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Parent Education: The Effects of Educating Montessori Parents on the First Plane of Development in the Kindergarten Year in a Mixed-Age Classroom

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In fulfillment of final requirements for the MAED degree

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Advisor Dr. Olivia Christensen Date December 19th, 2019
Abstract
This study sought the effects of educating parents on Dr. Maria Montessori's first plane of development in a mixed-age kindergarten classroom in Southern California, USA. Students withdrawing before completing the Montessori kindergarten year formed the basis for tailoring an action research project that informs parents about the importance of Montessori's first plane of development through the lens of Parent Development Theory. The researcher first explored past action research on relevant Montessori parent education studies. Next, twenty-five parents from a mixed-age Montessori kindergarten class participated in a six-week study. The research concluded that parents' understanding and valuing of the Montessori kindergarten year or final year in their students' early childhood education increased based on pre-and-post parent surveys and hands-on parent education experiences. The increase in parent knowledge resulted in the participants utilizing tailored information to make informed decisions about their student's kindergarten year on whether or not to keep their students enrolled for the full three-year period of the Montessori program. The researcher developed a more streamlined, focused, and comprehensive parent education plan than before the study began.

Keywords: Parent education, Montessori, Montessori kindergarten, Montessori’s first plane of development, School-parent relationships, Parent Development Theory.
Montessori education is a student-led approach guided with the aid of credentialed Montessori teachers, peer mentorship, and a prepared environment. It was developed over a century ago by Dr. Maria Montessori, a feminist, activist, anthropologist, medical doctor, philanthropist, and teacher, who outlined the four planes of development, birth to the age twenty-four or the age of maturity, and the learning process in her book, *The Absorbent Mind*. Dr. Montessori maintained that the developing brain expects to learn through the child's hands and senses. Therefore, Montessori classrooms are grouped sequentially, according to planes of development from birth to age six, when a child absorbs information like a sponge. In Montessori we are guided by sensitive periods. For example, from birth to age six, one sensitive period is the need for order and emotional control. In Montessori, we are guided by sensitive periods. For example, from birth to age six, one sensitive period is the need for order, and emotional control.

The Montessori approach takes into consideration that children learn through experiences in a prepared environment versus memorizing information. Therefore, the child has the agency to select materials from the Montessori prepared environment, and Montessori teachers follow the student through their natural inclinations. The child goes through the process of construction and deconstruction of classwork until he has cemented the learning process in three-hour uninterrupted work periods.

As the administrator of a private Montessori school, I have the responsibility to nurture the Montessori philosophy within our school community. The setting of our school is a private Montessori school serving preschool and kindergarten families. The school admits seventy-five families year-round. Our school's administration advises parents on the Montessori Approach through parent education forums. The past forums have focused on book clubs, back to school
nights with information on classroom policies and procedures, and parent education on current topics in Montessori. Montessori Parent Education can deepen a parent's understanding of a child's journey in a Montessori environment from the very first year of enrollment through the kindergarten year or end-point in a Montessori three-year cycle. While the majority of parents attend these forums, some parents matriculate their children before they complete the Montessori kindergarten year. Students who do not finish the three-year program will not have mastered the Montessori material, therefore leaving holes in their development. Montessori materials use cyclical learning, with children returning to the same material several times over the three years. Each time, the material guides the student from concrete concepts to abstract applications. In missing the kindergarten year, much of this abstraction is unexperienced and undiscovered. In the Montessori kindergarten year, what the child learns and refines are the qualities and life skills they will depend on as they grow through life, mainly through puberty, young adulthood, and beyond.

This problem has formed the basis for tailoring an action research project that informs parents about the importance of Dr. Montessori’s first plane of development through the lens of Parent Development Theory. Our community will use the results of this study to shape parent education plans.

The research included a Parent Discovery Day where parents can experience being a Montessori student for the day and move through the progression of the 0-3 and 3-6 sub-planes within Montessori's first plane of development. The idea for Parent Discovery Day was adapted from Montessori Journey and Discovery program developed by Montessorian Barbara Gordon. Her program brought parents into Montessori schools to experience a day-in-the-life of the students, from primary grades to adolescence. Inspired by Gordon's idea, I developed a similar
parent education program called Parent Discovery Day. I hoped that parents would learn from this experience, and the education from this program would encourage them to continue to enroll their students in the Montessori program past the age of 5, allowing students to matriculate in the first-grade year in order to reach the full benefit of the Montessori approach. The need to better educate Montessori parents on the first plane of development in the kindergarten year lead to these action research questions:

1. Will fostering an understanding of the Montessori Method through parent education on Montessori's first plane of development and Parent Development Theory influence a parent's decision to have their child complete the Montessori program through their student's third Capstone Year?

2. Will parents who complete this new parent education study see an added value in having their child achieve their final Kindergarten year after the delivery of parent education specific to Montessori's first plane of development?

