

EARLY CHILDHOOD INCLUSION IN A PUBLIC MONTESSORI SCHOOL:
ACCESS, PARTICIPATION, AND SUPPORTS

BY

NATALIE DANNER

DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Special Education
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2015

Urbana, Illinois

Doctoral Committee:

Professor Susan Fowler, Chair
Professor Michaelene Ostrosky
Professor Emeritus Jeanette McCollum
Assistant Professor Ann Epstein, University of Wisconsin – LaCrosse

ABSTRACT

High-quality early childhood inclusion consists of providing access, participation, and supports to young children with disabilities (DEC/NAEYC, 2009). This case study examines how a public Montessori school provides early childhood inclusion to three, four, and five year olds with disabilities. Through interviews with Montessori teachers and administrators, classroom observations, and the administration of the Inclusive Classroom Profile (Soukakou, 2010), a number of supports and barriers to inclusion were identified. Supports included Montessori-unique practices, such as peer supports and multi-age classrooms which supported inclusion, and recommended practices in early childhood special education, such as teaming among professionals and offering accommodations and modifications. Barriers included restrictive systems-level special education policies.

Keywords: early childhood, preschool, inclusion, program quality, Montessori

DEDICATION

I dedicate this work to my late Grand-Oncle, Dr. Henri Lapeyre. After many years of striving, he achieved his dream of a Ph.D. in History from the Universite de Paris in 1953. His research was based on Spanish modern history and commerce. Prior to his doctorate, he served in the French Army and was captured as a prisoner of war in Russia. For his service, he was awarded a medal of honor from the French Army. Dr. Lapeyre was a Professor of History at the Universite de Grenoble and died in 1984. Oncle Henri, your illustrious graduation picture was my inspiration throughout this journey.

ACKNOWLEDGEMENTS

I sincerely thank my advisor, Dr. Susan Fowler, for guiding me through the dissertation process and for encouraging me to work on a topic that is near and dear to my heart.

I would also like to thank my committee members, Dr. Micki Ostrosky, Dr. Jeanette McCollum, and Dr. Ann Epstein. Your insights into preschool inclusion, methodology, and next steps with this study were greatly appreciated.

I wouldn't be where I am without thinking about the larger context of young children, demographics, risk factors, and early childhood resources within a state. My research assistantship with the Illinois Early Childhood Asset Map and collaboration with Dr. Dawn Thomas and Mr. Bernard Cesarone guided me to let the data tell a story.

Finally, I would like to acknowledge the teachers and staff at "Lincoln School" and all public Montessori schools in the U.S. You are truly doing pioneering work and without your dedication to bringing the Montessori approach to all children and families, my work could not have been completed.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: LITERATURE REVIEW.....	8
CHAPTER 3: METHODS.....	27
CHAPTER 4: FINDINGS.....	44
CHAPTER 5: DISCUSSION AND CONCLUSION.....	93
REFERENCES.....	105
APPENDIX A: EARLY CHILDHOOD PRACTICES COMPARED: MONTESSORI, NAEYC, AND DEC.....	114
APPENDIX B: IRB APPROVAL.....	116
APPENDIX C: DEMOGRAPHIC QUESTIONNAIRE.....	118
APPENDIX D: INTERVIEW PROTOCOL.....	120
APPENDIX E: CLASSROOM OBSERVATION PROTOCOL.....	126
APPENDIX F: CODE BOOK FOR INTERVIEWS.....	128
APPENDIX G: AUDIT TRAIL: THE PATH TO RESEARCH FINDINGS	131
APPENDIX H: INITIAL SUPPORTS AND BARRIERS TO INCLUSION FROM INTERVIEWS.....	136
APPENDIX I: INITIAL THEMATIC CATEGORIES FROM CLASSROOM OBSERVATIONS.....	140
APPENDIX J: MATRICES COMPARING INITIAL THEMES FROM INTERVIEWS, OBSERVATIONS, AND THE INCLUSIVE CLASSROOM PROFILE.....	142

CHAPTER 1
INTRODUCTION

National Context

Federal legislation mandates that schools provide services for young children with disabilities in the least restrictive environment (Individuals with Disabilities Education Act, 2004). For most students with disabilities, the least restrictive environment equates with inclusion in a general education preschool classroom. An inclusive preschool setting is generally defined by enrollment in a class with typically-developing children. In this setting, the needs of children with disabilities are met through specialized support for active participation in ongoing activities and routines, including appropriate adaptations and modifications (Schwartz, Sandall, Odom, Horn & Beckman, 2002).

According to recent reports from the U.S. Department of Education (2012), almost half of preschool students with disabilities were served within inclusive placements for at least 80% of the school day. The remaining half of preschoolers with disabilities are served in more restrictive settings such as special education classrooms and home and hospital settings. As public schools are required to provide an educational setting for preschoolers with disabilities, often the model chosen is a self-contained program where students with disabilities are educated in isolation from their typically-developing peers. Therefore the use of self-contained classrooms for preschoolers at the district level continues, despite research and policy promoting inclusion (Musgrove, 2012).

State Context

The state of Illinois defines early childhood inclusion as offering "access to appropriate services and equity in receiving a free, appropriate public education" (Illinois State Board of

Education, 2002, p. 1). Illinois promotes several models for early childhood inclusion including the (a) blended model, (b) itinerant model, (c) team teaching model, and (d) tuition model (Illinois State Board of Education, 2013). The blended model is the most common inclusion model in the state, often found in public Pre-K classes where three and four year olds labeled at risk for disabilities, are taught alongside three and four year olds with disabilities. This type of blended class is usually taught by a teacher certified to teach both special education and general education. In a blended class, the ratio of children without disabilities to children with disabilities is 70/30, not counting children with speech-only IEPs. The itinerant model allows a certified special education teacher to provide services to children with disabilities in community-based preschools, public pre-K programs, and Head Start programs. The team teaching model includes two teachers in a class; one certified in early childhood, the other in special education. The tuition model allows public schools to charge tuition for typically-developing 3 and 4 year olds, while enrolling 3 and 4 year olds with disabilities free of charge in inclusive Pre-K classes.

Many states are now evaluating the quality of early childhood programs and classrooms through Quality Rating and Improvement (QRIS) systems (Child Trends, 2010). QRIS is a statewide system consisting of a set of standards and assessments aimed at improving early childhood program quality, ultimately helping families identify high-quality programs for their children (Buisse & Hollingsworth, 2009). The early childhood rating scale most often used to evaluate early childhood programs within QRIS efforts, *The Early Childhood Environment Rating Scale - Revised Edition* (ECERS-R), includes an item pertaining to the provisions for children with disabilities, and also embedding accessibility within higher levels on two additional items. Although one item on one rating scale is inadequate to assess the overall quality of inclusion in a classroom, it does show that even within a general education preschool

classroom, high-quality inclusion is one of several markers for general high-quality early childhood (Harms, Clifford, & Cryer, 2005). Using this tool and others, Illinois incorporates inclusion guidelines into every level of their QRIS framework, with the understanding that if the program is doing high-quality early childhood education, they should also be providing high-quality inclusion (INCCRRA, 2014).

Early Childhood Inclusion Definition

The definition for early childhood inclusion has been evolving for several decades (Odom, Buysse, & Soukakou, 2011). One chapter in Odom's (2002) *Widening the Circle: Including Children with Disabilities in Preschool Programs* is titled appropriately "I Know It When I See It": In Search of a Common Definition of Inclusion. In this chapter, the authors provide a quality indicator checklist for defining the practice of inclusion (Schwartz, Sandall, Odom, Horn & Beckman, p. 23). In 2000, the Division for Early Childhood (DEC) also had an initial position statement on inclusion, valuing the rights of all children and the use of natural settings. These two important publications helped to develop the Division for Early Childhood (DEC) and the National Association for the Education of Young Children's (NAEYC) 2009 position statement on inclusion. This statement highlights access to a wide range of learning opportunities and environments, participation through scaffolded learning, and the provision of system-level supports as defining features of inclusion. DEC/NAEYC (2009) offered recommendations for early childhood programs which include: (a) create high expectations for every child to reach his or her full potential, (b) develop a program philosophy on inclusion, and (c) achieve an integrated professional development system. Using the DEC/NAEYC's (2009) position statement on inclusion, early childhood inclusive education is defined as providing access, participation, and supports for students with disabilities enrolled in inclusive preschool

programs.

The research on early childhood special education indicates support by families for inclusive options (Hurley & Horn, 2010). The literature also identifies a number of evidence-based practices that support inclusion, including universal design for learning (Stockall, Dennis, & Miller, 2012), multi-tiered systems of support (Buysse & Peisner-Feinberg, 2010), and peer coaching (Tschantz & Vail, 2000). At this juncture, there is limited research on the efficacy of program models for inclusion and the long-term outcomes and impact of these programs. Therefore, there remains a need to assess program models for inclusion. The Montessori approach is one such model.

Montessori: A Viable Option

Montessori education is one approach that may provide an educational environment especially conducive to including students with disabilities. The philosophy of Montessori education is to "follow the child" and individualize the curriculum to meet the needs of each unique child. The scope and sequence of each Montessori classroom offers children a three-year span of curriculum from introductory activities through advanced materials and concepts. These tenets of Montessori education provide a "good fit" for students with disabilities (McKenzie & Zascavage, 2012; Pickering, 2008).

Maria Montessori began her method of education in the early 1900s with school-aged children with multiple disabilities residing in Italian institutions. She designed hands-on learning materials to help students with disabilities learn concepts and skills. When tested, these students with special needs outscored typically-developing children who were educated in traditional public schools (Wolfe, 2002). In 1907, Dr. Montessori developed a Children's House to educate at-risk young children living in the slums of San Lorenzo, Italy. Maria Montessori herself was

called one of the pioneers of special education (Odom, Brantlinger, Gersten, Horner, Thompson, & Harris, 2005). Despite this rich history of Montessori education linked with special education, Montessori organizations in the U.S. have not yet offered a position statement or white paper on inclusion. In addition, there is limited contemporary research on early childhood programs based on Montessori principles and practices aligned with accepted principles and practice of inclusion.

The curriculum in Montessori classrooms aligns closely with many early childhood special education recommended practices (see Appendix A). The Montessori method incorporates hands-on, differentiated, self-paced learning in multi-age classrooms (Cossentino, 2010). Similarly, special educators typically implement a differentiated or individualized approach to teaching, frequently through the use of multisensory and hands-on materials. Special educators structure their teaching to match the pace of the child's learning (Kirk, Gallagher, Coleman, & Anastasiow, 2011). The Montessori learning materials, displayed on child-accessible shelves, are divided into six curricular areas: practical life (or adaptive), sensorial (or sensory-motor), math, language, cultural (geography and history), and science, entirely compatible with the early learning standards outlined by states (Dorsey, Danner, & Laumann, 2014). Within Montessori early childhood classrooms, gains in academic and social skills have been reported for both typically-developing students (Lillard & Else-Quest, 2006) and children at-risk for disabilities (Miller, Dyer, Stevenson, & White, 1975; Pickering, 1992). These positive results suggest that social and academic gains might occur for students with disabilities who attend Montessori schools.

Today there are more than 4,000 Montessori schools in the United States (American Montessori Society, 2014). Of those schools, more than 450 are public Montessori schools

(National Center for Montessori Education in the Public Sector, 2014). Although Montessori education is growing in public, charter, magnet, Head Start and other quasi-public settings, in the U.S. this method of education is most commonly found in private or independent schools. Currently, there is great concern from the federal government and special education organizations that too often quasi-public schools do not welcome students with disabilities as the law requires (CEC, 2012; GAO, 2012). School choice, to non-zoned public or magnet schools, within a public school district is often made available to parents as an effort to reduce racial segregation in schools. Nevertheless, school choice is often a process where the most difficult-to-serve and the hardest-to-reach students and families, including students with disabilities, are the ones who are least informed about the enrollment process (required lottery, applications, tours) and therefore miss opportunities to make informed decisions about their child's schooling (Lubienski, 2007).

Research Questions

In order to better understand the complex issue of early childhood inclusion within a Montessori context, it is important to consider policies and standards of high-quality inclusion. In this study, one public Montessori school was examined in-depth to determine how a Montessori program includes young students with disabilities. The research questions for this study were:

1. What practices are utilized in a Montessori school that may support the inclusion of young students with disabilities? To what extent are these practices unique or alternative?
2. To what extent do required special education policies and practices support or detract from the use of a Montessori approach in an inclusive setting?

3. To what extent do indicators developed to describe and evaluate inclusive practices used in typical early childhood settings capture the quality of inclusive practices in Montessori schools and classrooms?

CHAPTER 2

LITERATURE REVIEW

Understanding how a public Montessori school practices inclusion is key in moving forward to create and sustain high-quality teaching and learning environments for children with special needs. Montessori early childhood teachers have reported that they are committed to serving young children with special needs (Epstein, 1996). Nonetheless behaviors often associated with disabilities in young children (e.g., limited communication and social skills) present challenges to many Montessori teachers (Epstein, 1997, 1998; Pickering, 2008).

This literature review will sets the stage for current and historical inclusion practices within Montessori schools. Following a description of the search procedures, the evidence-base and current policies regarding early childhood inclusion are described. Then, an overarching conceptual framework and paradigm stance for the study is introduced.

Search Criteria

ERIC, PsychINFO, and Google Scholar databases were searched with the following keywords: *Montessori*, *early childhood*, *mainstreaming*, and *inclusion*. *Montessori* was deleted as a keyword later, to search for more non-Montessori articles, as there were so few articles on Montessori in general.

Articles and studies were selected from peer-reviewed journals in the early childhood education and early childhood special education field, such as *Early Childhood Research Quarterly*, *Journal of Early Intervention*, and *Topics in Early Childhood Special Education*. Policy papers and practitioner articles on the topic of Montessori and early childhood inclusion were reviewed from organizations such as the National Association for the Education of Young Children (NAEYC), the Division for Early Childhood (DEC), the North American Montessori

Teacher Association (NAMTA), and the American Montessori Society (AMS).

The criteria for selecting articles were (a) the study focused on early childhood teachers working with students with disabilities in inclusive settings, and/or (b) they included quality indicators and policy issues on early childhood inclusion, and/or (c) the studies addressed the effectiveness of Montessori education with typically-developing students, and/or (d) they measured attitudes of early childhood Montessori and non-Montessori teachers and /or practices of inclusion.

The range of publishing was set from 1975-2014. The more recent articles were generally found in practitioner journals. Montessori practitioner articles which failed to mention students with special needs were excluded from this literature review.

Montessori Education: A Historical Perspective

Historically, Montessori schools began with Maria Montessori, the first female medical doctor in Italy. Dr. Montessori began teaching young children with special needs in the early 1900s in asylums in Rome. From her work with these children with special needs, she created the Montessori method, influenced by the work of French physicians, and early special educators, Jean-Marc Gaspard Itard (1774-1838) and Edouard Seguin (1812-1880) (Foschi, 2008). Wolfe (2002) documented an early evaluation of the Montessori method, demonstrating the effectiveness of this model with young children with special needs living in Rome's psychiatric clinics. In the early 1900s, students with special needs who were educated in Montessori's experimental settings were given the regional achievement tests at the end of the school year. These students with special needs performed better than typically-developing children, who were educated in the traditional public schools (Wolfe, 2002). Later, Dr. Montessori created a Children's House in 1907, a child care center educating young children

living in the housing projects of San Lorenzo, Italy. The young children who were enrolled in this school were the sons and daughters of factory workers and were unattended during the work day. As they spent more time in the Children's House, these impoverished children who were previously withdrawn and rebellious, developed an increased concentration and interest in using self-correcting materials. Based on the scientific observations of these children in the classroom, Maria Montessori designed furniture to meet their physical needs and continued to modify the learning materials. It was in this Children's House that Maria Montessori developed some of her key ideas for education including freedom within limits and an emphasis on developing independence and movement within the classroom (Kramer, 1988).

In the United States, Montessori education caught on quickly in 1910, propelled by prominent advocates such as Thomas Edison and Alexander Graham Bell, as well as glowing media reports. But by the 1920s the Montessori movement had fizzled, and forty years would pass before Montessori schools would return in substantial numbers. By 1960, however, a distinctly American version of Montessori education began to take shape. The leader of the American revival was Nancy McCormick Rambusch, a vibrant, persuasive educator intent on bringing about change. In 1960, Dr. Rambusch launched the American Montessori Society (AMS), the first—and still the largest—of several modern-era organizations supporting the Montessori approach in the United States. From the beginning, Dr. Rambusch and AMS advanced a slightly modified version of Montessori education, to better reflect mid-20th century American culture (Rambusch, 1962). AMS insisted that all Montessori teacher educators have a college degree so that the coursework could potentially be recognized by state education departments. AMS also broadened the curriculum for teachers and sought to forge inroads into mainstream education by offering Montessori coursework in traditional teacher preparation

programs. In the decades to follow, Montessori schools in the U.S. would grow steadily in number, and today there are more than 4,000 Montessori schools. Of those schools, more than 450 are public Montessori schools (AMS, 2014).

The Montessori Method is based on a series of principles. Maria Montessori described her early childhood classrooms as "Children's Houses," meaning a place where children not only belong and feel comfortable, but a place where they are also responsible (Montessori, 1966). For example, children as young as three years old learn to sweep and wash tables to develop independence and responsibility. The Montessori teacher is responsible for creating an aesthetically-pleasing environment for young children, thereby bringing a sense of calm and order. Lessons in grace and courtesy (e.g., welcoming a guest into the classroom) are crucial teachings in the Montessori classroom, as is care of the environment (e.g., pushing in one's chair) and care of self (e.g., blowing one's nose) (Wolfe, 2002).

The role of the Montessori teacher is a unique one. In a Montessori early childhood classroom, children ages three to six learn together using specially designed learning materials presented by a teacher, or more aptly named "guide." The guide plays the role of observer, assessor, and model while working in the classroom. The goal of the Montessori guide is to have all the students working so intently with the materials that they scarcely notice him or her.

The curriculum in the Montessori classroom aligns closely with many recommended practices in special education. The Montessori method incorporates hands-on, differentiated, self-paced learning in multi-age classrooms (Cossentino, 2010). Similarly, special educators typically use a differentiated or individualized approach to teaching, frequently through the use of multisensory and hands-on materials. Special educators structure their teaching to the pace of the child's learning (Kirk et al., 2011). The Montessori learning materials, displayed on child-

accessible shelves, are often a combination of materials from Maria Montessori's original designs and other activities; all made to draw the child to the activity with aesthetic beauty and simplicity. Similarities and differences among Montessori practices, early childhood practices, and early childhood special education practices are presented in Appendix A.

Montessori Education Today

Montessori schools in the United States serve a variety of students in diverse settings including independent or private schools, charter, public, and magnet schools. Ages served range from birth through high school, although most schools serve mainly early childhood ages (AMS, 2014). The main organizations which govern Montessori schools are the American Montessori Society (AMS) and the Association Montessori Internationale (AMI). These two organizations offer an accreditation process for Montessori schools that complete a year-long self-study and meet their standards. In addition, both AMS and AMI offer affiliated Montessori teacher education programs, credentialing teachers who then work in Montessori schools.

Gains in academic and social skills have been reported for both typically developing students (Lillard & Else-Quest, 2006) and those at-risk for disabilities (Miller, Dyer, Stevenson, & White, 1975; Pickering, 1992) who have attended Montessori programs. These positive results suggest that social and academic gains might occur for students with disabilities attending Montessori schools as well.

Many Montessori schools accommodate students with a variety of disabilities according to Kahn (2009). The North American Montessori Teachers' Association (NAMTA), an affiliate of the Association Montessori Internationale (AMI), in partnership with Kahn (2009), invited 1,318 Montessori schools across the U.S. to participate in an online survey on special education practices. Unfortunately, only eighty-two schools completed surveys or 6% of Montessori

programs. This study was significant, as previously, little was known about how many students with disabilities attended Montessori schools. Kahn's (2009) survey revealed that students with disabilities were being served in Montessori schools however, the disabilities were typically mild, such as speech and language disorders.

Montessori schools in the U.S. often serve children who are having their first school or group experience, and this may be the first time a disability or special need is noticed and identified. Therefore students may be enrolled in Montessori early childhood schools without a diagnosis, yet several months after attending, they may be referred for a special education evaluation. Because of this characteristic, many preschools are in the business of serving "newly diagnosed" students with disabilities or children who are in the process of being evaluated. Therefore, Montessori programs may, intentionally or unintentionally, end up serving a number of young students with disabilities.

Given the Montessori practices which lend themselves to students with disabilities (Cossentino, 2010), the positive outcomes for Montessori students (Lillard & Else-Quest, 2006; Miller, Dyer, Stevenson, & White, 1975; Pickering, 1992), and the number of Montessori schools which currently serve children with special needs (Kahn, 2009), Montessori schools appear to be a viable option for including students with varying abilities.

Current Inclusion Practices within Montessori Schools

As mentioned, Montessori schools often include students with disabilities. Kahn (2009) invited 1,318 schools from the North American Montessori Teacher Association (NAMTA) database to participate in an online survey about their special education practices. Participants from eighty-two schools completed the survey, yielding about 6% of the total schools. The participating schools were scattered throughout the U.S. and represented a diverse, albeit small,

sample of Montessori school types; public, charter, and private or independent. School size ranged from 10 to 557 students. Ages served ranged from parent-infant classes through middle school.

The types of disabilities that responding Montessori schools reported serving varied. Most respondents reported that they accommodated disabilities such as learning disabilities (88%), ADHD (80%), Aspergers (68%), physical disabilities (59%), hearing impairments (55%), and autism (52%). Conversely, respondents were less likely to report accommodating disabilities such as emotional disorders (50%), Down syndrome (49%), visual impairment (46%), PDD-NOS (44%), and conduct disorder (35%). It is not known if respondents were familiar with a range of disabilities. Therefore some respondents, who could not envision a particular disability, might assume that they could not meet the needs of that type of student.

One challenge regarding the generalization of the survey results is that participation was voluntary, and therefore could be biased towards those schools that were particularly interested in and open to serving students with special needs. The sample size was also small, consisting of only 6% of NAMTA-affiliated schools. A replication of this study with a larger number of Montessori schools would offer greater generalizability and validity. However, this initial study sheds light on the fact that some Montessori schools are including students with disabilities.

Montessori Teachers and Teacher Preparation

Montessori teacher credentialing is a unique process. There are many ways to obtain a Montessori credential, through various organizations both within and outside of institutions of higher education. For the most part, Montessori teacher training is based on the multi-year age span, meaning that professionals can pursue Montessori training as an early childhood teacher, credentialed to teach children ages three through six years olds. Montessori teacher training

generally is specialized in three year age spans: birth-3, 3-6, 6-9, 9-12, 12-15, and 15-18. The coursework for teacher training programs is integrated in various models; some are available over multiple summers for working teachers, and others operate over one academic year.

Coursework focuses on a) human growth and development, b) Montessori theory and philosophy, c) accurate and appropriate use of Montessori materials, d) an open-ended array of learning materials and activities, e) observational skills to successfully guide and challenge students, f) teaching strategies that support and facilitate the unique growth of each individual, and g) leadership skills to foster a nurturing environment that is physically and psychologically supportive of learning (AMS, 2014).

