs face: "developing and applying shared

knowledge….sustaining the hard work of change.…and transforming the school culture" (p. 9).

School Choice

School choice begins with the assumption that different schools will best serve different types of students. Raywid (2001) stated that one school environment may work better than another for any specific student. Corry (2006) contended that different school choice options can be equally successful in preparing students for high school.

According to the 2007 Phi Delta Kappa/Gallup poll, the public view of No Child Left Behind (NCLB) had grown increasingly negative, even though more people, regardless of whether they had children in school, were aware of NCLB. Public belief was that the NCLB "emphasis on English and math is reducing the attention to other subjects and that this is a matter of concern" (Rose and Gallup, 2007, p. 36). In fact, the public opinion of standardized testing has also grown more negative. While three-quarters of the population would like to seek ways to improve public education, one-quarter are looking for alternatives to public education (Rose and Gallup). To this end, it is critical that educators understand the specifics of school choice and why parents are choosing options other than public school.

Rose and Gallup (2007) reported reasons why the public may be looking to alternatives. One such reason is that they are looking for schools to be holistic. That is, the public wants the behavioral, social, and emotional needs of the students addressed in addition to the academic needs. Additionally, the public is concerned with a lack of funding for the public schools.

Jonathan Kozol suggested that parents will do whatever it takes to guarantee that their children receive a good education (Greene, 1998). They will ensure their children receive a good education at any cost (Greene). Corry (2006) encouraged the assumption that all parents want educational success for their children. While much research has been dedicated to exploring the alternatives to public school (i.e., home school, private schools, public/private vouchers), less research has been conducted exploring why parents choose to enroll their children in specific early education programs.

Parent choice may "stimulate educational reform and improvement" (Ogawa & Dutton, 1994). Goldhaber (1999) asserted that school choice should lead to an improved education system and more parental control over the educational choices regarding their children. He stated that school choice creates competition amongst schools based on the quality of those schools. When schools experience competition, both parent involvement and student achievement increase (Peterson, 2001). Longer-term effects such as higher college attendance raters and higher incomes for graduates also occurred. However, it is unclear whether these findings are able to be generalized to populations other than middle-class areas (Peterson).

An additional researcher has supported the idea that school choice may lead to improved school quality (Fossey, 1994). In spite of the potential for education improvement, most of the school choice research has focused on choices other than public schools. Many alternatives to public school exist including: home schooling and private school (Meink, 2004). Researchers Ogawa and Dutton (1994) cite magnet schools, charter schools, and public/private voucher systems as additional alternatives to public schools. These schools range from the most centralized magnet schools that are most closely related to public

schools to the most de-centralized public/private vouchers that are the least closely related to public schools.

Raywid (2001) suggested that parents should have some way of knowing what the schools are doing for the students, but cautioned that new forms of assessment, beyond standardized testing, need to be explored in order to define success. Among the assessments he suggested was the need to look at teacher turnover rates. The idea that parents can have some say in their children's education shifts the power to the parents. This power allows them to choose the best schooling option for their children (Schneider, Marschall, Teske, & Roche, 1998) whether that be public school, private school, home schooling, or other school choice options.

Past research has indicated several trends among parents who make choices about the school their child(ren) attend. These choosing parents tend to be better educated than non-choosing parents (Ogawa & Dutton, 1994; Martinez et al., 1994) and were typically more dissatisfied with their student's school arrangement at the time of choice (Ogawa & Dutton). Low-income families and parents who were not as well educated were less aware of school choice options (Ogawa & Dutton). Conversely, white families and families from higher socio-economic backgrounds were in a better position to participate in school choice (Peterson, 2001).

Parents use many factors when making decisions regarding their children's schooling and need access to as much information as possible in order to make the best educational choices for their children. Some such information includes why parents chose a specific school setting. School quality was consistently named among the top reasons parents chose a specific school (Ogawa & Dutton, 1994; Martinez et al., 1994; Petronio, 1996) regardless of

the parents' ethnicity (Ogawa & Dutton). Parents preferred to see their children in a school environment that "stimulated curiosity and encouraged exploration" (Petronio, p. 33). Martinez et al. also cited the school's learning climate and discipline program as indicators in school choice. In spite of Martinez et al.'s research, there has been little research looking at how school culture affects parents' decision-making in school choice.

Goldhaber (1999) supported the idea that parents choose educational experiences for many reasons including: safety, religion, and demographics. Schneider et al. (1998) found that school safety is a significant reason for parents' decisions – especially for minority families. Parents of minority children, as opposed to white children, were likely to want their child's school to provide "a safe environment in which the fundamentals of education are delivered" (Schneider et al.,1998, p. 498).

When choosing schools, parents tended to choose those that had educational philosophies that most closely matched their own (Bomotti, 1996). Greene (1998) suggested that people choose schools based on strengths in certain, specific subject areas and teaching and learning techniques. Situational factors such as financial benefits or hardships, convenience, and school proximity were among the reasons parents cited for choosing a specific school (Ogawa & Dutton, 1994). Fossey (1994) furthered the reasons for choosing schools by including academics as an indicator for why parents may change school districts.

Fossey's (1994) research indicated qualities of inter-district school choice. Parents tended to enroll their children in districts that had better socioeconomic backgrounds and that had better student achievement than the students' home district. Receiving districts had higher median incomes as well as more highly educated adults. The receiving districts spent more money per student, had lower dropout rates, and had higher standardized test scores.

Out of school suspension rates were lower in receiving districts than in the sending districts (Fossey). Parker (2007) supported this finding by stating that parents from higher socio-economic backgrounds tended to be more aware of educational issues and the quality of schools.

While there are many reasons why parents choose a specific school, a few indicators have been identified as *not* making major contributions to parents' choices. Petronio (1996) stated that school-to-school comparisons of standardized test scores were not likely to sway parents' decisions about the best schools for their children. Parents were not likely to choose a school so that the student body was of a similar racial background to the student's own racial background. In fact, Schneider et al. (1998) found that less than one percent of the participants in their study indicated racial similarity as a contributor to why they chose a specific school.

While many benefits to school choice may exist, it remains unclear how student achievement is affected by school choice (Martinez et al., 1994). Some research exists that supports the possibility that school choice will actually increase racial segregation as well as segregation by socioeconomic status and cultural backgrounds (Bomotti, 1996; Fuller, 1996; Schneider et al., 1998). It is possible that this racial segregation is due to the fact that different racial groups may want different things from schools (Schneider et al.).

There is a belief that parent choice will ultimately improve parent satisfaction with their children's education (Ogawa & Dutton, 1994). Parker (2007) went further and said that parents who choose [other school options] tend to be more satisfied than public school parents. Parents draw on their own educational experiences when making decisions about their children's education (Nield, 2005) as well as relying on other sources of information

when researching schools. Friends and family may make referrals to choosing parents about school options that they are aware of (Bomotti, 1996; Martinez et al., 1994). This parent-to-parent exchange was true of both high and low income families (Parker). Television, radio, and newspapers also serve as sources of information regarding school choice (Martinez et al.). It is unclear from this research how much other sources of information (i.e., internet) influence parents' decisions and whether the information available to parents could limit who is able to choose due to issues of race, gender, socioeconomic background, ethnicity, etc.

Peterson (2001) introduced the concept of social capital in school choice settings. Essentially, social capital is "the resources that are generated by accidental interactions among adults in a well-functioning community" (p. 137). The question is what kinds of schools best lend themselves to promoting social capital. Do private schools limit social capital because of the seeming isolation of different community groups (i.e., families are not necessarily from a specific neighborhood or demographic background)? Or, is it possible that parents who actively participate in school choice increase the opportunity to create social capital because of the likelihood that parents will seek other parents' opinions about school choice (Peterson)?

In order to make the best decisions possible, parents must have access to the information necessary to make informed decisions (Martinez et al., 1994; Gilles, 1998). Unfortunately, parents are not always armed with enough of the information they need to make decisions, and the information that is available is hard for parents to obtain (Nield, 2005 and Peterson, 2001). Parents should have access to data about the program quality and admission rates to a particular school before making the decision about whether to send their children to that school. They should know the likelihood of their children being accepted into

a school. Some schools and districts have offered guidance counseling to help families understand school choice options (Nield). Other districts have used such concepts as Parent Information Centers to help parents gain access to the necessary information (Petronio, 1996).

School Choice Options

For many parents, traditional public school is not where they choose to send their school. For these parents, many other options exist. Though the choices are many, a few are introduced here.

Home Schooling

Parents indicated their religious beliefs as one of the main reasons they choose home schooling. Some parents believed that they were better suited to teach the religious and moral values they wanted their children to know. Others believed that "God" has been too far removed from public school settings (Meink, 2004). While Meink stated that Christianity is the predominant religion among home school families, she also cited religious beliefs and practices as a significant reason why parents remove their children from public schools. It signals the need for additional research that examines why parents choose homeschooling over other non-public school settings.

Private Schools

Goldhaber (1999) cautioned about comparing public schools and private schools citing conflicting results about whether private or public schools are better. Private schools

are able to use admissions criteria to limit enrollment whereas public schools are not permitted to do so. Furthermore, one might assume that parents who are willing to pay for schooling may also be more likely to set up educational environments within the home (Goldhaber).

There is a host of reasons as to why parents may choose to send their children to private schools. Families may choose private schools because the private schools may outperform public schools in standardized testing, graduation rates, and the probability that the graduated students will attend college. Some studies, however, indicated that there was not a significant difference in how public and private schools educate students and that private schools are not necessarily more effective at using resources than the public school counterparts (Goldhaber, 1997). Unless the public school demonstrates better performance than the alternative private school, many parents were more likely to choose the private school (Goldhaber).

The use of government funds to allow families to choose private schools has been the subject of much debate in recent years. Some advocates of using these public/private vouchers argue that public schools will ultimately improve as a result of a voucher system (Goldhaber, 1997). Viteritti (1998) stated that case law is not likely to find any reason in the Establishment Clause of the First Amendment as to why public funds cannot be used to send children to religious private schools.

Greene (1998) suggested that privately operated schools may help develop civic values such as tolerance because of the schools' focus on self-esteem and identity. Additionally, research has suggested that private school students are more likely to engage in community service work than their public school counterparts (Greene).

Montessori Schools

The majority of Montessori schools are private and must be paid for by the parents (Chattin-McNichols, 1992). Parker (2007) reported that Montessori parents were actively involved in the school choice process. When choosing a school, Montessori parents gave highest priority to an individual child's development but also considered curriculum, development of work habits, teaching strategy, and social development. These parents believed that their children preferred hands-on learning. However, some parents worried that the lack of pressure to succeed would negatively affect the student later on (Parker). Some parents may use Montessori schools to be the stepping stone for getting their children into elite private schools (Chattin-McNichols).

Maria Montessori and Montessori Education

Born in 1870 (Edwards, 2002) and the only daughter of wealthy parents, Maria Montessori's parents supported her quest for education (Mooney, 2000). In 1896, she became the first woman in Italy to graduate from medical school, specializing in pediatrics (Hainstock, 1997). After graduation, Maria Montessori took a job with the University of Rome visiting insane asylums to choose patients who would receive treatment (Hainstock). She became most interested in the children who were considered retarded and how she could help them learn (Chattin-McNichols, 1992) believing that even retarded citizens could learn and be contributing members of society (Powell, 2001). Montessori observed children to determine their needs (Mooney, 2000) and developed ways to help them learn. "Montessori believed that perhaps her greatest discovery was that of true child nature and how this is

often misunderstood by adults" (Elkind, 2003, p. 27). In fact, her early writings focused on children's needs and how to adapt education to meet them (Loeffler, 2002).

Montessori saw a need for educational reform and she became more concerned with "change than with tradition" (Hainstock, 1997, p. 9). She believed that children could be very successful, regardless of background or apparent ability, if they were placed in the right environment (Vardin, 2003). To this end, Montessori programs are focused around the idea that education should be determined by a child's needs and not by societal pressures (Chattin-McNichols, 1992).

Maria Montessori was motivated by the belief that children were "inherently good…[and] were the major hope for a better and more peaceful world" (Powell, p. 32). She wrote, "Nature always sees to it that the child is protected. He is born of love, and love is his natural origin" (Montessori, 1995, p. 30). She viewed children as individuals and recognized the need to teach them individually rather than as part of a group (Loeffler, 2002). Montessori noted, "The education of our day is rich in methods, aims and social ends, but one must still say that it takes no account of life itself" (Montessori, 1995, p. 10). Based on this belief, Maria Montessori included the development of "independence, responsibility, and respect for others" in her educational philosophy (Chattin-McNichols, 1992 p. 4).

In 1907, Montessori opened the Casa del Bambini in a poor Roman neighborhood (Mooney, 2000). She believed that activity must be organized and purposeful if it was to be a meaningful learning experience (Mooney) and that the school should adapt to the child – not the child to the school (Chattin-McNichols,, 1992). The Casa del Bambini was furnished with child-sized materials (Mooney), an element that is still practiced in Montessori classrooms (Chattin-McNichols).

At the time she opened her first school, the use of child-sized materials and the independent work she so strongly believed in were considered radical (Mooney, 2000). In fact, Montessori classrooms were originally furnished with many items that were revised or later taken out of the classroom based on children's interests (Montessori, 1995).

Although Montessori began as a researcher, observer, and innovator, "aware of the need for change and constant updating, [she] suddenly seemed to feel that her goal had been reached and that there was no further need for improvement and growth" (Hainstock, 1997, p. 31). Her writings became repetitions of her earlier work and worked more for the preservation of the Montessori movement than its continued development (Hainstock). This change in how she worked and viewed education led some to be critical of Montessori.

Montessori Education in the United States

By 1913, there were approximately 100 Montessori schools in the United States (Hainstock, 1997). The program was largely supported and financed by Alexander Graham Bell and Thomas Edison. At the time, the Montessori method was seen as a type of social reform. However, the reaction to Montessori by the professional teaching community helped lead to the demise of the movement in the U.S. Part of the failure of the method in the United States was due to Montessori's need to have "total control over everything pertaining to her method: teacher training, written material, etcetera" (Hainstock, 1997, p. 22).

Years later in 1958, Nancy McCormick Rambusch opened a Montessori school in her home (Hainstock, 1997). She was ultimately responsible for the resurgence of the Montessori method in the United States. The second arrival of Montessori schools in the United States

was largely private and reliant on tuition; the schools were, therefore, typically found in middle-class neighborhoods (Chattin-McNichols, 1992).

Parents became increasingly interested in enrolling their children in Montessori schools, and programs had waitlists for families who were interested. Montessori education became a "symbol of prestige" (Hainstock, 1997, p. 26) and there was a push to open Montessori programs at preschool and elementary levels in public schools (Edwards, 2002). Some of the many ways in which Montessori schools and traditional public schools differ are illustrated in Table 1. Perhaps it is these differences that have led for a renewed push for public Montessori options.

Quoting J. Chattin-McNichols, Ruenzel (1997) wrote, "In this country, Montessori has always been a movement of dissatisfied middle-class parents who want something beyond the status-quo." The "overselling" of the Montessori movement left the "overeager public looking for magic, …confused [and] angry" (Hainstock, 1997, p. 27).

There is no one way to implement Montessori philosophy (Corry, 2006). The practice of the Montessori method has been largely criticized by the Montessori purists who strictly follow Maria Montessori's original philosophy. Others claim that the purists refuse to see the potential for the philosophy and practice (Hainstock, 1997). Today, there remains controversy among Montessori schools. There are two Montessori Associations associated with schools: the American Montessori Society (AMS) and the Association Montessori Internationale (AMI) (Cohen, 1990b). As of 1990, more than 700 schools are affiliated with the AMS. These schools tend to adapt and update the model (Cohen, 1990b) and to be more eclectic (Corry). There are approximately 130 schools affiliated with the AMI. These schools maintain strict adherence to Montessori's original method (Cohen, 1990b and Corry).

Table 1

*A Brief Comparison of Montessori Classrooms to Traditional Public School Classrooms**

Classroom Elements	**Montessori School**	**Traditional Public School**
Classroom	Child-sized materials, open work space, self-correcting materials, manipulatives, students work at own pace	Desks, tables, confined time/space for work, students work at teacher's pace
Curriculum	Self-correcting learning materials to help students learn on their own at their own pace, student interest	State guidelines, textbooks, whole and small group instruction
Teacher role	Observe, guide	Instruct, direct
Students' role	Self-learning, help teach other students	Listen, follow directions
Student motivation	Internal (i.e., self-learning)	External (i.e., teacher, grades)
Making/correcting errors	Self-correcting materials	Teacher corrected
Grades (i.e., K, 1, 2, 3)	Multi-age grouping	Same-age grouping
Discipline	Self-discipline encouraged by environment	Teacher/school-led discipline

*(Corry, 2006, and Hainstock, 1997)

Ruenzel (1997) reported approximately 5000 Montessori schools in the United States. Approximately 20 percent are associated with either AMS or AMI (Edwards, 2002); most are not affiliated with either (Chattin-McNichols, 1992).

Furthermore, there is no trademark on the Montessori name (Ruenzel, 1997) making it impossible to generalize Montessori education (Schapiro, 2003). Any school could theoretically use the Montessori name (Chattin-McNichols, 1992). There is no standard definition of a Montessori school or classroom (Schapiro). Schools can make a classroom appear Montessori in nature by using the materials but without necessarily using Montessori theory or practice (Hainstock, 1997). In some classrooms, more emphasis had been placed on the Montessori learning materials than on the Montessori philosophy (Hainstock).