**Parent Development Theory Framework**

Mowder's Parent Development Theory is the theoretical framework used for this study to explain the importance of parental perceptions and how they evolve as their child develops. This theory is also a relevant resource for understanding how parents see the role they play in nurturing their child(ren)’s growth and development. Barbara Mowder, Director of Graduate Psychology Programs and founder of the Parent-Child Institute (PCI) at Pace University-NYC, developed Parent Development Theory in the 1960s (Mowder, 2005). The theory purports that parents must have or be enabled to create a strong sense of efficacy for helping children succeed in school. If parents engage in school-family relationships with an exchange of knowledge and respect, they will likely find—through school-initiated interactions with parents—ways to be
effectively involved in their children's education (Mowder, 2005). School programs have limited success when they do not acknowledge the parental role in helping children succeed in school (Hoover-Dempsey & Sandler, 1997). Schools foster student educational success through parent interactions that allow the parents to construct self-efficacy for their child's academic success.

According to Mowder's Parent Development Theory, parents acknowledge and perform the social role of guiding a child's development and responding to their children's developmental progress by altering perceptions of their parenting expectations and attitudes as needed (Mowder, 2005). Mowder maintains Parent Development Theory as a useful tool to take parents a step further by giving them information to make informed choices for their children at every stage of their development (Mowder, 2005). The theory aligns professionals (for example, therapists, school counselors, psychologists, social workers, and educators) with parents by helping organize how we think about, learn about and study early child education (Mowder, 2005). One way educators apply this theory is through parent education that both informs and respects the decision-making process of parents. Parent Development Theory claims that parent education can positively affect children's growth and development (Mowder, 2005).

The position of parents in early childhood Montessori education is essential to understand. Many parents do not understand Montessori's first plane of development and make decisions for their children without that knowledge. As a result, parents withdraw their child from Montessori and enroll them in kindergarten in neighboring schools for several reasons. It may be because their child's friends enrolled in another school, or they want their children enrolled in the same school as an older sibling, or there may not be a spot open the next year, even though their child would benefit by completing their third year at our school. Also, since most schools begin at age 5, parents may prefer to enroll their children starting in kindergarten in
order to acclimate the child to the new school where they will be spending their elementary school years. Another reason may be the eligibility of public school education in top-tier public school programs at the age of 5. There are resources all around parents that could help parents make a more informed decision, and as the director of the school, it is the administrators' responsibility to present those resources. The administrator must be able to anticipate and address parental concerns. By understanding parent perceptions of Montessori education, we can then determine what parent-school interactions are necessary to foster parent education to best serve students.

In order to better understand and measure the effects of parent education on parents' decisions, Parent Development Theory best meets the frame of this research. Analyzing parent education around parent perceptions is essential to furthering conversations and analysis. The researcher will ask questions about parents' valuing and understanding of the Montessori Kindergarten program. Following is a literature review of research on parent education.

**Review of the Literature**

This literature review intends to explore parent education contexts aligning Montessori's first plane of development framework, ages 0-6 years of age, specifically the sub-plane 3-6 years of age, to the understanding and value of the Montessori approach. It will also review current trends of parent education and their effectiveness.

**The Montessori Approach to Learning**

Dr. Maria Montessori defined child development stages or "planes of development" as a basis for the mixed-age groupings used in Montessori schools. She published two images representing the four planes of development, titled "the constructive rhythm of life" (Appendix A) (Montessori, 1950) and "the bulb" (Appendix B) (Montessori, 1951). These images outline
the framework of Montessori's views on the stages of development from birth to the age of twenty-four or maturity. In Montessori's first plane of development, most students effortlessly learn through absorbing information from the environment through their senses. Based on Montessori's observations and research, child development is a continuous and non-repeatable process that occurs in cycles as opposed to being linear (Montessori, 1950).

In the Montessori approach to learning, students interact with their surroundings, engage in emotional self-construction, and have an original path of psychological development, particularly under the age of six (Montessori, 1948). Distinguishing characteristics of student learning in Montessori environments are the child's strong sense of motivation and self-determination. Montessori students work with self-correcting, didactic teaching materials developed by Dr. Maria Montessori. Montessori materials organically develop a student's cognitive thinking skills and encourage the child to attempt tasks independently. A young student will typically say, "I can do it." This phrasing of independence correlates to the direct aim of the Montessori environment, which is the natural process of transitioning independence from the adult to the child (Montessori, 1949).

**Montessori Kindergarten and the Three-Year Cycle**

Montessori defined the first plane of development ages from 0-6 years, dividing into two sub-sections; 0-3 years and 3-6 years (Grazzini, 2004). It is in Montessori’s first plane, where the child absorbs knowledge, which lays the cognitive foundation of the child’s brain and personality (Montessori, 1950). Planes of development are a basis for how students are grouped in mixed-age Montessori classrooms throughout the Montessori education program. Montessori Early Childhood Education classrooms encompass a three-year consecutive period or cycle. For example, 4- to 6-year-old students are taught in a way that is informed by Montessori’s planes of
development so that students can transition seamlessly from one plane to the next (Montessori, 1994). Lillard’s (2005) research revealed the kindergarten year is when a Montessori student has an opportunity to benefit from the culmination of the three-year cycle. The first plane of development is completed during the kindergarten or third year of our program. Children do not have the opportunity to experience this capstone year when parents do not understand its importance, and matriculate them from our program early. Some Montessori educators coin the kindergarten year as an essential part and final foundational step to their child’s future educational success before moving to the next plane of development as each cycle prepares the child to discover, realize, and abstract concepts in their third year (Montessori, 1938-9).