Cossentino (2009) describes Montessori teacher training as "a modern-day oral tradition" (p. 520). The training offers a sense of lineage all the way back to Dr. Maria Montessori herself, and an initiation into the Montessori tradition and culture. During their training, adult learners "master the script" of a particular sequence of lessons. In addition, there is a real sense of transformation of the adult learner, as they experience new ideas and ways of learning, and change their outlook on development, children, and education (Cossentino, 2009).

The American Montessori Society (AMS) teacher credential upholds high standards, requires pre-service teachers to have a bachelor's degree before enrolling, and is one of the most well-known Montessori credentials in the United States. An AMS associate credential is possible for those pre-service teachers without a bachelor's degree. The AMS full credential is comparable to the level of education required for a state-certified teacher. Fieldwork consists of one full year of student teaching in a multi-age Montessori classroom supervised by an experienced, credentialed Montessori teacher. The fieldwork can occur during or after the coursework. When the teacher candidate has successfully completed both coursework and

fieldwork, they are eligible for a Montessori credential. AMS maintains over 100 affiliated teacher education programs in the U.S. and in other countries. Of these programs, 79 offer early childhood (ages three through six) Montessori credentials and three of these programs are located in Illinois (AMS, 2014). Some of these teacher education programs are housed within universities, but most operate independently.

Montessori Teachers and Inclusion: Current Research

How teachers perceive inclusion can affect their comfort level with teaching and supporting children with disabilities. Epstein (1997, 1998) asked, "Do Montessori early childhood teachers accommodate for young children's special needs?" The design was mixed method, using interviews, classroom observations, and focused discussions of teachers in phase one and a survey of teachers in phase two. The two phases of data collection and analysis overlapped. Both open-ended survey responses and interviews were coded into qualitative themes.

In phase one, participants included five Montessori early childhood teachers working in public magnet Montessori schools. Interviews revealed that the teachers experienced a conflict between supporting the independence of children with special needs (child-centered approach) and providing more teacher-directed instruction or support. Although interviewees reported a fit between Montessori and inclusion, they also expressed frustration regarding children with challenging behavior in their classes. "If children's needs required changes compromising Montessori methods, they seriously questioned inclusion" (Epstein, 1997, p. 34). Although Epstein does not go into what "compromising Montessori methods" meant, it could be interpreted as not attending during small-group or individual lessons, destructive behavior in the classroom, and anti-social behavior. In effect, this "compromise" might require teachers to

change their roles. In the interviews, all five teachers expressed concerns with regard to meeting the needs of children with challenging behavior and emotional issues. Teachers described meeting children's needs by focusing on affective development. Teachers developed individualized strategies to work with challenging behaviors. Some examples included: referring students for support services, frequent discussions with specific students centering on recognizing their emotions, and developing problem-solving strategies with children.

In phase two, participants were 82 teacher members of the American Montessori Society. The participants were divided into two groups: 42 teachers who had a child with special needs in their class (group one) and 40 teachers who did not (group two). The phase two surveys consisted of Likert-scale questions and several open-ended questions. The 82 Montessori teachers were randomly selected from the complete listing of early childhood teacher members of the American Montessori Society. Half of the teachers who had experience with students with disabilities (group one), responded that they gave "quite a bit" of direction to their student with special needs. The majority of teachers in both groups (71% of group one teachers and 70% of group two teachers) selected, "Yes, I would continue/like to include children with special needs," indicating a positive attitude toward inclusion.

Although group one and two teachers had similar backgrounds (years of teaching experience, number of children enrolled in school, number of years teaching at their current school), there were some notable differences between the groups. First, 23% of group two teachers who did not serve children with special needs, reported that they did not value inclusion, while only 12% of group one reported not valuing inclusion. Interestingly, teachers did not rate behavior as an issue or concern in the surveys, although this was a major theme in the five interviews. When responding to how much teachers had changed the activities in the classroom

to meet the children's special needs, half of the teachers in group one (55%) indicated they made the same number of changes as in classes for only typically-developing children. The remaining teachers reported that they made more (14%) or slightly more (28%) changes than usual.

Teachers appeared to be making moderate rather than sweeping changes to the classroom in order to accommodate students with disabilities.

During interviews, teachers described themselves as somewhat more directive with students with special needs, however they did not see this as a substantial role change from when they taught only typically-developing students. Teachers reported, "If the child's needs are not 'extreme' then there can be a healthy mix for inclusion" (Epstein, 1997, p. 33). Throughout both the interview and the survey data, teachers reported that their commitment to inclusion outweighed their reluctance and resistance to compromise their use of the Montessori method.

Limitations of Epstein's (1997; 1998) findings included a lack of document review during the qualitative phase of interviews. Analysis of critical documents such as students' IEPs could have led to important information about how these teachers were or were not making accommodations for their students. Mitigating demographic factors such as English language learner status and socio-economic levels of students and families in each of the teachers' classrooms and schools were not addressed. Statistical analysis of the quantitative data from the surveys could have revealed correlations among factors such as teachers who did not have students with disabilities and their views of inclusion. The teacher survey was created by the author, and psychometric properties were not assessed.

Epstein concluded that Montessori teachers could benefit from training in challenging behavior to give teachers skills and confidence about working with children who exhibit these behaviors. She concluded that teachers seem to make moderate rather than sweeping changes to

the activities in the classroom to accommodate children with special needs. Epstein also recommended that professional development is needed on the topics of working in partnership with families and collaborating with special education personnel.

As part of the Circle of Inclusion Project (CIP) at the University of Kansas, Thompson, Wickman, Wegner, and Ault (1996) partnered with a local private Montessori school for ten years to provide a least restrictive environment for young children with severe disabilities. The focus of this ongoing study was to implement inclusive early childhood services and to investigate and document important features of these services. Through the inclusion of 20 children ages three through five years with significant disabilities such as deaf-blindness, cerebral palsy, and hydrocephaly, CIP noted several factors impacting program success over the ten-year period. At first, the children were served half-day in a special education classroom at the public school and half-day at the Montessori school. Later children were transitioned to full-day at the Montessori school, where they received all their special education and related services. It is important to note that this partnership with the University and the Montessori school incorporated staff training on special education strategies, paraprofessionals to support individual children on a one-on-one basis, and the hiring of an inclusion facilitator at the Montessori school, who acted as a coach and mentor for the Montessori teachers to help support students with disabilities in their classrooms.

Thompson et al. (1996) recommend the following features for an exemplary inclusive program: (a) embracing a shared vision of inclusion, (b) using creative and flexible funding through interagency relationships, (c) providing the option for wrap-around full-day care, (d) providing high-quality child-centered programs, (e) establishing collaborative teams, and (f) making decisions that are family-centered. The researchers also noted that the Montessori

program was "an attractive model for the inclusion of young children with significant disabilities" (p. 9). Montessori facets supporting inclusion were listed as: (a) credentialed Montessori teachers, (b) mixed-age groupings, (c) child-initiated focus, (d) emphasis on choice and autonomy, and (e) materials that can meet a range of developmental needs.

The final report for the CIP Project (Thompson & Wegner, 1993) outlined the outcomes of the Montessori inclusion program, highlighting: (a) more peer-to-peer interactions for students with disabilities, (b) the development of typically-developing peer models and partners, (c) the ability of the Montessori classroom to provide appropriate accommodations for children's specific needs, (e) families' support of inclusion (both families of typically-developing children and children with disabilities), and (f) better role clarity and training for the professionals who worked directly with children with severe disabilities. The CIP project demonstrated that the inclusion of young children with severe disabilities can be implemented successfully within a Montessori program, with the necessary supports for children and professional development for adults.

McKenzie and Zascavage (2012) published an article in a Montessori practitioner journal using case design to illuminate how Montessori teaching, materials, and methods could support the inclusion of students with disabilities. These case studies provide examples of students with disabilities successfully interacting with peers and learning materials in the Montessori classroom. The authors conclude that a truly inclusive Montessori class has special educators working in collaboration with Montessori teachers to help students with disabilities access the Montessori materials and activities. The authors assert that not only can Montessori education be implemented successfully with students with disabilities, but that it is the answer to an equitable education. Given the practical focus of this article, it reflects more of the authors'

personal and philosophical stances, and the case studies used are merely short vignettes which highlight the concepts they describe. More rigorous data, involving in-depth observations in classrooms and interviews with teachers, are needed to assess if inclusion in Montessori classrooms can and does work.

Recently a survey was completed by 82 Montessori and 168 non-Montessori early childhood teachers in one large Midwestern state about their attitudes toward inclusion (Danner & Fowler, 2014). This was the first known study on the topic of inclusion which directly compares early childhood teachers with Montessori credentials and teachers with other credentials. Results from this study are consistent with existing studies on the Montessori-only population (Epstein, 1997; 1998), where Montessori teachers indicated positive attitudes towards including students with special needs in their classrooms. Even though there were differences in teachers' school type (public or private) and age, both groups reported similar frequencies in the use of universal design and supports for inclusion within their school.

Danner and Fowler (2014) found one main difference between Montessori and non-Montessori groups related to the construct of 'knowledge about inclusion.' Montessori teachers rated themselves as significantly less knowledgeable about evidence-based practices for inclusion compared to non-Montessori teachers. This could be due to prior special education coursework and teacher preparation programs. Non-Montessori teachers, on average, had completed more than three college courses in special education, whereas most Montessori teachers indicated that they had no special education college coursework but rather a workshop or seminar on the topic. Nonetheless, on the topic of inclusion and access, Montessori teachers are more similar to non-Montessori teachers than previously believed.

In summary, the CIP Project examined how a private Montessori program could

successfully include young children with severe disabilities (Thompson & Wegner, 1993). Epstein (1997; 1998) focused on Montessori teachers and how they accommodated young children with disabilities in their classrooms. Fourteen years later, McKenzie and Zascavage (2012) looked at attributes of the Montessori philosophy that fit with best practices in special education and advocated for the inclusion of students with disabilities in Montessori classrooms. Danner and Fowler (2014) compared Montessori and non-Montessori teacher attitudes towards inclusion. These are the only four published studies, which focus on Montessori teachers and their accommodations for students with special needs in their classrooms. In general, the research shows that Montessori teachers were somewhat willing and able to include students with disabilities.

The majority of these studies used survey methodology or mixed methods with interviews, as well as observations. For the proposed study, a case study was deemed the most effective for the research questions, given that a case study enabled the researcher to focus deeply on how one school supports inclusion. Not much research has been done with Montessori teachers, so gathering in-depth responses from several teachers and a principal through interviews and observations would add to the literature base.

The literature on the Montessori approach and inclusion is sparse. Therefore, the next section focuses on preschool inclusion in general.

Recommended Practices and Evidence Base for High-Quality Early Childhood Inclusion

DEC/NAEYC's (2009) Policy Statement on Inclusion provides us with an operationalized definition for early childhood inclusion. The Statement also identifies key components of high-quality early childhood inclusive programs, namely access, participation, and supports. The Statement formalizes how practitioners and researchers should view, practice,

and examine inclusion.

Reviewing the literature on early childhood inclusion, Odom, Buysse, and Soukakou (2011) indicate that all children may benefit from inclusion. The authors assert that upcoming hot topics in early childhood inclusion involve program quality of inclusion and response to intervention (RTI) in early childhood.

Program quality matters for inclusion. Relationships exist between program quality and child outcomes for young children with disabilities enrolled in inclusive programs (Buysse, Wesley, Bryant, & Gardner, 1999). However, professional development at both the pre-service and in-service levels is necessary for practitioners to effectively promote quality inclusive preschool classrooms (Buysse & Hollingsworth, 2009; NPDCI, 2009)

The Division for Early Childhood (DEC) Recommended Practices (2014) provide guidance to professionals and families about evidence-based practices to promote positive outcomes for young children with disabilities and their families. These recommended practices include several items related to inclusion: (a) practitioners provide services and supports in natural and inclusive environments during daily routines and activities to promote the child's access to and participation in learning experiences, (b) practitioners consider Universal Design for Learning principles to create accessible environments, (c) practitioners work with the family and other adults to modify and adapt the physical, social, and temporal environments to promote each child's access to and participation in learning experiences, (d) practitioners work with the family and other adults to identify each child's needs for assistive technology to promote access to and participation in learning experiences, and (e) practitioners work with the family and other adults to acquire or create appropriate assistive technology to promote each child's access to and participation in learning experiences. These recommended practices, when implemented with

fidelity, provide a standard of quality for the education of young children with disabilities.

This study examined how a Montessori program includes children with disabilities and the extent to which this program model showed evidence of markers of high-quality inclusion, as indicated by the policies and research mentioned previously.

Measuring High-Quality Inclusion

There are many valid and reliable tools developed to measure overall early childhood classroom quality including the Classroom Assessment Scoring System (CLASS), the Early Childhood Environment Rating Scale (ECERS-R), Early Language and Literacy Classroom Observation Scale (ELLCO), etc. (Bryant, 2010; Guernsey & Ochshorn, 2011). However none of these quality measures hone in on the inclusion of students with disabilities in general education early childhood classrooms, which was the focus of this study. A specialized tool is needed to evaluate the quality of inclusion in early childhood classrooms. Two rating scales developed in the past five years, exist on the market to measure the quality of inclusion in preschool classrooms: The Inclusive Classroom Profile (ICP) (Soukakou, 2010) and the SpeciaLink Early Childhood Inclusion Quality Scale (Irwin, 2009).

The ICP was chosen for this study based on several factors: (a) it was developed in the U.S. and was tested in American preschool classrooms, (b) it is aligned with the DEC/NAEYC Inclusion Statement (2009), (c) it is easy to use and training on the tool was available for the researcher, and (d) it is a valid and reliable tool for research. As a research instrument, the ICP can be used to assess the quality of classroom practices in inclusive settings. The ICP can also allow researchers to measure and compare quality across various types of programs (Soukakou, 2010). The ICP will be described in detail in Chapter 3.

Conceptual Framework

In this study, the Inclusive Classroom Profile (Soukakou, 2010) and the DEC/NAEYC Inclusion Position Paper (2009) were used together as an organizing framework to better conceptualize the multi-faceted issue of early childhood inclusion, illustrated in Figure 1.

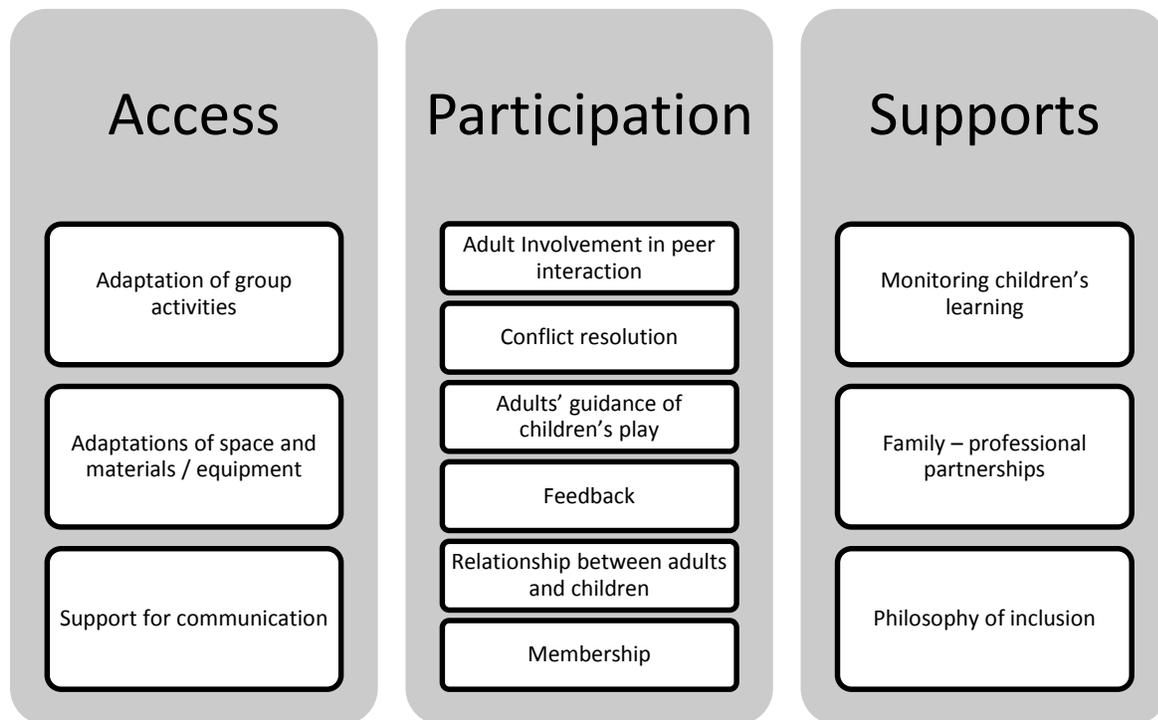


Figure 1. Conceptual Framework: Crosswalk of ICP Items and the DEC/NAEYC Position Statement

The three main constructs from the DEC/NAEYC Inclusion Position Paper (2009) are access, participation, and supports and these constructs were the overarching concepts within the study. The twelve items from the ICP, found in the sub-headings of Figure 1, are practices that have the strongest research base for supporting young children with disabilities in inclusive preschool classrooms (Soukakou, 2010). The researcher placed the items from the ICP into the categories of access, participation, and supports based on the operational definitions provided within the Inclusion Position Paper (DEC/NAEYC, 2009). This conceptual framework guided

the conceptualization of the study, data collection, and data analysis. Constructs within the framework were used as a priori codes during the qualitative coding process for data analysis.

Paradigm Stance

Critical realism (Maxwell, 2012) and pragmatism (Creswell, 2013) were the qualitative stances adopted within this research project. The way Maxwell and Mittapalli (2010) describe the realist position, is a combination of realist ontology (believing that there is a real world out there, independent of our perceptions) with a constructivist epistemology (our understanding of the world is a construction of our own values, culture, and standpoint). Realism provides a philosophical stance that is compatible with the essential methodological characteristics of both qualitative and quantitative research. For this reason, critical realism is an important lens with which to study the phenomenon of early childhood inclusion.

Pragmatism is a worldview that focuses on the practical implications of the research as well as the value of the problem being studied rather than the methods being used (Creswell, 2013). Often times, pragmatism is focused on developing solutions to real-world problems, using whatever method works. For this project, pragmatism is an important framework to adopt in order to help meet the challenge of early childhood inclusion in public Montessori schools.

Conclusion

Only four studies were found that focused on using the Montessori approach to include young children with disabilities (Danner & Fowler, 2014; Epstein, 1997; 1998, McKenzie and Zascavage, 2012; Thompson & Wegner, 1993). These initial studies show that there is potential for the Montessori approach to be successful for young children with disabilities.

CHAPTER 3

METHODS

This study explored the practices used at a public Montessori school to include young children with disabilities. Using an instrumental case study design (Stake, 1995), the focus of the study is known beforehand; in this case understanding the phenomenon of inclusion in a school. The study was designed around established theory and policy about preschool inclusion (DEC/NAEYC, 2009). In this study, one public Montessori school is the case, with three early childhood classrooms within this school serving as mini-cases. Data were collected from a variety of sources to better understand observed and intended practices of inclusion, including thick and rich descriptions of the site through: a) interviews, b) classroom observations, and c) the Inclusive Classroom Profile (ICP).

Participants and Setting

The Montessori school selected for this case study is a magnet public school located in a mid-sized city in a Midwestern state. This particular school was chosen intentionally because of its unique attributes including the Montessori approach, risk factors of the surrounding neighborhood, and a program for three and four year olds, that would be noteworthy to the study (Stake, 1995). The township where Lincoln School (alias) is located is considered a poverty area by the U.S. Census, meaning that at least 20% of the population lives at or less than the 100% Federal Poverty Level. Additionally this township and its residents experience other risk factors. Seventy percent of children ages five and younger in this township live in single parent households. In the county where Lincoln School is located, there are only enough public PreK and Head Start spaces to serve 58% of the three and four year olds living at the 185% Federal Poverty Level (IECAM Risk Data, 2014). This leaves 42% of preschoolers, living in low-income

families, with a potential gap in educational opportunities. Economically, Lincoln School's surrounding neighborhood relies on blue-collar industry and agricultural processing production.

Lincoln School serves 380 students, ages three through eighth grade in an older brick building in a residential neighborhood. According to their state school report card (ISBE, 2014), Lincoln School's enrollment includes 41% low-income students, defined by ISBE as those students coming from families receiving public aid; living in institutions for neglected or delinquent children; living in foster homes; or who are eligible to receive free or reduced-price lunches. Lincoln School also has an enrollment of 11% students with Individualized Education Plans (IEPs). The average class size at Lincoln School is 28 students, higher than the state or district's average of 21 students. The student population of Lincoln School is diverse, including 62% White, 23% Black, 12% Multi-Racial, 1% Hispanic, 1% Asian, and 1% American Indian students (Illinois State Board of Education, 2014).

As far as fidelity of Montessori implementation, Lincoln School meets many of the criteria named by the American Montessori Society as essential elements for public Montessori schools. Lincoln School has Montessori-trained teachers, an experienced Montessori teacher as a school leader, a full complement of Montessori materials for each level, and multi-age classrooms (AMS, 2014).

Educational services for three and four year olds are provided in a unique way at Lincoln School. In their three multi-age early childhood classrooms, three and four year olds share the classes with Kindergarteners. All three classrooms span a three-year multi-age grouping, PreK through K, or three through six year olds. The Kindergarteners attend school full-day and the preschoolers attend a two-and-a-half hour day, either mornings or afternoons.

The Kindergarteners make up about 60% of each early childhood class' enrollment on

any given day, and their public enrollment obliges the district to provide a teacher. In this district, one teacher is provided for the twelve or more Kindergarten students enrolled.

Therefore, Lincoln School enrolls the minimum required number of Kindergarten students to pay for the teacher, and then fills the remainder of the class with three and four year olds. On average, there are about 28 children enrolled in each early childhood classroom. However, at any given time there are only 20 children in each classroom, due to the AM/PM enrollment of the preschoolers.

In each of the three early childhood classes at Lincoln School there are typically 12 Kindergarteners who attend full-day, then eight three or four year olds who attend only in the morning, and eight different three or four year olds who attend only in the afternoon. There is a transition period for each early childhood class before lunch when the morning preschoolers end their day and go home while the Kindergarteners remain and have recess and lunch. Then the afternoon preschoolers arrive and join the Kindergarteners to begin their day.

Lincoln School, a public school, serves children with disabilities. Each early childhood classroom had four or five children with documented disabilities or an Individualized Education Plan. Because of the AM/PM nature of the classes, not all four or five children with disabilities were in class at the same time. On any given hour in an early childhood class, two, three, or four children with disabilities would be present. Table 1 shows the range of children with disabilities enrolled in the early childhood classes at Lincoln School. The list of children was generated by each early childhood teacher and confirmed by the principal. The researcher did not have access to the children's IEPs or other special education documents. The table uses terms for race based on how the teachers described the children.