The Montessori Method

Dr. Maria Montessori compared education to the act of swaddling a young baby by discussing the restriction of movement in education. The Montessori method encourages students to be comfortable in their own environment (Montessori, 2008). Though there is no agreement about how Montessori should look in practice (Cohen, 1990b), there are three primary principals of Montessori education. They are: observation, individual liberty, and the preparation of the environment (Hainstock, 1997). Chattin-McNichols (1992) echoed these sentiments by calling student choice, teacher expectations, careful classroom/materials layout, and student redirection the pillars of Montessori education. Montessori education embodies the concept that respect for the child will teach the child to be respectful in the greater world (Chattin-McNichols).

Dr. Montessori believed that observation was the only scientific method suitable for studying children (Bodrova, 2003). In her book *The Montessori Method*, she wrote, "The pedagogical method of observation has for its base the *liberty* of the child; and *liberty* is *activity*" (Montessori, 2008, p. 60). Flynn (1990) claimed that Montessori schools provide the "social and emotional growth that enables children to become 'heroes of their own lives'" (p. 4). Montessori methodology is designed to help children to become intrinsically motivated.

Maria Montessori (1995) believed that children absorb their surroundings and play to make sense of the things they have already observed. She referred to this learning as "The Absorbent Mind." Montessori stressed the importance of individual choice and self-directed learning (Powell, 2001). Children are very involved in constructing their own knowledge (Elkind, 2003). Learning is increased the more personalized and relevant the information is to the student (Loeffler, 2002). Students have free movement within the classroom (Powell) to choose the activities they will work on at any given time. Montessori established that learning takes place within the child and that it does not come from outside sources (Loeffler).

Children in Montessori classrooms are free to choose tasks, but those tasks must be thoroughly organized (Montessori, 1995). When free to act in a supportive environment, Montessori noted that young children (ages 3-6) had "the ability to concentrate, the need and enjoyment of meaningful activity or work which led to competence and independence, the ability to evidence self-discipline or self-regulation, and sociability or the desire to be a responsible and contributing member of a community" (Loeffler, 2002, p. 34).

Montessori believed that children learned best from his/her own actions and that they should be able to work without interruption from other students (Chattin-McNichols, 1992). Certainly, Montessori classrooms were designed to be self-directed environments that helped foster children's independence (Montessori, 2008). Children reward themselves for good work; there are no rewards from the teacher (Chattin-McNichols).

A Montessori classroom must be "responsive and empowering" to facilitate children's social/emotional learning (Powell, 2001, p. 32). The classroom is arranged with low, open shelving that makes the materials accessible to children without the necessary help of the teacher (Mooney, 2000). Montessori (2008) advocated the use of small tables that were lightweight enough that the children could move them as well as lightweight chairs and child-sized sinks and cupboards. The classroom environment is calm, and teachers work with individual students (Chattin-McNichols, 1992). Edwards (2002) described this child-led, uninterrupted work as "productive calm."

Well-organized multi-sensory materials will promote a child's success (Cohen, 1990b). Montessori curricular areas include Practical Life, Sensorial, Math, Art, Language, and Cultural Subjects; and, each area is located in its own defined space within the classroom (Chattin-McNichols, 1992). Montessori materials include concrete manipulatives, graphic representations, and role play (Powell, 2001). According to the Montessori philosophy, children learn discipline when they can focus on a useful task that will teach control of error (i.e., self-correction) (Montessori, 1995).

Developmentally appropriate curricula and materials have been designed to help students look at the big picture first and examine details later (Powell, 2001). Montessori materials encourage children to break down tasks into smaller pieces. Dr. Montessori referred

to this as the isolation of difficulty (Chattin-McNichols, 1992). Children enjoy real-world activities (Loeffler, 2002), and, to this end, Montessori materials are real-world materials (i.e., knives, irons and ironing boards, brooms and dustpans, breakable dishes, etc.) (Chattin-McNichols). The practical Life curriculum is culturally dependent. That is, different real-world activities would be included in the classroom in different parts of the world (Chattin-McNichols).

Montessori did not believe in fantasy play and thought that children would rather do more meaningful work (Bodrova, 2003). She also thought that a child's mind absorbed the environment thereby creating learning (Vardin, 2003). Multi-sensory materials are designed to help children gain an understanding of an entire process, not just individual concepts (Cohen, 1990b). Self-correcting materials allow a child to use logic to find a solution to a problem (Elkind, 2003). Children are able to progress faster in their areas of strength (Chattin-McNichols, 1992).

Montessori classrooms utilize creative conflict resolution using six principles: "cooperation, caring communication, appreciation of diversity, appropriate expression of feelings, responsible decision making," and the use of conflict resolution skills (Powell, 2001, p. 33). Only one set of each "specimen" is found in the Montessori classroom in order to encourage children's social development (i.e., taking turns). Montessori believed that this was a replication of how the real world acts (Montessori, 1995).

Cultural Diversity and Montessori Schools

Montessori stressed the importance of children developing a respect for others and the world around them. Researcher and educator Lisa Delpit (2006) argued that it is necessary to

understand the cultural and community cues in order to provide a quality education system for all students. She claimed that it was not enough to merely *accept* students but that teachers must also take the responsibility to *teach* them. Delpit stated that people are experts within the context of their own lives…and that no one else can be the expert in the way that the individual person is. She wrote, "Perhaps more significant than what [the teachers] taught is what they believed" (Delpit, p. 158). Delpit emphasized that teachers should seek ways to acknowledge students' experience and expertise as this will ultimately empower the student.

It is necessary for teachers to use instructional strategies that are not in conflict with the students' community or cultural norms (Delpit, 2006). To this end, Delpit identified differences in the way white people viewed education versus non-white people. She concluded that white respondents tended to talk about skills while non-white respondents spoke about approaches to educating children of color. She wrote that stereotypes have been used to categorize students of many races and backgrounds and that the students' needs are often overlooked as a result.

In educating minority students, it is important to consider the "culture of power" when educating a diverse group of students. The framework is as follows:

> 1. Issues of power are enacted in classrooms. 2. There are codes or rules for participating in power, that is, there is a "culture of power." 3. The rules of the culture of power are a reflection of the rules of the culture of those who have power. 4. If you are not already a participant in the culture of power, being told explicitly the rules of the culture makes acquiring power easier. 5. Those with power are frequently less aware of – or least willing to acknowledge – its existence. Thos with less power are often most aware of its existence" (Delpit, 2006, p. 24).

In her book, *White Teacher,* Kindergarten teacher Vyvyan Paley (2000) questioned whether it was enough to consider one's self colorblind. She wondered about the message that this "colorblindness" might send to students. She said that ignoring issues of diversity can lead students to believe that the differences are not worthy of being talked about.

In fact, research has demonstrated that students are more aware of racial conflicts in the classroom than are teachers and that teachers are more aware of racial conflicts than are administrators. Greene (1998) found that only 28.6% of students believed that racial conflicts were not a problem in schools as compared to 39.5% of teachers and 54.9% of administrators.

Robinson (2006) cited increasing diversity as a reason for rising enrollment in the Fort Wayne Montessori magnet program. The question remains whether diversity is a factor in why parents choose private Montessori schools.

Age and Montessori Education

Montessori education is thought to respect a "child's natural intelligence" (Parker, 2007, p. 134). Montessori believed that children constructed knowledge through environmental experience (Loeffler, 2002) and that the first six years of a child's life were the most critical for learning (Cohen, 1990b). She created multi-age classrooms (Cohen, 1990b) in which children could learn from each other and progress individually. Her idea was that younger children would take interest in what the older children were doing and that older children teach the younger children thereby solidifying their own thinking and understanding (Montessori, 1995). Each classroom is "a three-to-four year cycle of initiation, apprenticeship, and leadership" (Powell, 2001, p. 33). Given the notion of cyclical learning,

however, it is unclear what impacts student mobility rates and/or teacher turnover rates have on the Montessori classroom.

Maria Montessori defined periods of growth in children. The first is from birth to age six. During the three- to six-year-old span, adults can begin to influence and leave impressions on the children's minds. From six to 12, the children experience relative stability with little change. The children are calm and happy. Finally, from 12 to 18, the children experience both physical and educational changes such as the move from elementary to secondary school (Montessori, 1995).

Dr. Montessori also believed there were sensitive periods in a child's life in which he/she was more susceptible to development (Chattin-McNichols, 1992). One such sensitive period is from ages three to six (Chattin-McNichols and Powell, 2001). In fact, the most common age grouping in Montessori schools is ages three-to-five (Chattin-McNichols). During this sensitive period, called *conscious absorption*, the child is concerned with his/her own self with a particular interest in the Sensorial and Practical Life areas of Montessori curricula (Chattin-McNichols).

The Montessori Teacher

A Montessori teacher's job is to "prepare the environment, provide appropriate materials, and then step back and allow the children the time and space to experiment" (Mooney, 2000, p. 29) though she did acknowledge the need for some brief teacher-directed lessons meant to introduce new concepts (Bodrova, 2003). Teachers were to use observation to assess and guide children in their learning (Cohen, 1990b and Loeffler, 2002). Although the majority of their time is to be spent observing children, Montessori teachers are also

encouraged to offer suggestions and introduce new materials to students (Ruenzel, 1997). According to Montessori, if children were not learning, teachers were not doing enough observation (Mooney).

Montessori teachers have been trained in the specific Montessori tasks and must possess the belief that children construct their own knowledge (Loeffler, 2002). Montessori (2008) asserted that teacher-led lessons should be brief, simple, and objective. They should introduce children to the topic, assess whether it has been learned, and encourage the children to demonstrate mastery of the topic.

Ruenzel (1997) questioned the Montessori approach for those students who need or want a more intimate relationship with the teacher than what traditional Montessori programs provide. The original Montessori philosophy provided that there was to be no praise, no punishment, no correction of mistakes, and no teacher interfered with a child's work. Montessori believed that if the teacher interfered, it would teach the child to not learn to control him/herself. Furthermore, responding to a child's behavior by telling him/her that he/she is naughty will only cause insult not improvement in the child (Montessori, 1995). In addition to the rich, real-world curricula and the child-led pace of the classroom, Montessori programs provide parent involvement opportunities as well as regular observations/feedback to parents (Chattin-McNichols, 1992).

Comparison of Montessori Education to More Traditional Methods

In her dissertation, Corry (2006) found that parents perceived Montessori teacher training to be superior to public school teacher training. Other evidence suggested that Montessori students outperform public school students. Schapiro (1993) wrote that

Montessori students tend to do well on standardized tests and that they may show even more advantages in later years. Corry found that Montessori students tended to come from socio-economic backgrounds that typically valued education and reported that these students may be likely to succeed regardless of the type of school they are enrolled in. Flynn (1990) claimed that the goals set by Montessori teachers may be more realistic than in other preschool settings. A clarity of purpose in the Montessori classroom may be responsible for the differences in effectiveness (Flynn).

Flynn (1990) found a significant relationship between the time a student was enrolled in a program and personal skills, behavioral control, and cognitive skills in Montessori settings. The same relationships were not significant in more traditional preschool settings. There is, however, a significant "relationship between growth in relationship with teacher and time in program" for traditional preschool programs where there is no significant relationship in Montessori schools (Flynn). Perhaps this is due, at least in part, to the Montessori focus on student choice and self-learning. It is unclear whether parents value this ongoing relationship between the student and teacher. Karnes (1978) found a significant difference among family relations when comparing Montessori students to students from more traditional programs. Montessori students reported the highest rates of getting along with family (Karnes as cited in Flynn, 1990).

No significant differences were found after 10 years on intellectual and achievement measures when comparing Montessori and traditional preschool programs (Flynn, 1990). On the other hand, citing Dohrmann (2003), Parker (2007) wrote that students who have attended Montessori programs from ages three to 11 had increased math and science standardized test scores in schools. Chattin-McNichols (1992) also raised the question about

how Montessori education affected students later in life. He indicated that students were likely to show differences in self-esteem, self-confidence, and attitudinal changes. When it came to academic markers, however, Chattin-McNichols agreed that there have been conflicting results about whether Montessori education makes a significant difference.

The Multi-age Classroom

Maria Montessori placed a lot of emphasis on multi-age classrooms. This allows for the flexible groupings of students typically within a two to four year age span (Cohen, 1990a) with a focus on peer teaching and cooperative learning (Powell, 2001). Children are able to move between levels, allowing them to work at their own pace (Cohen, 1990a). Children can progress individually from one skill level to the next. Age and grade do not factor into promotion (Cohen, 1990a).

In public schools, multi-age classrooms are gaining momentum in efforts to reduce ability grouping practices and retention rates (Cohen, 1990a). Multi-age classrooms can be especially beneficial for "minorities, boys, underachievers, and low-income pupils" (Cohen, 1990a). According to a study by Murray and Peyton (2008), approximately 84% of public Montessori schools included three-year age groupings as part of their structure.

There exist some barriers to the multi-age classroom in public schools. First, teachers have been traditionally taught to focus on one specific level at a time, not to focus on multiple levels at once (Cohen, 1990a). The use of textbooks may hinder the use of multi-age classrooms because of their focus on a specified level. Teachers must be willing to be more organized and willing to do additional work, as well as having administrative support in order to make multi-age classrooms successful. Education reform thinking includes ideas

such as team teaching, cooperative learning, literature-based reading, and fewer pull-out programs for special education. Multi-age classrooms may support these ideas in practice (Cohen, 1990a).

Montessori Practices in Public Schools

The Montessori method is useful for many populations of children including those from chaotic home environments (Schapiro, 1993) and those with special needs (Hainstock, 1997). Schapiro reported that Montessori schools "can provide a sense of order in an otherwise disordered world." Students with special needs have the opportunity to work alone, in groups, uninterrupted, and at their own pace thereby creating a successful learning environment (Hainstock). There may be a higher population of students with special needs in Montessori programs because parents may seek the individualization that the Montessori method brings (Pickering, 2003). Students with oral and written language learning disabilities may benefit from Montessori education, especially if the teacher is trained in those disabilities (Pickering).

Public schools have sometimes used Montessori materials without drawing attention to their use. This helped schools avoid the potential for criticism (Hainstock, 1997). While there are many districts employing Montessori methodology, its widespread use may not be successful because of bureaucracy and lack of teacher training (Cohen, 1990b). More than 80% of lead teachers in public Montessori classrooms are certified Montessori teachers (Murray & Peyton, 2008). Many schools adopt Montessori programs while taking liberties with the Montessori approach (Cohen, 1990b).

Some public school districts are including Montessori programs as a way to increase parental choice (Hainstock, 1997). The Fort Wayne Community Schools in Indiana has implemented a Montessori magnet program (Robinson, 2006). The school superintendent has been aware that there has been increasing interest from parents about enrolling their children in the Montessori magnet. She believed that the success of the Montessori program has increased as the district diversity has increased and that "students flourish in culturally and racially diverse environments" (Robinson, 2006, p. 9).

There are conflicting reports of how many public Montessori programs there are in the United States. Parker (2007) reported an increase from approximately 50 schools in 1992 to between 250 and 300 in 2007. Murray and Peyton (2008) suggested that there were more than 250 public Montessori programs. Ruenzel (1997) reported that around 200 public schools implement Montessori programs. Cohen (1990b) reported 110 public schools in 60 districts enrolling students in public school Montessori programs. Public schools offering Montessori programs have increased accessibility to the Montessori method. Montessori is no longer only for those who can afford to pay for it (Cohen, 1990b). Furthermore, the number of elementary Montessori classrooms has grown significantly in public school settings (Chattin-McNichols, 1992).

Public Montessori programs must find a balance between implementing the Montessori philosophy and adhering to federal and state guidelines (Murray & Peyton, 2008). While Montessori placed emphasis on multi-age classrooms, public schools may have greater difficulty implementing them. This may be due to less flexible age groupings (i.e., three- to four–year-olds, not the traditional three- to six-year-olds), bureaucracy, and standardized testing (Cohen, 1990b). Additionally, public Montessori programs typically

(nearly 90%) participate in their district and/or state standardized testing (Murray & Peyton). Many schools provide test-taking lessons for their students to be well-prepared to take the tests. Furthermore, many public Montessori schools are facing budget cuts that prove to be challenging in implementing the Montessori philosophy (Murray & Peyton).

Montessori and Theories of Development

Montessori had much in common with other developmental theorists (Flynn, 1990), though, certainly there were differences. Montessori's work laid a foundation for other theorists such as Jean Piaget and Lev Vygotsky (Mooney, 2000).

John Dewey

Perhaps it is Dewey who has "most influenced our thinking about education in this country" (Mooney, 2000, p. 1). He encouraged parents to think about ways that children could be responsible citizens. Like Montessori and Piaget, Dewey believed that children learn best by doing. Education should be child-centered, active, interactive, and social; and, it is the teacher's job to determine curriculum based on the students' needs (Mooney).

Erik Erikson

Erikson focused on social and emotional development and believed that children would inevitably experience conflict as they grow and develop (Mooney, 2000). He also believed that early experiences influenced later life. Montessori and Erikson both believed children needed to be given simple choices and real tools in educational settings. It is critical for children to develop strong relationships with a few important adults (Mooney).