Montessori Parent Education

When adults are equipped with the mindset to facilitate their child's learning, they provide their children with a pathway for optimal school success. Many educational researchers agree on the overall positive effects that a school's parent education experience can have on parents' responsibility for child growth and development (Epstein, 2011). The American Montessori Society (AMS) (1990) claims parent education, while not mandatory, should foster an understanding of the principles and knowledge of Montessori education. However, according to Lillard (2005), some parents who may be familiar with the term Montessori do not have a clear understanding of the method. Parents wanting to learn more about Montessori education may look to school administrators to organize parent education about the type of schooling that supports optimal child development (Epstein, 2011).

Strategies of parent education. The research on parent education points to many strategies that educators have employed to engage families in parent education. These strategies were presented to parents in the form of book clubs, focus groups, surveys, parent nights,
webinars, Montessori resource bags, home visits, and hands-on experiences (Harrison, 2014; Biscaglia, 2014). Evidence of parent education strategies are outlined in the following studies. Harrison's study (2014) found positive effects of a parent's understanding of Montessori philosophy by inviting school parents to a book club event where participants checked out Montessori books and periodicals to educate themselves on Montessori. Overall, Harrison's findings were beneficial in establishing basic parent knowledge of Montessori philosophy (Harrison, 2014). Another research study that surveyed schools on the type and frequency of Montessori parent education found that parent education opportunities occurred 2 to 3 times per year, ½ of those parent education programs were unplanned full-day programs not delivered regularly, and newsletters were the primary means of school communications (Chattin-McNichols, 1998). Rule and Kyle (2009) invited parents to attend their child's Montessori classroom so students could review their Montessori lessons with their parents to help them understand the curriculum.

Studies focusing on the collaboration of schools and families found parent education needed to be hands-on as parents are not devoid of knowledge but should work to solve the educational goals of the child simultaneously with educators (Loizou, 2013). Action research conducted by Loizou recruited two participating parents. Her study tailored a parent education program to help parents with coping skills on parenting confirming a positive addition to early childhood education literature. Exploring the importance of school-family collaboration and the need for hands-on experiences are two more strategies that can assist educators who are trying to inform parents (Loizou, 2013).

**Overcoming Challenges.** Parents have challenges with being available for parent education. Developing possible strategies or tailoring different venues (email, video streaming,
of parent education that form a partnership between home and school may be lacking due to limited participation in the parent-school partnership (Biscalgia, 2014). Parents may not always have the time to dedicate to attending parent education events or activities. Parent education attendance has traditionally been low among culturally diverse parents (Eisner & Meridert, 2011; Hunter, 2007; Katz & La Placa). If parent education is not tailored to parent preferences, values, or sensitive to cultural variations, then parents may be less likely to participate. Establishing a welcoming school climate and effectively publicizing parent education events help overcome these challenges. (Hoover-Dempsey & Sanders, 1997).

Parents may not be motivated to participate in parent education but are more likely to do so when educator interventions meet the needs of their family and create opportunities for parents to receive educational support (Grothaus, 2010). With parent/teacher collaboration, parent education allows educators to gain more information about nurturing parents’ needs and expectation, because educators and parents have a common bond to collaborate on guiding the child through their educational journey (Grothaus, 2010). Irving's (2017) study sought to improve parent understanding of Montessori curriculum through parent education. He found an increase in knowledge had a direct relationship to parents asking more profound questions and implementing Montessori practices in their homes (Irving, 2017). Irving's action research stressed Montessori engagement through parent education, which resulted in an increase in awareness of Montessori to the degree that parents became more comfortable with using the curriculum and thwarted misconceptions about Montessori (Irving, 2017).

Parent Development Theory stresses that parents want to do what is best for their children, and if they receive information about a theoretical approach to learning, they can apply that information to make informed choices for their child's education (Mowder, 2005). Parent
Development Theory findings exert the need for additional studies to understand more about parenting in contexts related to students' growth and development (Mowder, 2005). Although results on types of parent education appear to be consistent among the literature reviewed, it is inconsistent in attaching a theoretical approach to parent education based on psychology, which includes the need for parental guidance at various points of their child's development (Mowder, 2005).

**Conclusion**

Montessori’s first plane of development, birth to age six, “is an essential period to set a child’s educational foundations for who the child will become and the role he or she will play in the future” (AMS, 2019). Research has exposed the Montessori method of educating children and coined the essence of the kindergarten year a full part of a Montessori program (Shepard & Smith, 1986). While the literature reviewed does stress the need for parent education, it does not include parent education on the specific topic of the importance of students completing the 3-year cycle, culminating in the kindergarten year. This is why this action research was important to do.