Table 1

Children with Disabilities in Lincoln School’s Early Childhood Classes

Class	Child’s Name (Alias)	Age	Diagnosis	Race	Services Received (OT/PT/SLP)
A	Nadie	5	Speech	African American	SLP
A	Samuel	5	Speech	White	SLP
A	Nate	4	Autism	White	SLP
A	William	4	Speech	White	SLP
B	Terry	5	Speech	White	SLP
B	Jane	5	Speech	White	SLP
B	Judy	5	Speech	White	SLP
B	Sheng	4	Autism	Asian	SLP
B	Michelle	4	Hearing Impaired	Native American	SLP, hearing consult
C	Mikalya	5	Speech	White	SLP
C	Taliyah	3	Speech	White	SLP
C	Vicky	4	Speech	White	SLP
C	Trinity	4	Physical Disability (Cerebral Palsy)	African American	SLP, OT, PT

This public school charges tuition on a sliding-scale basis to families of three and four year olds. Preschool tuition for the half-day program is \$175/month, substantially less than private preschool tuition in the local area. Tuition for children living in poverty is waived or reduced, based on the child’s eligibility for free or reduced lunch. The district also waives preschool tuition for children with IEPs.

Lincoln School is not a traditional neighborhood public school, but instead is a magnet school. Families choose to enroll their preschool and Kindergarten-aged children, including children with disabilities, in this school using a district-wide application, as part of the school choice procedures, in the spring before the child begins school. Any family living within the district boundaries with an age-appropriate child is eligible to apply. A lottery is held by the district to select students for the available slots at the preschool (age three and four) and

Kindergarten (ages five-six) levels, based solely on official age and residence of the child. Because of the low student mobility rate of 1% for Lincoln School, there are rarely openings at grade levels other than preschool or Kindergarten (Illinois State Board of Education, 2014). Most children start school at Lincoln at the preschool-level, some start at Kindergarten. When children are enrolled at the preschool level at Lincoln, they automatically “move-up” to Kindergarten, when they are age-eligible, reducing the numbers of Kindergarten lottery spots for new students. Alternatively, some students attend preschool at the district’s early childhood center, which enrolls at-risk preschoolers through the state funded pre-K grant and offers early childhood special education classrooms. These children may later enroll at Lincoln School for Kindergarten, if accepted through the lottery. Other local preschool-aged children attend private preschool, childcare, Head Start, or do not attend a formal program before enrolling at Lincoln School for Kindergarten.

Adult participants from the Montessori school included three early childhood teachers, the cross-categorical special education teacher, and the principal. All three early childhood classrooms in this program were a part of this study. Each early childhood classroom at Lincoln School had one Head Teacher and one Assistant Teacher. The three classrooms shared one volunteer. One of the classrooms also had a Montessori student teacher. The three classrooms also occasionally have undergraduate practicum students from a local college. The three Head Teachers, here after described as ‘teachers,’ were all female and Caucasian. As shown in Table 2, they all held state-certification in early childhood or elementary education, a minimum of a Bachelor's degree in education, and a Montessori credential in teaching three through six year olds, issued through the Montessori Accreditation Council for Teacher Education (MACTE). Additionally, one teacher had a masters degree in curriculum and instruction. The special

education teacher held PreK-21 special education certification and a masters degree in special education. The principal of the school was female and Caucasian. She held state certification in elementary education, a Principal license, a masters degree in school administration, and a Montessori elementary credential, issued through MACTE. The adult participants' experience, college degrees, and certifications are shown in Table 2.

Table 2

Demographics of Participants

Participants	Experience	College Degrees	Certifications
Andrea, Teacher	5 years experience in early childhood 8 th year at Lincoln (was an Elementary teacher before)	B.A. elementary ed. M.A. curriculum and instruction (middle school)	State certification: Elementary and Middle school Montessori: Early Childhood and Elementary 1
Bonnie, Teacher	5 years experience in early childhood 1 st year at Lincoln (was a Head Start / public pre- K / private preschool teacher before)	B.A. early childhood education	State certification: Early Childhood Montessori: Early Childhood
Cassie, Teacher	3 years experience in early childhood, 2 nd year at Lincoln (was an Elementary teacher before)	B.A. elementary ed.	State certification: Elementary and Reading Montessori: Early Childhood
Maria, Principal	15 years experience in elementary, special education, and middle school classrooms, 8 years at Lincoln as principal	B.A. elementary ed. and art M.A. school administration	State certification: School Administration Montessori: Elementary 1 and 2
Rebekah, Special Education Teacher	8 years experience in special education (preK-3 rd grade) 2 years at Lincoln	B.A. psychology M.A. special education	State certification: Special Education

All requirements to protect human subjects have been upheld. As shown in Appendix B, the university's Institutional Review Board (IRB) approved the study as exempt and all adult participants provided consent. Participants each received a stipend of \$100 in the form of an Amazon gift card following their participation in the project.

Researcher Reflexivity

The researcher holds a Montessori early childhood teaching credential issued by MACTE and has experience as a Montessori early childhood teacher herself, having taught in an inclusive Montessori early childhood class for seven years and having served as a director of a Montessori school for one year. The researcher presents regularly at national Montessori conferences. She also holds New York state certification in early childhood, early childhood special education, elementary education, and school administration.

The researcher has had an ongoing relationship with this particular public Montessori school for two years, as she had visited Lincoln School several times and knew the principal and one teacher fairly well. After meeting with the researcher about this study, the principal agreed to have her school participate, including the kind of close, in-depth study necessary in a case study.

Procedures and Instruments

This research intentionally incorporated quality indicators of qualitative research. These quality indicators include: (a) thick, detailed description, (b) prolonged field engagement, (c) audit trail, (d) external auditors, (e) triangulation, (f) member checks and (g) collaborative work (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005).

There were three components to this case study: (a) interviews with teachers and the

principal, (b) administration of an environmental rating scale, The Inclusive Classroom Profile (ICP), to quantify the quality of classroom inclusion, and (c) observations in the early childhood classrooms. These three main research components are explained in detail next.

Interviews

The five participants were interviewed by the researcher twice each, for approximately one hour each time. The first interview was conducted at the beginning of data collection, and the second interview occurred toward the end of the study. Approximately two months elapsed between the first and second interviews. These interviews occurred at the public Montessori school in a private office or classroom without children or other people present, during a time that both the teacher/principal and researcher found mutually convenient. These interviews were scheduled on school days. The interviews were audio-recorded and transcribed. The researcher took notes during each interview as well.

The first interview protocol was semi-structured in nature and borrowed some elements from the ICP and another early childhood inclusion measure from Canada, the SpecialLink Early Childhood Inclusion Quality Scale (Irwin, 2009) as well as from reviewing the literature on early childhood inclusion. Each first interview began with the teacher or principal answering several background questions focused on (a) degrees earned, (b) state certifications and Montessori credentials, and (c) years teaching. Most of the interview focused on: (a) perceived benefits of a Montessori approach for children with disabilities, (b) perceived barriers for inclusion within a Montessori approach, and (c) ways in which the Montessori approach supports, or does not support, high-quality inclusion. The principal's interview also included a focus on school-wide support items such as: (a) access to the school/program for families of children with disabilities, (b) collaboration with the school district in serving students with disabilities, (c) staff

involvement in the delivery of IEP goals and services, and (d) the influence of school district special education policies on the implementation of the Montessori approach. These interview protocols are attached in Appendices C and D.

Questions in the second interview were developed based on the results from the classroom observations, ICP (Inclusive Classroom Profile), and the first interview. In this way, the design of the study was developmental in a mixed methods context, meaning that prior methods and components built on each other to influence later methods and components (Greene, 2007).

The researcher pilot tested the interview protocol with a former school principal, an early childhood teacher, and another experienced researcher. The items were revised multiple times for clarity and connection to the issue of inclusion and sub-issues of access, participation, and supports.

The Inclusive Classroom Profile (ICP)

The ICP is a structured observation rating scale which assesses the quality of inclusion in preschool classrooms for children ages two to five years old. Ratings on the ICP indicate the extent to which "classroom practices intentionally adapt the classroom's environment, activities and instructional support in ways that encourage access and active participation in the group, through adjustments that might differ from child to child" (Soukakou, 2010).

To test the ICP, the tool was administered in 45 inclusive early childhood classrooms in the U.K. (Soukakou, 2012). The items were found to be internally consistent and there was good inter-rater reliability on the training provided according to the validation information. The ICP had moderately-high correlations with the ECERS-R; further assessing the psychometric properties of the ICP. This correlation indicates that the ICP has initial support for construct

validity and is measuring a construct that is distinct from the ECERS-R. In addition, the ICP was tested in the U.S. in 51 inclusive center-based early childhood classrooms in North Carolina (Soukakou, Winton, & West, 2012). Similarly inter-rater reliability was high (87%) and the assessors were accurate to the author's standards in their administration (94%). The ICP items also had internal consistency ($\alpha=.85$), structural validity with good factor loadings (.34-.84), and construct validity with a moderately-high correlation of the ICP and ECERS-R. Limitations to the ICP pilot study included the types of programs and the ages of the children (Soukakou, Winton, West, Sideris, & Rucker, 2014). The pilot was conducted mainly in four year old classes and in fewer public Pre-K classes as compared to Head Start and child care classes. This limited the generalizability of the pilot's results.

The ICP consists of 12 items pertaining to high-quality inclusion and based on the DEC/NAEYC position paper on inclusion (2009): (a) adaptations of space and materials/equipment, (b) adult involvement in peer interactions, (c) adults' guidance of children's play, (d) conflict resolution, (e) membership, (f) relationships between adults and children, (g) support for communication, (h) adaptation of group activities, (i) transitions between activities, (j) feedback, (k) family-professional partnerships, and (l) monitoring children's learning. The ICP items are on a 7-point rating scale, where one represents practices considered highly inadequate for promoting children's active participation in the group and meeting their individual needs and seven represents practices that promote to the highest degree children's active participation in the group through individualized strategies and accommodations. Each item has an accompanying list of quality indicators, examples, and criteria to help assessors rate items reliably. A composite score as well as individual item scores are recorded on the ICP score sheet.

This researcher attended a five-day training on the Inclusive Classroom Profile at the Frank Porter Graham Child Development Institute's Professional Development Center housed at the University of North Carolina - Chapel Hill in January 2014. This researcher achieved level two Certification of the ICP Proficiency Reliability Training, certifying that the researcher is a qualified, reliable and proficient user of the ICP. Another University of Illinois researcher and special education professor emeritus, who is also certified as reliable at level two for the ICP served as the inter-observer reliability observer. This training was deemed to be effective in producing assessors who are accurate and reliable in the administration of the ICP with a mean inter-rater agreement across assessors of 98% with a range of 91%-100% (Soukakou, Winton, & West, 2012).

The ICP was conducted once for each of the three early childhood classrooms to identify inclusion strengths and challenges within the three early childhood classrooms and in the Montessori public school as a whole, through system-level supports. During each three-hour administration of the ICP, the researcher acted as a non-participant observer, placing herself in an area of the classroom where she could clearly see the daily routines and interactions taking place. Before the observation began, the researcher asked the teacher to discretely point out the child or children with identified disabilities, including speech-only IEPs. The children were later verified as having IEPs through a conversation with the principal. The researcher watched all adults in the room and specifically the children with disabilities in the class while taking handwritten notes. The researcher scored the ICP after the observation, outside of the classroom environment, using the notes from the observation.

During the first ICP observation, the ICP reliability observer accompanied the researcher to the classroom and completed the ICP simultaneously. Afterwards, the researcher and the

reliability observer met to debrief and share results of their independent scoring of the classroom ICP. Because no more than three items were scored with a difference of one point on the seven-point rating scale, this ICP administration is considered an acceptable inter-observer reliability score (at $\geq 75\%$). Consequently the ICP reliability observer was confident in the researcher's ability to complete further ICP observations in a reliable way, and the researcher completed the remaining two ICP observations independently.

Results from the ICP informed both the observations and second round of interviews. ICP results were reviewed across classrooms to glean commonalities in strengths and weaknesses.

Observations

Each of the three early childhood classrooms were observed three times each for a period of three hours each time. All observations were scheduled ahead of time with teachers. The researcher recorded qualitative field notes in a notebook during the observations. These observations focused on aspects of the classroom environment and teacher-student interactions that supported or detracted from inclusion, including but not limited to: how the teacher and the school offered access to the general education curriculum for students with disabilities, how students with and without disabilities participated in classroom activities, and how students with disabilities were supported throughout the day both directly and indirectly by the lead teacher. The researcher was a non-participant observer and sat on a chair or on the floor in the classroom, in a location so as not to disturb the students or the faculty. Field notes were expanded upon immediately after leaving the site for the day to record experiences and interpretations of these experiences while they were still fresh (Emerson, Fretz, & Shaw, 2011).

An observation protocol, found in Appendix E, was developed by the researcher to be

used during classroom observations in order to "narrow one's gaze" (Creswell, 2013). During the observation, the researcher was attentive to students with disabilities in the class, and how adults in the room, peers, and the environment interacted to promote or detract from students' access to and meaningful participation in classroom activities. Other foci included how routine actions and events in the classroom, such as transitions between activities, were organized and took place. These areas of focus were more open-ended than the ICP and provided the researcher with the flexibility of Montessori-specific routines and practices that were not addressed in the ICP, such as peer-to-peer support and the work cycle. The researcher made notes of key events, scenes, or interactions involving students with disabilities (Emerson, Fretz, & Shaw, 2011). Children were given aliases to protect their identity.

For each observation, the researcher rotated between the children with disabilities as the focus. The observations were divided into sections of half-hour blocks, to ensure that all children with disabilities were observed in a given day. The rotation also allowed for children to be observed during different routines and activities in the classroom. Up to three children were selected as focus children per classroom. If there were more than three children with disabilities in the class in attendance on the observation day, three children were selected by the teacher from the list.

Mixing Methods during Data Collection

The purpose of mixing methods in this study was for complementarity (Greene, 2007). Because interviews, observations, and the ICP all tap into different facets of inclusion, results from these different methods elaborate on and provide a more comprehensive understanding of inclusion.

Another purpose for mixing methods in this study was for the development of each

subsequent method (Greene, 2007). The timing of the methods during data collection was sequential. First the initial interview was completed with all participants. Then classroom observations began, the ICP was completed, and classroom observations continued. Finally the second interview was completed at the end of the study. The methods in this study were intentionally interactive as shown in Figure 2. Each of the methods influenced and built on each other during the data collection phase.

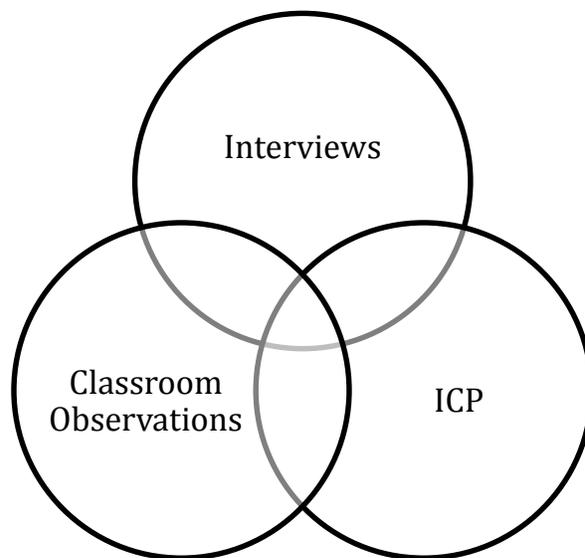


Figure 2. Interaction of Methods

The semi-structured interview protocol drew from the Inclusive Classroom Profile items. Within the ICP, there are several items which must be probed by the researcher of the school director or of the teacher. These items were included in the interview protocol and therefore were asked during the administration of the ICP and again later in the data collection period during the second participant interview. These questions were asked in different ways for different purposes. For example in the ICP, the researcher asked, “Do you have access to

children's IEPs?" Their answer could be yes or no and they might show a document as evidence. In the interview protocol, the purpose of the question was different than the ICP. The question was not asked to simply verify a piece of evidence in order to score an item. In the interview, the purpose of the question was to understand how the program used the information from the IEPs or how the lack of access to children's IEPs impacted the teachers. More importantly, the focus from the interviews was how the access to IEPs translated into what was happening in the school for children with disabilities. Therefore in the interview protocol, many prompts were given to participants and the questions were more open-ended than the ICP questions, in order to elicit a thick and rich description of inclusion in the context of their program.

The interview questions were also influenced by high or low ICP scores in certain areas. For example, when a classroom scored a one, the lowest possible score, in Family-Community Partnerships because there was no published statement on the program's philosophy of inclusion, a follow-up question was asked of the teacher and the principal about their philosophy of inclusion. Similarly, high scores on the ICP, such as in the area of Membership, were followed-up with open-ended questions about how the teacher promotes belonging and membership of all children in her classroom.

The classroom observations influenced the questions asked during the second interview. Because the second interview came after the classroom observations, the researcher had spent time in each classroom watching the children, noticing interactions between peers, and seeing teachers provide supports. Therefore there were many fieldnotes taken before the interview and several questions jotted down during the classroom observations by the researcher. These follow-up questions were intended for teachers to explain why a child or a teacher did what they did in the observation. The follow-up questions were specific to each class, meaning if Johnny

was exhibiting challenging behavior in class A, then teacher A would be asked about this incident. Therefore there were additional questions that were added to specific teacher's interview protocol based on what was observed in the classrooms the weeks prior to the final interview.

The first interview also influenced the second interview across participants. So for example, if one participant brought up a barrier, such as crowding, in their first interview, the researcher made sure to touch on that issue with other participants in their second interview. In this instance, a question was modified in order to understand possible additional barriers to inclusion in an open-ended way. For example, "How does the size of the classroom or number of students work for the children with disabilities in your class?"

Data Analysis

Qualitative research methods were used to analyze interviews and field notes. First, a professional transcriber transcribed each interview. The researcher then organized, cleaned, and reviewed each transcript for accuracy while listening to the audio recording. Second, the teachers and principal were provided with a copy of their transcripts with the opportunity to edit or revise their statements, using member checking. All participants returned the transcripts without changes.

Then, interviews were coded using thematic coding procedures to condense and make sense of the qualitative data, using both a priori codes and codes that emerged from the data (Miles & Huberman, 1994). A priori codes included large categories for analysis such as access, participation, and supports, using the definitions from the DEC/NAEYC (2009) position paper on inclusion. Working collaboratively, the researcher and a graduate student research coder read and reread the interviews to identify quotes and segments that aligned with a priori codes. This

graduate student was taking coursework in early childhood special education toward her Ph.D., had experience working with young children as a social worker, and was trained in using the code book by the researcher. Additionally the transcripts were read and reread to identify additional emerging themes and codes, which were not covered in the a priori codes. Once consensus was reached on the themes and each theme was defined operationally, the researcher created a qualitative codebook with definitions. Then together the researcher and the coder coded all interviews using the codebook as reference. The researcher reviewed statements where she and the coder disagreed and looked to an external researcher, a special education faculty member at the University of Illinois, to engage them in a discussion until consensus was reached. This happened one time. The discussion resulted in modification of themes or definitions, and the interviews were recoded to ensure consistency in coding across all interviews.

The field notes were reviewed by the researcher and her advisor for major themes. “Patches” or important stories were selected as examples of barriers to or examples of high-quality inclusive practices that were observed in the classrooms so as to tell the story of this inclusive Montessori program (Stake, 1995).

Case-ordered and conceptually-ordered displays were used to organize codes and themes and the excerpts from the interviews and classroom observations (Miles & Huberman, 1994). Major themes and patterns were selected for inclusion in the next chapter based on the research questions and the literature.

CHAPTER 4

FINDINGS

Introduction

This chapter presents key findings to the three research questions from three sources: interviews with Montessori teachers, special education teachers, and the principal (n=10), half-day classroom observations of the three target classes (n=12), and the administration of the Inclusive Classroom Profile (ICP) in the three classrooms. The research findings are addressed by research question, then major findings are described across methods.

Practices that Help Inclusion within the Montessori School

This section addresses research question one:

- What practices are utilized in a Montessori school that may support the inclusion of young students with disabilities?
- To what extent are these practices unique or alternative? And to what extent do they align to the DEC/NAEYC Position Paper on Inclusion?

The coding of the interviews revealed that teaching staff engaged in practices associated with the inclusion strategies of providing access and participation and identified a variety of supports available. Several of the practices were Montessori-based and others were reflective of sound teaching practices, as shown in Table 3. Similarly, the observations revealed additional categories of inclusion supports, which were seen in the classrooms.

Classroom- and school-level supports for inclusion, based on both interview and classroom observation data, are listed in Table 3. Four classroom- and school-level supports for inclusion were identified as Montessori-specific including: (a) the work cycle, (b) peer supports, (c) the multi-age classroom, and (d) freedom of movement. Eight classroom- and school-level

supports for inclusion which were identified as recommended practices in early childhood special education including: (a) accommodations and modifications, (b) universal design for learning, (c) assistive technology, (d) adult promoting belonging, (e) response to intervention (RTI), (f) specialized IEP interventions in the classroom, (g) screening and evaluation, and (h) self-advocacy. Six of these eight aligned with the DEC/NAEYC (2009) position statement on inclusion. More of the classroom- and school-level supports were categorized as special education recommended practices rather than practices unique to Montessori. These Montessori teachers, therefore, use some Montessori-specific inclusive practices and many generally-accepted special education practices with children with disabilities in their classrooms.

Additionally these inclusive practices were categorized into the themes of access or participation based on the DEC/NAEYC (2009) Position Paper on Inclusion. Access was defined as providing entrée to the general education curriculum for the child with disabilities. This included not only describing access to the program or school, but access to learning activities and social interactions within the classroom (NAEYC/DEC, 2009). Participation was defined as what the adult intentionally does to welcome the child to be a part of the classroom community and learn with specialized instruction, assessment, and accommodations. Two practices were aligned with the access category: (a) universal design for learning and (b) augmentative and alternative communication. Four inclusive practices were aligned with the participation category: (a) accommodations and modifications, (b) adult promoting belonging, (c) RTI, and (d) specialized interventions in the classroom. One practice was not identified as either part of access or participation, yet was a sound teaching practice, screening and evaluation. A list of the thematic categories and examples of strategies within each category that were either evidenced through interview quotes or by direct observation of the practice are provided in Table

3. The table breaks the classroom and school-level factors into either inclusion practices or Montessori-specific practices, indicated by marks in the columns. Some thematic categories were categorized as both inclusion practices and Montessori-specific with a mark in both columns.

Table 3

Classroom- and School-Level Factors that Help Inclusion

Thematic Category and Examples	Inclusion Practices	Montessori-specific Practices
The Work Cycle Offering a three hour uninterrupted period of time spent in the classroom with the Montessori materials	(none)	x
Peer Supports Teaching peer-to-peer	(none)	x
The Multi-Age Classroom Combining 3-6 year olds together in class	(none)	x
Accommodations and Modifications Adapting the curriculum to meet the specific needs of a child Using adaptive seating Requiring proximity to teacher Simplifying activities Limiting choices Giving physical prompts	x	x
Universal Design for Learning Providing freedom of movement Having a variety of learning materials Allowing easy access to materials Using preferential seating	x	x
Assistive Technology Availability of low-tech assistive technology <ul style="list-style-type: none"> ▪ Visual schedule ▪ Choice board 	x	(none)
Adult Promoting Belonging Teaching students to take care of one another Establishing climate of caring Using child interests Having teacher willingness	x	x

Table 3 (cont.)