Jean Piaget

Piaget believed that teachers focus too much on "thought processes and not enough on children's feelings and social relationships with teachers and peers" (Mooney, 2000, p. 60). Piaget and Montessori shared a "common interest in normative development" (Chattin-McNichols, 1997, p. 155). Similar to Montessori, Piaget believed that children construct meaning through hands-on work and that teachers should "nurture inquiry and support the child's own search for answers" (Mooney, 2000, p. 62). In contrast to the way Montessori believed, Piaget highly valued play in learning because it provided children with opportunities to make sense of their world (Mooney).

Lev Vygotsky

As is true of other developmentalists, Vygotsky believed that personal experiences shape knowledge (Mooney, 2000). In Vygotsky's view, a person's social situation directly impacts development (Bodrova, 2003). Vygotsky defined a sequence of stages as "determined by the interaction between children's existing and emerging competencies on one hand and their social situation of development on the other" (Bodrova, 2003, p. 30).

Considered a constructivist (Bodrova, 2003), Vygotsky introduced the concept of the Zone of Proximal Development (ZPD). Essentially, this was a scaffolding of learning experiences. The ZPD was the difference between what the child could do alone and what he/she could do with the help of a teacher or peer (Mooney, 2001, and Bodrova). Vygotsky, like Montessori, believed strongly in the need for observation. He believed that teachers should observe, question, and encourage peer interactions in order to promote healthy

development. Teachers should "encourage cognitive development…by encouraging conversations" (Mooney, 2000, p. 90). Unlike Montessori, who believed development was a set of preprogrammed stages, Vygotsky believed that development was defined by the interaction between the child and his/her social context (Bodrova). Vygotsky believed that play was important (Mooney). In fact, fantasy play was among the most meaningful early learning experiences (Bodrova).

Howard Gardner

Gardner is best known for his development of the Theory of Multiple Intelligences. In developing this theory, "We created an environment with inviting resources and let the children demonstrate their spectra of intelligence in as natural a fashion as possible" (Gardner, 1999, p. 137). Both Montessori and Gardner used observation and their experience with people to develop their philosophy and theory, respectively (Vardin, 2003). Additionally, similarities can be drawn in terms of how Montessori and Gardner viewed individual abilities and uniqueness as well as "human capacity and potential" (Vardin, p. 30). Both believed in the interaction between nature and nurture and that this interaction significantly impacts human development (Vardin).

Gardner viewed intelligences as "potentials…that may or may not be activated depending upon the values of a culture, the opportunities available in that culture, and the personal decisions made by individuals and/or their families, teachers, and other members of the society" (Vardin, 2003, p. 40). While Montessori focused on practical application and developing a holistic educational approach for the child, Gardner's work was more theoretical and focused on defining intelligences (Vardin).

Summary

Bauch and Goldring (1995) stated that "[d]ifferent types of families prefer different types of choice arrangements for different reasons" (p. 16). Bauch (1987) concluded that parents' reasons for choosing a specific school can affect their satisfaction with the choice that they made. Additionally, schools may respond differently to parents based on the choice arrangement (Bauch and Goldring). President Obama "will urge states to impost high standards across all publically funded early learning settings, develop new programs to improve opportunities and outcomes, engage parents in their child's early learning and development, and improve the early education workforce" (The White House).

Flynn (1990) wrote that the following characteristics best foster children's development: "clarity of purpose, opportunity for finding satisfaction in accomplishment for their own sake rather than teacher praise, and allowing the child to follow his/her own timetable" (p. 16). Certainly these are characteristics that the Montessori method has traditionally embodied. There has been little research about parents' perceptions of how these characteristics are applied in the Montessori schools. Additionally, there is relatively little known about what makes one school more successful than others. Goldhaber (1999) suggested that future research examine what makes successful schools within a type rather than continuing to compare different types of schooling. This study examined the reasons parents choose to send their children to private and public Montessori schools. Perhaps the results of this research can be used to guide policy and practice in engaging parents in issues of school choice and creating quality public Montessori education options for families.

Chapter 3

Methodology

The main purpose of this study was to explore the reasons why parents choose Montessori schooling for their children's early educational experience. A 27-item written survey was created to elicit parents' perspectives about Montessori schools. The researcher used a phenomenological approach to understanding how parents experience school choice and its results – in this case, Montessori education. Creswell (1998) defined a phenomenological study as one that explores how people experience a phenomenon. For the purposes of this study, the phenomenon was school choice and Montessori education. The researcher conducted interviews to deepen the understanding of parents' choices as well as to validate the results of the quantitative data.

Parents were asked to identify their reasons for choosing Montessori preschool and/or elementary school. They were asked to articulate the strengths of Montessori and how they hoped their children would benefit from having attended a Montessori program. The researcher also explored some of the differences between parents who sent their children to a public rather than a private Montessori program.

This chapter introduces the sampling plan used to recruit participants for the study and explains how data were collected, stored, and analyzed. This mixed-methods study focused on the experiences of families from four Montessori schools, two public and two private, across the United States.

Throughout the written report, the name of each school has been changed and is now represented by a pseudonym. To further protect the anonymity of the research sites, the U.S.

Census Bureau web site was used to obtain all statistical data about the communities where each of the schools is located.

Sampling Plan

Population

This research studied parents who sent their child(ren) to public or private Montessori schools. The parents who participated in the study had at least one child enrolled in preschool through third grade at one of the four participating programs during the 2009-2010 school year.

Site Identification, Description, and Approval Process

The researcher used her existing relationships with parents who have enrolled their children in Montessori schools in order to develop new relationships with private Montessori schools. She also researched local Montessori schools that she had some knowledge of and could make a connection to in order to broaden the geographical background of the schools.

The researcher used previous studies and literature to determine the criteria each school must meet to be considered for the study. Each of the four schools and the pilot school were chosen because of their adherence to specific aspects of the Montessori philosophy, specifically curriculum, multi-age classrooms, and child-centered learning. The schools chosen addressed each of the main Montessori curricular areas: Sensorial, Mathematics, Practical Life, Language, and Culture. Each school practiced the use of multi-age classrooms and independent, hands-on learning. The researcher did not consider whether the teachers held Montessori teaching credentials or school affiliation with either Association Montessori

Internationale (AMI) or American Montessori Society (AMS) since only about 20% of Montessori schools are associated with either (Chattin-McNichols, 1992).

The researcher contacted the director at Canyon View Montessori (pseudonym) in California to discuss the possibility of conducting research there. The director originally agreed to participate in the study but later expressed concern with some of the demographic questions included in the written survey. She remained interested in helping the study, but no longer wanted to have the parents' responses officially included in the written report of the research. She agreed to ask a few parents in her school to participate in a pilot version of the written survey.

Taking Flight Montessori (pseudonym) was a private Montessori located in New England. The director of Taking Flight contacted the families at her school asking them to participate in the quantitative portion of the study. This Montessori program was located in a neighborhood church though there is no church affiliation. Enrollment was expected to be between 25 and 40 families for the 2009-10 school year. The actual enrollment was 26 families. Taking Flight Montessori emphasized the importance of children being "happy, comfortable, and relaxed" during their school experience, and children are encouraged to act with grace and courtesy each school day. The children, ages 2.9 to 6 years old, participated in mixed-aged groups. As is true of most Montessori programs, the focus of learning was on the individual child – not the collective group. That said, this school recognized that many of its students would continue schooling in non-Montessori settings. To that end, the Montessori certified teachers helped prepare the students for success in other school settings by presenting occasional large group lessons and projects.

The second private Montessori, Small Beings Montessori (pseudonym), was located in the Midwest. The director of this newly opened Montessori contacted each of the parents who have enrolled their children in this school as well. This small school was in its first year of operation during the 2009-10 school year. The owner/director anticipated approximately 20 families to be enrolled this fall, but enrollment was much lower than expected.

Small Beings Montessori practiced five main curricular areas: practical life, sensorial, mathematics, languages, and cultural. The curriculum was child-centered with a focus of developing life-long learners. The newly opened school was designed for children with child-sized materials and included an on-site wetlands habitat. Families were encouraged to visit and observe their children as well as to participate in family events throughout the year.

The two public Montessori schools were identified through word of mouth and recommendations from friends and colleagues who live in areas where there are public Montessori schools. The researcher contacted the principal Crescent Ridge Montessori School (pseudonym), a public Montessori that was part of an urban school district in the Mountain West. The principal indicated his interest in participating in the study pending the study's approval through the district research office. Once the principal at Crescent Ridge indicated his interest in the project, the researcher wrote and submitted an IRB-approved research proposal through the district's research office. The research office then granted permission to conduct the study at Crescent Ridge in September 2009.

Crescent Ridge Montessori used an admissions process to enroll students from the school district. Students who were accepted must be able to thrive in multi-age settings as well as through individual learning. As was true of other Montessori programs, students were expected to respect each other and their environment. Family involvement in the children's

learning and within the school community were critical elements of this school as well. This school enrolled children three-years-old through fifth grade with potential to add a sixth grade class to the school. The preschool program at Crescent Ridge was tuition-based while the elementary program was free of charge. Classrooms at this school were designed to encourage a child's natural curiosity and exploration.

Finally, the researcher contacted the principal at Discovery Montessori (pseudonym), a public Montessori that is part of an urban school district in the upper Midwest. He indicated an interest in allowing the research to take place in his school once the study proposal was approved through the district's research office. The researcher wrote and submitted a research proposal, including IRB approval, to the district office. The study was approved in September 2009.

Discovery Montessori was established in the mid-1990s and served more than 500 students in kindergarten through eighth grade during the 2009-2010 school year. The school required teachers to participate in regular staff development programs including Montessori refresher courses, curriculum development, district-wide goals, and best practices. The school expected parents to be an integral part of their children's education. Additionally, the school provided an environment that encouraged children to take responsibility for their learning and focused on individual learning.

Contact Information

The research design requested that the director/principal of each Montessori school contact potential participants. This guaranteed the anonymity of each parent who chose to

participate since the researcher never knew the names or identities of any parent or child in the program.

The researcher provided the director/principal of each school with survey packets to give to each family. This packet included a letter written to the parents introducing the study, its purpose, and data collection procedures. It also contained the informed consent (Appendix B). Contact information for the researcher, her advisor, and the IRB committee was included in the consent form. Any participant who completed and returned the survey was assumed to have read and agreed with the terms of the informed consent. This further allowed the researcher to remove any opportunity for indentifying the participants. Any parent who was interested in participating in the interview portion of the study, included his/her name, email address, and phone number in the last section of the survey. This section was promptly removed from the completed survey upon receipt by the researcher. The participants mailed the completed survey, and contact information when applicable, back to the researcher in a self-addressed, stamped envelope.

Before beginning the interview portion of the study, the researcher contacted each of the parents (n = 33) who had indicated an interest in participating. Their contact information had been removed from the completed surveys and was stored in a locked filing cabinet.

Mixed-Method Data Collection

This research study employed both quantitative and qualitative methodology in order to understand why parents choose Montessori schools as their schools of choice. The descriptive and inferential nature of this study was used to explore the phenomenology of school choice and specifically choosing Montessori programs.

The purpose of this methodology was to get a broad range of answers (the quantitative portion) while focusing on specific themes that arose during data analysis. Parents who participated in the qualitative portion of this study were asked to elaborate on these specific themes (i.e., the reasons they chose Montessori, in what ways they hoped their child would benefit from a Montessori education, etc.). The sources of data included the written survey, both forced answer and open-ended questions, as well as individual interviews completed by parents whose children were enrolled in Montessori schools during the 2009-2010 school year.

Selection Process

The selection process for participation was simply the identification of the parents as part of the target population. The researcher used her contacts with parents and colleagues to recruit the schools for participation in the study. Once the schools agreed to participate in the study and IRB approval was obtained, the researcher delivered survey packets to the directors/principals. Each student's family in preschool through third grade at the public schools and each student's family at the private preschools were given the survey.

At the conclusion of the quantitative portion of the study, the researcher asked any for any parents who were interested to participate in the interview portion of the study to submit their contact information to the researcher. The researcher contacted each of the interested participants (n = 33) by email or telephone asking whether they were still interested in speaking with the researcher. She then scheduled interviews with the 13 parents who responded that they were still interested.

Protecting Participants' Confidentiality and Informed Consent

Information regarding the study was given to each family at the participating schools. Parents who participated in the study read the informed consent and mailed the completed survey directly to the researcher. The researcher assumed that the returned survey indicated consent to participate in the study. The participants were encouraged to contact the researcher, her advisor, or the IRB at any point questions or concerns arose.

During data collection, each returned survey was assigned an identification number. Each site was also given a pseudonym to protect the anonymity and confidentiality of each participating school. Each interview participant was given a pseudonym used in data analysis. All interview recordings and transcripts were marked with the participants' pseudonyms. There were few interviews conducted with parents from each school, and the private schools' enrollments were low. As a result, the researcher did not include the participants' pseudonyms or their school names with the interview quotes used in the written report of the research findings.

Data Storage

Any surveys, interview recordings, and transcripts were stored on a password protected computer and/or in a locked filing cabinet. The data will be stored by the researcher for up to three years after the study is completed before being destroyed. The researcher transcribed each interview, and only the researcher and her advisor had access to the surveys and transcriptions. Only aggregated data was reported in the results.

Survey Instrument and Procedure

Validity and Reliability

The directors of two private Montessori schools were asked to review the survey for content validity. The researcher discussed ideas and comments about the survey with the directors in order to ensure the validity of the questions asked. Once the directors indicated their approval of the survey content, the survey was given to a pilot sample to examine its reliability.

Canyon View Montessori (pseudonym) participated in a pilot version of the survey. The school director asked between five and 10 parents from her school to participate in the pilot study. The researcher met with an analysis from the Nebraska Evaluation and Research (NEAR) Center to discuss issues surrounding reliability. Although the initial response was so low (n = 3) and the questions were so diverse, the researcher and analyst agreed that the survey instrument was ready to be distributed to participants. A few of the questions were slightly reworded and some of the coding was altered to reflect the way in which parents responded to the survey.

Instrument

The 27-item survey included questions about what school choice options parents considered before choosing Montessori. Specifically, the parents were asked to identify their perceptions of the strengths Montessori schooling as well as to rate the importance of several features of the educational philosophy and several factors associated with Montessori education. This included such things as cost, location, diversity, the use of multi-age classrooms, learning styles, relationships with peers and teachers, class size, school safety,

etc. Five open-ended questions elicited additional information about parents' decision to choose Montessori as well as what information they had available and what information would have been helpful to have during the choice process. Finally, demographic information was obtained to provide a context for analyzing the results of the survey. Two almost identical surveys were created for the public (Appendix D) and private (Appendix E) schools. In fact, only one question reads differently; the word public or private was substituted in the appropriate version of the survey.

Procedure

The director/principal of each participating Montessori school gave an introductory packet that included a letter introducing the study, an informed consent, the survey instrument, and a return envelope with postage to each family of students in preschool through third grade. Parents were asked to complete the survey and send it back to the researcher by November 2009.

Sample Size and Return Rates

Fifty participants participated in the quantitative portion of the study. The researcher mailed 25 surveys to Small Beings Montessori, 40 surveys to Taking Flight Montessori, 100 to Discovery Montessori, and 140 to Crescent Ridge Montessori. The number of survey copies exceeded the enrollment numbers for two reasons: 1) the directors/principals were asked in the spring of 2009 to anticipate the number of students who would be enrolled during the 2009-2010 school year and, for each school, the number was overestimated; and 2) in case anyone interested misplaced their survey packets.

Enrollment at Small Beings Montessori was lower than what the director originally anticipated as the school was in its first year of operation. Four surveys were returned with a 100% return rate from this school. Six surveys were returned from Taking Flight Montessori where there were 26 families enrolled (a 23.08% return rate). Discovery Montessori returned 13 surveys from the 83 families who were given the option to participate (a 15.66% return rate). Finally, the Crescent Ridge Montessori school returned 27 surveys out of the 106 distributed to families (25.47%). The survey return rates is shown in Table 2.

Table 2

Survey Return Rates

School	Enrollment	# Returned	Return Rate
Small Beings (private)	4	4	100.00%
Taking Flight (private)	6	26	23.08%
Discovery (public)	13	83	15.66%
Crescent Ridge (public)	27	106	25.74%

Quantitative Data Analysis

Detailed quantitative analysis was conducted using SPSS by a quantitative research analyst at the Nebraska Evaluation and Research (NEAR) Center. The researcher met with the analyst to discuss the results of the t-tests, chi-square tests, and descriptive statistics. In conducting the t-tests, Levene's Test for Equality of Variances was used to determine how to analyze the results. The true degrees of freedom were reported when Equal Variances were assumed; adjusted degrees of freedom were reported when Equal Variances were not

assumed. Relationships between demographic information (i.e., gender, family income, family education) and reasons why parents chose Montessori schools were identified through the analysis. Descriptive statistics also identified the common values and aspects of Montessori education that particularly drew parents to the philosophy. Finally the data were examined to identify any differences in the reasons parents chose Montessori programs and the demographic backgrounds between the public and private Montessori sites.

Content analysis (Garson, 2008) was used to identify the presence of specific themes in the open-ended questions on the survey. These themes identified the parents' perceptions of the strengths of Montessori education as well as what information was used to make the decision to enroll their children in Montessori programs.

Generalizations from the quantitative portion of the study could be used to guide future research and policy and to help individual schools develop marketing strategies for recruitment. Parents from one school indicated an interest in using the results of this study to help keep their school open, increase the enrollment, and add an additional grade level in spite of the district's budget cuts.