The kindergarten year is an especially important time in a child's growth and development. Studies show that it is not in the parents' or students' best interest to matriculate a student before completing the previous grade level. This practice affects young children's cognitive and social-emotional development (May & Welch, 1985). May & Welch (1985) concluded that it was a good idea to formulate a refined parent education plan that informs parents to partner with their Montessori school when making developmental kindergarten placement decisions in an account of academic, social, and cognitive development research.
Methodology

Design

This action research on parent education had parents involved with a hands-on parent education experience to engage parents' feelings toward their child's education and play an active role in their child's process of the Montessori approach to learning. Parents' understanding and valuing of the Montessori kindergarten year or the final year in their students' early childhood education, aligns with Montessori's first plane of development sub-plane of a three-to-six-year-old classroom grouping. My purpose was to explore parent education regarding the Montessori kindergarten year and whether parent education might determine enrollment decisions. Specifically, the study seeks to explore whether parent education about Montessori's first plane of development directly affects parents’ enrollment decisions, both in kindergarten and over time.

This research study is an experiential design. The parent education included a Back to School Night featuring a Montessori video, a Parent Discovery Event, and two Focus Groups with guided questions on Montessori's first plane of development. Pre- and post-assessments were delivered in the form of pre and post-parent education surveys (Appendix C) that asked a series of multiple-choice questions designed to garner information on parents' valuing and understanding of a students' progression to the kindergarten year. Measuring the effects of educating Montessori parents on the first plane of development is the dependent variable. Parent education is the independent variable. The researcher intends to gather artifacts, observational, and inquiry data.
Setting and Subjects

Upon approval from St. Catherine’s University Institutional Review Board and our church and school’s Rt. Reverend Bishop Ordinary and Rector, the researcher was permitted to start this action research at the private Montessori school in southern California. The researcher sent an active consent form (Appendix D) home to all parents. The population for this research study was all the parents of the students at the school (N=48). A total of 25 parents out of the 48 families agreed to participate. The children of the parents who participated were aged three to six years old and enrolled in a Montessori mixed-age classroom. The adult sample featured 18 females and 7 males.

Data Collection Instruments

This study spanned approximately 6 weeks and consist of parent education beginning on September 1, 2019 through October 4, 2019. I began my study by offering participating parents a Google Form (referred to as the pre-parent education survey in this action research project) to measure parents’ knowledge on Montessori education in a mixed-age classroom. During the first week, participants had an opportunity to complete an online pre-survey to gather data regarding parent understanding of the Montessori approach.

Montessori's first plane of development

In the second week, participants had the opportunity to attend an annual back to school night and view the video, Maria Montessori - *The Absorbent Mind - Children Through Age 6 - Principles and Fundamentals* (https://www.youtube.com/watch?v=pCl_7W-3XYQ); the video reviews Dr. Montessori's First Plane of Development. The video was also made available via email for those who could not allocate time to watch it during the event. This event was not part
of my action research (at least no data was collected from it) but a precursor for parents to give
discernment to participating in this action research. At this point, I started a reflective journal to
capture comments, questions, and attitudes that may come up throughout this research.

During the third week, participating parents participated in a classroom Parent Discovery
Day Event. This event included the opportunity for parents to experience an uninterrupted work
period as if they were a child in the Montessori classroom. Parents participated in specific
lessons that build upon each other to progress to one particular skill typically acquired in the first
two foundational years and culminating during the Kindergarten year (ex: cylinder blocks to
support the pincer grip which in turn helps later writing activities). The researcher observed and
recorded general questions, comments, and perceived attitudes of the parents by capturing the
event on digital photos. The researcher cataloged digital photos of the event (Appendix E) to
show the parents’ progression through the lessons at different stages however, there was no
findings tied to analytic themes or trends.

In the fifth week, participants attended a Directors Focus Group Meeting with guided
questions on the topic of the first plane of development that were meant to inquire about the
value parents place on student success, and the educational goals for their child(ren).

In the final or sixth week, the researcher met with the participants again to wrap up with
an open discussion, for those who missed the first focus group session, and concluded by
emailing a post-parent education survey.

Analysis of Data

The purpose of this study was to identify the effects of educating Montessori parents on
the first plane of development in a kindergarten mixed-age classroom. The research design was
qualitative using questionnaires, interviews, daily journals, and observations at Parent Discovery
Day. The research design also used recorded focus-group conversations to gather, count and label quantitative information measuring parent views on keeping their child(ren) enrolled from preschool through the kindergarten year.

A total of 48 preschool parents received a pre and post-survey on parent values and understanding of the Montessori kindergarten year at the beginning of fall 2019. A total of 25 parents responded to the pre- and post-surveys and focus groups. Eighteen parents were females, and seven males. A total of 21 parents out of the 25 participants attended Parent Discovery Day. Fourteen parents were females and seven were males.

The table below (Table 1) provides the demographics of the sample of participating preschool parents.

Table 1: Sample Demographics

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Male Parents</th>
<th>Female Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preschool Parents Surveyed</td>
<td>7 (28%)</td>
<td>18 (72%)</td>
</tr>
<tr>
<td>Preschool Discovery Day</td>
<td>7 (28%)</td>
<td>14 (56%)</td>
</tr>
<tr>
<td>Preschool Focus Groups</td>
<td>7 (28%)</td>
<td>18 (72%)</td>
</tr>
</tbody>
</table>

Table 1. Sample Demographics Results

The design of the research questions investigated parents’ understanding and valuing of Montessori kindergarten in the mixed-aged classroom. In order to answer the research questions, data was gathered from the pre- and post-parent education surveys, participant observation and recordings, researcher’s journal, and structured and unstructured focus group discussions. Parent responses to key survey questions (pre- and post-parent education), photos from Parent Discovery Day, focus group data, and journal data were highlighted, tallied, counted, and
analyzed to measure whether the parent education was useful. Following is an analysis of the
data procured through this action research.