RTI	x	(none)
Creating groups of students		
Meeting needs of struggling students		
Having the Lincoln Intervention Team		
Monitoring progress with intervention		
Assessing children		
Specialized IEP Interventions in the Classroom	x	(none)
Using small group instruction		
Acting like a one-on-one (Assistant)		
Observing children in class (SPED teacher)		
Using push-in interventions		
Developing social stories (social worker)		
Screening and Evaluation	x	(none)
Offering developmental screening		
Referring children to special education		
Requesting evaluations (parents)		

Table 3 lists 10 classroom- and school-level factors based on the interview and observation data that help inclusion. Of those 10 factors, three were Montessori-specific practices, four were inclusion practices, and three were both inclusion and Montessori-specific practices.

The work cycle. One support for inclusion observed during the classroom day was what Maria Montessori called “the work cycle” (Montessori, 1967). This is a three hour uninterrupted period of time, usually in the morning, where children have opportunities to stay in the classroom and work with materials of their selection. During classroom observations, the teachers gave lessons to individual students during the work cycle. While the rest of the class engaged in activities of their selection, Montessori teachers usually worked with one child or a small group presenting a Montessori material to them. The other children were free to choose activities that they were interested in from any of the areas of the classroom including math, language, practical life or daily living skills, sensorial, cultural, and art.

Children then were given further freedom within the work cycle to continue working with or repeat the material they had chosen for as many times as they wanted. Observations indicated that during this three-hour block of time, few transitions occurred in the classrooms. Children in the Montessori class did not have to clean up their work and transition to another whole group activity based on an adult-imposed schedule and curriculum. However children were observed cleaning up and moving to new individual activities on their own. Very few examples of challenging behavior were seen during the work period in the Montessori classrooms. Children had the freedom to choose and work with a material for as long or as short a period as they desired. For example, a five year old in class C selected a skip-counting activity called Short Chains, where fused beads and tickets supported the child in understanding the concept of counting forwards by fours. She laid out the materials on a rug and began counting beads aloud, later placing paper tickets with numerals 4, 8, 12, 16 marked on them, next to the correct location in the bead chain. She then recorded the numerals in sequence on a sheet of paper. When she completed the four chain, she moved on to the five chain and later the six chain. She spent almost an hour on this one math activity, engaging with and manipulating the material with purpose. The work cycle helped all children, including those children with disabilities who may need a longer period of time or more repetition with a material to grasp the concept or the skill.

Peer supports. Another support for inclusion congruent with the Montessori philosophy is the presence of peer supports. The peer supports that naturally happen in a Montessori multi-age classroom are a unique part of Montessori. Peers were observed helping each other frequently. Older or more experienced children act as leaders in the classroom and help the younger or less experienced children in the class. Providing assistance can be as minor as helping to tie a younger child's shoe before going out to the playground, or as complex as

teaching a child with disabilities how to use a puzzle by providing hand-over-hand supports. Many times children in a Montessori class support other peers naturally. However it happens most successfully when a teacher stresses the importance of supporting peers in the class. During one classroom observation, an older child said to a younger child, “If you need any help with that, you just let me know.” Children with disabilities, and typically-developing peers, in the Montessori classroom can both give and receive peer support.

The multi-age classroom. The multi-age classroom has another facet that is rarely practiced in other types of preschools. The child stays in the same class and has the same teacher for three years. Teacher Cassie elaborated on how the multi-age community supports children with disabilities:

What [teachers] do is a direct reaction to what [children’s] needs are, I think it is pretty natural that we cater to students with disabilities. Because it is a three year cycle [students with disabilities] don’t stand out. We have a community feeling, we help each other. And it teaches, it strengthens that community feeling with children that don’t have necessarily the same special needs. The [Montessori] work was created initially for students with special needs.

Only some students move on each year, further reducing the need for children to transition to other classrooms, peers, and adults.

Movement. Another support congruent with the Montessori philosophy was the teacher encouraging freedom of movement during the class day and offering easy access to materials. For example, Teacher Cassie explained, “[Students with disabilities] feel right at home here and often I think their special needs are just diminished in this kind of environment where they are not asked to sit still and do the exact same thing as everyone else.” During observations,

children were seen walking around the classroom during the work cycle. Some children worked at tables while others preferred to be on mats on the floor. Children moved from one side of the class to the other to gather materials they needed. In one instance, a child who was washing a table walked back and forth to fill a bucket of water at the classroom sink. Activity was built into this learning experience. In addition to the gross motor movement described, many of the learning materials required small or large motor movements to complete them. For example, a three year old was observed sequencing the Pink Tower, a set of ten pink wooden cubes that increased in size. He brought each cube from the shelf to his work mat, one by one, then sat down and began to build the tower from largest cube to smallest, using large and small muscle movements as he completed the activity.

Accommodations and supports. The category of accommodations and modifications was especially rich with supports. The Montessori materials themselves were designed to be used by children with different skill levels. The Montessori materials can be used in a variety of ways, ranging from simple to more complex presentations, being flexible to meet the child where he or she is developmentally. Additionally children can respond to materials in different ways, or use multiple means of expression, by manipulating the materials physically, completing a worksheet for the materials, or verbally telling the teacher what he or she learned from the material. The design of these Montessori materials incorporates elements of universal design such as multiple means of representation and participation. However the materials also make it very easy for Montessori teachers to quickly adapt or modify the material to match a child's needs and developmental level.

Within the category of accommodations and modifications, Teacher Cassie described how she modifies specific Montessori materials for children with disabilities,

You don't necessarily take all the pieces out, for the work immediately. So, instead of using all ten pink cubes of the pink tower [Montessori material], I might only start with, you know, five. Same thing with the brown stair [Montessori material]. So, you can modify the work to make it smaller. That is why it is so important to know your student and what their needs are.

Universal design for learning. Universal design for learning (UDL) is another support for inclusion identified by DEC/NAEYC (2009) and found in these Montessori classrooms.

UDL is a way of designing and planning activities that are accessible for all students, including those who have disabilities. When an activity is universally designed, it offers the child multiple means of representation, multiple means of expression, and multiple means of engagement.

Teacher Bonnie discussed how Montessori materials are used to meet the needs of her diverse students, "Being a Montessori school, if you have those [developmental] red flags you just work with them on different materials. You can and if you have those gifted students, you can. You can pull down some materials from, you know a higher level." Special Education Teacher Rebekah described access in a different way, "I guess the first thing that comes to mind [when including children with disabilities] is differentiation, just like helping them to have access to what is going on in the classroom. But doing it in a way that they can understand too, while also meeting their needs."

Assistive technology. Another support to inclusion listed is assistive technology. Teacher Cassie described how staff used low-tech assistive technology in the form of simple visual schedules or choice boards, which are sound teaching practices and not specific to Montessori practices:

[The classroom] can be a little overwhelming, to have all that freedom... Limiting choices is something I can do. That little boy that moved last year, we limited his choices, where I would pick his first work and then I had picture of the works since he was a preschooler and couldn't read. There was a chart with a first-then option. It was actually the idea of one of our special education teachers. I would stick my choice on there for him and then I would give him three pictures and he could choose the one that he wanted to do next. So, I would choose first and then he would choose. When he was done with those two, he would come back to me and we would do it again. So, yeah... it worked pretty well.

Augmentative and alternative communication (AAC) was also listed in this category based on the DEC/NAEYC (2009) definition of access. However in these three classrooms there were no children who were in need of AAC devices in order to communicate. Therefore the lack of AAC presence did not constitute a barrier to inclusion for the children in these three classes.

Adult promoting belonging. Adults promoting belonging is a hallmark of the Montessori philosophy and a recommended practice in early childhood special education. It is one of the reasons that Montessori classrooms are often called 'Children's Houses,' because they are a place that all children should feel at home and welcomed. Observations support that adults followed the Montessori philosophy of promoting belonging. During arrival time, children were dropped off by family members at the classroom door. The Montessori teacher greeted each child and family member by name and with a quick handshake or hug and a smile. Children who feel welcomed and like they belong, are more at ease and comfortable in their classrooms, paving the way for friendships and learning.

Teacher Cassie illustrated how she promotes belonging within her classroom:

I think the most important thing [when including students with disabilities] is right off the get go you need to establish a climate of caring and nurturing for one another. I spend a great deal of time explicitly teaching my students how to take care of one another. Little bodies will sometimes bump into one another and we will talk about when you accidentally bump the person next to you in circle. And, I give them the tools to deal with that. I expect them to stay with their friend until their friend is feeling good about things and I think when you build that sort of community where the expectation is that you are caring for one another it translates into students with disabilities. The average student can look around the classroom and see that there is someone in the room that is struggling. They understand that even at [age] three they can pick out those students that are struggling with whatever it is. I don't have to say a word about it, but they just pick up on it. And, when you have the expectation to take care of one another, they do that. I have a disabled girl in my classroom right now. And, I sat her next to a Kindergartener in circle and just without any of my prompting just naturally the Kindergartener will take this little girl's hand and help her choose a work and walk to it. So, we watch out for one another.

This explicit and direct teaching of welcoming behavior was observed in each classroom. Once the Montessori teacher models and teaches skills to individuals, children can then learn from peer models. The younger children watch the older children welcome them in, and the younger children learn that this is the way to behave in this classroom. In one classroom, a kindergartener invited a three year old to come watch her work with a Montessori material.

RTI in literacy and math. Lincoln School uses an intervention technique called RTI or response to intervention, also called tiered interventions to provide increasingly more intensive

instruction in math and literacy for children who are struggling academically. The RTI model the school espouses is an elementary-level RTI approach, not one designed for early childhood. During an RTI block of time, small groups of students, grouped according to their needs, are pulled out of the classroom and given intensive instruction in the area of difficulty. According to the teachers only two or three students per class are targeted for this type of intervention. These children are selected based on their low scores on math and literacy screenings and assessments that the teachers have completed in the classroom. The small groups are not taught by specialists in math or reading; RTI is implemented by school staff. For example, the band teacher takes a RTI group and the principal takes a group. Teacher Cassie described the RTI process with one of her struggling students,

There's a little girl that is a returning student this year. She is repeating Kindergarten. She just turned six at the beginning of August. Last year she was not meeting the targets that Kindergarteners need to be making. She was behind by several months as far as the progress that I wanted to see before her going to first grade. So, I had to refer her [to RTI]. We did Tier two with her. She made tremendous progress. Showed me that it was not a disability, it was a maturity issue.

Cassie explained how the process of providing intervention and monitoring child progress with this intervention, gave her valuable information about gains in reading for this child. By understanding that this intensive instruction was helping this student learn, Cassie understood that the child's struggles were not related to a developmental delay or a disability.

Principal Maria described the implementation of response to intervention is a natural fit within the Montessori context:

If you had the resources you needed, both people and materials and all the space... you should be able to effectively, without calling it RTI, deliver RTI in your Montessori classroom every day. Because you are going to call kids based on where they are. You are going to remediate. And move them forward in very small groups.

Specialized IEP interventions in the classroom. Another support for inclusion was specialized IEP interventions in the classroom. According to the code book used to analyze the interview transcripts, specialized instruction is defined as an intervention from a specialist, like an occupational therapist or social worker, provided in the classroom, but not a part of the typical Montessori curriculum. This category differs from RTI in that specialists are providing these interventions and the interventions are provided in the classroom, or “pushed-in.” These specialized interventions are not limited to literacy and math, but often entail social-emotional skills, articulation skills, and whatever the child with disabilities is working on in the individualized education plan (IEP). This category only focused on children with disabilities. Within the category of specialized IEP interventions, Teacher Bonnie described how a social worker provided intervention in her classroom for a little boy with a disability:

I know from my little boy in the afternoon, Mayer, it is like a book that [the social worker] made this ‘Hands Are Not for Hitting’ book. It is a social story and then they discuss, you know, how to deal with different situations and how to interact with others. I know one day they were working on like, you know, just taking things. You know, using your words so she did like they were playing with playdough and she made them work on using their words.

During classroom observation, similarly, additional staff, such as speech and language pathologists and special education teachers, were seen entering the early childhood classrooms and working with individuals or small groups of children.

Evaluations and screenings. Evaluations and screenings occur within Lincoln School and are a support for inclusion. Teacher Andrea explained that she has access to a school psychologist, and when she has concerns about a particular student and their cognitive skills, Andrea contacts the psychologist for either a screening or strategies to use in the classroom. There is also a process that the school carefully follows to refer a child for a special education evaluation. Parents also can request an evaluation for their child. The resources for screening and evaluation exist within Lincoln School, the larger district, and the special education cooperative, which benefit the children with disabilities, as well as children who are not yet identified as having a developmental delay or disability.

Overall, classroom- and school-level supports for inclusion, based on interviews and observations, were pronounced. There was a balance of practices that were unique to Montessori and practices recommended by DEC/NAEYC (2009).

Barriers to Inclusion within the Montessori School

This section highlights practices which were not supportive of inclusion within the Montessori school, but rather were barriers to inclusion. Many fewer barriers to inclusion were revealed in the interviews and observations compared to supports. Classroom- and school-level barriers included limitations to screening and evaluation, crowding, use of RTI to delay evaluation, lack of supports in the classrooms for children with more significant needs and the belief that sometimes Montessori is not a good fit as displayed in Table 4.

Table 4

Classroom- and School-Level Factors that Hinder Inclusion

Thematic Category and Examples	General Barriers	Montessori-specific Barriers
Screening and Evaluation SPED teacher not a part of evaluation process Evaluations postponed until Kindergarten year	x	(none)
Facility Limited classroom space / crowding	x	(none)
RTI Use of RTI restricted to a reading or math focus Use of RTI to delay special education evaluation	x	(none)
Specialized IEP interventions Lack of one-on-one support Lack of orthopedic supports Lack of toilet training supports	x	(none)
Beliefs about Inclusion Believing that sometimes Montessori is not a good fit	x	(none)

As evident in Table 4, none of the barriers were specific to Montessori, but tended to reflect limitations specific to how the school, school district and its cooperative delivered special education services and supports.

Screening and evaluation. Within the category of screening and evaluation process for children with disabilities, there are several barriers that staff revealed at the school-level. Interestingly, the special education teacher on staff revealed that she had no part in the special education evaluation process for young students, “[And, then so what is your role in either Child Find or the evaluation process of Kindergarten students?] None. Zero. I am not a part of it, but I was really a big part of it back in my old district.” Special education teachers typically coordinate the special education process within a public school and are pivotal in assessing children, as well as helping to create IEP goals. In this school, staff in the special education cooperative complete the process independent of teachers in the school.

The special education teacher also explained the problematic practice of “wait until Kindergarten,”

With Pre-K really, the [teachers] usually, if they have concerns they kind of wait around until they get to Kindergarten. Because I know that there was a student last year that people had concerns about and they were like, “Well he is only in Pre-K so we will wait until Kindergarten and we will figure it out.” Which I think is a horrible philosophy.

Absolute horrible philosophy. But that is what they have been instructed, I guess, to do.

Another barrier the Principal described was how often a speech-only IEP is given to a child who may have other delays and issues that are not addressed in their IEP:

[The young children with disabilities] are all over the range because what they are usually given with a developmental delay is a speech IEP. And at that age, what a speech IEP usually means is language development and there can be myriad of reasons why a child doesn't have peer appropriate language development. It can be everything from a cognitive disability to a physiological pallet. It can be anything. And, so there is this ‘catch-all’ of they have speech as their primary disability. But then as we, they get older and you're able to get a more accurate IQ, because as you know at a very young age it is really hard to ascertain what their cognitive ability is. Then we start putting together a little bit more and figure things out and see what services we can provide.

Facility. Another school-level barrier to inclusion that consistently was mentioned by staff was limited classroom space. All of the early childhood classrooms were smaller than both state requirements and Montessori recommendations based on the number of children in attendance. Montessori accreditation standards require at least 30 square feet of classroom space per child (American Montessori Society, 2011). Teacher Andrea explained, “It's not the

Montessori environment [that overwhelms a child], it is our physical space. Because I think we only have about one-third of the allotted space that we are supposed to have.”

This limited classroom space, and therefore crowding of children, was problematic for both children and staff. Children with disabilities were negatively affected by the crowding by exhibiting challenging behavior that may not have occurred with more space for children to move away from each other or calm down. According to Principal Maria,

The classrooms just need to be larger because [the children with disabilities] are the kids that will often have poor coordination so when they are already in a confined space they are the ones that are going to fall over somebody’s legs and knock over somebody’s work and then they are not going to have the social skills to appropriately apologize. And, I mean it just exacerbates their problems because being too close is not good for any of us, so space is a big one.

Limited classroom space is a unique aspect to this particular school building, not to Montessori schools in general. Lincoln School’s older brick building space, and its classrooms, was not intended to house the numbers of children that are enrolled.

RTI. Response to intervention was also used as a prerequisite to the special education evaluation at Lincoln School. RTI can be a beneficial intervention for a child, especially a child who simply struggles with math and gains skills during RTI interventions that provide evidence that he can learn with more intensive instruction. However, there are other times in which students who have significant disabilities are required to go through the RTI process before being referred for an evaluation. Teacher Andrea gave one such example,

Last year I had a student with a hearing impairment and I was very concerned about initial sounds that she just wasn’t producing [verbally] and they wanted me to RTI for

that and I felt like I wasn't qualified to do RTI on hearing, but that was their initial push. So, then I would just defer to the [hearing] specialist and say, 'hey, you really need to come out and do some work.'

Specialized IEP interventions. A major barrier was lack of special education services like paraprofessional aide supports, toilet training support, and orthopedic supports for children with disabilities. For example, Teacher Cassie described a child with physical and multiple disabilities in her classroom. This child, who had difficulty walking, was sent to school in shoes which resembled ballet slippers, not strong enough to hold her feet straight. Cassie bought her a new pair of sneakers that she thought would better support her feet. She explained, "Then I had a specialist come in, a special support staff member for physical therapy that I didn't even know we had. And, she told me that those were not appropriate shoes for [Trinity's] orthopedic needs so then we were back at square one." Even though there was a supportive teacher in place and a physical therapist who provided some occasional support, Trinity continued to struggle with unaddressed orthopedic needs. Trinity additionally needed support with toilet training every 30 minutes, and the cooperative informed the school that a one-on-one aide was not possible given the school's budget.

Montessori not a 'good fit.' Surprisingly, one Montessori teacher commented that Montessori was not a good fit for every child with disabilities, perhaps promoting the idea of exclusion for some children with more intensive needs. Teacher Andrea explained:

There was a Special Education student here and then he ended up getting his EBD [emotionally and behaviorally disturbed] label and it was so bad that they finally took him... We kind of convinced the parents to put him in the behavioral classroom that is housed at Washington. And, he ended up going there and doing really well, but this

environment, for the behavior, it was terrible. I mean he would come to the door in the morning, there were so many people. There is so many things going on in here. I mean I just knew it was not a good fit. It was way over-stimulating with social anxiety, he was just paralyzed and then he would freak out.

Overall, the number of classroom- and school-level barriers to inclusion, although few, were significant. Barriers included the lack of timely screening and evaluation, insufficient facility space, RTI as a barrier to evaluation, and a lack of specialized services. None of these barriers, were related to the Montessori approach; that is they were not unique to Montessori. The idea that Montessori was not a good fit for all children was noted by one of the five participants. This barrier was identified as a personal belief rather than one related to all Montessori teachers and staff.

The next story illustrates how a child with autism and challenging behavior fared in the Montessori classroom, and how his teacher successfully made some classroom-level modifications to support his positive behavior.

Nate's Story: A Four Year Old with Autism

Nate attended a self-contained special education classroom in the district during the prior school year. His parents decided to move him to Lincoln Montessori when he turned four due to some of the leadership changes at his prior school. When he transferred schools, Nate's special education minutes were dropped, but he continued to receive speech services. His IEP was effectively "downgraded" to speech-only, even though was receiving more supports in his previous self-contained class.

When he began in Teacher Andrea's classroom, she reported that he was like a whirlwind of activity leaving destruction in his path. He was interested and excited about everything in the

classroom. Nate acted quickly on his impulses to touch and feel objects and people in the class. He often was seen swiping a shelf, knocking materials to the floor, or grabbing activities out of other children's hands. During dismissal time, he often tackled peers who were waiting in line with backpacks on.

Nate frequently moved on to new activities before finishing the first. For example, when transitioning to outside play time, Nate was asked to get his outdoor shoes and put them on. While his peers found their shoes in the closet and were successfully transitioning, Nate became enamored with the inside of the closet and the closet door and began rolling around on the floor of the closet space and opening and shutting the closet doors.

Fortunately, the assistant teacher often acted as a paraprofessional for Nate, guiding him physically to group time, holding him in her lap when he began to roll around on the floor, and verbally prompting him with reminders of directions. This teacher seemed to have a strong and positive relationship with Nate, sharing smiles, winks, and hugs throughout the school day.

By the second month of school, experienced Teacher Andrea admitted that, "Nate is wearing me out." At this point, Nate had begun to receive social work support. The social worker created several social stories for Nate about 'following directions' and 'hands are not for hitting.' Nate would review these books several times a day, sometimes independently and sometimes with the assistant teacher and would read them page by page. He memorized these stories and would recite parts of them aloud occasionally such as, "My name is Nate. I am a preschooler at Lincoln."

Nate's mother went out to lunch with some parents from the Autism support group at Lincoln School, and later attended some of the support group meetings. She took advantage of the many supports Lincoln School had on campus for parents of children with disabilities.

Andrea made several changes to the classroom environment to support Nate's engagement such as social stories, a behavior count-down, and a taped square to identify his space at circle time. Nate's challenging behaviors decreased significantly by the third month of school as the teaching team consistently implemented these accommodations.

Nate had several friends in the class, including Ryder and Laila. Nate was often seen in the classroom playing with one of these two children. One day, when Nate and Ryder were poking each other during dismissal, Teacher Andrea reprimanded them and let both of them know that she would be calling their parents so they knew what happened. By the time, Nate got home, he immediately told his mother the whole story of how he "hurt his friend" and "his heart was hurt so I felt sad." This was one of the first times that Nate expressed his feelings to an adult and that he demonstrated empathy for a peer. The adults identified this as a big moment for Nate.

Systems-Level Supports for Inclusion

Evident through observations and interviews, systems-level supports aided the inclusion of children with disabilities within the public Montessori classroom. This category of supports was based on DEC/NAEYC (2009) definition, meaning systems-wide supports, usually indirectly helping the child with disabilities or promoting communication among stakeholders. Within the major category of systems-level supports (see Table 5) the strategies listed included professional development, teaming with professionals, working with families, philosophy of inclusion, specialized services, and enrollment. The system-level supports category focuses on strategies and examples that are not classroom-level, but district-level and cooperative-level policies and practices.