Parent Interview and Procedure

Procedure

The interviews were conducted by phone and each interview was recorded with the participant's permission and later transcribed by the researcher. The researcher developed a series of questions meant to prompt thinking and reflection about why the parents chose Montessori school. Parents were asked five questions that encompassed their reasons for choosing Montessori, and how the parent hoped his/her child would benefit from attending a

Montessori school, and the strengths of Montessori education. As necessary, the researcher asked follow-up questions to clarify or probe deeper into something the participant said (Appendix F). Each interview lasted between five and 45 minutes and was conducted at the conclusion of data analysis of the written survey.

Qualitative Sample

When the participants returned their completed surveys, they were given the option to participate in an interview with the researcher. If they were interested, they provided their names and contact information so that the researcher could contact them with more information. Of the 50 returned surveys, 33 parents provided their contact information for the interview. The researcher then contacted each of those 33 parents by phone or email to ask if they were still interested. She provided the additional information and consent forms to each of those parents and scheduled interviews with those who responded. The researcher made appointments for the interviews with the 13 parents who were still interested in continuing their participation. The researcher interviewed one parent from Small Beings Montessori, two from Taking Flight Montessori, three from Discovery Montessori, and seven from Crescent Ridge Montessori (Table 3).

Qualitative Data Analysis

Content analysis, "the manual or automated coding of documents, transcripts, newspapers, or even of audio o[r] video media to obtain counts of words, phrases, or word-phrase clusters for purposes of statistical analysis" (Garson, 2008), was used to code and

Table 3

Interviews Conducted by School

School	# Interviewed
Small Beings (private)	1
Taking Flight (private)	2
Discovery (public)	3
Crescent Ridge (public)	7

analyze all of the data from the interviews. This allowed the researcher to quantify the open-ended questions from the survey and the interview transcripts.

For the purposes of this study, the researcher identified common categories of responses (i.e., hands-on learning, love of learning, Montessori philosophy, etc.) and used those categories to determine the frequency of each. Each participant's response was considered and coded individually. The researcher was only interested in whether the category was mentioned as part of the answer, not how many times it was mentioned in the same answer, and thus only coded one time per category for each response. This allowed the researcher to identify the most common responses and compare them between the public and private school parents.

The data from the interviews were used to identify patterns in the responses from the participants. While not necessarily representative of a larger population of Montessori parents, these patterns could be used to guide future research in Montessori education, early educational experiences, and school and district policy.

Variables and Themes

Some of the following variables and themes used in the data analysis were defined by previous research and by literature about school choice and Montessori schools (Figure 1). Others were defined as a result of the data that was collected, both quantitative and qualitative.

Variables

Montessori school – A public or private school, not necessarily affiliated with AMS or AMI, but that follows the Montessori educational philosophy.

Other school options – Non-Montessori schooling options (i.e., traditional public school, homeschooling, private school, etc.).

Demographic variables – Additional information was collected to provide a context for the findings. Such information included: parental education level, income ranges, living situations, child's gender, child's race, etc.

Themes

Social needs – The social needs of students included relationships with their peers, diversity, respect for others, and respect for the community/environment/larger world.

Academic needs – Academic needs included studying, class experiences, class expectations, and student-teacher relationships.

Montessori Philosophy – This subset of themes included: mutli-age classrooms, hands-on learning, life skills, individual attention, individualized learning, and classroom environment.

Variables	Themes
○ Montessori school ○ School options • Traditional public school • Homeschooling • Private school • Home-based school ○ Demographic variables • Mothers' education level • Fathers' education level • Family/household income • Living situation • Child's race/ethnicity • Child's gender	○ Social needs • Diversity • Respect for others • Respect for community/environment/world ○ Academic Needs • Student-teacher relationships • Subject area learning/basic skills ○ Montessori philosophy • Multi-age classrooms • Hands-on learning • Life skills • Individual attention • Individualized learning/learning pace • Classroom environment ○ Cost ○ Previous knowledge or experience with Montessori

Figure 1. Variables and themes used in data analysis.

Cost – Parents made comments, both positive and negative, about the cost of private and public Montessori programs.

Previous Knowledge of Montessori – Parents wrote and spoke of their previous knowledge experience with Montessori either through their own Montessori school experiences, reading about the Montessori philosophy, or through family members' or friends' experiences with Montessori education (Appendix C).

Summary

The researcher employed descriptive, phenomenology methodology for this study. Participating schools gave the written survey to each family enrolled in the school, and a small number of parents participated in the individual interviews at the conclusion of the

quantitative portion of the study. Data collected may be used to guide future research and shape educational policy at a local level and beyond. Families may also use the results of this study to help them make informed decisions regarding school choice.

Chapter 4

Reporting the Data

Purpose of Research

The main purpose of this study was to examine why parents choose to send their children to Montessori programs. The principals/directors of the four participating Montessori schools distributed the written survey to the parents whose children were three-years-old through third grade. The survey explored which aspects of Montessori education appealed to the parents and elicited information about their decision to enroll their children in a Montessori program. Fifty parents from two public and two private Montessori schools responded to the written survey. The names of parents who were interested in participating in an interview with the researcher were collected on the last page of the written survey.

Once the quantitative data collection was complete, the researcher contacted the 33 parents who expressed interest and interviewed 13 of those parents. The interview served as an opportunity to discuss with parents their perceptions of Montessori programs in a more detailed way and allowed the researcher to confirm the findings from the survey. Assistance was obtained from Nebraska Evaluation and Research (NEAR) Center for analyzing the data using SPSS.

For both the open-response survey questions and the interview responses, the researcher typed the responses/transcripts verbatim. Once the results were typed, she developed a series of themes based on the participants' responses. For each of the responses, a code was assigned the first time a specific theme was mentioned. The researcher was

looking for the presence of the themes in the responses rather than the number of times a theme was mentioned. This allowed her to compile a list of frequencies for each theme.

This chapter elaborates on the findings from both the survey and the interview. The results have been separated into quantitative data (the survey) and qualitative data (the interview). The quantitative analyses are reported by the research questions the data address. The qualitative results define the themes identified in the interviews.

Quantitative Results

The written survey was developed by the researcher, revised as a result of discussions with Montessori school directors, piloted by parents from a private Montessori school, and distributed to parents from two public and two private schools. The survey contained 27 items, 6 of which were open-ended questions. The other questions were answered using a Likert-scale or a forced answer option. The following sections examine the sample size and the results of the survey. The results are categorized by the research question they answer.

Survey Sample

The survey was piloted by three parents from Canyon View Montessori, a private Montessori school in California. As a result of the pilot study, some of the questions were reworded and some of the coding schema were rewritten to accommodate the ways in which parents responded to the questions. Fifty parents responded to the official administration of the survey. Forty of the parents were from two public Montessori schools and the other 10 were from two private Montessori schools.

Survey Results

Central Question

What elements of Montessori education lead parents to choose this as the schooling option for their children?

Parents reported how 11 specific factors influenced their decision to send their children to Montessori school. Parents were asked to rate their responses to each factor on a Likert Scale (1 = Of no importance; 3 = Of some importance; and 5 = Of great importance). Parents from public schools rated seven factors as most important during their school choice process: academics, socialization, discipline, interaction with the classroom teacher, individual attention from the teacher, cost, and diversity. Each of these factors was rated between 4 and 5 on the Likert Scale. Private school parents reported similar importance for each of these factors with the exception of cost and diversity. Both the public and private school parents rated special education/special needs and No Child Left Behind requirements as the two least important factors in their decision-making process. The mean scores and standard deviations of each factor are reported in Table 4. A detailed table of statistical comparisons between public and private Montessori schools is located in Appendix G.

There existed significant differences between public Montessori parents and private Montessori parents in several areas. First, there was a significant difference in the importance of socialization, $t(48) = 2.20$, $p = .03$, with public Montessori parents rating socialization as more important than private Montessori parents (Equal Variances assumed). Second, there was a significant difference in the importance of special education/special needs, $t(31.96) = 2.08$, $p < .05$, with public Montessori parents placing greater importance on special education/special needs (Equal Variances not assumed). Finally, there was a significant

difference in the importance of diversity, $t(48) = 3.181$, $p = .003$, with public Montessori parents placing higher importance on diversity (Equal Variances assumed).

Table 4

Parents' Perceived Value of Factors in Choice Process

Factor	Public Montessori (n=40)		Private Montessori (n=10)	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**
Multi-age classrooms (a classroom that has a range of ages in a single class)	3.85	1.23	3.50	0.97
Academics (focus on subjects such as math, reading, writing, science, etc.)	4.48	0.72	4.40	0.70
Socialization (interaction of your child with his/her peers)	4.65	0.62	4.10	0.99
Discipline (techniques used to teach and reinforce positive behavior)	4.38	1.01	4.30	0.95
Special Education/Special Needs	2.57	1.66	1.80	0.79
Interaction with classroom teacher	4.40	0.90	4.10	0.99
Individualized attention from teacher	4.35	0.77	4.10	0.99
No Child Left Behind requirements (i.e., standardized testing, highly qualified teachers)	2.33	1.53	1.70	1.06
Location (proximity to your home or work)	3.10	1.45	3.14	1.08
Cost (i.e., tuition)	4.00	1.15	3.10	1.23
Diversity (interaction with cultures other than your own)	4.00	0.82	3.30	1.06

Parents from both public and private schools rated individual learning, student-teacher relationship, peer relationships, student-teacher ratio, and quality of academic programs as particularly valuable specific aspects of education. Public school parents also identified class size as an additional valuable characteristic. Each of these factors was rated between 4 and 5 on a Likert Scale. Both public and private school parents least valued the assignment of grades for work completed. Parents were asked to rate their responses to each factor on a Likert Scale (1 = Of no value; 3 = Of some value; and 5 = Of great value). The mean scores and standard deviations of each factor are reported in Table 5. A detailed table of statistical comparisons between public and private Montessori schools is located in Appendix G.

Two characteristics presented significant differences between public and private Montessori parents. First, there was a significant difference in how much value parents place on the low mobility of students, $t(47) = 2.344$, $p = .023$, with public Montessori parents valuing the low mobility more (Equal Variances assumed). Second, there was a significant difference in how much value parents place on peer relationships, $t(48) = 3.28$, $p = .002$, with public Montessori parents placing higher value on the peer relationships (Equal Variances assumed). Although not significant, there was a third result that warranted noting for the purposes of further research. Public Montessori parents place higher value on the relationship between the student and teacher than did the private Montessori parents, $t(10.47) = 1.85$, $p = .093$ (Equal Variances not assumed).

Secondary Question 1

Does the practice of the ungraded (multi-age) classroom positively affect parents' choice?

Table 5

Parents' Perceptions of the Value of Characteristics of Education

Characteristics	Public Montessori (n=40)		Private Montessori (n=10)	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**
Individual learning (learning focused specifically on your child)	4.70	0.61	4.40	0.70
Group instruction (teacher-led instruction to whole class or large groups)	3.08	1.16	3.00	0.94
Low mobility (the movement of children in and out of a specific class)	3.18	1.21	2.20	1.03
Student-teacher relationship (relationship between your child and his/her teacher)	4.80	0.46	4.30	0.82
Peer relationships (relationship between your child and his/her peers)	4.65	0.53	4.00	0.67
Assignment of grades for work completed (i.e., A, B, C, D, F)	2.44	1.37	1.70	0.95
School safety (security measures, emergency plans, etc.)	4.15	0.93	4.20	1.23
Child's age at beginning of school year	2.97	1.31	2.60	0.97
Placement of child in specific grade (i.e., Kindergarten, 1st, 2nd, 3rd)	2.90	1.29	2.20	1.03
Class size (number of students in each class)	4.31	0.80	3.90	0.74
Student-teacher ratio (number of students in relation to the number of teachers)	4.51	0.60	4.20	0.63
Test-taking skills (teaching children how to successfully take standardized tests)	2.87	1.42	2.40	1.35
Quality of academic programs (i.e., school reputation, teacher qualifications, accreditations)	4.42	0.72	4.30	0.95

There was no significant difference found between public and private Montessori parents in how much importance they place on multi-age classrooms. Both the public and the private Montessori parents rated multi-age classrooms as between "of some importance" and "of great importance" with a mean score of 3.85 and 3.50 respectively. However, three of the 13 parents, both public and private, interviewed (23.1%) specifically mentioned the multi-age classroom as an aspect of the Montessori philosophy that they find of particular importance.

Secondary Question 2

Do Montessori schools attract a certain demographic profile of students?

Public Montessori

Exactly 50% of the parents reported enrolling a male child and 50% reported enrolling a female child. Sixty-five percent (65%) of the public Montessori sample population were White, non-Hispanic, and 35% non-White (n = 40). Thirty-eight of the 40 parents who responded to the survey were mothers (95%), one was a father (2.5%), and one was an aunt (2.5%).

Twenty-eight of the 40 responding parents (70%) who enrolled their children in public Montessori programs reported that their children live with both their mother and father. The highest level of the mothers' education was a bachelor's degree or less for 65.5% of the study population (n = 40). Approximately 35% (35.5%) of the study population reported that the mothers' highest level of education was at least some graduate school. The fathers' highest level of education was a bachelor's degree or less for 72.5% of the study

population while 25% reported that they had at least some graduate school (n = 39) Parents' education levels are reported in Table 6.

Thirty-seven (92.5%) families reported income levels as less than $110,000 while 3 (7.5%) claimed more than $110,000. The majority of parents (77.5%) have family/household incomes between $31,000 and $110,000 (Table 7).

Seventy-five percent (75%) of public school parents rated enrolling their children in a Montessori program as a four or a five on a five-point Likert scale (1 = Of no importance; 3 = Of some importance; 5 = Of great importance). Using the same scale, 77.5% of parents valued enrolling their children in a preschool program as a four or five.

Table 6

Public Montessori Parental Education Levels

Education Level	Mother (%)	Father (%)
Some high school	2.5	0.0
High school diploma/GED	5.0	12.8
Some college	17.5	25.6
Associates degree	5.0	12.8
Bachelor's degree	32.5	23.1
Some graduate school	15.0	2.6
Graduate degree	22.5	23.1

Table 7

Public Montessori Family/Household Income

Income Level	Percentage of Families
Less than $30,000	15.0
$31,000-70,000	42.5

$70,000-110,000	35.0
More than $110,000	7.5

Sixty-five percent (65%) of parents considered traditional public school and 42.5% considered private school options before choosing to enroll their children in a Montessori program. Twenty percent (20%) of parents considered homeschooling their children. The results are reported in Table 8 as percentages of the number of parents who considered each option (n = 40).

Table 8

School Options Public Montessori Parents Considered Before Enrolling Children in Montessori

School Option	**Percentage of parents (n = 40)**
Private	42.5
Headstart	12.5
Traditional Public School	65.0
Home-based (someone else's home)	5.0
Homeschooling (your own home)	20.0

The average age of a child when first enrolled in a public Montessori was 4.1 years, and 82.5% of parents planned to keep their children enrolled in Montessori for at least five years (n = 40). Most public Montessori parents would consider continuing a Montessori education for the future education of their children. Less than 30% (27.5%) would consider enrolling their children in a traditional public school. Ten percent (10%) or less would consider private, magnet, or charter schools (Table 9).

Private Montessori

Parents of three boys (30%) and seven girls (70%) who were enrolled in private Montessori programs responded to the survey (n = 10). Seventy percent (70%) of the private Montessori sample population was White, non-Hispanic while 30% reported being non-White (n = 10). All 10 parents (100%) who responded to the survey were mothers.

Table 9

Public Montessori Parents' Future Education Plans for Their Children

School Option	Percentage of parents (n = 40)
Montessori	92.5
Private	7.5
Traditional Public School	27.5
Magnet	7.5
Charter	10.0
Homeschooling	0.0
Other	5.0

All 10 of the responding parents (100%) who enrolled their children in private Montessori programs reported that their children live with both their mother and father. The highest level of the mothers' education was a bachelor's degree or less for 30% of the study population (n = 10). Seventy percent (70%) of the study population reported that the mothers' highest level of education was at least some graduate school. The fathers' highest

level of education was a bachelor's degree or less for 50% (n = 10) of the study population while 50% reported that they had at least some graduate school (Table 10).

Four (40%) families reported income levels as less than $110,000 while 6 (60%) claimed more than $110,000 (n = 10). None of the private school parents has a family/household income level of less than $30,000 (Table 11).

Eighty percent (80%) of private Montessori parents rated enrolling their children in a Montessori program as a four or a five on a five-point Likert scale (1 = Of no importance; 3 = Of some importance; 5 = Of great importance). Using the same scale, 80% of parents valued enrolling their children in a preschool program as a four or five.

Table 10

Private Montessori Parental Education Levels

Education Level	Mother (%)	Father (%)
Some high school	0.0	0.0
High school diploma/GED	0.0	0.0
Some college	0.0	0.0
Associates degree	0.0	0.0
Bachelor's degree	30.0	50.0
Some graduate school	0.0	20.0
Graduate degree	70.0	30.0

Half of the private Montessori parents (50%) considered private school before choosing to enroll their children in a Montessori program while 30% of the parents considered traditional public school, home-based school, and/or homeschooling. The results reported in Table 12 are percentages of the number of parents who considered each option (n = 10).