**Pre- and Post-Parent Education Surveys**

Qualitative data from pre- and post-parent education surveys including parent observations, were noted by their characteristics. Like characteristics were grouped, entered into an Excel spreadsheet then graphed for a categorical data analysis. Thematic analysis was used to analyze qualitative data from the surveys. The researcher coded the parents’ responses to identify and label themes that were prominent and then analyzed those themes.

Quantitative data was gathered by counting the number of parents who expressed intentions of keeping their child enrolled in a Montessori classroom or other schools through the kindergarten year. This data was organized by labeling and graphing parent intentions in a Microsoft Excel spreadsheet. The researcher graphed parent viewpoints in a frequency table, including the understanding of the importance of the first plane of development and value of the kindergarten year in Montessori versus other education methods.

Figure 1 below shows participating parents' understanding and valuing of Montessori education pre-and post-parent education survey. Pre-parent education survey data did not show a high level of knowledge and understanding of Montessori education (See figure 1).
**Figure 1. Parents Pre- and Post-Parent Education Survey Results**

- **Are you familiar with the Montessori’s four planes of development?**
  - Pre: 5
  - Post: 25

- **Do you feel that educating the child should be a partnership between parents and the school as a community?**
  - Pre: 6
  - Post: 21

- **Did you go to Montessori school as a child?**
  - Pre: 11
  - Post: 11

- **Have you read Dr. Montessori’s book, The Absorbent Mind?**
  - Pre: 9
  - Post: 16

- **Does your child refer to older and or younger children in their classroom?**
  - Pre: 17
  - Post: 18

- **Do you provide a Montessori environment at home?**
  - Pre: 10
  - Post: 15

- **Do you see a benefit in attending family education events at your child’s school?**
  - Pre: 8
  - Post: 23

- **Do you see value in peer to peer learning?**
  - Pre: 7
  - Post: 18

The diagram illustrates the parents' understanding and value of Montessori kindergarten pre- and post-parent education survey results.
Pre-parent education survey, 5 out of 25 parents (20%) stated that educating the child should be a partnership between home and school. Post-parent education survey, 21 of 25 parents (84%) stated that the educating the child should be a partnership between home and school, an increase of 64% had occurred. Five out of 25 parents (20%) participating in the pre-parent education survey had heard of Montessori's first plane of development as opposed to 25 out of 25 (100%), post-parent education survey. Eight out of 25 parents (32%) who took the pre-parent education survey saw a benefit in peer to peer learning, which increased to 18 out of 25 parents (72%) who took the post-parent education survey. Eleven out of 25 participating parents (44%) attended Montessori school as children. Our Parent Discovery Day event helped bridge the experience gap between parents who had attended Montessori school as children and those parents who did not or may not have been introduced to Montessori methodology. Parent education increased awareness on the Montessori approach in analyzing parents’ responses to every question across the board on the pre- and post-parent education surveys.

**Parent Discovery Day**

In between the pre- and post-parent education surveys, data was collected from Parent Discovery Day. This event included a collection of lessons to best demonstrate Montessori kindergarten lessons and how these lessons progress from preschool through kindergarten. Without a direct experience, it is nearly impossible to know how Montessori students interact and learn. Parent education on “Discovery Day” consisted of streaming a PowerPoint presentation on key points of Montessori philosophy, specifically on the first plane of development and what to expect in the students’ third year or Montessori Kindergarten class, a work time allowing parents to experience the Montessori materials, and a question and answer period. A slide show of students working earlier in the day afforded a demonstration of the
majority of Montessori materials for parents to progress through themselves. Examples of materials offered included: different levels of language boxes, metal inset lessons, teen board, movable alphabet, red rod maze and graphing with knobless cylinders. These materials were placed on the floors and tables of a prepared Montessori classroom environment. Teachers were in attendance to scaffold the progression of lessons and their extensions for parents mastering basic skills.

Twenty-one of the participants in this study attended the Parent Discovery Day. Four participants could not attend due to family commitments, sick children, and work commitments. Eleven out of the 21 participants (52%) attended a Montessori school as a child from preschool through Kindergarten. The remaining 10 participants (48%) had not attended Montessori school as children. The event served to allow all participating parents to focus on and experience Montessori—many for the first time. It also helped participants answer the focus group questions from an equalized vantage point later.

The researcher recorded comments made by parents who participated in the Parent Discovery Day. There were three positive comments recorded and no negative comments recorded. The participant comments that were made were, “I wish I learned math this way,” “So that’s how you learn cubing,” and “It’s brilliant.”