Table 5

Systems-Level Supports for Inclusion

Thematic Category and Examples	Inclusion Practices	Montessori-specific Practices
Professional Development Reflecting on Montessori training, scope and sequence Acting as models to new Montessori school Availability of building-specific professional development Having prior college coursework in special education	X	X
Teaming with other Professionals Teaming across age level classes Meeting with the Lincoln Intervention Team Communicating informally in hallway Serving as a “resource” for teachers (specialists) Sharing progress on goals, celebrating gains Reviewing IEP with teachers Recognizing role at IEP meeting Attending and participating in IEP meetings Watching specialists demonstrate services for carry-over	X	(none)
Working with Families Marketing school to families Offering a variety of school-home communication formats (newsletter, phone, text, email) Sharing photos of children (teachers)	X	X
Policies influencing Inclusion Building social times into school day Having sliding scale tuition for PreK	X	
Philosophy of Inclusion Having a mix of ability levels Using a strengths-based approach History of inclusion Having experience with children with disabilities Welcoming attitude from staff	X	X
Enrollment Enrolling children through school choice procedures	X	(none)

In Table 5, six systems-level supports were listed. Three of these supports are inclusion practices. Three of these supports are both inclusion and Montessori-specific practices.

Professional development. The district provided a variety of professional development opportunities. Offerings included district-wide workshops, building-specific days, and curriculum and technology coaches. Teacher Bonnie described some of the professional development that she has access to:

We have what is called My Learning Plan through the district and on it there are lots of professional development that we can go to that are posted. Like some are technology ones, some are, I am sure there are behavior ones. They do encourage us to go to them as well. I know in the past [teachers] have gone to some [professional education] conferences. You know, that were out of district.

The district paid for Montessori teacher training, a two summer academic program with an internship year, for those teachers at Lincoln School who were not already Montessori-credentialed. Montessori training was a support to inclusion unique to the Montessori approach. This training is a post baccalaureate training for in-service or pre-service teachers. The training presents all aspects of the curriculum for a certain age-group, in this case the early childhood training focuses on ages three through six. At the end of the training, teachers are tested on their knowledge of the Montessori materials, the philosophy, and child development. If they pass these tests and successfully complete a yearlong internship in a Montessori classroom, they receive a Montessori teaching credential for that age-group. All of the Lincoln School teachers attended an American Montessori Society affiliated teacher education program, although there are other types of Montessori teacher training programs available in the United States.

According to the teachers, Montessori training was a benefit in understanding and practicing the Montessori curriculum. Teacher Andrea explained the impact of Montessori training on her practice:

It would be Montessori training [that prepared me for working with children with disabilities] because it is so in depth and just learning how to present something different ways. Or, having a curriculum that you know you understand the scope and sequence so that you know if you couldn't teach numeration one way then you can have another way to do it. So, definitely, it would have to be the Montessori training and also having consultants come in, as well, as part of the training. That is really helpful. They give you ideas and you learn a lot more about psychology than I thought I would.

Teacher Bonnie, who had just attended the Montessori training recently, described her experience:

I was very excited to go to the [Montessori] training and to learn. I mean I had observed in the classrooms and I wanted to learn about how they actually teach because I saw it happen, but I was like how does it actually work? So, I was really excited to go, you know, it was a little overwhelming at times when I was there. But it was very good. I mean I really enjoyed it. I felt like I had a lot in my head after I left there and I am still trying to like process all of it and now get my hands on the materials back in my classroom. But, it was very good training and we had a very good class that worked together really well. I had very good instructors as well. I actually went with some of the other teachers from Reagan School so I did not know that beforehand. And actually I had several teachers, or several students or classmates, which were there that were in public Montessori as well. The instructors were really good about if we brought up situations like in a public school. They were very good about trying to help give us solutions on what we could try. There were six of us from this area. I did not know them before I went. But I got to know them really well, so it is good.

Unique to Bonnie's experience is that she went to Montessori training with a group of teachers from the district and formed a sort of cohort with the other teachers-in-training from the district. This provided Bonnie with additional incentives to collaborate and practice using the Montessori materials with other teachers in the district.

Some teachers also had significant coursework in special education which, they acknowledged during interviews, supported their work with students with disabilities. Other teachers cited the actual experience of working with children with disabilities in their own classrooms or in other settings as critical to their successful interactions with children with disabilities in their current work.

Teaming with other professionals. Teaming and collaborating with professionals was another support for inclusion that is recommended in the DEC/NAEYC position paper on inclusion (2009). A child with a disability often is supported by several professionals, not solely the classroom teacher. Therefore communication among these professionals to share strategies and progress is critical to the child's success in the classroom. Principal Maria described what informal teaming looks like within the school,

When [teachers] have a concern, they just go, we just go walk and talk [to] about everybody. We are just kind of in an immediate kind of here let's disseminate, this is what happened with Taliyah today. This is what happened with Angel today. You know, if there is anything of any significance, we don't put it in e-mail we just go walk down and say it.

Teacher Cassie described how she planned for her students with disabilities by working with the speech pathologist at Lincoln School,

This year it is mostly the speech teacher went over [IEPs] with me this year. At the beginning of the school year we sit down and we talk about it and just, you know, we read through the IEP together and my biggest focus is obviously is what are the adaptations that I am supposed to make for [the children with disabilities]. So, I take notes on those and make sure that those things are in place.

Teacher Bonnie spoke of her teaming process centered on a child with a hearing impairment, “One of [my students] does have hearing aids so I am actually talking to the hearing specialist and meeting with her sometime next week as well. I have her modifications, I have met with the speech teacher already.” This teaming process involved reaching out to both specialized staff on site, the speech pathologist, and a consulting staff person off-site, the hearing specialist. Both of these meetings addressed different goals and needs of the child with a hearing impairment in Bonnie’s class.

Another occasion for teaming is during the IEP meeting, where a variety of service providers are required to be “at the table” to discuss the needs of a particular student with disabilities. This meeting presents a natural time for teaming. Teacher Andrea shared who is in attendance at IEP meetings, “The principal, most of the time. She blocks them off on her schedule. The school psychologist, OT, and PT, speech therapist, everyone is invited. The school psychologist really only comes if she is doing an observation or testing.” The classroom teacher also plays a crucial role at IEP meetings, as Teacher Cassie described:

From what I remember my main role [at the IEP meeting] was to provide the voice of the classroom teacher and tell them what I observed and it was important for me to bring all the notes that I had and all his tests so they could see how he was doing on his testing. To provide the information that was needed.

Another environment that was set up precisely for teaming at Lincoln School was the Lincoln Intervention Team meetings, required by the district as part of the implementation of RTI. This team included a teacher at each class level, one early childhood teacher, one early elementary teacher, and so on, as well as the special education teacher, the principal and some specialists. The team gathered weekly and reviewed a child or two, who was moving through the RTI process. This intensive look at the child's data points from multiple assessments, including teacher observations, helped the team make decisions about the child's program and services within the school. Principal Maria, who served on this team, noted: "[Lincoln Intervention Team] is a big team and most schools have a much smaller team, but it tends to work for us because it improved communication vertically, the teaming across each age levels." So in this case, early childhood teachers are talking with middle school teachers about the same child, which promoted the teachers' understanding of a child's development, growth, and needs through the grades and across the lifespan.

Additionally, specialized support staff are available to provide support less frequently to students with disabilities. Teachers and administrators observe these support staff during their sessions so that carry-over into the classroom day can occur. Principal Maria elaborated:

[Related service professionals] usually report out or they will leave me something or I used to go watch because it is so fascinating, I want, because they are only delivering an hour of direct service, if they do something that is working I want to be able to take that and implement it every other day. So, I will watch and usually have a conversation with Shelley [OT] or whomever. She is usually our provider and say, you know, or she will say, look how Jonah can now make his letter. Or look how her grasp has changed or look now she can crawl through the tunnel and she couldn't before.

Working with families. Another support for inclusion was how staff at Lincoln School worked with families to support inclusion. As Lincoln School is a magnet school, parents within the district must apply to the school and are chosen based on a lottery system. Principal Maria explained why parents of children with learning differences choose to apply to Lincoln,

There are all kinds of reasons [parents choose our school]. One, they love the idea that of child choice. That really resonates. I think sometimes that is all parents hear. My child will get to direct his own learning. He won't have to sit in a desk or a chair all day.

There is freedom of movement. We seem to attract also a population of parents who know their child is learning different. They just don't know how their child is learning different at that age. They will say things like he has this habit or he only talks about this or he believes he is a cricket. Or, he thinks he is a superhero or he always has to have this hanger with him, or you know, they give you little windows to the child's soul. But they don't have a name for it. They don't say, he is on the spectrum. Occasionally they will because the parent's pediatricians are getting a little more savvy, but often times they just have a feeling he or she is going to be a non-traditional learner so they are attracted to this more open classroom kind of whole child learning.

Teacher Bonnie described several methods she uses to promote school-home communication and maintain relationships with her families:

I have sent newsletters home, given [families] my e-mail saying like if you have questions on anything, please do not hesitate to ask or call me, you know, at the school or after school hours or before school. You know, I have had a few parents stop in like when they are dropping their kid. Especially my pre-K kids like in the morning or in the afternoon. Like how are they doing? So, I will briefly talk with them then, but if I, you

know, I will say, if you want to have more like in depth conference. Let's have a conference or a phone call and I will definitely talk to you, but I have not had any of that happen yet. But definitely you know, I have told them like I am here for you, for your kids, I want the best for your students and for my students, for your child.

Even after difficult parent-teacher conferences when concerns about a child's development are brought up, families continue to feel supported and connected to the school, as Teacher Andrea explained:

Basically her parents were relieved that we brought up that we had noticed that things weren't right, quite right on track. They were just relieved that she was going to be getting some help. They said that they really struggle with communicating with her at home and you know, it is just there is something that is not clicking the way it is supposed to.

Policies influencing inclusion. Some policies at Lincoln School support the inclusion of children with disabilities. These factors are not unique to Montessori. For example, tuition is charged to children attending the preschool program at Lincoln School. However it is a sliding scale tuition, and low-income families pay only half or no tuition based on their eligibility for free or reduced lunch. Preschoolers with IEPs attend Lincoln School for free under IDEA. This eliminates any barrier of access to the program due to financial reasons.

Principal Maria described how she built a policy to promote socialization in the early morning, for all children in the school,

I always like some socialization built into a day, because the kids need to socialize and speak, but you have to teach them so socialize [in the hallway] appropriately. But if you don't do it then they are going to find a way to socialize at a time that you don't like. So,

I tried to build that in at the beginning of their morning, but I don't want the chaos or the running and with special needs students like a Zach or Trinity, often times they can't handle it if they are pretty far on the [autism] spectrum. That is a very difficult social setting for them. So, you try to keep all those in your head and keep working with all those at once.

Philosophy of inclusion. The school's philosophy on inclusion is a general systems-level support to inclusion. Teachers' and administrators' beliefs about inclusion influence how inclusion is implemented within the school. Principal Maria described how her philosophy of inclusion at Lincoln School:

I have a personal [philosophy on inclusion] that I hope just sort of permeates. And that is sort of a blind application a welcoming philosophy of children with all ability ranges because you never know where someone's talents and gifts lie. And, when I came here I have a severe profound student already enrolled in the school and what I saw was how that child's presence made every child and adult in the building a better person because of seeing that. Children were very grateful for their abilities based on seeing his disabilities. And, they were very inclusionary including him in games. Would entertain him when like his one on one assistant needed to go do something. They would follow up and do this like discrete trials basically with the kid that, you know, that he did normally and things like that. I just saw that is the real world and there are so many people in this town with emotional, physical, cognitive disabilities that they need to be included in the general population. So, they have to have the least restrictive, but it is, to me it is not so least restrictive it is most enriching. What would be most enriching for

this child? So, if he or she can stay in the classroom, you know, with minimum tantrumming or destructive tendencies then why not?

Teacher Bonnie described how the mix of ability levels adds to inclusion, “It is very nice that you can [have a mix of ability levels] and they don’t feel left out. You know they don’t, they are used to all the other kids with them. They do [their own thing].”

Enrollment. The enrollment process into Lincoln School is another systems-wide support for inclusion. As a magnet school, parents enroll their children through an application process. This fair and equitable process is completed through an unweighted lottery. Therefore, any parents who apply, given that they have a valid address in the district and an appropriate school-aged child, receive the same chance at getting into Lincoln School as any other family. Because there are other options for public preschool education in the district, parents may enroll their child elsewhere for preschool and then decide to switch for the child’s Kindergarten year. Teacher Andrea described this phenomenon, “Most of the kids, with significant disabilities they start out at Jefferson [district Pre-K center] and just stay there and they switch schools at Kindergarten to our school. We get them at Kindergarten.”

Overall the interview and classroom observation data illustrated that many of the systems-level supports for inclusion are consistent with the supports identified by DEC/NAEYC (2009), such as collaboration among stakeholders and implementation of therapies in a coordinated fashion. However some of the supports are Montessori-specific, such as Montessori teacher training and teaming across age levels.

Systems-Level Barriers to Inclusion

Inclusion was affected negatively by several systems-level factors. However only two barriers were related to the Montessori approach: (a) Montessori trainers not aware of special education and (b) Montessori not an approved program for state-funded PreK. These barriers were policies and practices that were implemented at a larger circle of influence than the school or the classroom. Most of these barriers occurred at the district, special education cooperative, or state level. As Table 6 displays, these barriers included professional development, working with families, enrollment, and policies.

Table 6

Systems-Level Barriers to Inclusion

Thematic Category and Examples	Inclusion Barriers	Montessori-specific Barriers
Professional Development Montessori trainers not aware of special education Limiting principal to giving 24 hours of PD to staff/year Exclusion from disability trainings	x	x
Working with Families Having no time for daily communication with all families (teachers)	x	(none)
Enrollment Waiting list No option of full-day PreK offered	x	(none)
Program Policies Montessori not an “approved” program for state public PreK	(none)	x

In Table 6, four systems-level barriers to inclusion were listed. Of these, two are inclusion barriers, one is a Montessori-specific barrier, and one is both.

Professional development. Professional development was noted as a barrier to inclusion by several of the teachers. Montessori teacher training typically does not directly address working with children with disabilities, which teachers felt was a limitation of the training.

Teacher Andrea described limitations to Montessori training on the topic of special education,

I would say [Montessori training programs should focus on] finding, finding someone qualified to discuss both [kids with and without disabilities]. I feel, I felt the biggest thing was that [the Montessori trainers] weren't aware of Special Education laws and policies and how things work and so, the information was extremely dated. In my training program, like they didn't understand that it's no longer, well like our city does it this way. It's statewide and there is a statewide plan of how things go. And, they didn't really understand that. So, I think just having someone that has any basic understanding of Special Ed. Yeah, like you can't just say, hey, I think this kid needs this. It just doesn't work that way anymore.

At times, teachers at Lincoln School were excluded from trainings on topics related to children with disabilities. Teacher Cassie talked about her interest in autism and how she was not permitted to attend professional development about special education,

I am really interested in learning more about autism. The Kindergarten boy that left me was not diagnosed with anything. I am not a doctor so I cannot diagnose him, but I did see some flapping behavior and sensorial needs that led me to become interested in autism. He is no longer in the classroom, but I imagine in the length of my career I will run into more children with sensory needs so I am interested in learning more about autism. It is really a mysterious thing that happens to children so I think it is really important that I stay current on that and that I keep learning the newest things about

autism, especially since I have read that preschool is the place to make big gains. I want to know the newest information about how to support them, since every day they are learning more about autism. Yeah, so I guess that is what I am interested in. There was a special ed conference this year that I wanted to go to, I got denied because I am not a special ed teacher. But again, this year I have had other professional development opportunities.

Additionally, the district limited the amount of professional development each principal could deliver to his or her staff. Principal Maria explained, “[If I had all the money in the world] I could continue to train people intensively and like I wasn’t limited to talking to them 24 hours in a school year. [Currently], I am limited to talking to them 24 hours in an entire school year. I can’t deliver tons of professional development in 24 hours with all of the other things we have to talk about.”

Working with families. A systems-level barrier to inclusion around working with families was the limited time to communicate daily with families. Teacher Andrea explained:

Not really [a lot of specialized plans for communication]. At the beginning of the year, we tried to make sure [parents] understand that we are a process-oriented school and so they don’t get a lot of, they won’t get lots of projects and things coming home. I always say, you know, if you have a specific concern e-mail me. But we don’t do anything as far as you had a red, green, yellow day [for behavior communication]. Nothing like that. I really try to discourage that just because I am so busy and I have so many kids. It’s a lot. It is too much time. So, I mean if they ask how the day is, that is fine, like I am okay with doing e-mailing or if there is any big problem, I usually e-mail but we don’t do anything daily.

Enrollment. Facets of enrolling at Lincoln School were systems-level barriers to inclusion. Because the number of families who were interested in enrolling their children at Lincoln School exceeded spaces available at the school, there were always some disappointed families during the lottery selection, as well as a growing waiting list. Additionally, no option of full-day preschool was offered at Lincoln School, only half-day, which was a barrier to some working families who could not pick up their child from school in the middle of the day.

Program policies. Finally, a state-level barrier was that Montessori was not an approved curriculum for public preK in this state. This meant that Lincoln School was not eligible to apply for the public preK grant funding from the state board of education. Principal Maria explained:

Currently in the state Montessori is not an approved preschool program. And, so, when we started talking public preK about four years ago and people [at the state level] that were working on it, they would do like a webinar or a telecast, you know, and I would ask the presenter that question. Could Montessori be a [curriculum]? Well they didn't ever know enough about Montessori to be able to say and they always just say, well you can apply and I would go through the grant that the district had for public preK at Jefferson and I would see them using Teaching Strategies Gold. And we did that, we implemented using that as an assessment tool, but Montessori as you know has all these things that are little tiny pieces, and people that with the best intentions that are involved in early childhood education know very little about early childhood education when setting up an environment. So, they will make mandatory, like so many stuffed animals in the classroom. And I am like, in my mind I am thinking what the hell?! What do stuffed animals add to a preschooler's education? To me they are lice carriers and germ

carriers. I really don't want a bunch of stuffed animals in a preschool classroom. But there are also things like you have got to have six kinds of blocks, the blocks have to be out at all times. You can't rotate the blocks. You know, and Montessori have very specific didactic materials that were developed to spark their interest, to keep them motivated and refine their fine and large motor movements and to lead to cognition of math concepts. It is not just, here are some wooden sticks to play with. These are sticks that represent the numbers one to ten. You know, so, it is so much more than that. So, sometimes because that whomever is turning those wheels don't have their act together enough to make it worth my while to have that conversation. So, until like a [leader of public Montessori advocacy group] or somebody who really understands Montessori and public preK, then we could sit at a table.

Overall, the systems-level barriers were not Montessori-specific, rather these barriers were overarching policies and practices that impact the classrooms of Lincoln School and their ability to implement high-quality inclusion.

Special Education Policy Supports for Inclusion

Evident through observations and interviews, several special education policy and practices supported the inclusion of children with disabilities within the public Montessori classroom. This section addresses the extent to which required special education policies and practices support or detract from the use of a Montessori approach in an inclusive setting.

Within the major category of systems-level supports (see Table 7) the strategies listed included working with families and specialized services. The special education policy category focuses on strategies and examples that are not classroom-level or school-level, but district-level and cooperative-level policies and practices.

These systems-level supports, based on the category of support from DEC/NAEYC (2009), are often out of the control of the teachers and even the local level administrators, such as principals. These decisions, policies, and practices most often are implemented by special education administrators within the cooperative, and district level administrators. Some of these policies and practices are written, but more often these policies and practices are unwritten and just “how things are done” within the district. The teachers and administrators were very honest and forthcoming in reporting both special education policy supports as well as barriers to inclusion during interviews.

Table 7

Special Education Policy Factors that Help Inclusion

Thematic Category and Examples	Inclusion Practices	Montessori-specific Practices
Working with Families Inviting families to IEP meetings Scheduling IEP meetings around family’s schedule Providing autism support group	x	(none)
Specialized Services Availability of support staff Using a range of professionals, available to children and to teachers	x	(none)

In Table 7, two special education policies are listed that help inclusion. Both of these policies are categorized as inclusion practices and none as Montessori-specific practices.

Working with families. IEP meetings are an important way that Lincoln School staff and administrators connect with and support families of children with disabilities. Principal Maria explained how she participates with families in IEP meetings,

[I] love IEP meetings. I don't understand why so many principals don't attend them. It is your golden opportunity to connect with the parent of a special needs student and let them know you understand, you love their child any way, unconditionally. You are not judging them as a family and you are on their team and you are giving them all this extra support so their child can be successful. Why would you not go to those meetings?

IEP meetings at Lincoln School are designed to be family-friendly. Teachers reach out to families to invite them personally to the meetings, rather than only have a formal school letter sent home. They schedule IEP meetings around the family's schedule, to be sure that the family can attend and participate. And the principal at Lincoln School often holds what she calls "pre-conference" and "post-conference" meetings, talking with families before the IEP meetings to prepare parents for what will happen, and after the IEP meeting to ensure that parents understood what was said.

Support groups, such as the autism support group, meet at Lincoln School regularly. These groups offer another way for parents of children with disabilities to connect to the school and learn more about advocacy and their child's disability.

Specialized services. Lincoln School has a variety of support staff in the building, which is typical of most public schools, as they are mandated to serve children with disabilities. This range of professionals, from speech and language pathologists to social workers, are available for direct service to children and indirect support for teachers who would like consultation about how to best serve a particular child. Teacher Bonnie described the specialized services available:

I think we are fairly close to my ideal [of inclusion] here. I have worked in both private and public Montessori schools now and in the private environment you don't have the same support staff that you have in a public school. Like we have a speech teacher and

we have, I am forgetting their exact titles, but we have a specific person that deals with teaching emotional, for emotional needs. And we have, you know, just special ed and we also follow the state as far as, you know, giving special ed services. So, there is a lot more support here.

Special education policies, such as family-friendly IEP meetings, support groups, and the availability of support staff, support both inclusion and the implementation of the Montessori approach at Lincoln School.

Special Education Policy Barriers to Inclusion

In this school district, a special education cooperative provides all the mandated special education services across a multi-county area. The cooperative is both connected to and separate from the school district. For example, the cooperative maintains all the documents for children with disabilities within this district. The cooperative is responsible for identifying and screening all children with possible disabilities and providing any needed special education services, wherever that child attends school within the district.

Interviews clearly indicated that these special education policies are often are out of the control of the teachers and even the local level administrators, such as principals. These decisions, policies, and practices are most often implemented by special education administrators within the cooperative, and district level administrators. Some of these policies and practices are written, but more often these policies and practices are unwritten and just “how things are done” within the district. The teachers and administrators were very honest and forthcoming in reporting both supports as well as barriers to inclusion.

Table 8

Special Education Policy Factors that Hinder Inclusion

Thematic Category and Examples	Inclusion Barriers	Montessori-specific Barriers
Referral and Evaluation Policies Downgrading IEP at age 5 Number of referrals from the school is limited by the cooperative Evaluations address only area of concern, rather than global evaluations	x	(none)
Placement Policies Placement determined by child’s disability	x	(none)
Lack of Collaboration Teachers do not have access to complete evaluations	x	(none)
Funding Policies Having limited funds for PT/OT, child must be more severe to get those services Difficult to get a one-on-one aide	x	(none)
Program Policies Transportation (busing) issues	x	(none)

Special education policies influencing inclusion contained many barriers, however, none of these barriers were related to the Montessori approach. These barriers were policies and practices that were implemented at a larger circle of influence than the school or the classroom. Most of these barriers occurred at the district or special education cooperative level. As Table 8 displays, these barriers included referral and evaluation policies, placement policies, collaboration, funding policies, and program policies.