Table 11

Private Montessori Family/Household Income

Income Level	Percentage of Families
Less than $30,000	0.0
$31,000-70,000	20.0
$70,000-110,000	20.0
More than $110,000	60.0

Table 12

School Options Private Montessori Parents Considered Before Enrolling Children in Montessori

School Option	Percentage of parents (n = 10)
Private	50.0
Headstart	0.0
Traditional Public School	30.0
Home-based (someone else's home)	30.0
Homeschooling (your own home)	30.0

The average age of a child when enrolled in a private Montessori was 3.9 years, and 60% of parents planned to keep their children enrolled in Montessori education for one to two years while 40% of parents planned to keep their children enrolled in for three to four years (n = 10). None of the private Montessori parents planned to enroll their children for longer than four years. In fact, 100% of the parents have considered traditional public school for their children's future education (Table 13).

Table 13

Private Montessori Parents' Future Education Plans for Their Children

School Option	Percentage of parents (n = 10)
Montessori	30.0
Private	10.0
Traditional Public School	100.0
Magnet	0.0
Charter	0.0
Homeschooling	0.0
Other	0.0

Comparison of public and private Montessori demographic information

Chi-square tests were used to analyze the differences that existed between the public and private Montessori parents' demographic information. Such information included parental education levels, the child's race/ethnicity, and the family/household income levels. The data for each of the parental education levels, the child's race, and the family/household income levels was recoded to contain only two levels of reporting. The parental education levels were recoded to "Bachelor's degree or less" and "At least some graduate school." Race was recoded to "White, non-Hispanic" and "non-White." Income levels were recoded to "More than $110,000" and "Less than $110,000." The purpose of the recoding was to allow for enough responses in each category to make the analyses reliable.

There was no significant difference between public and private educational levels for the mothers, $\chi^2(1, n = 50) = 3.43$. $p = .06$ or the fathers, $\chi^2(1, n = 49) = 2.22$. $p > .10$. The child's race/ethnicity was not statistically different between public and private Montessori schools, $\chi^2(1, n = 50) = 0.09$. $p > .10$. However, the family/household income for the private

Montessori schools was higher than the public Montessori schools, $\chi^2(1, n = 50) = 14.94$. $p < .01$.

Other Pertinent Findings

Learning Styles

Parents were asked to identify how their child learns best: hands-on learning, individual instruction, small group, or teacher-directed learning. Parents were able to indicate more than one style of learning. The majority of public (87.5%) and private (90%) Montessori parents believed their children learn best through hands-on experiences. They also believed that teacher-directed learning was the least effective style for their children (Table 14).

Table 14

Parents' Perceptions of Child's Learning Style

Learning Style	Public (%)	Private (%)
Hands-on	87.5	90.0
Individual	25.0	20.0
Small group	20.0	0.0
Teacher-directed	10.0	10.0

Strengths versus Interests

Parents were asked to report their child's strengths and their child's interests. For each category listed, there were instances when parents reported that the child had neither an interest nor a strength, only an interest, only a strength, or both an interest and a strength. The

core subject areas of math, science, reading, and writing are represented in Figure 2. Nine parents said math was only a strength and two said it was only an interest. Conversely, more parents identified reading and writing as interests (n = 15 and n = 11, respectively) rather than strengths (n = 1 and n = 5, respectively). Math is the only area in which parents identified more strength than interest.

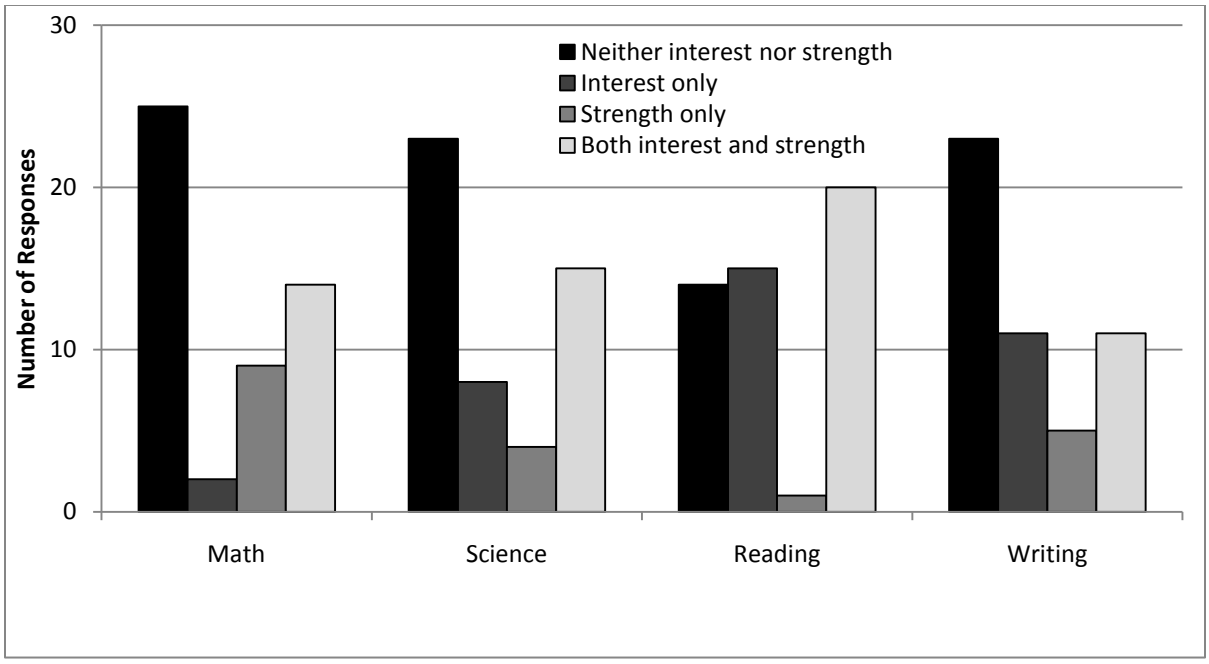

Figure 2. Parents' indications of children's interests and strengths: Core subject areas.

Parents' responses to whether physical activity, art, music, making friends, communication, and imagination were strengths and/or interests are represented in Figure 3. Similarly, in these areas, more parents indicated music and making friends were interests (n = 16 and n = 13, respectively). Only three parents reported that music was only a strength, and four parents indicated that making friends was only a strength. There was much less dramatic difference in strengths versus interest in the areas of physical activity, communication, and imagination.

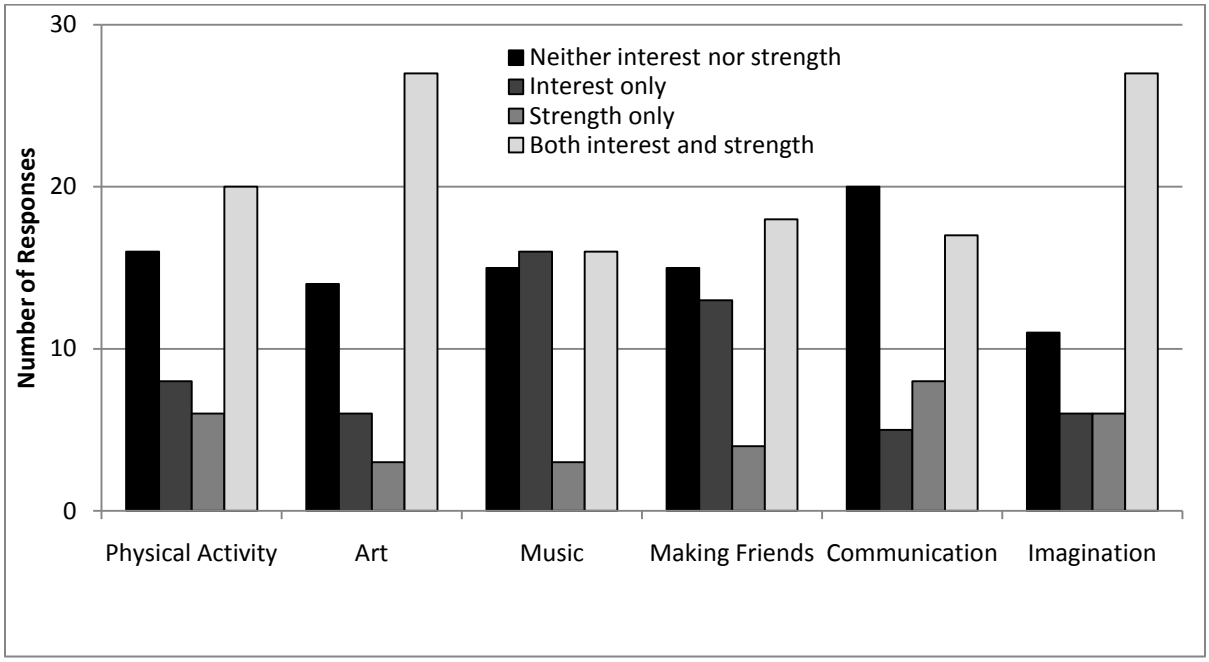

Figure 3. Parents' indications of children's interests and strengths: Other subject areas.

Open-response survey questions

Questions nine through 13 were open-response survey questions and were directly related to the study's central question "What elements of Montessori education lead parents to choose this as the schooling option for their children?" Parents were invited to write their thoughts about questions specifically related to their choice to enroll their children in Montessori schools. Each parents' responses were typed and coded by theme using content analysis.

The most commonly reported answers about what appealed to parents about Montessori education were the Montessori philosophy (i.e., curriculum, learning style), individualized learning pace, individual attention, hands-on learning, multi-age classrooms, and self-directed learning (Table 15).

Table 15

Reasons Parents Enrolled Children in Montessori School

Theme	Public* (n = 40)	Private* (n = 9)
Individualized attention	15	11.1
Individualized learning pace	22.5	11.1
Self-directed learning	15	22.2
Confidence building	5	22.2
Learning life skills	7.5	22.2
Montessori philosophy	25	22.2
Hands-on learning	17.5	11.1
Multi-age classrooms	12.5	11.1
Personal knowledge	7.5	22.2
Classroom environment	5	44.4

*Reported as percentage

Parents were also asked to respond to a question about what appeals to them about having their child enrolled in a *public* or a *private* Montessori program. Twenty-nine of the public Montessori parents (n = 40) mentioned that they appreciated the opportunity to send their children to a Montessori program at no cost while one parent from a private Montessori program (n = 8) mentioned that the cost of private Montessori was very expensive. Additionally, seven public Montessori parents (n = 40) indicated being interested in having a public option available for a Montessori school. Two private Montessori parents (n = 8) said that there was nothing they particularly liked about a private Montessori program specifically and that they would prefer a public option. Twelve parents from a public Montessori program (n = 40) mentioned diversity as a strength of public Montessori programs. None of the

private Montessori parents (n = 8) mentioned diversity at all. Responses common to both public and private Montessori programs included the Montessori philosophy and classroom size (Table 16).

Table 16

Public/Private Montessori Appeal

Theme	**Public* (n = 40)**	**Private* (n = 8)**
Montessori philosophy	12.5	50
Cost	72.5	12.5
Diversity	30	0
Prefer public	17.5	25
Classroom environment	12.5	37.5

*Reported as percentage

Responses were similar between public and private school parents in how they hoped their children would benefit from being in a Montessori program. The most commonly reported answers were self-direction/motivation, independence, a love of learning, a solid academic foundation, respect for others, confidence, and becoming a well-rounded person (Table 17).

One of the study's secondary questions, "Does the practice of the ungraded (multi-age) classroom positively affect parents' choice?" was indirectly addressed by each of the questions asked. There was no specific mention of the multi-age classrooms in the questions, but five public Montessori parents (n = 40) and one private Montessori parent (n = 9) mentioned multi-age classrooms as one of the aspects of Montessori education that led them to enroll their children in a Montessori program.

Table 17

Parents' Perceived Benefits from Attending Montessori School

Theme	Public* (n = 40)	Private* (n = 9)
Self-direction/motivation	22.5	11.1
Independence	25	33.3
Love of learning	30	22.2
Strong academic foundation	20	33.3
Responsibility for learning	10	0
Respect for others	15	22.2
Confidence	20	33.3
Becoming well-rounded	7.5	11.1

*Reported as percentage

Demographic information was not asked in either the open-response survey items or as part of the interviews, so the results do not directly address the secondary question "Do Montessori schools attract a certain profile of students?" The researcher did not analyze the open-response survey data using demographic information because she was primarily concerned with the themes that emerged from the responses rather than the categorization of who said them.

Other pertinent survey findings

Parents were asked to respond to two questions about information that they had available and used in making their decision to enroll their child in a Montessori program and information that they would have liked to have had access to. The most commonly reported

answers to the information parents used in making their decision were the internet/online resources, school or classroom visits, books and articles about Montessori education, informational literature about the school, and family or friends with previous Montessori experience or knowledge (Table 18).

Table 18

How Parents Obtained Information about Montessori Education

Theme	**Public* (n = 40)**	**Private* (n = 9)**
Internet/online resources	35	11.1
School/classroom visit	22.5	44.4
Visit with teacher	7.5	33.3
Books/articles about Montessori	10	0
School-specific information	12.5	11.1
Friend/family with previous Montessori experience	52.5	44.4
Own previous Montessori experience	15	0

*Reported as percentage

While private Montessori parents typically said they had the information they needed to make the decision, 11 public school parents (n = 32) would have liked to have had more information about the Montessori philosophy. Eight mentioned that they would have liked to have had an opportunity to observe the school and classrooms. Three would have liked to have had a better understanding of a daily Montessori schedule. Two would have liked to have known someone or had a personal connection with someone with Montessori experience, and one would have liked to have been able to watch You Tube clips of a Montessori classroom (Table 19).

Table 19

Information about Montessori Education Parents Would Have Found Useful

Theme	Public* (n = 32)	Private* (n = 7)
Montessori philosophy	46.9	0
Daily classroom routines	9.4	0
School/classroom observation	25	14.3
School-specific information	9.4	14.3
Personal connection	6.3	0
You Tube videos	3.1	0
None/Had what was needed	31.3	57.1

*Reported as percentage

Qualitative Results

On the last page of the survey, parents who were interested in participating in an interview with the researcher were asked to submit their names and contact information. The researcher then contacted those parents and set up interviews with 13 parents. The interviews lasted between five and 45 minutes and served as an opportunity to confirm the quantitative results and to allow parents to elaborate on the reasons they chose to enroll their children in a Montessori program. The interviews were recorded and later transcribed by the researcher. The results are presented according to the interview questions.

Interview Sample

Thirty-three parents submitted their names and contact information to the researcher on the last page of the written survey. The researcher contacted each of the 33 parents to confirm the parents' interest in participating in the interview. Of those 33, parents 13 parents

were interested in and available to do the interview. The parents represented all four of the study sites. Three parents were from private Montessori schools: one parent was from Small Beings Montessori and two were from Taking Flight Montessori. The other 10 parents represented the two public schools: three were from Discovery Montessori and seven were from Crescent Ridge Montessori.

Interview Results

When asked why parents chose to enroll their child(ren) in a Montessori school parents spoke of the Montessori philosophy, friends or relatives with previous experiences in Montessori schools, diversity, the self-directed learning in the Montessori classroom, the individualized attention that the children received from the teachers, and the individualized learning pace within the classrooms. Parents made comments such as:

- "This was a good style for my child." (public school parent)
- "The classroom was serene." (private school parent)
- "I didn't want my children to be sitting at a desk." (public school parent)
- "What attracted us most was his ability to work from one area to another at his own pace." (public school parent)
- "I liked the mixed-age group a lot." (public school parent)
- "To me, education is about getting the child ready for life…not all about academic scores…" (public school parent)

When asked whether there was a specific part of the philosophy that the parents found particularly important, parents said:

- “I like the idea of a work plan where they take responsibility for what they learn in a day.” (public school parent)
- “…the emphasis on peace” (public school parent)
- “Education isn’t in the walls – it’s their whole environment.” (public school parent)
- “I like that [the school] attracts and is located in a [more diverse] part of town.” (public school parent)
- “I like that they can learn beyond their own level.” (public school parent)
- “…exploring the world…we’re members of the world first.” (public school parent)
- “They are constantly learning as they go.” (private school parent)
- “It’s a complimentary approach [to how we teach] at home.” (private school parent)

Parents identified several strengths of Montessori education:

- “Diversity.” (public school parent)
- “[Montessori students] view education as more of a process.” (public school parent)
- “Teaching students to take responsibility for their own learning.” (public school parent)
- “…cultivates curiosity…” (public school parent)
- “That it recognizes the child’s whole being.” (public school parent)
- “Learning about other cultures and the world.” (public school parent)
- “…love how individualized it can be.” (public school parent)

- "I love the sensory and hands-on approach to learning." (public school parent)

When asked how parents hoped their children would benefit from being in a Montessori program, they often responded with ideas such as independence, developing a love of learning, becoming a life-long learner, developing a respect for others and the world around them, and developing and maintaining a sense of curiosity.

Almost every public school parent commented that cost (i.e., no cost for tuition) was a strength of public Montessori education. Diversity was a second factor that was frequently named. Parents often related cost to diversity with comments such as, "In private [schools], only certain people are entitled financially." Another parent mentioned that she felt it was important for her children to learn to work with people from very different backgrounds. Yet another parent was excited about the possibility of public Montessori programs being able to offer a free education to "children who would benefit the most…[the kids from lower socio-economic backgrounds]."