The researcher also took photographs of parents participating in the Montessori lessons (see Appendix E). After collecting photos and observations from Parent Discovery Day, the researcher found it difficult to find any themes or trends to present in these findings aside the photos being a record of parents actively participating and developing a parent school relationship.
Focus Groups

Parent education was delivered after the Parent Discovery Day through two focus group sessions. The researcher asked the parents three questions (see Appendix F). Discussions occurred throughout these sessions about why parents chose to enroll their child in Montessori preschool through kindergarten and what they understood from the Montessori method. The researcher tape recorded these focus group sessions and typed what each person said as individuals, organized them by like responses, and then grouped them by categories of tallied responses. The researcher determined common themes when analyzing the comments made in the tape-recorded focus group sessions. During the focus group sessions, the researcher also took notes on parent conversations in the reflective journal. The researcher intended to capture positive and negative comments that parents made that might not be revealed in the closed-ended parent education surveys. The researcher wrote down 25 comments. The researcher cut these notes apart afterwards and organized them by like responses.

The first question asked in the focus groups was about the participants’ understanding of the importance of Montessori’s first plane of development (see figure 2). The largest group—17 participants (68%) specified Montessori kindergarten year as it relates to the first plane of development as an important factor stating students had many role models in preschool and could learn from both teachers and older classmates. Six out of 25 (24%) of the participants stated understanding the first plane of development was somewhat important as it relates to the Montessori kindergarten while 2 out of 25 (8%) of the participants acknowledged they did not believe it was important because they could visually see how the Montessori curriculum progresses at advanced levels without having to know specific terminology (See figure 2).
The second question parents were asked was, “Do you think the kindergarten Montessori versus other method of education would be a benefit or not to your child”? (See Figure 3). The second question in this study was meant to measure the effectiveness of the parent education on Montessori’s first plane of development and the benefit of having children complete their kindergarten year that was delivered at Parent Discovery Day. Seventeen out of 25 parents (68%) found a benefit in having their child enrolled through the kindergarten year while 8 out of 25 parents (32%) did not find a benefit in having their child enrolled through the kindergarten year.

The largest group, 17 parents, chose Montessori because it was the best method to educating their child and would develop their children more fully than a traditional program.
Further, parents believed in the Montessori sequence supported with the prayers and task methods to start a child’s day. The second group of eight out of twenty-five respondents stated they believed Montessori school was not a benefit because of the costs. Public transitional-kindergarten and kindergarten are free. Also, not moving up with friends and having to be a mentor as the oldest student was seen as detracting from individual studies.

Question 2: Do you think Montessori kindergarten vs. other method of education would be a benefit or not to your child?

![Chart showing the percentage of respondents who believe Montessori kindergarten vs. other education would be a benefit or not.](chart.png)

**Figure 3. Do You Think Montessori Kindergarten vs. Other Education Would Be A Benefit?**

The third and final focus group question asked parents if they planned to keep their child(ren) enrolled in a Montessori classroom or other school through their Kindergarten year. (See figure 4). Ten participants out of 25 surveyed stated they intended to keep their child enrolled in the Montessori program. Six participants out of 25 surveyed stated they planned to attend the same school as the older sibling, and five chose public school.
Ten Parents discussed having compared the public school curriculum to Montessori and preferred the Montessori kindergarten. Parents’ comparison conversations revealed the majority of participants were spreading the word by mouth to other parents on the benefits of Montessori and inviting them to tour our school. Interestingly, parents stated they would stay at our school had the grade level gone beyond kindergarten. Also, three parents had started their own Montessori co-op program so that their children could benefit from Montessori past the kindergarten year in a home-school program. Parents stated that bonding relationships as their children and siblings matriculated to other schools were key factors in choosing a kindergarten program. The answers to the questions were recorded on individual sheets, tallied and typed into an Excel spreadsheet. Next, the data was graphed (See figure 4).
Figure 4. Montessori Kindergarten or Other School?

An analysis of the parents’ discussion of the third question from comments of tape-recorded sessions revealed the following themes during the focus group.

Parent Theme 1. Parents felt kindergarten enrollment is dependent on where students' friends are going to attend school, Montessori school, siblings' school, public school, Montessori home school, or undecided.

Parent Theme 2. Parent's perception of their child's priority kindergarten admission spot at other schools is based on a parent's investment in their child's long-term education plans regardless of parent views on completing their child’s Montessori kindergarten education.
Reflective Journal

The most impactful data from the study came from a reflective journal (Appendix G). A reflective journal is an educator’s tool that is well suited for a deeper reflection on the thought and reflection of parent perceptions to create transparency in the research analysis and to avert a linear output (Bain, Mills, Ballantyne, & Packer, 2002). It was personally impactful for the researcher to hear positive comments on the effects of educating Montessori parents on the first plane of development. Drawing from qualitative data there were 5 comments recorded in the journal. Participant comments were 5 positive and 0 negative. The researcher was able to chart anecdotal notes to garner insightful parent points of views over the time of the study. For example, anecdotal notes were repeating positive parent attitudes toward parent education and questions focused on Montessori’s first plane of development. Yet, the researcher finds understanding parent opinion formation complex, where one parent’s views may have been swayed by the participants giving positive feedback. Some parent views remained the same despite the study and some changed completely. This data tool did not provide any analytical data analysis but helped the researcher to see the effects of educating Montessori parents on the first plane of development through the lens of Parent Development Theory by nurturing the parent-school relationship.
Below is the sampling of data:

<table>
<thead>
<tr>
<th>Date/Venue</th>
<th>Anecdotal Note</th>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/25/19</td>
<td>“I don’t have time for parent education – can you put information in an email”?</td>
<td>How to best reach the maximum amount of parent’s year round?</td>
</tr>
<tr>
<td>9/10/19</td>
<td>“I want to do one pick up from school for all my kids”.</td>
<td>Is a capital campaign prudent to open two additional classrooms or a Preschool – 6th grade?</td>
</tr>
<tr>
<td>10/6/19</td>
<td>“We love learning about Montessori - Can we volunteer in the classroom more”?</td>
<td>There is a demand to teaching Montessori to parents so they can practice at home with their child.</td>
</tr>
<tr>
<td>10/8/19</td>
<td>“Can you suggest books on Montessori”</td>
<td>Made several Montessori books accessible to parents.</td>
</tr>
<tr>
<td>10/25/19</td>
<td>Where do you buy quality Montessori Materials specifically three part cards?</td>
<td>Parent workshop on how to make Montessori three-part cards added to the calendar. Coffee and Cards Event</td>
</tr>
</tbody>
</table>

Figure 5. The researchers Reflective Journal – Parents Comments, Questions and Attitudes
Conclusions and Recommendations

This study examined the effects of educating parents on Montessori's first plane of development. The research questions addressed parents' understanding and valuing of the Montessori kindergarten year in a mixed-aged classroom. Findings suggest that parents saw a benefit in parent education on their student's preschool through kindergarten or three-year Montessori program. The majority of respondents indicated wanting to attend parent education events to make informed decisions about their students' kindergarten year. This study supports previous research highlighted as parents' sense of efficacy and their role in having the responsibility for choosing their child's best educational program (Hoover-Dempsey & Sanders, 1997). Respondents expressed concerns about their student's placement in the kindergarten year; however, stressed being a part of their student's education planning with the support of the school. Parent's motivation to participate in parent education represents an opportunity to strengthen parent-school relationships. The time is now to develop positive, collaborative family-school partnerships that support student's full learning potential in a Montessori preschool through kindergarten mixed-age classroom. Adding to the growing research that supports Parent Development Theory, parent perceptions and attitudes that align with a parent's social role in responding to their student's child development growth (Mowder, 2005). Based on the findings and conclusions of this study, the following recommendations are made:

• To capitalize on parent perceptions in this Montessori kindergarten program; the study encourages parent/school partnerships to the understanding of a student's Montessori education through parent education specific to this study on Montessori's first plane of development.
• To promote focus group parent education on Montessori's first plane of development and assist parents in understanding and valuing the completion of the preschool through kindergarten Montessori mixed-age program.

• To promote further hands-on parent education experience for parents in order for them to better understand the full three-year cycle of the Montessori materials.

• Montessori administrators promote Montessori kindergarten student admissions with the implementation of parent education, showing the school cares about their student's education and learning.

Future action research could examine long-term studies on the effects of parent education on Montessori's first plain of development in a mixed-age Montessori preschool through kindergarten program and further advise new and incoming parents as current students age out and further confirm these initial findings.

One limitation of this study was that the associations made between study variables, the duration of the study was short. Future longitudinal action research that makes comparisons over an extended period on parent education research would be beneficial by its scope. The researcher photographed the event and kept a journal however, the product was difficult to quantify. The surveys showed quantifiable data, but the researcher can only hope that collectively all of the data tools support this study. The phenomenon and aesthetic element of photographs and journal reflections proved to be instinctive. Recommendations for future research would present photos to the focus group and ask them their qualitative opinion, perhaps using a Likert scale and a written paragraph.

This action research points to the positive effects of educating parents on Montessori's first plane of development in the kindergarten year in a mixed-aged classroom. The results of this
action research will change our school's practices in delivering relevant parent education through the lens of Parent Development Theory. The researcher will not just count the number of parents in attendance at parent night events or book clubs. The researcher must look through the lens of Parent Development Theory, starting with the premise that the parent-school relationship is a shared interest envisioning parents as partners in their child's learning process. Parent education must identify concrete ways that parent education supports parent decisions, for example, on school choice. Parent education on Montessori's first plan of development in a mixed-age classroom supports our school parents in making choices for their children in early childhood education. Successful parent education programs should not be a stand-alone or an add-on program. Instead, should be well integrated with the school’s overall philosophy, values and belief systems. Parents are the primary decision makers in a child's education, and Montessori schools can assist by providing information to support parent decision making. The parent-school relationship requires a lot of nurturing by both parents and administrators. This action research served as a reminder that the implications of not reaching out to parents fosters parents continuing to have the perception that Montessori kindergarten may not be a viable choice. Although success doesn’t always come easy, the rewards are too high for administration not to try to serve children to the best of the school’s abilities through tailored parent education.
References


Appendix A

(Figures and Tables)

(Figure 1.1)