Referral and evaluation policies. Special Education policies described by staff are restrictive in this district, and limit the number of evaluations by school, as Teacher Andrea explained:

I think that [the special education co-op] are just covering up what really is going on and what really is going on is that we have more referrals than any other school because we

understand the RTI process. And, we deliver it with fidelity and the SEA [special education administrator], I mean she will flat out say, you had too many referrals this year. I am not referring anyone else. Like even if you have all the documentation. And that happened to me two years ago, I had a Kindergartener repeating and in her Kindergarten year I had done the entire, I had done the entire Tier 2, Tier 3. You know I had all the data and she just simply said, you know, keep what you are doing. I will hold this until next year. I am not referring anyone else. Because she knew that she was going to repeat [kindergarten], but it was like basically. “I am going to give you four people and she can have one of my four spots next year.”

These restrictive special education policies impact the children at Lincoln School and the teachers. Children, going through the referral process, experienced delays of up to a year in receiving a special education evaluation due to these policies, according to teacher interviews.

Additionally, several teachers expressed concern about the comprehensiveness of the special education evaluations provided to children. Specifically, teachers explained that the special education cooperative would rarely do a comprehensive multi-disciplinary evaluation for a student; rather they would only test one area of concern, for example articulation. If there was a secondary area of concern, the child would need to repeat the entire RTI and evaluation process again from the beginning.

Special education placement issues were often tied to the programs, such as the Pre-K center called Jefferson School, which the district operated. When parents questioned the traditional placement of a preschooler with a disability at Jefferson and asked for an alternative like Lincoln School, their special education services were “downgraded” as described by the special education teacher, Rebekah:

What [the district] likes to tell, likes to say is that, if they come to our preschool program they have the option of staying at Jefferson School [public pre-K center] and getting all their services in cognitive and social and blah blah blah. But if they choose to come to Montessori, then all that gets dropped and they only get Speech. So, they are saying that they are not denying them of that [services] because they have an opportunity to go to Jefferson School. But if you would like to go to Montessori, then you don't get to benefit from those services. That's the feeling here, or not the feeling... that is the case.

Similarly, when children transitioned from the Pre-K program at Jefferson School to Kindergarten at Lincoln School, special education services were downgraded as Rebekah described:

With Kindergarten, it is like a mass exodus when they leave Jefferson School. Okay well we have got to, you know, drop them down to a Speech-only [IEP]. And, we have to have a meeting. The transition meeting is to drop them. To drop services.

Placement policies. One policy barrier included the school placement decisions based on the child's disability and their support needs. Teacher Cassie described the reasoning behind Trinity's eventual exclusion from Lincoln School and placement at Jefferson School:

Because of the funding in the district, Trinity needed to go to Jefferson School where they had the extra assistants hired there already and just ready to go with her because it was not in the budget for our building unfortunately. That makes me really sad because I think that there were a million terrific things that we could do with her here.

In this example, funding was not available for Lincoln School to hire a one-on-one aide for Trinity to meet her support needs. So she was moved to a school in the district that did have a one-on-one aide already in the classroom.

Lack of collaboration. Teacher Andrea reported that many times she does not even have access to the special education evaluations of her students,

I have noticed too even like certain things they will ask you for records, like [students'] blue folders [which contain evaluations, IEPs, and referrals] and I don't think they are housed here [at Lincoln School], they are housed somewhere else. We don't have access to those. I think the complete workup is all in there. And that makes it hard especially when the ultimate responsibility falls on the teacher and you don't even know what the stuff is.

Funding policies. Another systems-level barrier to inclusion was having limited specialized services; especially limited were occupational and physical therapy. Principal Maria explained,

I would describe it as funds for PT/OT are slim. There are only one or two full-time [therapists] in the entire district of 9,000 students. I think if I look back over my teaching career the criteria for being eligible for OT/PT has changed dramatically. So, back in the late 70s when I taught, I had a child who received OT for something as simple as his pencil grabbing. And, now if you can basically walk or sit in a chair you are not really going to qualify. You have to be much more severe. So, there are many more children you will see on their IEPs are on consult, not direct services. They have to be very very disabled in order to receive direct services.

Program policies. Another major policy barrier for children with disabilities, especially those with physical disabilities, at Lincoln School was transportation or busing. Principal Maria described the bussing issues that were particular to Trinity, a four year old with multiple disabilities:

[The bus company] stopped picking [Trinity] up almost capriciously door to door. So then we would contact the bus company daily. ‘Are you picking up Trinity? Will she be transported?’ Right, and she had never had an aide on the bus which would have been helpful [for her physical support needs] and also didn’t have the booster seat. So, I contacted as you know, the head of the Special Ed co-op and she circled on her IEP that she qualified for direct transportation both ways and a booster seat and, you know, should be restrained, not just in a regular bus seat. So, I heard from the Director of Transportation that she would no longer be coming here because it sounded like her needs were more than Lincoln could provide.

The number of special education policy barriers was extensive and many barriers were incongruent with special education recommended practices. Many of these policies, including the limits on evaluations, transportation, and specialized services, ultimately had to do with funding within the district and cooperative. These policies significantly impacted children at Lincoln School and other children within the district.

As an illustration of some system-level and special education policy barriers, the story of Trinity describes the journey of a child with severe disabilities as her family enrolled her at Lincoln School and the factors that led to her eventual exclusion.

The Story of Trinity: A Four Year Old with Severe Disabilities

Trinity was a four year old preschool student at Lincoln School. She was born with cerebral palsy, a physical disability affecting motor coordination and some communication. Trinity received early intervention therapy at home until she was three years old. Then she moved into a self-contained special education preschool classroom in the district. Because her brother attended Lincoln, Trinity’s parents decided to enroll her at Lincoln when she turned four.

She continued the variety of support therapies at Lincoln including speech therapy, special transportation (busing), occupational therapy, and physical therapy. She was enrolled and welcomed into Cassie's multi-age classroom. Through observations, she struggled to move around independently in the class. Trinity often stumbled and her legs would buckle under her. She often held on to shelves, tables, or peers for support in walking. Later, the school staff learned that Trinity was issued braces for her lower legs, which her parents intermittently sent with her to school; more often the braces were forgotten at home. Teacher Cassie, working with the Principal and the Physical Therapist, brainstormed a plan for Trinity's success. Their creative thinking included buying orthopedic shoes to support her feet and finding funds to buy a second set of leg braces to keep at school. Throughout these challenging first months at school, Trinity was exploring the Montessori materials, working and playing with peers, and receiving needed therapies.

Trinity's school journey was first thwarted when the school bus failed to stop at her house to pick her up for school. Without bus transportation, Trinity could not get to school. Principal Maria got involved with the bus company, and the bus executives explained that with only a speech IEP, she did not qualify for special education bussing services. The Principal explained to the bus company that her IEP was indeed comprehensive. So the bus service started picking Trinity up again. Then the bus company refused to provide the staff to help Trinity on and off the bus. She needed an adult to hold her hand as she navigated the big steps to climb into and out of the bus. The Principal again, through discussions with the bus company and the special education cooperative, was able to get her physical support for the bus reinstated.

During Trinity's annual IEP meeting, the Special Education cooperative staff, upon learning that she was not toilet trained, encouraged a bathroom interval twice an hour where she

was supported by an adult to use the toilet. When the school staff explained that they would need one-on-one staff support for that procedure, the special education cooperative demanded a placement in the district self-contained classroom, where she was enrolled when she was three, because they had a one-on-one aide available there. Overnight, Trinity's placement changed and she was excluded from the Montessori school based on a policy action from an administrator. It was not clear if her parents were in agreement with this change. The Montessori teacher and principal were willing and able to put many of the supports in place, but because they were denied access to the staff support person that Trinity needed to be successful, she was placed in another more restrictive program.

Now Trinity attends a self-contained preschool special education classroom with a one-on-one aide. Cassie, her old teacher, and Maria, the principal hope that she is able to make enough progress so as not to need a one-on-one aide and return to Lincoln for her Kindergarten year. Cassie and Maria continue to keep in touch with the family and siblings to see how Trinity is faring.

Summary of Interview and Observation Findings

Montessori implementation was evidenced in supporting inclusion as noted by the use of multi-age classrooms and peer supports. In addition special education recommended practices, such as teaming and accommodations and modifications, consistent with the DEC/NAEYC position statement on inclusion (2009), were evident. These address the categories of access, participation, and supports. Barriers identified tended to be systems-level and related to restrictive policies and the lack of specialized services for children with disabilities. These barriers were related to the district and cooperative policies rather than to Montessori implementation.

Inclusive Classroom Profile Findings

Findings from the ICP address the extent to which indicators developed to describe and evaluate inclusive practices used in typical early childhood settings capture the quality of inclusive practices in Montessori schools and classrooms. The ICP measures the quality of inclusion in preschool classrooms based on direct observations and interviews with classroom teachers. Results of the ICP across the three classrooms are shown in Table 9.

Table 9

Results of Inclusive Classroom Profile (ICP) Across Classrooms

ICP Items	Class A	Class B	Class C	Average
1. Adaptations of space and materials / equipment	6	6	7	6.3
2. Adult involvement in peer interaction	2	2	2	2
3. Adults' guidance of children's play	4	4	4	4
4. Conflict resolution	NA	NA	NA	NA
5. Membership	6	4	6	5.3
6. Relationships between adults and children	4	4	7	5
7. Support for communication	4	4	5	4.3
8. Adaptations of group activities	4	4	5	4.3
9. Transitions between activities	2	2	2	2
10. Feedback	4	3	7	4.6
11. Family-professional partnerships	1	1	1	1
12. Monitoring children's learning	3	3	3	3
TOTAL AVERAGE SCORE	3.6	3.4	4.5	3.8

Note: Each item is rated on a 1 (inadequate) to 7 (excellent) point Likert-type scale and can receive a score of 1 to 7. NA = not applicable.

Each of the 12 ICP items are rated on a 1 (inadequate) to 7 (excellent) point Likert-type scale. Two classes, A and B, had a composite score around 3 considered a "minimal level of inclusion" and one class, C, had a composite score considered a "good level of inclusion." All classrooms' composite scores together averaged to 3.8, or between a "minimal level of inclusion" and a "good level of inclusion." Scores three through five are considered the average range. The

scores for the three classrooms were significantly pulled down by several specific items which are discussed below.

At the individual item level, there was quite a great deal of variation in the ICP scores across the three classrooms. High scores were given to three items, including adaptations of space and materials / equipment, membership, and relationships between adults and children, on average across classrooms. These items were rated above a five, considered a "good" to "excellent" level of inclusion, consistent with strengths seen during classroom observations and teachers' interviews.

Most items, including adults' guidance of children's play, support for communication, adaptation of group activities, feedback, and monitoring children's learning were rated three or four, considered "minimal" or just below "good" level of inclusion. These average scores were consistent with inclusion practices seen during classroom observations.

Low scores were noted on three additional items, including adult involvement in peer interactions, transition between activities, and family-professional partnerships. These items were rated one or two, considered "inadequate" or just below "minimal" levels of inclusion. Adult involvement in peer interactions was scored a two. The Montessori teachers were generally seen taking the role of observer or guide in the classroom, during both ICP administration and classroom observations. In this role and given the Montessori emphasis on developing the child's independence, the Montessori teachers rarely interrupted a child's play or activity. Children who had difficulty engaging with peers were not observed during the ICP administration. Therefore, adults in the classroom were not observed encouraging social interactions among children, because it was not needed within the groups of children in these Montessori classrooms. One inclusion strategy that was consistently observed in the Montessori

classrooms was peer supports for social interaction and for working with materials. However, none of the items on the ICP address this kind of peer interaction, whereas in Montessori, peers are a primary source of teaching and support.

Transition between activities and family-professional partnerships were rated low due to ICP scoring rules. Transition between activities as an item was scored a two for all classrooms for the same reason; none of the classes had a picture schedule at child's eye level posted for the entire class. Because of this one missing transition support, the highest the classes could score was a two, even though many indicators at higher levels were scored 'yes' such as 'adults support individual children who have difficulty' and 'adults share responsibilities and flexibly adjust their roles.' As evidence, a child with disabilities in one of the early childhood classes used an individual picture schedule for support in individual transitions from activity to activity. However, because this essential inclusion support was a higher level indicator within transitions, these classrooms could not begin to score at this level.

Family-professional partnerships, similarly, was scored at the lowest level due to scoring rules. Because Lincoln School had no written policy on inclusion, each classroom was scored as an 'automatic one.' Again, higher level indicators were observed during the ICP administration, yet each class could only score at best a one. This low ICP score was quite different from what was observed and the strong partnerships with families that teacher described. Thus, low scoring items were scored low similarly to what would occur in other types of programs, rather than because the classrooms were using a Montessori approach. One item, conflict resolution, was rated N/A, as no conflicts were observed during the three ICP administration time frames.

The next and final chapter includes an interpretation of the results and provides connections to the literature. Limitations to the study and avenues for future research and

practice also are included.

CHAPTER 5

DISCUSSION AND CONCLUSION

Introduction

The purpose of this case study was to understand how one public Montessori program implemented the inclusion of young children with disabilities in their early childhood classrooms, in order to explore in depth the extent to which a Montessori approach is compatible with recommended practices and policy in early childhood inclusion. Findings from this study revealed that children with disabilities at Lincoln School were included successfully. This particular Montessori school put into practice many strategies recommended by the DEC/NAEYC position paper on inclusion (2009). Additionally the Montessori context provided several unique and effective strategies for inclusion that went beyond recommended practices, including multi-age classrooms and peer supports. Unfortunately restrictive systems-level special education policies, unrelated to the Montessori approach, significantly limited some possibilities for inclusion within Lincoln school and resulted in the exclusion of one child, Trinity, with significant disabilities.

Following is a discussion of the major findings and conclusions drawn from this research study. These findings are interpreted in the context of Maria Montessori's writings, the DEC/NAEYC (2009) Policy Paper on Inclusion, and current research about inclusion. This discussion is followed by the research limitations, recommendations for practice, and recommendations for future research.

Montessori, a Successful Program for Inclusion

The Montessori classrooms at Lincoln School provided an enriching opportunity for children with disabilities. Most of the time, the teachers and staff used strategies that were consistent with those described in DEC/NAEYC (2009), including minor accommodations and supports, teaming with other professionals, and universal design for learning. This conclusion supports Epstein's (1997; 1998) studies, in which she found that Montessori teacher made slight changes to lessons rather than sweeping ones, and these changes were effective in meeting the needs of children with disabilities within their classrooms. Accommodations and modifications were evident in classroom observations and teacher interviews conducted at Lincoln School. Although accommodations are not innate to the Montessori approach, many Montessori materials lend themselves to minor modifications such as simplifying the activity or removing some pieces to enable students to be successful and build their confidence and competence. The scope and sequence of the Montessori curriculum offers teachers flexibility in lessons (Cossentino, 2010). Consistent with other studies, interviews with Montessori early childhood teachers at Lincoln School revealed that they are committed to serving young children with special needs (Danner & Fowler, 2014; Epstein, 1996).

Unique Montessori Strategies for Inclusion

From this study, interviews and classroom observations revealed several unique strategies not found in either the Inclusive Classroom Profile (Soukakou, 2010) or the DEC/NAEYC position paper on inclusion (2009). This is the first empirical study to identify strategies that are fundamental to the Montessori methods that also support the inclusion of children with disabilities. These strategies included multi-age multi-ability classrooms and peer supports.

The multi-age multi-ability classroom. Three-year span (3-6 year old) multi-age classrooms are a Montessori-specific practice lent itself well to supporting children with disabilities. The Montessori multi-age classroom is similar to a family structure, whereby there are ‘older siblings’ and ‘younger siblings’ and perhaps ‘aunts’ or ‘uncles’ who can serve as models, leaders, supervisors, and caretakers for one another. Everyone has a role in the classroom and experiences each role through the three years that they are members of that classroom community. The three years provides each teacher with extended time to understand each child and his or her strengths and needs. This three-year window also provides the children with multiple years to explore and grasp the curriculum at their own pace.

In addition, because there are children of all ages and abilities in Montessori classrooms, individualization is the norm rather than the exception. Special Education Teacher Rebekah elaborated, “I was thinking when I do [push-in] into the classroom it is going to be so easy to have a small group of my students working on something at their level and it to be completely normal.” The classroom teachers were consistently observed selecting and planning for individual needs by guiding children toward Montessori materials on their level.

Also unique to Montessori is the way in which the Montessori teachers work with varied groups of students and seldom lead whole group lessons, due to the varying ages, needs and interests of the students. Instead the Montessori teachers primarily presented the Montessori materials to individual students and lessons were conducted in a one-on-one format. During these “lessons,” the Montessori teacher sat with the child on the floor or at a table and presented one Montessori material to the child. Then the Montessori teacher demonstrated how to use the material, going through the activity from start to finish, with limited, yet very purposeful, words. At the completion of the lesson, the teacher put away the material, and invited the child to do the

material independently. Oftentimes the child would then select that particular materials, bring it to a table or mat, and repeat the activity until he or she was satisfied. When a group of children were on the same level or demonstrated a similar interest in the same activity or material, the teachers occasionally implemented small group lessons. This idea of differentiated lessons is both a hallmark of Montessori education and a commonly used practice in special education (Buysse, Skinner, & Grant, 2001; Cossentino, 2010; Hurley & Horn, 2010).

Because of these individualized lessons and the diverse needs of learners in typical Montessori classrooms, each child essentially was following his or her own curriculum. As evidenced in the observations at Lincoln School, young children were engaged in the various activities in the classrooms. Most children chose to work independently at tables or on the floor with the Montessori materials. Because of the independence afforded to children and options for child choice that are built into multi-age Montessori classrooms, the classrooms at Lincoln School operated with a hum of activity, and Montessori teachers were free to conduct individualized lessons or observe children. In one observation, children were pursuing eight different activities at the same time including an word-picture matching, initial sounds activity, play dough, painting with watercolors, creating a continent map, reading a short phonetic reader, and sweeping objects from the floor.

Peer supports. Peer supports are a natural part of Montessori multi-age classrooms. Montessori early childhood classrooms traditionally have children ages three through six in attendance. Maria Montessori described this age group as being in the sensitive period for the absorbent mind. In this stage of development, children are learning in a very sensorial way, manipulating and exploring materials with all of their senses. Since children ages three through six are learning in a similar way, Maria Montessori intended that they should learn together for

there was no scientific rationale for single-age grouping (Montessori, 1966). Therefore in Montessori classrooms, preschoolers learn alongside kindergarteners.

Multi-age classrooms thus provides natural peer supports. At Lincoln School, more experienced peers were often seen helping less experienced peers. This peer support occurs from older peer to younger peer, but also from a child who is more advanced in the curriculum to a child who is struggling, regardless of age. Both teacher interviews and classroom observation revealed that peer supports are an important component when implementing quality inclusion. For example, during an observation in Classroom A, a new three year old was introduced to the class. Later an older four year old watched her struggling to open applesauce at the snack table. The older girl helped the younger to open the applesauce and put a spoon in it so it was ready for the younger child to eat. The older peer then joined this new student at the snack table and began a conversation. This example of welcoming or in Montessori-language, grace and courtesy, is a crucial teaching in Montessori classrooms (Wolfe, 2002). This welcoming behavior is also supported by research in special education literature on friendships (Barton & Smith, 2015; Strain, 1996).

Montessori teachers are careful to model the ways in which peers can support each other, an important practice for inclusion. Multi-age peer support, however, is not included in the items on the Inclusive Classroom Profile. Perhaps this is due to the fact that the ICP was not field tested in multi-age classrooms (Soukakou, Winton, West, Sideris, & Rucker, 2014). However, in evaluating the quality of inclusion in Montessori classrooms, focusing on peer supports as one way to facilitate inclusion is critical, and may be an important consideration in the more general discussion of inclusion across all types of classrooms.

A final observation was that the classroom lessons also did not always come from the teacher, instead occasionally coming from an older or more experienced peer in the classroom showing a newer child how to use a material. These peer-to-peer lessons were often some of the most engaging classroom experiences for both the younger child and the older ‘peer teacher.’ Children gave lessons to each other on topics from tying shoes to sounding out phonetic words. Although peer supports are discussed in the literature on early childhood inclusion (Odom et al, 2005; Odom, Buysse, & Soukakou, 2011), multi-age peer supports is not described.

Restrictive Systems-level Policies Can Prevent Successful Inclusion

In this district, systems-level policies were a major barrier to inclusion. This was a surprising finding, because one would think that the mere presence of IDEA regulations would help to guide systems-level policies so that students with disabilities get the supports they need to succeed in least restrictive environments. Unfortunately, this was not the case for Lincoln School. The school district and its special education cooperative limited the number of special education evaluations, placed students with disabilities in self-contained classrooms or disability-specific classrooms (i.e. autism class) based on a child’s diagnosis, and limited funding for paraprofessionals. In each of these instances, the overarching policies thwarted the positive efforts that the Montessori teachers and administrators made towards including children with disabilities within their classrooms.

One major unspoken policy that is a barrier to inclusion in this district is the limited number of evaluations conducted by the special education cooperative. When children who needed special education services and struggled with learning in the classroom were denied a special education evaluation, they were effectively denied special education services which would likely follow the evaluation. Given this ‘policy,’ children at Lincoln School with possible

disabilities were not being identified. These children were not receiving the supports necessary to their success in the classroom. This directly impacted not only those particular children, but also indirectly impacted the Montessori teachers who struggled to meet the children's needs without special supports or instruction.

In addition, another major barrier to inclusion is the unspoken policy of waiting with some children until kindergarten to complete an evaluation. Delaying special education evaluations effectively delays possible special education services. However, in this case, preschoolers who have the potential to make great gains in their development with special education services, are instead waiting one or two years for services. This critical time period of growth from potential interventions during the preschool years is missed.

Additionally, a high percentage of students (41%) at Lincoln School live in poverty. In Peterson et al. (2013), of 1,421 preschoolers living in poverty, 62% were identified as having at least one indicator of a disability or delay. However, among these children, only 18.6% received special education services under IDEA Part B. Similar to this study, many preschoolers at Lincoln School with potential disabilities were not being assessed for special education supports for which they may have been entitled.

From a legal standpoint, IDEA (2004) mandates that school districts and other agencies both identify and serve children with disabilities in their surrounding communities. Some of the special education policies, including limiting of the number of evaluations, limiting multi-disciplinary evaluations, and placing children in schools or programs based on their disability are restrictive and potentially illegal. These policies, both spoken and unspoken, impact and control what happens in the classrooms. It is important to note that the policies described are not Montessori policies, but rather were overarching district and cooperative-level policies over

which the principal and teacher had no control. These exclusionary systems-level policies can inhibit teachers' and school leaders' positive efforts towards inclusion. Therefore, special education policies do affect the Montessori context, especially exclusionary policies which work in contrast to the Montessori philosophy of building community and individualizing curriculum.

Limitations of the Study

This case study's generalizability is limited by several factors. Time in the field was limited to three months. Extended time in the field may have resulted in a more comprehensive understanding of the school and how they practice inclusion. The perspective of the district or special education cooperative might have provided another viewpoint on the restrictive special education policies described by the Montessori teachers. District policies or practices also were limitations that might not be evident in other school districts.