While parents identified many strengths of attending a public Montessori school, several commented on the weaknesses as well. Many issues such as district support, administrative support, the need to enlarge the program offerings, and helping parents understand the philosophy were among the concerns raised by parents.

When the private Montessori parents were asked to identify the strengths of a private Montessori program, some indicated that they didn't know there were any public programs offered. One mentioned that she would like to see a public Montessori program in her area. One parent expressed concern for how well her child will make the transition out of a private Montessori program and into a public Kindergarten program.

Because the researcher did not ask any demographic information as part of the interview, the data cannot address the secondary question "Do Montessori schools attract a certain profile of students?" The researcher made the deliberate decision to exclude demographic data from the interviews because she believed that parents would be more likely to answer honestly and completely if they believed their anonymity was protected. Furthermore, the interview sample size was so small that any demographic data obtained may have revealed too much information to protect the anonymity and confidentiality of the participants.

Mixed-Method Results

There were several important findings that were evident in both the written survey and in the interview. Significant differences were found between public and private Montessori parents in the importance of socialization between peers and how important the consideration of special education/special needs was for parents in making the decision to enroll their child in a Montessori program with public Montessori parents placing more importance on these factors. Public Montessori parents also placed more importance on diversity. While these significant differences were evident in the survey, none of the parents mentioned these factors in the interview.

Additionally there were significant differences between public and private Montessori parents in how much value parents placed on low mobility and peer relationships. Public Montessori valued each of these characteristics more than the private Montessori parents. The only demographic information that was found to be statistically significant was that

private Montessori parents' family/household incomes were higher than public Montessori parents' family/household incomes.

The qualitative data revealed both similarities and differences in the Montessori choice experiences of private and public Montessori parents and supported the survey findings. Both types of parents indicated similar responses to how they hoped their children would benefit from being enrolled in a Montessori program. In both the survey and the interview, parents discussed how they wanted their children to be life-long learners who are respectful of others and the world around them. One parent said, "[There is an] emphasis on the world view. If we work on creating these healthy little human beings it would make the world a better place. Teach the children how to work with other people and to think about the place they're in. Education isn't in the walls – it's their whole environment."

Furthermore, cost and diversity were major factors in what parents defined as the strengths of a public Montessori program but were not mentioned nearly as often as strengths of a private Montessori program. This was true in both the survey and interview responses. Parents made comments such as, "There is something sad about engage[ing] curriculum being only available to people who have a lot of other things going for them. $10-20,000 a year isn't affordable to many…[I hope my child will get a] curiosity about how people live. People live differently in the world…but people [also] live differently in the same city."

Chapter 5

Conclusions and Discussion

The purpose of this study was to explore the reasons why parents choose to enroll their children in Montessori schools, both public and private. Secondary purposes of the study included determining whether the multi-age classroom used in the Montessori method was a specific determining factor in parents' decision to send their children to Montessori schools and whether Montessori education draws a certain, specific family demographic.

Conclusions

Based on the results of this study, the following conclusions can be drawn: Parents, from both public and private schools, placed the most importance on academics, discipline, socialization, interaction with the classroom teacher, and individualized attention from the teacher. For both public and private schools, the mean score for the importance of each of these factors was between a four and five (5 = "Of great importance"). Additionally, the Montessori parents, both public and private, place highest value on individual learning, student-teacher relationship, peer relationships, school safety, student-teacher ratio, and the quality of academic programming with the mean values being between a four and five (5 = "Of great value").

Special education/special needs and No Child Left Behind requirements were the two least important factors for both public and private school parents. The parents placed the least

value on the assignment of grades for work, the child's age at the beginning of the school year, the placement of the child in a specific grade, and test-taking skills.

There was a statistically significant difference between the public and private Montessori parents in three factors of education: socialization, special education/special needs, and diversity. Public Montessori parents rated each of the three areas as more important than the private school parents. There were significant differences between the public and private Montessori parents in how much they value the low mobility of students with public school parents rating the value higher and how much they value peer relationships, again, with public school parents rating the value higher.

Although multi-age classrooms were often mentioned by parents as a factor that is very important to them in the Montessori program, there was no statistically significant difference between public and private Montessori parents in this area. The mean scores for both sets of parents in how important this factor was in their decision-making process were just above average rating ("of some importance").

No significant differences were found when comparing the demographic information for public and private Montessori parents in education levels for the mother or the father or in the child's race/ethnicity. However, there was a significant difference in the income levels of the participants.

Several trends emerged in the qualitative data as well. Parents from the public Montessori schools consistently mentioned that the opportunity to enroll their children in a Montessori program for free was a major benefit to being part of a public Montessori. The same parents also consistently mentioned diversity as a benefit to a public program. Parents from private schools tended to mention more about the program being academically focused

and the quality of the classroom environment. Parents from both public and private Montessori schools typically offered similar responses in how they hoped their children would benefit from attending a Montessori program, and these were typically centered around independence, being a self-directed/self-motivated learner, having a strong academic foundation, a respect for others, and gaining confidence through this style of learning.

Finally, parents from public and private Montessori schools shared similar experiences in the materials they had available to them while they were making the decision to enroll their child in the program (i.e., information about the specific school and friends/family members with personal experience or knowledge with Montessori education). However, there were differences in the information they used as well. More public school parents used online resources while more private school parents used school and/or classroom visits and meeting the teachers to make their decision. Both public and private school parents identified school and/or classroom visits as a type of information they would have liked to have had available before they made the decision to enroll their child. Nearly half of the public school Montessori parents would have liked to have had more information that specifically addressed the Montessori philosophy while more than half of the private school parents said they had access to all of the information they needed to make their decision.

Study Limitations

First, it is critical to note that the sample size for the entire study was 50 participants spanning four schools. Ten parents represented two private Montessori schools and the other 40 represented two public Montessori schools. The result of such a small, skewed sample is

that the results may not be representative of a larger population of Montessori parents. Furthermore, the comparisons between the private and public Montessori schools may not be realistic as the sample size was especially small for the private Montessori schools.

One additional piece of information that may have affected the results of this study was the geographic location of each site. One private school was located in the Midwest and the other on the East Coast. One of the public schools was located in the Upper Midwest and the other in the Mountain West. The geographic differences may have impacted the study's results in that issues such as income may have been affected by the specific city or town demographics.

According to the official U.S. Census Bureau web site, Taking Flight Montessori (private school) was located in a town where the average household income was $128,520 in 2008 (given in 1999 dollars and adjusted for inflation) and 92.2% of the population was White. Small Beings Montessori (private school) was located in a city where the average household income was $50,290 in 2008 dollars and 89.3% of the population was White. Crescent Ridge Montessori (public school) was in a city where the average household income was $53,992 in 2008 dollars and 79.3% of the population was White. Discovery Montessori (public school) was located in a city where the average household income was $37,022 in 2008 dollars and 46.8% of the population was White.

Discussion

The importance that parents placed on academics, discipline, socialization, interaction with the classroom teacher, and individualized attention from the teacher were in line with the Montessori philosophy in terms of how teaching, learning, and the classroom

environment are structured. The parents were not asked whether they were aware of their child's school possessing any specific factors or characteristics; only the importance of each. However, many of the parents' comments were consistent with the Montessori characteristics. Parents made comments such as, "I couldn't picture my children sitting behind desks." "I like the hands-on approach to learning." "They learn by doing." Both public and private Montessori rated individual learning, the student-teacher relationship, peer relationships, the student-teacher ratio, and the quality of academic programming as particularly valuable characteristics of education. These characteristics are all defining pieces of the Montessori philosophy, so it was expected that the parents would rate them as valuable.

The two least important factors of education as reported by the parents were special needs/special education and No Child Left Behind elements. One private school parent reported, "To me, education is about getting the child ready for life – not all about academic scores and testing." Though Montessori education may benefit students with special needs, it is possible that parents who participated in the study do not have children with special needs. That information was not obtained from parents. Since the Montessori philosophy is enacted so differently than traditional public school, parents may not consider the implications of No Child Left Behind in their decision to enroll their children in Montessori schools. Parents expressed their perceptions about how public Montessori and traditional public schools differed. Many parents mentioned that Montessori allowed their children more freedom in education than did traditional public school. One public Montessori parent, in reference to the difference between the public Montessori and traditional public schools, "I like that they can learn beyond their own level and not just with the slowest person in the class." True to

the Montessori philosophy, parents placed the least value on the assignment of grades for work, the child's age at the beginning of the school year, the placement of a child in a specific grade, and test-taking skills.

It is unclear what the difference between public and private Montessori parents means in terms of the socialization between peers. Based on the Montessori philosophy, both public and private schools are likely to place similar emphasis on socialization. It is possible that the significant difference found between public and private Montessori parents in the area of special education/special needs is because public schools may have a more transparent process for working with children with special needs and their families because of the Individuals with Disabilities Act (IDEA). Although the survey results were statistically significantly different, only one of the parents specifically mentioned anything related to special needs. That public school parent believed that Montessori was a good fit for her child who has symptoms of AD/HD but has never been diagnosed. "What attracted us most was his ability to work from one area to another at his own pace."

The difference in diversity found between public and private Montessori parents was not unexpected. In the open-response survey items and in the interview, public school parents consistently mentioned diversity as a main benefit of a public Montessori school. Many parents cited the public aspect of the school as the reason such diversity existed in the schools. They saw no barriers to being able to attend a Montessori school based on income the way they would have expected in a private Montessori school. These parents believed that because there was no tuition to attend the Montessori elementary, the school would be able to draw a much more diverse population. A public school parent said, "Private [schools] draw more affluent families because they have to pay tuition. …anyone can go in [to this

program]…You see all walks of life…[My child] has the opportunity to be with kids from all different backgrounds. It's such a big, diverse group from money to ethnicity. I don't think you see that in programs you have to pay tuition to [be in]."

Because of the individualistic nature of Montessori education and the practice of multi-age classrooms, it is not likely that parents who chose Montessori would have rated these characteristics as valuable. It is less clear, however, why parents rated school safety so high. It is possible that this would have been rated high by parents who children attended any type of school and that it is not unique to Montessori schools.

As was the case with socialization, there was a significant difference in how much parents value peer relationships. There was not enough information obtained from participants to fully understand why this difference between public and private Montessori parents exists. Is it possible that this difference is due to how strictly the public versus the private Montessori adheres to Maria Montessori's original philosophy? Further study would be necessary to determine what, if any, relationship exists between socialization and peer relationships.

Parents with students in public Montessori schools rated the low mobility of students higher than the parents with students in the private Montessori schools. Again, there was not enough information obtained in this study to effectively answer why this appeared to be the case.

The fact that there was no significant difference between public and private Montessori parents in how much they valued multi-age classrooms may be because it is one of the fundamental beliefs of the Montessori philosophy. Parents who chose Montessori education for their children are likely to value the idea of students of varying ages learning

together and from each other. It was interesting, however, that parents from either type of school did not rate this Montessori characteristic any higher than they did, slightly above "Of some importance."

The researcher identified statistically significant differences between public and private Montessori parents in the family/household income levels but no significant differences in race/ethnicity and educational levels. There may be two explanations for the limited significant findings. First, the number of participants was small enough that the data was condensed and recoded into two categories rather than four or more categories. The recoded data, while done to be able to do a more sound analysis of the information, may have lessened the effect of any differences that may have existed. For example, it was impossible to tell using the recoded data whether one group of parents had significantly more graduate degrees than the other group.

Second, and perhaps more importantly, it is necessary to consider the diversity of the cities/towns used in the study. The researcher had originally hoped to eliminate the possibility that parents from a specific geographic locale would potentially view Montessori education differently than another by involving sites from across the United States. However, this may have ended up confounding the results because of the additional city/town demographic data that would be needed to eliminate the geographically specific effects (i.e., median housing cost, average household income, race/ethnicity, etc.). It would have been more effective to look at public and private Montessori schools from within one city/town.

Additional findings from the qualitative data collection that were worthy of consideration. First, parents in the public Montessori schools consistently mentioned cost and diversity as two key factors about what they like about having enrolled their children in a

public Montessori program. In contrast, parents in the private Montessori schools mentioned the caliber of academics more often than other themes (Appendix H). Both public and private Montessori parents identified similar ways they hoped their children would benefit from attending a Montessori school.

Parents who enrolled their children in public or private Montessori schools were likely to have obtained information about the program through word-of-mouth (i.e., family and friends' experience or knowledge of Montessori schools) and through marketing information specific to the school. Parents who chose public Montessori programs were more likely to use online resources while parents who chose private Montessori programs were more likely to visit the school, classroom, or teachers. Parents from both types of programs identified school/classroom visits and school-specific literature as information that would have been helpful to have had during the decision-making process. Many public school parents would have also liked to have had more accessibility to information about the Montessori philosophy while private school parents believed they had all of the information they needed. It is possible that private school parents specifically seek Montessori education while many public school parents found the Montessori schools because of their location or because of what they had heard from other people about the school.

Effective marketing strategies for both types of Montessori schools would include information about the school and its daily routines as well as opportunities for parents to visit the classroom to get a feel for how the school operates in its daily routine. Based on what some participants suggested, these classroom visits may also be bolstered by virtual "visits" to the classroom. To this end, creating You Tube clips (or other online video resources) that show Montessori in action may help parents to better understand what the philosophy is and

how it is implemented. In addition to these marketing strategies, public Montessori schools may also consider offering informational sessions or written information about the Montessori philosophy so that parents are able to make the most educated decision possible about school choice.

Significance

Based on the results of this study, there is little difference between public and private schools in terms of what factors and characteristics parents value in Montessori education. However, some of the most significant findings (i.e., cost, diversity, academic foundation, and school choice information available to parents) may impact how schools market themselves to attract more students. Perhaps the public and private schools can learn from each other's strengths and use that to continue to improve the quality of education and to offer parents competitive choices for schools.

Implications for Future Research

The fact that, regardless of whether they chose a public or a private Montessori school, the parents had similar ways they hoped their children would benefit from the Montessori philosophy, indicates that there may be little difference in the overall implementation of Montessori education – that both public and private Montessori schools can be effective. Though the result was outside the realm of significant, future research may wish to address the importance of the student-teacher relationship in both public and private Montessori education. Issues related to peer relationships with Montessori education and low student mobility need to be looked at in greater detail. Furthermore, the private school

parents' focus on academics and the public school parents' focus on cost and diversity merit further consideration. Future studies could focus on these specific similarities and differences in Montessori education.

Given that parents were not asked about specific factors and characteristics that their children's schools possessed, future research could look at what information parents had about a specific Montessori school before enrolling their children in the school as well as how well the school adhered to the Montessori philosophy. Parents could be asked to identify and elaborate on their perceptions of how well their children's school exhibits Montessori characteristics.

Additional studies may want to take a more in-depth look at the differences between public and private Montessori programs and whether one type of school attracts specific types of students. To best do this, it may be necessary to locate public and private Montessori programs either in the same city/town or with cities/towns with similar demographic profiles.

Finally, it is imperative to take a closer look at both private and public Montessori schools to identify what elements of the school determine how effective the program is. For example, what does the school leadership look like? In public programs, how is the Montessori school situated in and supported by the district? What kinds of opportunities are available to students who attend Montessori programs? How does the experience of attending a Montessori – public or private – affect the students later in school or in their career?

The development of the public Montessori model may prove to be a new frontier in public education. This would allow parents the benefit of a private Montessori education at no cost. Diversity in school programming may also encourage the innovative school improvement that President Obama's education reform package calls for.

References

Bauch, P.A. (1987, May). Parents' reasons for choice – and some characteristics of Catholic schools. *Momentum,* 18, 59-60.

Bauch, P.A. and Goldring, E.B. (1995). Parent involvement and school responsiveness: Facilitating the home-school connection in schools of choice. *Educational Evaluation and Policy Analysis,* 17 (1), 1-21.

Bodrova, E. (2003). Vygotsky and Montessori: One dream, two visions. *Montessori LIFE,* 15 (1), 30-33.

Bomotti, S. (1996). Why do parents choose alternative schools? *Educational Leadership,* 54 (October), 30-32.

Chattin-McNichols, J. (1992). *The Montessori Controversy.* Albany, NY: Delmar Publishers, Inc.

Cohen, D.L. (1990a). A look at multi-age classrooms. *Education Digest,* 55 (9), 20-23.

Cohen, D.L. (1990b). Montessori methods in public schools. *Education Digest,* 56 (1), 63-66.

Corry, S.K. (2006). A comparison of Montessori students to general education students as they move from middle school into a traditional high school program. Dissertation published by the University of Nebraska – Omaha.

Creswell, J.W. (1998). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions.* Thousand Oaks, CA: SAGE Publications.

Deal, T.E. and Peterson, K.D. (1999). *Shaping School Culture: The Heart of Leadership.* San Francisco: Jossey-Bass.

Delpit, L. (2006). *Other People's Children: Cultural Conflict in the Classroom.* New York: The New Press.

Dohrmann, K.R. (2003). *Outcomes for students in a Montessori program.* Retrieved May, 2010, from www.montessori-ami.org/research/outcomes.pdf.

DuFour, R., Eaker, R., and DuFour, R. Recurring themes of professional learning communities and the assumptions they challenge. In Du Four, R., Eaker, R., and DuFour, R. (Eds.). (2005). *On Common Ground: The Power of Professional Learning Communities.* Bloomington, IN: National Educational Service, 7-29.