The Four Planes of Development
The Constructive Rhythm of Life

Maria Montessori
Perugia 1950
Appendix B
(Figures and Tables)

(Figure 2.1)

Four stages of development
The Bulb

Maria Montessori
Rome- 1951
Appendix C
Sample of “Parent Education Pre-Post-Survey”

Baseline Pre-Post Survey

1. Are you familiar with the Montessori’s four planes of development?
   - Yes
   - No
   - Somewhat

2. Do you see value in peer to peer learning?
   - Yes
   - No
   - Somewhat

3. Do you see a benefit in attending family education events at your child’s school?
   - Yes
   - No
   - Somewhat

4. Do you provide a Montessori environment at home?
   - Yes
   - No
   - Somewhat

5. Does your child refer to older and or younger children in their classroom?
   - Yes
   - No
   - Somewhat

6. Have you read Dr. Montessori’s book, The Absorbent Mind?
   - Yes
   - No
   - Somewhat

7. Did you go to Montessori school as a child?
   - Yes
   - No
   - Somewhat

8. Do you feel that educating the child should be a partnership between parents and the school as a community?
   - Yes
   - No
   - Somewhat
Appendix D
Sample Active Consent Form
Parent Education

Dear ___________________

As you may know, I am a St. Catherine University graduate student pursuing a Master of Education degree. An important part of my program is the Action Research project.

As the Director of School at __________________, I have chosen to learn about Parent Education because it helps families understand and meet the educational goals and success of their child(ren). I am working with a faculty member at St. Catherine University and a project coach to complete this particular project.

I will be writing about the results that I get from this research, however none of the writing that I do will include the name of this school, the names of any staff, administration, parents, or students, or any references that would make it possible to identify outcomes connected to a particular student. Only I will have access to the data or will have access to the identifiable data for this study; I will keep it confidential.

When I am done, my work will be electronically available online at the St. Kate’s library in a system called SOPHIA, which holds published reports written by faculty and graduate students at St. Catherine University. The goal of sharing my final research study report is to help other teachers who are also trying to improve the effectiveness of their teaching.

There are no foreseeable risks. This study will benefit our school community and educators who may read this study on SOPHIA.

Sincerely, ______________
Procedures:

If you decide to participate, you will be asked to participate in the following step-by-step process. 1) Participate in a pre and post parent survey (30 minutes x 2 surveys), 2) Attend our Back to School Night Event on Friday _________ which includes a video short on The Montessori Difference, the first plane of development (1.5 hours), 3) and director recording a reflective journal of parent comments, thoughts and questions throughout the program. 3) Participate in our first time ever Parent Discovery Event; Bring your parent to school day, an uninterrupted work period for the experience of what your child does at school and how they are building on their experience (3.5 hours), 4) Attend a voice recorded Directors Focus Group Luncheon on the topic of the first plane of development (1 hour)______ and take a post-survey. Send any inquiry questions or comments to me via email on this topic on the conclusion of the project by__________ . This study will take an approximate 6-week parent education intervention beginning on________________.

The data I will collect consists of 1) Pre and post-survey data, 2) Reflective journal to capture comments, questions, and attitudes that come up throughout the research, 3) Focus group guided voice recorded questions data, 3) Discovery Day Event digital photography., 4) observational data, and or inquiry data.

This study is voluntary. If you decide you do want to be a participant and have your data included in the study, check the appropriate box(es), sign this form, and return it by_______ . If at any time you decide you do not want to continue participation and allow your data to be included in the study, you can notify me, and I will remove included data to the best of my ability.

There is no penalty for not participating or having the data involved in the study.
If you have any questions, please feel free to contact me, at (949) 219-0915 or mepickard977@stkate.edu. You may ask questions now, or if you have any additional questions later, you can ask me or my project coach, Allie Brandon at ajbrandon@stkate.edu who will be happy to answer them. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739.

I ____________, on behalf of _____________ support our Director and Head of School, ________________________ Action Research Project:

Family Education: ____________________________

Signature___________________________
Appendix E

Researcher’s Digital Picture Catalog
Parent Discovery Day Images - continued
Appendix E

Researcher’s Digital Picture Catalog
Parent Discovery Day Images
Appendix F

Sample of “Researcher’s Guided Focus Group on First Plane of Development Voice Recorded Responses”

<table>
<thead>
<tr>
<th>Questions, Comments or Concerns for Participants:</th>
<th>Parent answer:</th>
<th>Parent answer is related to Montessori Education:</th>
<th>Parent answer is not related to Montessori Education:</th>
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<tr>
<td>What is your understanding of the importance of the first plane of development and how it relates to the kindergarten year in a Montessori vs. other education method?</td>
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<td>Do you think the Kindergarten in a Montessori vs. other method of education would be a benefit or not to your child?</td>
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<td>Why/why not?</td>
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<td>Do you intend to keep your child enrolled in a Montessori classroom or other school through their kindergarten year?</td>
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## Appendix G

Sample of “Researcher’s Reflective Journal
Parent Comments, Questions, Attitudes, etc. throughout this research”

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<tr>
<th>Date/Venue</th>
<th>Reflection</th>
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