Because of the nature of case study research, generalizations to other schools are limited by the state context, including teacher certification requirements, state pre-kindergarten policies, locally administered special education policies, and the magnet status of this school. Finally, this case study was primarily an exploratory qualitative study. Therefore, no causal inferences can be derived from the findings. Additional research in multiple Montessori schools is needed.

This study was the first to use the Inclusive Classroom Profile (Soukakou, 2010) in a Montessori context. The ICP was tested in preschool classrooms in the United Kingdom and the United States, none of which used the Montessori approach or were multi-age (Soukakou, 2012; Soukakou, Winton, & West, 2012). Fortunately, within this study, the majority of ICP items were congruent with the Montessori approach. However, the scoring rules for several items including transitions and family-school partnerships, forced all of the Montessori classrooms to be scored lower than expected in these areas in comparison to classroom observations and

interviews which portrayed a transitions and family-school partnerships in a much more positive light. Additionally, peer supports were missing from the the ICP, when considering the Montessori context. Peer supports were evident in all three observations as supportive to children with disabilities, yet had no marker within the ICP. Thus the ICP did not provide a completely accurate picture of inclusive practices in these Montessori classrooms.

Recommendations for Future Research and Practice

Recommendations for Montessori research and practice. Three recommendations for Montessori practice are discussed including the need for: (a) research on the active ingredients in a Montessori program that may lead to inclusion, (b) professional development for Montessori teachers, (c) a Montessori position paper focusing on inclusion, and (d) increasing public awareness of Montessori programs as possible inclusive settings.

Further examining the active ingredients of Montessori education for students with disabilities, such as peer supports, the extended work cycle, and multi-age classrooms, would be important to help and continue to identify evidence-based strategies for teachers to use. Focusing on those Montessori schools as sites for research that have high fidelity of Montessori implementation, supportive systems-level policies, and access to special education and related services would be critical in gaining a better understanding of Montessori inclusion active ingredients.

Systems-levels supports, such as professional development, are necessary to promote high-quality preschool inclusion (Odom, Buysse, & Soukakou, 2011). Professional development is needed for Montessori teachers and administrators on topics of special education and meeting the needs of children with disabilities within Montessori schools. This professional development could be delivered during pre-service training or within the Montessori teacher training

programs, or during in-service training with teachers who currently are teaching in Montessori environments. In a pre-service format, this special education content could be integrated into child development or classroom management courses within Montessori training. Montessori teachers in this study noted the importance of Montessori trainers having current knowledge about special education laws and practice. It also would be important for prospective Montessori teachers to understand the underpinnings of Montessori education, and how the method began with children with disabilities. The connections between Montessori education and special education are strong, and many Montessori teachers, parents, and administrators are not aware of this history. In an in-service format, professional development could occur in a multi-day training focused on Montessori inclusion as a specialty credential for Montessori teachers. A linked series of trainings promotes more change in teachers' perceived inclusion competence than a single-day training (Baker-Ericzen, Mueggenborg, & Shea, 2009). Such special education professional development is especially important for teachers working in Montessori public schools, as they are required to serve students with disabilities under the IDEA.

Additionally, the largest Montessori professional membership organization, the American Montessori Society (AMS), does not have a policy paper or white paper on inclusion in Montessori schools. However AMS does have position and white papers on other topics such as 'Montessori and state-funded pre-k' and 'holistic peace education.' Similar to the DEC/NAEYC position paper on inclusion (2009) but incorporating Montessori-specific terminology and practices, a Montessori paper on inclusion would provide guidance to Montessori schools on how to best implement policies and practices to support children with disabilities within their unique environments. This inclusion position paper also may provide a springboard for

informing other early childhood organizations of the benefits that Montessori practices can provide to support individualization and inclusion.

The wider education community needs to gain an awareness of Montessori programs in their community, both public and private, as possible least restrictive environments for children with disabilities. Public perceptions of Montessori are not always accurate. For example in a survey about Montessori awareness (Murray, 2008), only 20% of respondents were aware that Montessori education was available in public schools. According to Murray's respondents, Montessori education was viewed as less effective in meeting the needs of children with special needs, when compared with encouraging typically-developing children's creative thinking or intellectual abilities. By community members identifying Montessori as an option for children with disabilities, more children may experience inclusion in Montessori classrooms.

Recommendations for inclusion research and practice. Two recommendations for inclusive practice are discussed, (a) expanding the understanding of access, participation, and supports, and (b) re-examining the ICP from the Montessori context.

The DEC/NAEYC position paper on inclusion (2009) was used as the conceptual framework for this study. When breaking down the position paper into the major themes of access, participation, and supports and further breaking it down into minor definitions, for the use of thematic coding of the interviews, classification became unclear. Several categories had overlap, leading to confusion on definitions and categories. An expanded understanding of the components of access, participation, and supports would be helpful for practitioners who are implementing inclusive programs and researchers studying inclusion.

This study was the first to use of the Inclusive Classroom Profile in a Montessori context. In order for the ICP to be used in a reliable and accurate way in Montessori classrooms, the ICP

should be field tested in Montessori and other multi-age classrooms to determine if modifications to the ICP are warranted.

Conclusion

Public Montessori can be an ideal environment for children with disabilities when supports are in place for inclusion. This study adds to the literature base by highlighting the practices and policies in a Montessori program, through observations, interviews, and the administration of the ICP, that support or detract from high-quality inclusion of children with disabilities.

Maria Montessori began her work in the 1890s with children with severe disabilities. Today Montessori schools can and do serve diverse groups of children, including children with a range of disabilities (Kahn, 2009). Through this study, we have learned that it is possible for public Montessori schools, teachers, and administrators to support children with disabilities. As Thompson et al. (1996) noted in the final report for a grant funded project on inclusion within a Montessori school, the Montessori approach was “an attractive model for the inclusion of young children with significant disabilities” (p. 9). Moving forward, as the number of public Montessori schools grow, we hope that they are increasingly sought out as suitable, and even innovative, placements for children with disabilities.

REFERENCES

- American Montessori Society (AMS). (2014). *AMS teacher education programs*. Retrieved Feb. 14, 2014, from <http://www.amshq.org/Teacher%20Resources/AMS%20Teacher%20Education%20Programs.aspx>
- American Montessori Society (AMS). (2014). *Introduction to Montessori*. Retrieved May 5, 2014, from <http://www.amshq.org/Montessori%20Education/Introduction%20to%20Montessori/Montessori%20Schools.aspx>
- Baker-Ericzen, M. J., Mueggenborg, M. G., & Shea, M. M. (2009). Impact of trainings on child care providers' attitudes and perceived competence toward inclusion: What factors are associated with change? *Topics in Early Childhood Special Education, (28)*4, 196-208.
- Barton, E. E., & Smith, B. J. (2015). *The preschool inclusion toolbox: How to build and lead a high-quality program*. Baltimore, MD: Paul Brookes Publishing Co.
- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional children, 71*(2), 195-207.
- Bryant, D. (2010). *Observational Measures of Quality in Center-Based Early Care and Education Programs*. OPRE Research-to-Policy, Research-to-Practice Brief OPRE 2011-10c. Washington, D.C.: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from: <http://www.acf.hhs.gov/programs/opre/resource/observational-measures-of-quality-in-center-based-early-care-and-education>

- Buyse, V., & Hollingsworth, H. L. (2009). Program quality and early childhood inclusion recommendations for professional development. *Topics in Early Childhood Special Education, 29*(2), 119-128.
- Buyse, V., & Peisner-Feinberg, E. (2010). Recognition & Response: RTI for pre-K. *Young Exceptional Children, 13*(4), 2–13.
- Buyse, V., Skinner, D., & Grant, S. (2001). Toward a definition of quality inclusion: Perspectives of parents and practitioners. *Journal of Early Intervention, 24*(2), 146-161.
- Buyse, V., Wesley, P., Bryant, D., & Gardner, D. (1999). Quality of early childhood programs in inclusive and noninclusive settings. *Exceptional Children, 65*(3), 301-314.
- Child Trends. (2010). Quality rating and improvement systems for early care and education. *Early Childhood Highlights, 1*(1), 1-4.
- Cossentino, J. (2009). Culture, craft, & coherence: The unexpected vitality of Montessori teacher training. *Journal of Teacher Education, 60*(5), 520-527.
- Cossentino, J. (2010). Following all the children: Early intervention and Montessori. *Montessori Life, 1*(8), 1-8.
- Council for Exceptional Children (CEC). (2012). *Issue brief: Improving special education in charter schools*. Retrieved May 5, 2014 from https://www.cec.sped.org/Policy-and-Advocacy/More-Issues/Charter-Schools?sc_lang=en
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles, CA: Sage.
- Danner, N. & Fowler, S. A. (2014). *Montessori and non-Montessori early childhood teachers' attitudes towards inclusion and access*. Manuscript in preparation.

- Division for Early Childhood (DEC). (2014) *Recommended practices*. Retrieved May 5, 2014
From <http://www.dec-sped.org/recommendedpractices>
- DEC / NAEYC. (2009). *Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC)*. Chapel Hill, NC: The University of North Carolina, FPG Child Development Institute.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.
- Epstein, A. (1997). How teachers accommodate for young children with special needs. *Montessori Life*, 9(3), 32-34.
- Epstein, A. (1998). "The behavior part is the hardest": Montessori teachers and young children with challenging behaviors. *Montessori Life*, 10(4), 24-25.
- Epstein, A. M. (1996). *Teacher accommodation for individual differences in integrated Montessori early childhood classrooms* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession No. 9707595)
- Essa, E. L., Bennett, P. R., Burnham, M. M., Martin, S. S., Bingham, A., & Allred, K. (2008). Do variables associated with quality child care programs predict the inclusion of children with disabilities? *Topics in Early Childhood Special Education*, 28(3), 171-180.
- Foschi, R. (2008). Science and culture around the Montessori's first "Children's Houses" in Rome (1907–1915). *Journal of the History of the Behavioral Sciences*, 44(3), 238-257.
- Gitter, L. L. (1967). The promise of Montessori for special education. *The Journal of Special Education*, 2(1), 5-13.
- Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco, CA: Jossey-Bass.

- Guernsey, L. & Ochshorn, S. (2011). *Watching teachers work: Using observational tools to promote effective teaching in the early years and grades*. Washington, D.C.: New America Foundation. Retrieved from:
http://earlyed.newamerica.net/publications/policy/watching_teachers_work
- Harms, T., Clifford, R. M., & Cryer, D. (2005). *Early childhood environment rating scale, revised edition*. New York: Teachers College Press.
- Hurley, J. J., & Horn, E. M. (2010). Family and professional priorities for inclusive early childhood settings. *Journal of Early Intervention*, 32, 335-350.
- Illinois Early Childhood Asset Map (IECAM). (2014). *Data on risk factors for children and families in Illinois*. Retrieved May 5, 2014 from
<http://iecam.illinois.edu/riskdata/index.html>
- Illinois Network of Child Care Resource and Referral Agencies (INCCRRA). (2014). *ExceleRate Illinois standard and evidence requirements*. Retrieved on May 5, 2014 from
<http://www.excelerateillinois.com/resources/standard-and-evidence-requirements>
- Illinois State Board of Education. (2002). *One of us: Access and equity for all young children*. Springfield, IL: Author.
- Illinois State Board of Education. (2013). *School district preschool program models: Placement options for children with IEPs*. Retrieved May, 5, 2014 from
http://www.isbe.net/earlychi/html/ec_speced_lre.htm
- Illinois State Board of Education. (2014). *Illinois report card*. Retrieved May 5, 2014 from
<http://www.illinoisreportcard.com/>
- Individuals with Disabilities Education Improvement Act of 2004, PL 108-446, 20 U.S.C. §§ 1400 et seq. (2004).

- Irwin, S. H. (2009). *The SpecialLink early childhood inclusion quality scale*. Wreck Cove, Nova Scotia: Breton Books.
- Kahn, B. (2009). 2009 NAMTA baseline special education survey. *The North American Montessori Teachers' Association Journal*, 34(2), 181-196.
- Kirk, S., Gallagher, J., J., Coleman, M. R., & Anastasiow, N. J. (2011). *Educating exceptional children* (13th ed.). Belmont, CA: Wadsworth Publishing.
- Kramer, R. (1988). *Maria Montessori: A biography*. Chicago, IL: Da Capo Press.
- Lillard, A., & Else-Quest, N. (2006). The early years: Evaluating Montessori education. *Science*, 313(5795), 1893-1894.
- Lubienski, C. (2007). Marketing schools, consumer goods and competitive incentives for consumer information. *Education and Urban Society*, 40(1), 118-141.
- Maxwell, J. A. (2012). *A realist approach for qualitative research*. Los Angeles, CA: Sage.
- Maxwell, J. A., & Mittapalli, K. (2010). Realism as a stance for mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Sage handbook of mixed methods in social & behavioral research* (pp. 145-167). Los Angeles, CA: Sage.
- McKenzie, G. K. & Zascavage, V. (2012). Montessori instruction: A model for inclusion in early childhood classrooms and beyond. *Montessori Life*, 24(1), 20-25.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Los Angeles, CA: Sage.
- Miller, L. B., Dyer, J. L., Stevenson, H., & White, S. H. (1975). Four preschool programs: Their dimensions and effects. *Monographs of the Society for Research in Child Development*, 40(5/6), 1-170.
- Montessori, M. (1966). *The secret of childhood*. New York, NY: Ballentine Books.

- Murray, A. K. (2008). *Public perceptions of Montessori education* (Doctoral dissertation). Retrieved from ProQuest.
- Musgrove, M. (2012, February). *Letter regarding least restrictive environments for preschool children with disabilities*. Washington, D.C.: U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs.
- National Association for the Education of Young Children (NAEYC). (2012). *Guidance on NAEYC accreditation criteria: All criteria document*. Retrieved July 10, 2012, from <http://www.naeyc.org/files/academy/file/AllCriteriaDocument.pdf>
- National Center for Montessori Education in the Public Sector (2014). *The census project*. Retrieved May 5, 2014 from <http://www.public-montessori.org/census-project>
- National Professional Development Center on Inclusion (NPDCI). (2009). *Why program quality matters for early childhood inclusion: Recommendations for professional development*. Chapel Hill, NC: The University of North Carolina, FPG Child Development Institute.
- National Professional Development Center on Inclusion (NPDCI). (2011). *Research synthesis points on practices that support inclusion*. Chapel Hill, NC: The University of North Carolina, FPG Child Development Institute.
- Odom S. L. (Ed.). (2002). *Widening the circle: Including children with disabilities in preschool programs*. New York, NY: Teachers College Press.
- Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional children*, 71(2), 137-148.

- Odom, S. L., Buysse, V., & Soukakou, E. (2011). Inclusion for young children with disabilities: A quarter century of research perspectives. *Journal of Early Intervention, 33*(4), 344-356.
- Peterson, C. A., Wall, S., Jeon, H-J., Swanson, M. E., Carta, J. J., Luze, G. J., & Eshbaugh, E. (2013). Identification of disabilities and service receipt among preschool children living in poverty. *The Journal of Special Education, 47*(1), 28-40.
- Pickering, J. S. (1992). Successful applications of Montessori methods with children at risk for learning disabilities. *Annals of Dyslexia, 42*(1), 90-101.
- Pickering, J. S. (2008). Montessorians helping children who learn differently. *The North American Montessori Teachers' Association Journal, 33*(2), 77-99.
- Rambusch, N. M. (1962). *Learning how to learn: An American approach to Montessori*. New York, NY: Helicon Press.
- Sandall, S. R., Hemmeter, M. L., Smith, B. J., & McLean, M. E. (2005). *DEC recommended practices: A comprehensive guide for practical applications in early intervention/Early childhood special education*. Missoula, MT: Division for Early Childhood.
- Sandall, S. R., & Schwartz, I. S. (2008). *Building blocks for teaching preschoolers with special needs* (2nd ed.). Baltimore, MD: Paul H Brookes Pub Co.
- Schwartz, I. S., Sandall, S. R., Odom, S. L., Horn, E., & Beckman, P., J. (2002). "I know it when I see it": In search of a common definition of inclusion. In S. Odom (Ed.), *Widening the circle: Including children with disabilities in preschool programs* (pp. 10-24). New York, NY: Teachers College Press.
- Soukakou, E. P. (2010). *The Inclusive Classroom Profile (ICP)*. Chapel Hill, NC: University of North Carolina at Chapel Hill.

- Soukakou, E. P. (2012). Measuring quality in inclusive preschool classrooms: Development and validation of the Inclusive Classroom Profile (ICP). *Early Childhood Research Quarterly, 27*(3), 478-488.
- Soukakou, E., Winton, P., & West, T. (2012). *The Inclusive Classroom Profile (ICP): Report on preliminary findings of demonstration study in North Carolina*. Chapel Hill, NC: NPDCI, FPG Child Development Institute.
- Soukakou, E. P., Winton, P. J., West, T. A., Sideris, J. H., & Rucker, L. M. (2014). Measuring the quality of inclusive practices: Findings from the Inclusive Classroom Profile pilot. *Journal of Early Intervention, 36*(3), 223-240.
- Stake, R. E. (1995). *The art of case study research*. Los Angeles, CA: Sage.
- Stockall, N. S., Dennis, L., & Miller, M. (2012). Right from the Start: Universal design for preschool. *TEACHING Exceptional Children, 45*(1), 10-17.
- Thompson, B. & Wegner, J. (1993). Project 2.2: Transitioning preschool children with severe and profound multiple disabilities from a special education classroom program into mainstream Montessori preschool and child care programs. In M. L. Rice & M. O'Brien (Eds.), *Kansas Early Childhood Research Institute on Transitions, University of Kansas: Final Report* (pp. 64-141). Lawrence, KS: Author.
- Thompson, B., Wickman, D., Wegner, J., & Ault, M. (1996). All children should know joy: Inclusive, family-centered services for young children with significant disabilities. In F. Brown (Ed.), *People with disabilities who challenge the system*. (pp. 181-195). Baltimore, MD: Paul H. Brookes.

- Tschantz, J. M., & Vail, C. O. (2000). Effects of peer coaching on the rate of responsive teacher statements during a child-directed period in an inclusive preschool setting. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 23(3), 189-201.
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs. (2012). *31st annual report to congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: U.S. Department of Education.
- U.S. Governmental Accountability Office (GAO). (2012). *Charter schools: Additional federal attention needed to help protect access for students with disabilities* (Report No. GAO-12-543). Washington, DC: Author.
- Wolfe, J. (2002). *Learning from the past: Historical voices in early childhood education* (2nd ed., pp. 225-248). Mayerthorpe, Alberta, Canada: Piney Branch Press.

APPENDIX A
EARLY CHILDHOOD PRACTICES COMPARED:
MONTESSORI, NAEYC, AND DEC

Early Childhood Practices Compared: Montessori, NAEYC, and DEC

Montessori Practices	Early Childhood Practices	Early Childhood Special Education Practices
Multi-age groupings for peer interactions	The program promotes positive peer and adult relationships	Inclusive classes fostering positive relationships
Large (two+ hours) uninterrupted blocks of work time	Consistent schedule	Routines and transitions are structured to promote interaction, communication, and learning
Hands-on learning materials with “control of error” and repetition encouraged	The program implements a curriculum that is consistent with its goals for children and promotes learning and development in each of the following areas: social, emotional, physical, language, and cognitive.	Provide curriculum modifications such as environmental support, adaptations of materials, activity simplification, and special equipment to maximize a child’s participation
Aesthetic classroom design and organization	An organized, properly equipped and well-maintained program environment facilitates the learning, comfort, health, and safety of the children and adults who use the program	Physical space and materials are structured and adapted to promote engagement, play, interaction, and learning. May arrange to promote language
Teacher as observer	The program is informed by ongoing systematic, formal, and informal assessment approaches to provide information on children’s learning and development.	Adults use ongoing data to individualize and adapt practices to meet children’s changing needs Intentional teaching
Teacher as guide	The program uses developmentally, culturally, and linguistically appropriate and effective teaching approaches that enhance each child’s learning and development in the context of the curriculum goals.	Responsive adults

(AMS, 2012; NAEYC, 2012; Sandall, Hemmeter, Smith, & McLean, 2005; Sandall & Schwartz, 2008).

APPENDIX B
IRB APPROVAL

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of Vice Chancellor for Research
Institutional Review Board
528 East Green Street
Suite 203
Champaign, IL 61820



February 12, 2014

Susan Fowler
Special Education
288 Education Bldg
1306 S Sixth St
M/C 708

RE: *Early Childhood Inclusion in a Public Montessori School: Access Participation and Supports*
IRB Protocol Number: 14472

EXPIRATION DATE: 02/11/2017

Dear Dr. Fowler:

Thank you for submitting the completed IRB application form for your project entitled *Early Childhood Inclusion in a Public Montessori School: Access Participation and Supports*. Your project was assigned Institutional Review Board (IRB) Protocol Number 14472 and reviewed. It has been determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b)(1 & 2).

This determination of exemption only applies to the research study as submitted. Please note that additional modifications to your project need to be submitted to the IRB for review and exemption determination or approval before the modifications are initiated.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me or the IRB Office, or visit our website at <http://www.irb.illinois.edu>.

Sincerely,

Rebecca Van Tine, MS
Assistant Human Subjects Research Specialist, Institutional Review Board

c: Natalie Danner

APPENDIX C
DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire
(to be completed before the first interview)

Teacher: _____ Date: _____

In what year were you born? _____

Tell me about your college degrees (circle the degrees you have and indicate your major)

Degree Earned	Major
Bachelors	
Masters	

Tell me about your Montessori credential (s):

Age Level (eg. 0-3, 3-6, 6-9, 9-12)	Organization (eg. AMS, AMI, St. Nicholas)

Which state certification(s) do you hold? (circle any that you have):

- Type 04 (early childhood)
- Type 03 (elementary)
- LBS-1 (special education)
- LBS-2 (special education)
- ECSE approval
- ELL endorsement
- Bilingual endorsement
- Other _____

How many years have you been teaching? _____

Please specify your ethnicity. (circle one)

- Hispanic or Latino
- Not Hispanic or Latino

Please specify your race. (circle one)

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

APPENDIX D
INTERVIEW PROTOCOL

Interview Protocol

Instructions to for the interviewer:

This protocol will be used in both teacher and principal interviews and is organized into the main research topics. Immediately before the first interview, the researcher will administer the Teacher Demographic Questionnaire to gather data on demographics. Each teacher (of three) and the principal will be interviewed twice, once at the beginning of data collection and once at the end, for a period of one-hour. The interview will be semi-structured with probes. The interviews will be conducted by the lead researcher, audiotaped, and, later, transcribed. The second interview will follow-up on topics mentioned during the first interview as well as clarify information gained during classroom observations.

Read aloud to participant:

Today (DATE) we will be doing an interview about early childhood inclusion. This is our (first/second) interview out of two. We will spend about an hour today talking. We will be audiotaping this interview. If you mention children’s names during the interview, don’t worry, we will give them aliases when we write it up. Are you ready to begin?