DuFour, R. What is a professional learning community? In Du Four, R., Eaker, R., and DuFour, R. (Eds.). (2005). *On Common Ground: The Power of Professional Learning Communities.* Bloomington, IN: National Educational Service, 31-43.

Duncan, A. (2009). Secretary Arne Duncan testifies before the house education and labor committee. Retrieved May 31, 2009 from www.ed.gov/print/news/speeches/2009/05202009.html.

Edwards, C.P. (2002). Three approaches from Europe: Waldorf, Montessori, and Reggio Emilia. *Early Childhood Research & Practice,* 4 (1). Retrieved January 2, 2009 from http://www.ecrp.uiuc.edu/v4n1/edwards.html.

Elkind, D. (2003). Montessori and constructivism. *Montessori LIFE,* 15 (1), 26-29.

Flynn, T.M. (1990). Development of social, personal and cognitive skills of preschool children in Montessori and traditional preschool programs. (ERIC Retrieval Number: ED337297)

Fossey, R. (1994). Open enrollment in Massachusetts: Why families choose. *Educational Evaluation and Policy Analysis,* 16 (3), 320-334.

Fullan, M. (2008). *The Six Secrets of Change: What the Best Leaders Do to Help Their Organizations Survive and Thrive.* San Francisco: Jossey-Bass.

Fuller, B. (1996). Is school choice working? *Educational Leadership,* 54 (October), 37-40.

Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century.* New York: Basic Books.

Garson, G.D. (2008). Content analysis and qualitative research. From *Statnotes: Topics in multivariate analysis.* Retrieved 1/30/2010.

Gilles, S.G. (1998). Why parents should choose. In Peterson, P.E., and Hassel, B.C. (Eds.) *Learning from School Choice.* Washington, D.C.: The Brookings Institution, 395-408.

Goldhaber, D.D. (1999). School choice: An examination of the empirical evidence on achievement, parental decision making, and equity. *Educational Researcher,* 28 (9), 16-25.

Goldhaber, D.D. (1997). School choice as education reform. *Phi Delta Kappan,* 79 (October), 143-147.

Greene, J.P. (1998). Civic values in public and private schools. In Peterson, P.E., and Hassel, B.C. (Eds.) *Learning from School Choice.* Washington, D.C.: The Brookings Institution, 83-106.

Hainstock, E.G. (1997). *The Essential Montessori: An Introduction to the Woman, the Writings, the Method, and the Movement.* New York: Plume.

Karnes, M. (1978). Immediate, short-term, and long-range effects of five preschool programs for disadvantaged children. National Center for Educational Research and Development.

Loeffler, M.H. (2002). The essence of Montessori. *Montessori LIFE,* 14 (1), 34-36.

Martinez, V., Thomas, K., and Kemerer, F.R. (1994). Who chooses and why: A look at five school choice plans. *Phi Delta Kappan,* 75 (May), 678-681.

Meink, K.G. (2004). A profile of home schooling in Nebraska. Dissertation published by the University of South Dakota.

Montessori, M. (1995). *The Absorbent Mind.* New York: Henry Holt and Company.

Montessori, M. (2008). *The Montessori Method.* BN Publishing.

Mooney, C.G. (2000). *Theories of Childhood: An Introduction to Dewey, Montessori, Erikson, Piaget & Vygotsky.* Saint Paul, MN: Redleaf Press.

Murray, A. and Peyton, V. (2008). Public Montessori elementary schools: A delicate balance. *Montessori Life,* 20 (4), 26-30.

National Study of School Education. (2003). *System-wide Improvement: Focusing on Student Learning.* Schaumburg, IL: National Study of School Evaluation.

Neild, R.C. (2005). Parent management of school choice in a large urban district. *Urban Education,* 40 (3), 270-297.

Ogawa, R.T. and Dutton, J.S. (1994). Parental choice in education: Examining the underlying assumptions. *Urban Education,* 29 (3), 270-297.

Organized for America. (n.d.) Retrieved May 31, 2009 from www.barackobama.com/issues/education/.

Parker, D.E. (2007). Navigating the social/cultural politics of school choice: "Why do parents choose Montessori?" A Case Study. Dissertation published by The University of North Carolina – Greensboro.

Paley, V.G. (2000). *White Teacher.* Cambridge, MA: Harvard University Press.

Peterson, P.E. (2001). School choice experiments in urban education. In Wang, M.C. and Walberg, H.J. (Eds.) *School Choice or Best Systems: What Improves Education?* Mahwah, NJ: Lawrence Erlbaum Associates, 127-158.

Petronio, M.A. (1996). The choices parents make. *Educational Leadership,* 54 (October), 33-36.

Pickering, J.S. (2003). Montessori and learning differences. *Montessori LIFE*, 15 (1), 13.

Powell, M. (2001). Social and emotional learning in Montessori education. *Montessori LIFE,* 13 (1), 32-34.

Preuss, P.G. (2007). *Data-driven Decision Making and Dynamic Planning: A School Leader's Guide.* Larchmont, NY: Eye on Education, Inc.

Raywid, M.A. (2001). What to do with students who are not succeeding. *Phi Delta Kappan,* 82 (8), 582-584.

Robinson, W.Y. (2006). Culture, race, diversity: How Montessori spells success in public schools. *Montessori LIFE,* 18 (4), 9.

Rose, L.C. and Gallup, A.M. (2007). The 39th annual Phi Delta Kappa/Gallup Poll of the public's attitudes toward the public schools. *Phi Delta Kappan,* 89 (1), 33-45.

Ruenzel, D. (1997). The Montessori method. *Teacher Magazine,* 8 (7), 30-35.

Schapiro, D. (1993). What if Montessori education is part of the answer? *Education Digest,* 58 (7), 40-43.

Schneider, M., Marschall, M., Teske, P., and Roch, C. (1998). School choice and culture wars in the classroom: What different parents seek from education. *Social Science Quarterly,* 79 (3), 489-501.

Sparks, D. Leading for transformation in teaching, learning, and relationships. In Du Four, R., Eaker, R., and DuFour, R. (Eds.). (2005). *On Common Ground: The Power of Professional Learning Communities.* Bloomington, IN: National Educational Service, 155-175.

U.S. Census Bureau. (n.d.). American fact finder. Retrieved February 13, 2010 from http://factfinder.census.gov/home/saff/main.html?_lang=en.

U.S. Department of Education. (March 2009). The American Recovery and Reinvestment Act of 2009: Education, jobs, and reform. Retrieved May 31, 2009 from www.ed.gov/print/policy/gen/leg/recovery/factsheet/overview.html.

Vardin, P.A. (2003). Montessori and Gardner's Theory of Multiple Intelligences. *Montessori LIFE*, 15 (1), 40-43.

Viteritti, J.P. (1998). School choice and state constitutional law. In Peterson, P.E., and Hassel, B.C. (Eds.) *Learning from School Choice.* Washington, D.C.: The Brookings Institution, 409-427.

Wagner, T., Kegan, R., Lahey, L., Lemons, R.W., Garnier, J., Helsing, D., Howell, A., and Rasmussen, H.T. (2006). *Change Leadership: A Practical Guide to Transforming Our Schools.* San Francisco: Jossey-Bass.

White House, The. (n.d.) Education. Retrieved May 31, 2009 from www.whitehouse.gov/issues/education.

Yell, M.L. and Drasgow, E. (2005). *No Child Left Behind: A Guide for Professionals.* Upper Saddle River, NJ: Pearson Education, Inc.

Appendixes

Appendix A – Sample Site Request Letter

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES

Department of Educational Administration

March 29, 2009

Director/Principal

School Name

Address

City, State Zip Code

Dear Director/Principal,

My name is Emily Zarybnisky, and I am a doctoral student at the University of Nebraska – Lincoln. For my dissertation research I am exploring why parents choose to send their children to Montessori schools. I am looking for a private/public Montessori school to participate in my study.

This study will ask parents of children in pre-kindergarten through third grade to complete a written survey on their own time and at their own convenience. At your school, I would ask that a parent/guardian of each student participate since your school only enrolls students through age six. It would take parents approximately 15 to 30 minutes to complete and their results would be confidential. Additionally, I will not be using the school or location in the written results of the research; the name, location, and any other identifying information will be changed or not used.

I would like to begin the data collection as soon as possible, but I will need to have my research officially approved by the University of Nebraska Internal Review Board (IRB). If you agree for your school to participate, I will bring you introduction letters, informed consent information, and surveys and ask you to disburse to your families so that I do not know the names or information about the families answering the survey. If you agree, the completed surveys may be collected in sealed envelopes by the school, and I will come pick them up. If it is easier, I can enclose self-addressed, stamped envelopes, and parents can mail them back to me directly. I will provide all materials necessary for the study.

The potential benefits of this research are many and can include a greater understand of what draws

parents to Montessori education. The school will benefit by participating in this study as it can potentially help to shape policy and procedure. Furthermore, you will be able to identify the strengths of your school and why parents are choosing to send their children there. If you have any questions, please do not hesitate to ask. As the research progresses, I will be happy to provide you with any additional information as well as a summary of my findings.

If you are interested in helping with this important research, please respond to me with an affirmative response on school letterhead. I will include a copy of your response with the research proposal that I submit to the IRB. I will contact you once the research has officially been approved by my dissertation committee and the IRB.

If you have any questions, now or at any point, please contact me at ehansen@post.harvard.edu or 310-833-9128. You may also contact my research advisor, Dr. Jody Isernhagen, at jisernhagen3@unl.edu or 402-472-1088. Thank you for your time and consideration.

Respectfully,

Emily Zarybnisky

60 Oakland St. Ext.

Natick, MA 01760

Appendix B – Information Letter and Informed Consent

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES

Department of Educational Administration

Date

I am writing to ask for your participation in a very important study to explore why parents choose to enroll their children in Montessori schools. You have been identified as a potential participant in this study because you have a child enrolled in the XXX School. The results of this study can help shape policy regarding school choice and practices in schools. It can also help other parents select the best school for their children's needs.

If you choose to participate, you will be asked to complete a written survey about your experience asa parent with Montessori education. The results of the survey will be analyzed to examine trends among Montessori parents. The data will be stored on a password protected computer and the actual surveys will be destroyed upon completion of the study.

A few people will also be asked to participate in one interview session. The interview is meant to be a cance for parents to elaborate on their thoughts about Montessori education. Each interview will be recorded so that the researcher may be as accurate as possible when reviewing the data and writing the final report. The recordings will be transcribed into word processing documents and the actual recordings will be destroyed at the end of the study.

For the entire study and written results, your identity and responses will be kept confidential. No one other than myself and my advisor will have access to the surveys, data, interview notes, or transcripts once they have been completed. All interview participants will be given a pseudonym (a false name) in the written report of the study so that they cannot be connected with their answers.

Participation in any part of this study is voluntary. You are free to decide not to participate in this study at any time. You may withdraw from the study at any time without harming your relationship with the researcher or the University of Nebraska-Lincoln. It would be very helpful, however, if you take the time to help this study by participating in the survey. If, at any point, you choose not to

participate in the study, you may stop participation by contacting me directly.

Although I do not anticipate any risks for you as a result of your participation in this research, you may contact me directly if you have any questions or concerns about this study. You may call me at 617-767-9646 or email me at ehansen@post.harvard.edu. You may also contact the research advisor, Dr. Jody Isernhagen, at 402-472-1088 or jisernhagen3@unl.edu. Sometimes study participants have questions or concerns about their rights. In that case you should call the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 or at irb@unl.edu.

If you agree to participate, please complete and return the enclosed survey in the postage-paid envelope. The return of the completed survey will serve as your consent to participate. If you are you interested in participating in the interview portion of this study, please fill in your name and contact information on the following page. You can mail it back with the survey or you may email me the information. If you choose to mail it back, I will separate it from your survey immediately. You will not be connected with your answers.

Thank you very much for helping with this study.

Sincerely,

Emily Zarybnisky
Doctoral Student
University of Nebraska – Lincoln

A few people will be asked to participate in a follow-up interview after the surveys have been returned. If you are interested in participating in this part of the study, please return this form with your name and contact information. If you would rather, you may email me with the information. By returning this form or emailing me the information, you agree to participate in the interview portion of the survey.

Name _____

Phone number _____

Email _____

Appendix C – Variables and Themes

Variables	Themes
○ Montessori school ○ School options • Traditional public school • Homeschooling • Private school • Home-based school ○ Demographic variables • Mothers' education level • Fathers' education level • Family/household income • Living situation • Child's race/ethnicity • Child's gender	○ Social needs • Diversity • Respect for others • Respect for community/environment/world ○ Academic Needs • Student-teacher relationships • Subject area learning/basic skills ○ Montessori philosophy • Multi-age classrooms • Hands-on learning • Life skills • Individual attention • Individualized learning/learning pace • Classroom environment ○ Cost ○ Previous knowledge or experience with Montessori

Appendix D – Public School Questionnaire

School Choice and Montessori Survey

Thank you for taking the time to complete this survey. By answering the questions on this survey, you will help the researcher understand why parents choose Montessori as their child's early education experience. If you have more than one child currently in preschool to grade 3 in this school, you only need to answer this survey for one of them.

1. **Thinking about your child's education, how important was enrolling your child in a preschool program? (Circle the number of your response.)**

Of No Importance		Of some Importance		Of Great Importance
1	2	3	4	5

2. **How important was enrolling your child in a Montessori school? (Circle the number of your response.)**

Of No Importance		Of some Importance		Of Great Importance
1	2	3	4	5

3. **What other school options did you consider before choosing to enroll your child in a Montessori program? (Check all that apply.)**

☐ Private ☐ Headstart ☐ Traditional Public School

☐ Home-based (someone else's home) ☐ Homeschooling (your own home)

The following questions ask about your beliefs about Montessori and your child's Montessori education experience.

4. **How does your child learn best?**

☐ Hands-on ☐ Individual ☐ Small group ☐ Teacher-directed

5. **What are your child's strengths? (Check all that apply.)**

☐ Math ☐ Science ☐ Reading ☐ Writing

☐ Physical Activity ☐ Art ☐ Music ☐ Making Friends

☐ Communication ☐ Imagination ☐ Other _____

6. **What are your child's interests? (Check all that apply.)**

☐ Math ☐ Science ☐ Reading ☐ Writing

☐ Physical Activity ☐ Art ☐ Music ☐ Making Friends

☐ Communication ☐ Imagination ☐ Other _____

7. **How old was your child when he/she began Montessori school?**

   _____ years old

8. **How long do you plan to enroll your child in a Montessori school?**

   ☐ Less than 1 year ☐ 1-2 years ☐ 3-4 years ☐ 5+ years

9. **Why did you choose to enroll your child in a Montessori school?**

10. **What appeals to you about having your child enrolled in a <u>public</u> Montessori schools?**

11. **What do you hope your child will get out of his/her Montessori experience?**

12. **What kinds of information did you have available to you that led to your decision to enroll your child in a Montessori program?**

13. **What kinds of information would have been helpful to have before deciding to enroll your child in a Montessori program?**

Please rate how important each of the following factors was in your decision to enroll your child in a Montessori school. Circle the number that best describes your rating for each factor.

Factor	1 Of no importance	2	3 Of some importance	4	5 Of great importance
Multi-age classrooms (a classroom that has a range of ages in a single class)	**1**	**2**	**3**	**4**	**5**
Academics (focus on subjects such as math, reading, writing, science, etc.)	**1**	**2**	**3**	**4**	**5**
Socialization (interaction of your child with his/her peers)	**1**	**2**	**3**	**4**	**5**
Discipline (techniques used to teach and reinforce positive behavior)	**1**	**2**	**3**	**4**	**5**
Special Education/Special Needs	**1**	**2**	**3**	**4**	**5**
Interaction with classroom teacher	**1**	**2**	**3**	**4**	**5**
Individualized attention from teacher	**1**	**2**	**3**	**4**	**5**
No Child Left Behind requirements (i.e., standardized testing, highly qualified teachers)	**1**	**2**	**3**	**4**	**5**
Location (proximity to your home or work)	**1**	**2**	**3**	**4**	**5**
Cost (i.e., tuition)	**1**	**2**	**3**	**4**	**5**
Diversity (interaction with cultures other than your own)	**1**	**2**	**3**	**4**	**5**

Please rate how much you value each of the following characteristics of education. Circle the number that best describes your rating for each characteristic.

Characteristics	1 Of no value	2	3 Of some value	4	5 Of great value
Individual learning (learning focused specifically on your child)	**1**	**2**	**3**	**4**	**5**
Group instruction (teacher-led instruction to whole class or large groups)	**1**	**2**	**3**	**4**	**5**
Low mobility (the movement of children in and out of a specific class)	**1**	**2**	**3**	**4**	**5**
Student-teacher relationship (relationship between your child and his/her teacher)	**1**	**2**	**3**	**4**	**5**
Peer relationships (relationship between your child and his/her peers)	**1**	**2**	**3**	**4**	**5**
Assignment of grades for work completed (i.e., A, B, C, D, F)	**1**	**2**	**3**	**4**	**5**
School safety (security measures, emergency plans, etc.)	**1**	**2**	**3**	**4**	**5**
Child's age at beginning of school year	**1**	**2**	**3**	**4**	**5**
Placement of child in specific grade (i.e., Kindergarten, 1st, 2nd, 3rd)	**1**	**2**	**3**	**4**	**5**
Class size (number of students in each class)	**1**	**2**	**3**	**4**	**5**
Student-teacher ratio (number of students in relation to the number of teachers)	**1**	**2**	**3**	**4**	**5**
Test-taking skills (teaching children how to successfully take standardized tests)	**1**	**2**	**3**	**4**	**5**
Quality of academic programs (i.e., school reputation, teacher qualifications, accreditations)	**1**	**2**	**3**	**4**	**5**

The following questions ask some background information about your family. The questions were inspired by previous academic research in the area of school choice. Any responses to these questions will be reported as part of a group; no individual or identifying information will be reported.

14. How old is your child?

_____ years old

15. What grade is your child in?

☐ Preschool ☐ Kindergarten ☐ 1st ☐ 2nd ☐ 3rd

16. Is your child male or female? (Check one.)

☐ Male ☐ Female

17. What plans do you have for the future education of your child?

☐ Montessori ☐ Private ☐ Traditional public ☐ Magnet

☐ Charter ☐ Homeschool ☐ Other _____

18. At what age do you plan to enroll your child in a school other than a Montessori school?

☐ Preschool ☐ Kindergarten ☐ 1st grade ☐ 2nd grade ☐ 3rd grade

☐ 4th grade ☐ 5th grade ☐ 6th grade ☐ Older than 6th grade

☐ I do not plan to leave Montessori education.

19. Does/did your child have other siblings who attend(ed) Montessori school?

☐ Yes **(If yes, answer question 18.)**
☐ No **(If no, skip to question 19.)**

20. What are the current ages of the children who attend/have attended Montessori school?

Sibling 1 _____ Sibling 2 _____ Sibling 3 _____ Sibling 4 _____

21. Who does your child live with? (Check all that apply.)

☐ Mother ☐ Step-mother ☐ Grandmother ☐ Aunt ☐ Other adult female

☐ Father ☐ Step-father ☐ Grandfather ☐ Uncle ☐ Other adult male

22. What is your relationship to the child?

☐ Mother ☐ Step-mother ☐ Grandmother ☐ Aunt ☐ Other adult female

☐ Father ☐ Step-father ☐ Grandfather ☐ Uncle ☐ Other adult male

23. What is the <u>mother's</u> (or other adult female head-of-household) highest education level?

☐ Some high school ☐ High school diploma/GED ☐ Some college
☐ Associate's Degree ☐ Bachelor's Degree ☐ Some graduate school
☐ Graduate degree

24. What is the <u>father's</u> (or other adult male head-of-household) highest education level?

☐ Some high school ☐ High school diploma/GED ☐ Some college
☐ Associate's Degree ☐ Bachelor's Degree ☐ Some graduate school
☐ Graduate degree

25. What is your child's race and ethnicity?

☐ White, non-Hispanic ☐ Hispanic
☐ Black, non-Hispanic ☐ Asian or Pacific Islander, non-Hispanic

☐ American Indian or Alaska Native, non-Hispanic
☐ Other races: _____

26. What is your estimated family income?

☐ Less than $30,000
☐ $31,000 - $70,000
☐ $71,000 - $110,000
☐ More than $110,000

27. Is there anything else that you would like to share regarding your decision to enroll your child in a Montessori school?

Thank you very much for taking your time to answer this survey.

Appendix E – Private School Questionnaire

School Choice and Montessori Survey

Thank you for taking the time to complete this survey. By answering the questions on this survey, you will help the researcher understand why parents choose Montessori as their child's early education experience. If you have more than one child currently in preschool to grade 3 in this school, you only need to answer this survey for one of them.

1. **Thinking about your child's education, how important was enrolling your child in a preschool program? (Circle the number of your response.)**

Of No Importance		Of some Importance		Of Great Importance
1	2	3	4	5

2. **How important was enrolling your child in a Montessori school? (Circle the number of your response.)**

Of No Importance		Of some Importance		Of Great Importance
1	2	3	4	5

3. **What other school options did you consider before choosing to enroll your child in a Montessori program? (Check all that apply.)**

☐ Private ☐ Headstart ☐ Traditional Public School

☐ Home-based (someone else's home) ☐ Homeschooling (your own home)

The following questions ask about your beliefs about Montessori and your child's Montessori education experience.

4. **How does your child learn best?**

☐ Hands-on ☐ Individual ☐ Small group ☐ Teacher-directed

5. **What are your child's strengths? (Check all that apply.)**

☐ Math ☐ Science ☐ Reading ☐ Writing

☐ Physical Activity ☐ Art ☐ Music ☐ Making Friends

☐ Communication ☐ Imagination ☐ Other _____

6. **What are your child's interests? (Check all that apply.)**

☐ Math ☐ Science ☐ Reading ☐ Writing

☐ Physical Activity ☐ Art ☐ Music ☐ Making Friends

☐ Communication ☐ Imagination ☐ Other _____

7. **How old was your child when he/she began Montessori school?**

   _____ years old

8. **How long do you plan to enroll your child in a Montessori school?**

   ☐ Less than 1 year ☐ 1-2 years ☐ 3-4 years ☐ 5+ years

9. **Why did you choose to enroll your child in a Montessori school?**

10. **What appeals to you about having your child enrolled in a <u>private</u> Montessori schools?**

11. **What do you hope your child will get out of his/her Montessori experience?**

12. **What kinds of information did you have available to you that led to your decision to enroll your child in a Montessori program?**

13. **What kinds of information would have been helpful to have before deciding to enroll your child in a Montessori program?**

Please rate how important each of the following factors was in your decision to enroll your child in a Montessori school. Circle the number that best describes your rating for each factor.

Factor	1 Of no importance	2	3 Of some importance	4	5 Of great importance
Multi-age classrooms (a classroom that has a range of ages in a single class)	**1**	**2**	**3**	**4**	**5**
Academics (focus on subjects such as math, reading, writing, science, etc.)	**1**	**2**	**3**	**4**	**5**
Socialization (interaction of your child with his/her peers)	**1**	**2**	**3**	**4**	**5**
Discipline (techniques used to teach and reinforce positive behavior)	**1**	**2**	**3**	**4**	**5**
Special Education/Special Needs	**1**	**2**	**3**	**4**	**5**
Interaction with classroom teacher	**1**	**2**	**3**	**4**	**5**
Individualized attention from teacher	**1**	**2**	**3**	**4**	**5**
No Child Left Behind requirements (i.e., standardized testing, highly qualified teachers)	**1**	**2**	**3**	**4**	**5**
Location (proximity to your home or work)	**1**	**2**	**3**	**4**	**5**
Cost (i.e., tuition)	**1**	**2**	**3**	**4**	**5**
Diversity (interaction with cultures other than your own)	**1**	**2**	**3**	**4**	**5**

Please rate how much you value each of the following characteristics of education. Circle the number that best describes your rating for each characteristic.

Characteristics	1 Of no value	2	3 Of some value	4	5 Of great value
Individual learning (learning focused specifically on your child)	**1**	**2**	**3**	**4**	**5**
Group instruction (teacher-led instruction to whole class or large groups)	**1**	**2**	**3**	**4**	**5**
Low mobility (the movement of children in and out of a specific class)	**1**	**2**	**3**	**4**	**5**
Student-teacher relationship (relationship between your child and his/her teacher)	**1**	**2**	**3**	**4**	**5**
Peer relationships (relationship between your child and his/her peers)	**1**	**2**	**3**	**4**	**5**
Assignment of grades for work completed (i.e., A, B, C, D, F)	**1**	**2**	**3**	**4**	**5**
School safety (security measures, emergency plans, etc.)	**1**	**2**	**3**	**4**	**5**
Child's age at beginning of school year	**1**	**2**	**3**	**4**	**5**
Placement of child in specific grade (i.e., Kindergarten, 1st, 2nd, 3rd)	**1**	**2**	**3**	**4**	**5**
Class size (number of students in each class)	**1**	**2**	**3**	**4**	**5**
Student-teacher ratio (number of students in relation to the number of teachers)	**1**	**2**	**3**	**4**	**5**
Test-taking skills (teaching children how to successfully take standardized tests)	**1**	**2**	**3**	**4**	**5**
Quality of academic programs (i.e., school reputation, teacher qualifications, accreditations)	**1**	**2**	**3**	**4**	**5**

The following questions ask some background information about your family. The questions were inspired by previous academic research in the area of school choice. Any responses to these questions will be reported as part of a group; no individual or identifying information will be reported.

14. How old is your child?

_____ years old

15. What grade is your child in?

☐ Preschool ☐ Kindergarten ☐ 1st ☐ 2nd ☐ 3rd

16. Is your child male or female? (Check one.)

☐ Male ☐ Female

17. What plans do you have for the future education of your child?

☐ Montessori ☐ Private ☐ Traditional public ☐ Magnet

☐ Charter ☐ Homeschool ☐ Other _____

18. At what age do you plan to enroll your child in a school other than a Montessori school?

☐ Preschool ☐ Kindergarten ☐ 1st grade ☐ 2nd grade ☐ 3rd grade

☐ 4th grade ☐ 5th grade ☐ 6th grade ☐ Older than 6th grade

☐ I do not plan to leave Montessori education.

19. Does/did your child have other siblings who attend(ed) Montessori school?

☐ Yes **(If yes, answer question 18.)**
☐ No **(If no, skip to question 19.)**

20. What are the current ages of the children who attend/have attended Montessori school?

Sibling 1 _____ Sibling 2 _____ Sibling 3 _____ Sibling 4 _____

21. Who does your child live with? (Check all that apply.)

☐ Mother ☐ Step-mother ☐ Grandmother ☐ Aunt ☐ Other adult female

☐ Father ☐ Step-father ☐ Grandfather ☐ Uncle ☐ Other adult male

22. What is your relationship to the child?

☐ Mother ☐ Step-mother ☐ Grandmother ☐ Aunt ☐ Other adult female

☐ Father ☐ Step-father ☐ Grandfather ☐ Uncle ☐ Other adult male

23. What is the <u>mother's</u> (or other adult female head-of-household) highest education level?

☐ Some high school ☐ High school diploma/GED ☐ Some college
☐ Associate's Degree ☐ Bachelor's Degree ☐ Some graduate school
☐ Graduate degree

24. What is the <u>father's</u> (or other adult male head-of-household) highest education level?

☐ Some high school ☐ High school diploma/GED ☐ Some college
☐ Associate's Degree ☐ Bachelor's Degree ☐ Some graduate school
☐ Graduate degree

25. What is your child's race and ethnicity?

☐ White, non-Hispanic ☐ Hispanic
☐ Black, non-Hispanic ☐ Asian or Pacific Islander, non-Hispanic

☐ American Indian or Alaska Native, non-Hispanic
☐ Other races: _____

26. What is your estimated family income?

☐ Less than $30,000
☐ $31,000 - $70,000
☐ $71,000 - $110,000
☐ More than $110,000

27. Is there anything else that you would like to share regarding your decision to enroll your child in a Montessori school?

Thank you very much for taking your time to answer this survey.

Appendix F – Interview Questions and Protocol

The researcher will read the following to each participant:

First, I want to thank you for talking with me today. I will be asking you some questions about your choice to enroll your child(ren) in a Montessori school. Please tell me as much as you can or would like to. If there is something that you would rather not answer, please just tell me and we will move on.

I will be making some notes as we talk today. I would also like to make a recording of this interview so that I can make sure I will be as accurate as possible in how I write about what you say. Is it okay if I record this interview? (WAIT FOR RESPONSE.)

{Start recording here.}

This interview is now being recorded. Do you agree to have your voice recorded? (WAIT FOR RESPONSE.)

Are you ready to begin? (WAIT FOR RESPONSE.)

1. Why did you choose to enroll your child in a Montessori school?

    a. Is there a specific part of the philosophy that is of particular importance to you for your child(ren)?

2. What do you see as the strengths of Montessori education?

3. What do you hope your child(ren) will get out of being in a Montessori school?

4. What do you see as the strengths of a **(private/public)** Montessori school?

Appendix G – Factor and Characteristic Statistical Comparisons

Table 20

Factors of Education Statistical Comparison

Factor	Public Montessori (n=40)		Private Montessori (n=10)		Statistical Comparison		
	Mean	Std. Dev.	Mean	Std. Dev.	t Score	p Value	Cohen's d
Multi-age classrooms (a classroom that has a range of ages in a single class)	3.85	1.23	3.50	0.97	0.83	0.41	0.30
Academics (focus on subjects such as math, reading, writing, science, etc.)	4.48	0.72	4.40	0.70	0.30	0.77	0.11
Socialization (interaction of your child with his/her peers)	4.65	0.62	4.10	0.99	2.2	0.03	0.80
Discipline (techniques used to teach and reinforce positive behavior)	4.38	1.01	4.30	0.95	0.21	0.83	0.08
Special Education/Special Needs	2.57	1.66	1.80	0.79	2.08	0.05	0.51
Interaction with classroom teacher	4.40	0.90	4.10	0.99	0.92	0.36	0.33
Individualized attention from teacher	4.35	0.77	4.10	0.99	0.87	0.39	0.31
No Child Left Behind requirements (i.e., standardized testing, highly qualified teachers)	2.33	1.53	1.70	1.06	1.53	0.14	0.44

Location (proximity to your home or work)	3.10	1.45	3.14	1.08	-0.61	0.54	-0.03
Cost (i.e., tuition)	4.00	1.15	3.10	1.23	1.56	0.12	0.79
Diversity (interaction with cultures other than your own)	4.00	0.82	3.30	1.06	3.18	0.00	0.82

Table 21

Characteristics of Education Statistical Comparison

Characteristics	Public Montessori (n=40)		Private Montessori (n=10)		Statistical Comparison		
	Mean	Std. Dev.	Mean	Std. Dev.	t Score	p Value	Cohen's d
Individual learning (learning focused specifically on your child)	4.70	0.61	4.40	0.70	1.36	0.18	0.49
Group instruction (teacher-led instruction to whole class or large groups)	3.08	1.16	3.00	0.94	0.19	0.85	0.07
Low mobility (the movement of children in and out of a specific class)	3.18	1.21	2.20	1.03	2.34	0.02	0.85
Student-teacher relationship (relationship between your child and his/her teacher)	4.80	0.46	4.30	0.82	1.84	0.09	0.93
Peer relationships (relationship between your child and his/her peers)	4.65	0.53	4.00	0.67	3.28	0.00	1.19
Assignment of grades for work completed (i.e., A, B, C, D, F)	2.44	1.37	1.70	0.95	1.60	0.12	0.58
School safety (security measures, emergency plans, etc.)	4.15	0.93	4.20	1.23	-0.13	0.90	-0.05
Child's age at beginning of school year	2.97	1.31	2.60	0.97	0.84	0.40	0.30

Placement of child in specific grade (i.e., Kindergarten, 1st, 2nd, 3rd)	2.90	1.29	2.20	1.03	1.58	0.12	0.57
Class size (number of students in each class)	4.31	0.80	3.90	0.74	1.46	0.15	0.53
Student-teacher ratio (number of students in relation to the number of teachers)	4.51	0.60	4.20	0.63	1.45	0.15	0.52
Test-taking skills (teaching children how to successfully take standardized tests)	2.87	1.42	2.40	1.35	0.95	0.35	0.34
Quality of academic programs (i.e., school reputation, teacher qualifications, accreditations)	4.42	0.72	4.30	0.95	0.44	0.66	0.16

Appendix H – Interview Response Frequency Tables

Table 22

Enrollment Factors in Choosing Montessori

	Public (n = 9)*	Private (n = 3)*
Individual attention	2	0
Learning pace	5	1
Self-directed	6	1
Life skills	1	1
Philosophy	5	2
Friend/relative with previous experience	3	2
Hands-on learning	1	0
Multi-age classroom	1	0
Location	5	1
Public school alternative	0	1
Diversity	1	0

*Reported as actual number of responses.

Table 23

Most Important Aspect of Montessori Philosophy

	Public (n = 9)*	Private (n = 3)*
Individual attention	1	0
Learning pace	4	0
Self-directed	5	1
Life skills	1	2
Confidence building	1	0
Hands-on learning	2	1
Multi-age classroom	2	1
Classroom environment	2	1
Responsibility for learning	3	0
Respect, social responsibility, world view	3	0

*Reported as actual number of responses.

Table 24

Strengths of Montessori Education

	Public (n = 9)*	Private (n = 3)*
Individual attention	4	0
Learning pace	3	1
Self-directed	5	0
Life skills	1	0
Philosophy	0	1
Friend/relative with previous experience	0	1
Hands-on learning	2	1
Teaches whole child	1	0
Diversity in school	3	0
Diversity in curriculum	2	0
Classroom environment	1	0
Public school alternative	2	0

*Reported as actual number of responses.

Table 25

Anticipated Benefits of Being Enrolled in Montessori School

	Public (n = 9)*	Private (n = 3)*
Self-direction/motivation	4	0
Success	1	0
Life-long/love of learning	6	0
Independence	5	2
Academic foundation	3	3
Respect for others	4	1
Respect for environment/greater world	3	0
Confidence	5	2

*Reported as actual number of responses.

Table 26

Strengths of Public/Private Montessori

	Public (n = 9)*	Private (n = 3)*
Philosophy	1	0
Cost	8	0
Location	1	1
Diversity	7	0
Teachers	3	1
Don’t know a difference	0	2

*Reported as actual number of responses.