Research topic	Teacher Interview	Principal Interview
History	How did you find this job? What made you want to work here?	Tell me how this school began? What made you want to work here?
General Perceptions about Inclusion	What’s the first thing that comes to mind when you think of including students with disabilities? What is ideal inclusion for you? How is your reality different than your ideal inclusion? What is the one most important aspect for you in including a student with disabilities in your class?	What’s the first thing that comes to mind when you think of including students with disabilities? What is ideal inclusion for you? How is your reality different than your ideal inclusion? What is the one most important aspect for you in including a student with disabilities in your school?
Types of Disabilities	Tell me about the children with disabilities you have in your class this year? In years’ past? Have you referred any students for evaluations? Tell me about them.	Tell me about the young children with disabilities you have had in your school? In years’ past? Have you referred any students for evaluations? Tell me about them.
Access	How do you encourage children’s independence in accessing the classroom’s space, materials, and equipment (ICP 1.7.2) Tell me about a Montessori material that you modified for a particular student.	Tell me how you recruit and enroll families into your school? Do you use any specific techniques to reach out to families of children with disabilities? How does the school’s and classrooms’ physical space and layout support students with

	<p>How does the classroom’s physical space and layout support students with disabilities? (with physical disabilities, with autism, with hearing impairments)</p> <p>How do you remember to make adjustments / adaptations for individual children during group activities? Can you show me an example of how this is worked into your plans? (ICP 8.7.3)</p> <p>Tell me about any non-Montessori materials in the classroom to support students with disabilities.</p>	<p>disabilities? (with physical disabilities, with autism, with hearing impairments)</p> <p>Do you have non-Montessori materials in the classroom to support students with disabilities?</p>
Participation	<p>How do you promote ‘belonging’ in your classroom?</p> <p>I noticed that some photos / examples of children’s work are displayed. How do you decide about the work you display? (ICP 5.5.2)</p> <p>I noticed that...Can you tell me more about how children might be encouraged to make decisions for the whole group? What are some examples? (ICP 5.7.1)</p> <p>I noticed that... How do you support children’s understanding of individual differences? (ICP 5.7.2)</p>	<p>How do you promote ‘belonging’ in your classroom?</p> <p>What’s required for your school as far as assessments and monitoring? By the district? By the state?</p>
Supports	<p>Tell me about IEP meetings for your students with disabilities.</p> <p>Who attends these meetings?</p> <p>Where are they held?</p> <p>What kinds of decisions are made?</p> <p>How do you monitor children’s progress on various developmental skills? How often? (ICP 12.1.1/12.3.1/12.5.1/12.7.1/12.7.2)</p> <p>Do you have access to children’s IEPs? (ICP 12.3.2)</p> <p>How and how often do you monitor children’s progress on various IEP goals? (ICP 12.5.2)</p> <p>Do you have a system for indicating individual interventions / special instruction for each child (eg.</p>	<p>Tell me about IEP meetings for your students with disabilities.</p> <p>Who attends these meetings?</p> <p>Where are they held?</p> <p>What kinds of decisions are made?</p> <p>How do you monitor children’s progress on various developmental skills? How often? (ICP 12.1.1/12.3.1/12.5.1/12.7.1/12.7.2)</p> <p>Do you have access to children’s IEPs? (ICP 12.3.2)</p> <p>How and how often do you monitor children’s progress on various IEP goals? (ICP 12.5.2)</p> <p>Do you have a system for indicating individual interventions / special instruction for each child (eg.</p>

	<p>Intervention plans / individual action plans)? (ICP 12.5.3) How do you use RTI with your kids? Who participates? Do you have one-on-one/aides in your class for a student with disabilities? Why? How do you feel about it?</p>	<p>Intervention plans / individual action plans)? (ICP 12.5.3) How do you use RTI in the school? Who participates? Do you have one-on-one/aides in your school for any young student with disabilities? Why? How do you feel about it?</p>
<p>Collaboration with other Professionals</p>	<p>Who else (other than you) works with your students with disabilities? Where and how often do they work with your students? How does that impact you and your teaching? How do you communicate with these professionals?</p>	<p>Who else (other than teachers) works with your students with disabilities? Where and how often do they work with your students? How does that impact you? How do you communicate with these professionals? How do you support teaming between teachers and other professionals?</p>
<p>Collaboration with Families</p>	<p>How do you talk to parents about Montessori who have never heard about it before?</p> <p>Do you have a written policy on inclusion that is shared with families? (ICP 11.1.1/11.3.1) Do you have any written policies / procedures related to communicating with families? (ICP 11.1.2/11.3.2) Do you have any procedures for regular communication with families about daily issues, family concerns, priorities, resources, and / or children’s needs? (ICP 11.3.3/11.5.2/11.7.2) Do you request any child-related information from families, such as copies of IEPs/IFSPs? What other child-related information might you request from families? (ICP 11.3.4)</p>	<p>How do you recruit families? How do you talk to parents about Montessori who have never heard about it before? How do you find families of children with disabilities to enroll? What about parent education or support groups? For parents of children with disabilities? Are there community resources that you refer parents to?</p> <p>Do you have a written policy on inclusion that is shared with families? (ICP 11.1.1/11.3.1) Do you have any written policies / procedures related to communicating with families? (ICP 11.1.2/11.3.2) Do you have any procedures for regular communication with families about daily issues, family concerns, priorities, resources, and / or children’s needs? (ICP 11.3.3/11.5.2/11.7.2) Do you request any child-related information from families, such as copies of IEPs/IFSPs? What other child-related information might you request from families? (ICP 11.3.4)</p>

	<p>Are you or other staff available to attend IEP meetings to participate in planning effort with service providers and families? (ICP 11.5.1)</p> <p>How do you communicate with families about children's progress?</p> <p>What kind of child progress monitoring information do you exchange with families? (ICP 11.5.3/11.7.1)</p> <p>Do you have a system for identifying family priorities, concerns, and / or resources? (ICP 11.7.2)</p>	<p>Are you or other staff available to attend IEP meetings to participate in planning effort with service providers and families? (ICP 11.5.1)</p> <p>How do you communicate with families about children's progress?</p> <p>What kind of child progress monitoring information do you exchange with families? (ICP 11.5.3/11.7.1)</p> <p>Do you have a system for identifying family priorities, concerns, and / or resources? (ICP 11.7.2)</p>
Montessori - specific	<p>What made you want to teach in a Montessori program?</p> <p>What makes Montessori unique?</p> <p>What works for kids with disabilities in a Montessori class?</p> <p>What doesn't work for kids with disabilities in a Montessori class?</p>	<p>How did you get three and four year olds in your early childhood classes to create multi-age classes?</p> <p>What do you do with the Montessori materials in your office?</p> <p>What makes Montessori unique?</p> <p>What works for kids with disabilities in a Montessori class?</p> <p>What doesn't work for kids with disabilities in a Montessori class?</p>
Professional Development	<p>What PD opportunities are available to you?</p> <p>What has your training been in special education?</p> <p>What has been most helpful to you in your teacher prep or Montessori training program to support you with SWD?</p> <p>How would you suggest that teacher prep/Montessori training improve their programs to help beginning teachers support SWDs?</p>	<p>What PD opportunities are available to your teachers?</p> <p>What has your training been in special education?</p> <p>What has been most helpful to you in your teacher prep or Montessori training program to support you with SWD?</p> <p>How would you suggest that teacher prep/Montessori training improve their programs to help beginning teachers support SWDs?</p>
Ideal	<p>If you had all the money and resources in the world, how would you improve this school for students with disabilities? Why?</p>	<p>If you had all the money and resources in the world, how would you improve this school for students with disabilities? Why?</p>

Read-aloud to participant:

Thank you for your time, I appreciate it.

Probes that may be asked to clarify or expand upon the participants' responses:

- Tell me more about that.

- Help me to understand, do you mean x? (rephrasing)
- I'm curious about what you described earlier....
- Why was that important?
- Have you always felt that way?
- How do you do that?

APPENDIX E
CLASSROOM OBSERVATION PROTOCOL

Classroom Observation Protocol

Date:

Time:

Classroom:

Focus Child (Alias) and rotation time:

Adults in Room:

	Jottings or Field Notes	Interpretations
Initial Impressions		
Focus Area #1 (from ICP results)		
Focus Area #2		
Focus Area #3		

APPENDIX F
CODE BOOK FOR INTERVIEWS

CODE BOOK FOR INTERVIEWS

Access (major theme)

Definition: Access is providing entrée to the general education curriculum for the child with disabilities. This is not only describing access to the program or school, but access to learning activities and social interactions within the classroom. (NAEYC/DEC, 2009)

- **Universal design for learning (UDL/UD)** - is a set of principles for curriculum development that give all individuals equal opportunities to learn. These include presenting information in different ways, differentiating the ways that students can express what they know, and stimulating interest and motivation for learning (CAST, 2015)
- **Technology (AAC/AT)** –Augmentative and alternative communication (AAC) includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. These include facial expressions or gestures, picture and symbol communication boards and electronic devices available to help people with speech and language problems express themselves (ASHA, 2015). Assistive technology (AT) device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability (IDEA, 2009). This could include a hearing aid, a walker, a switch, or a pencil grip depending on the individual’s needs.

Participation (major theme)

Definition: Participation is what the adult intentionally does to allow the child to be a welcomed part of the classroom community and learn with specialized instruction, assessment, and accommodation.

- **Individualized accommodations or modifications** – Accommodations allows the child to perform the same task as the other children with a change in timing, setting or presentation. For example, an accommodation would be when the teacher verbally narrates the practical life presentation of 1-to-1 pouring “I grasp the pitcher with three fingers and lift the pitcher up”, where typically she would present silently. Modifications are adjustments to the task that changes what the task is supposed to measure (PACER Center, 2014). For example, a modification would be for the Number-Numeral Activity (which matches 1-10) to change the activity to numbers 1-3 so it is more on the level of the target child.
- **Adult promoting belonging** – When adults allow all children to assume social roles and responsibilities in the classroom, they intervene when needed to respond to peer comments about differences in supportive and constructive ways, and they engage in many sustained, reciprocal social interactions with individual children that are positive (ICP, 2012).
- **Response to Intervention (RTI)** - a multi-tiered approach to the early identification and support of students with learning and behavior needs. The **RTI** process begins with high-quality instruction and universal screening of all children in the general education classroom (RTI Network, 2014).

- **Specialized interventions / instruction in the classroom** (from specialists) – Any unique intervention, separate from the typical Montessori curriculum or RTI, designed to support a child with disabilities in their classroom.
- **Child find or identification of disability** * - How, when, and where the school district or school identifies, locates and evaluates children in order to identify all children who may need special education services (Wrightslaw, 2014).

Supports (major theme)

Definition: Supports are system-wide, usually indirectly helping the child with disabilities or promoting communication among stakeholders.

- **Professional Development** – any learning experience that a teacher pursues, whether it be a workshop, conference, college class, or coaching session, that has an aim to improve teacher outcomes.
- **Teaming among professionals** – When professionals (teachers, paraprofessionals, special educators, specialists, administrators) from a child’s educational team collaborate and communicate for the purpose of effective educational programming for a particular child.
- **Working with families** (parent education, parents at IEP meeting, PD for parents, providing resources to families, promoting school to families) *
- **Policies** (school/district/state) – Rules and guidelines, both formal and unspoken, which guide the running of the educational program and the experience of the children in the school.
- **Program philosophy on inclusion** * - In written documents, accessible to families, a formal policy on inclusion. Also in conversations, staff describe the unspoken policy on inclusion.
- **Availability of specialized services** (PT, OT, SLP, social work) to support the child within the school* - If these services exist within the school as possible options for a child with disabilities.
- **Enrollment*** - The registration process of a child into the school from parental interest until the first day of school. This could include events such as application procedures, transfer of records, and lotteries.

Note: * indicates in vivo codes developed from the interview data.

(Developed within the framework of DEC/NAEYC, 2009)

APPENDIX G

AUDIT TRAIL: THE PATH TO RESEARCH FINDINGS

AUDIT TRAIL:

THE PATH TO RESEARCH FINDINGS

The journey to understanding the data collected through interviews, observations, and the ICP was an iterative process. The coding process was described at length in Chapter Three, so it will not be reiterated here. But once the interview transcripts were coded, and the fieldnotes for the classroom observations were reviewed, and the ICP results were averaged, there were 251 pages of coded interview transcripts, 43 pages of observational fieldnotes, and six pages of ICP results.

It was anticipated that describing these research findings across multiple methods would be a challenge. However, it was not anticipated that the structure of the findings reporting would progress through so many structural changes. It seems that each time we reviewed the coded and processed data that we tried a different approach or format to see what best fit the data findings and best helped the reader understand how the school implemented inclusion.

Initially the goal was to report findings first by method: interviews, observations, and ICP, and then later provide a synthesis of the findings across the three methods. This process was chosen as a recommended structure of mixed methods integration. The mixing in this study mainly occurred at the data analysis level and that was clear in this format showing findings using a synthesis section. I will outline how that structure of the findings, by access, participation, and supports, was initially followed and later rejected for a superior presentation and understanding of the findings.

Originally, data from the coded transcripts were further reduced using identifying examples from each minor category. For example, within the category of ‘participation’ and the subcategory of ‘accommodations and modifications’ an identifying example was ‘simplifying

activities’. This example was selected from the coded interview transcripts. If coded quotes matching the topic of ‘simplifying activities’ were mentioned several times by several individuals within the major code of access, then the researcher listed this identifying example in the table. In this way, all the coded transcripts were reviewed for identified examples throughout. Tables were created based on the major categories and subcategories based on the DEC/NAEYC (2009) Position Paper on Inclusion. These categories and sub-categories are further outlined and defined in the Code Book (Appendix F). Within these sub-categories several identifying examples were listed. Three tables were created in this way for access, participation, and supports (see Appendix H).

In reviewing these categorizing tables, it was evident that there was significant overlap between some categories, in particular, the categories of access and participation. The sub-categories of ‘universal design for learning / universal design’ housed in ‘access’ and ‘accommodations / modifications’ housed in participation, were two sub-categories that could have overlap into either ‘access’ or ‘participation’. Universal design for learning was explicitly mentioned in the access section of DEC/NAEYC (2009), which is the reason for originally placing UDL in access. Similarly, accommodations were explicitly mentioned in the participation section of DEC/NAEYC (2009). However, it could be argued that either of these strategies could be placed in access or participation. Therefore it was decided that integration of the major categories of access and participation would make more sense to the reader, would integrate findings, and reduce data further. These original findings tables of access, participation, and supports were then moved to the appendix to display part of the evidence of how this research progressed.

Originally, matrices were used as well to understand the themes across methods (Appendix J). Three matrices illustrated: (a) observation themes crossed with interview themes, (b) interview themes crossed with ICP items, and (c) observation themes crossed with ICP items. These matrices were useful in attaining a big picture view of how the three methods related to each other and aligned or did not align. As displayed in the matrices, the themes were closely aligned between the interview data and the observational data. However, the ICP items were often unique. This gives further evidence to warrant the joining of the observational and interview findings, and leaving the ICP findings separate.

Returning to the research questions, a new way of organizing the findings was selected. We decided to report findings in a more traditional manner by each research question. Inclusion supports and barriers based on access and participation categories were combined and reported in the findings based on the first research question. Here, the observational findings (Appendix I) were also integrated into the research question answers, as they went together based on their qualitative nature and the matrices showed that their themes were closely aligned. Listing what the teachers said alongside what they actually did in their classrooms made a good deal of sense. The overarching systems-level supports category of the interview data was integrated with classroom observations to answer research question two. And finally the results of the ICP, in the context of the interviews and observations, were used to answer the third and final research question.

Additionally the strategy of patches in qualitative research was used (Stake, 2009). Each patch is a critical incident that happened during the classroom observations, over time. Each patch tells the story of that incident, and its use is intended to bring the reader closer to the event, helping to develop a shared understanding of the context of inclusion. Two patches are used in

this study, the story of Nate and the story of Trinity. Both of these stories are of young children with disabilities learning and living in the context of their Montessori classroom. Nate's story centered mainly on the modifications and adaptations that his teacher made for him in the classroom, and as such this patch is located in the classroom-level supports section. Trinity's story focuses on factors that eventually led to her exclusion from the school, and as such her story is told in the next section focused on systems-level supports and barriers to inclusion.

The structure of Chapter 4 includes classroom- and school-level supports and barriers to inclusion within the Montessori school, then systems-level supports and barriers to inclusion, followed by the way in which district and cooperative special education policies supported or detracted from Montessori implementation, and finally ICP results for the three classrooms. The two patch stories are integrated into these sections. In the concluding section, the overarching themes across methods are described.

APPENDIX H

INITIAL SUPPORTS AND BARRIERS TO INCLUSION FROM INTERVIEWS

Initial Supports and Barriers to Inclusion From Interviews

ACCESS	Supports for Inclusion	Barriers to Inclusion
Universal Design for Learning / Universal Design	Providing freedom of movement * Having a variety of learning materials * Allowing easy access to materials * Using preferential seating	Limited classroom space / crowding
Augmentative and Alternative Communication / Assistive Technology	Availability of low tech assistive technology <ul style="list-style-type: none"> ▪ Visual schedule ▪ Choice board 	

PARTICIPATION	Supports for Inclusion	Barriers to Inclusion
Accommodations / Modifications	Using adaptive seating Providing oral stimulation, food Requiring proximity to teacher Simplifying activities * Limiting choices * Giving physical prompts	
Adult Promoting Belonging	Teaching students to take care of one another * Establishing climate of caring * Using child interests Having teacher willingness	Lack of one-on-one support
RTI	Creating groups of students * Meeting needs of struggling students The Lincoln Intervention Team Monitoring progress with intervention Assessing children	Use of RTI restricted to a reading or math focus Referring to special education solely using RTI
Specialized interventions/ Instruction in the classroom	Using small group instruction in class, normal * Acting like a one-on-one (Assistant)* Observing children in class (SPED teacher) Using push-in interventions Developing social stories to address concerns (social worker)	Lack of one-on-one support Lack of orthopedic supports Lack of toilet training supports
Screening and Evaluation	Offering developmental screening Referring children to special education	Downgrading IEP at age 5 Limited number of referrals

	Requesting evaluations (parents)	Evaluations address area of concern, rather than global evaluations Placement determined by child's disability SPED teacher not a part of child find process Evaluations postponed until Kindergarten year
--	----------------------------------	---

SYSTEM-LEVEL SUPPORTS	Supports for Inclusion	Barriers to Inclusion
Professional Development	Reflecting on Montessori training, learning the scope and sequence * Acting as models to new Montessori school (teachers) * Availability of building-specific professional development – Montessori peace curriculum * Having prior college coursework about special education Having the experience of working with children with disabilities	Some Montessori trainers not aware of special education laws and policies* Limiting principal to giving 24 hours of PD to staff/year
Teaming with Professionals	Teaming across age level classes * Meeting with the Lincoln Intervention Team Communicating informally in hallway Serving as a “resource” for teachers, offering ideas of things to try (specialists) Sharing progress on goals, celebrating gains Reviewing IEP with teachers, Special Education teacher Recognizing role at IEP meeting Attending and participating in IEP meetings Watching specialists demonstrate services so teachers can implement carry-over	
Working with Families	Showing that Montessori is a gift to families who may be unfamiliar with it *	Wanting more pre-K options, waiting list (parents) Having no time for daily communication with all families (teachers)

	<p>Marketing school to families through open houses, television and radio ads, church visits *</p> <p>Offering a variety of school-home communication formats (newsletter, phone, text, email)</p> <p>Inviting families to IEP meetings</p> <p>Scheduling IEP meetings around family's schedule</p> <p>Providing autism support group</p> <p>Sharing photos of children (Teachers)</p>	<p>Educating parents through parent nights = low attendance</p>
Policies influencing inclusion	<p>Building social times into school day *</p> <p>Having sliding scale tuition for PreK</p>	<p>Montessori not an "approved" program for state public PreK *</p> <p>Standardized tests take time away from academics</p> <p>No option of full-day PreK offered</p> <p>Teachers do not have access to complete evaluations</p> <p>Transportation (busing) issues</p> <p>One-on-one aide is nearly impossible to get</p> <p>PreK tuition goes to the district, not to the school</p>
Philosophy of Inclusion	<p>Having a mix of ability levels *</p> <p>Using a strengths-based approach, finding the child's talents *</p> <p>Welcoming attitude from staff</p>	<p>Believing that sometimes Montessori is not a good fit *</p>
Specialized Services	<p>Availability of support staff just like any other public school (but very different than private Montessori)</p> <p>Using a range of professionals, who are available to children and to teachers</p>	<p>Having limited funds for PT/OT, child must be more severe to get those services</p> <p>Difficult to get a one-on-one</p>
Enrollment	<p>Having multi-age classes *</p> <p>Enrolling children through school choice procedures: lottery, magnet</p>	

Note. * indicates a Montessori-specific strategy or approach

APPENDIX I

INITIAL THEMATIC CATEGORIES FROM CLASSROOM OBSERVATIONS

Initial Thematic Categories From Classroom Observations

Thematic category	What it means?	What happened?
The work cycle *	A three hour uninterrupted period of time spent in the classroom with the Montessori materials.	Children were working in the classroom in small groups and individually with materials based on their interest and level. Teachers gave small group and one-on-one lessons.
Peer support *	Older/more experienced child supports or teaches a younger/less experienced child	A kindergartener asked a young three year old to come watch her work with a Montessori material. Older child says to younger child, "If you need any help with that, you just let me know."
Individualizing	Adults adapt the curriculum to meet the specific needs of a child	Principal holds the hand of a child with a disability to support her during the more chaotic bus pick up time.
Self-advocacy	A child speaks out to get his or her needs met.	Trinity, a limited-verbal child, says, "No" to another child who tries to take her activity out of her hands. A three-year old asks a group of older students, "Is there a Kindergartener who can work with me on words?"
Movement	Children are permitted to move around in the classroom, rather than confined to desks.	Children were working on the floor on mats and at tables. Most of the activities the children were doing required fine and large motor movements.
Developing Empathy	Children are taught to identify emotions in themselves and in others.	Peer approaches a young boy laying on the floor and crying, softly touched him, and said, "What's up buddy?"
Internalized Routine	Children can anticipate and plan for activities that typically happen during the school day.	Teacher rings a soft bell and children start quietly cleaning up their work and moving toward the rug for group time.

Note. * indicates a Montessori-specific strategy or approach

APPENDIX J

MATRICES COMPARING INITIAL THEMES FROM
INTERVIEWS, OBSERVATIONS, AND THE INCLUSIVE CLASSROOM PROFILE

Inclusive Classroom Profile Items by Classroom Observation Themes

Observation themes	Montessori-specific										General									
	Multi-age	Following the child	Uninterrupted Work Cycle	Peer supports	Child's independence	"Just-right Activity"	Classroom Community	Teaming within Classroom (working with TA)	Teaming across Classrooms	Direct support from Principal	Self-determination (making choices)	Teacher models appropriate behavior	Growth mindset	Teacher proximity and monitoring						
Type of theme																				
Adaptations of space and materials / equipment																				
Adult involvement in peer interactions																				
Adults' guidance of children's play																				
Conflict resolution																				
Membership																				
Relationships between adults and children																				
Support for communication																				
Adaptation of group activities																				
Transitions between activities																				
Feedback																				
Family-professional partnerships																				
Monitoring children's learning																				

