PREPARATION FOR MONTESSORI SCHOOL LEADERS: A LOOK AT CURRENT STANDARDS

A Capstone Project

Presented to

The Faculty of the Curry School of Education

University of Virginia

In Partial Fulfillment

of the Requirements of the Degree

Doctor of Education

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by

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May, 2019

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May 2019

Curriculum, Instruction, and Special Education
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APPROVAL OF THE CAPSTONE PROJECT

This capstone project, *Preparation for Montessori School Leaders: A Look at Current Standards*, has been approved by the Graduate Faculty of the Curry School of Education and Human Development in partial fulfillment of the requirements for the degree of Doctor of Education.

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Abstract

School leaders have been shown to make an important difference in the success of a school (e.g., Coelli & Green, 2012; Grissom & Loeb, 2011; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Robinson, Lloyd, & Rowe, 2008). Research on the preparation of school leaders has grown tremendously since the 1980s, leading to the adoption of formal standards for school leaders in the mid-1990s (Young & Crow, 2017). Preparation for school leaders is often driven by standards (Young, Anderson, & Nash, 2017), and while one set of standards for the preparation of Montessori school leaders currently exists, it was unknown how well such standards aligned with the work of Montessori school leaders in a variety of school contexts. This descriptive mixed-methods study addressed this problem of practice through surveys of Montessori school leaders and surveys and interviews of directors of Montessori school leader preparation programs. Findings provided insight into the current preparation status and needs of Montessori school leaders, stakeholder perspectives regarding the knowledge and skill needs of Montessori school leaders, and stakeholder perspectives regarding the role of standards related to the preparation of Montessori school leaders. From these results, I provide recommendations for any organization concerned with the preparation of Montessori school leaders. These include: incorporating content and language from the Professional Standards for Educational Leaders into Montessori school leadership standards, utilizing change facilitation practices to support necessary changes, allowing for increased customization of preparation content for diverse Montessori school leaders, partnering Montessori school leader preparation programs with institutions of higher education, and strengthening the Montessori school leadership pipeline.

Keywords: leadership preparation standards, school leader preparation, Montessori schools, Montessori school leaders, national standards, teacher leadership, equity

DEDICATION

To the teachers of CMStep:
May you have, and may you be, great Montessori leaders.

ACKNOWLEDGEMENTS

I offer my heartfelt thanks to the scores of individuals who helped to make this study possible, to shape my thinking, and to support me along this journey. Some are mentioned here.

I would like to acknowledge individuals at the American Montessori Society, and especially Gina, Christine, and Tim, for their support of this study and help in survey distribution. Similarly, my thanks to individuals at the National Center for Montessori in the Public Sector, and especially Katie and Sara. I hope this work can further our joint missions.

Dr. Mintz, I've been incredibly grateful to have been matched with you for an advisor, and to have you as the chair of this committee. Thank you for the accountability and support of our weekly calls, for your wisdom, your patience, and your unwavering faith in me.

Dr. Youngs, thank you for your support, clear direction, and advice these last four years. I've learned more about research and scholarship from you than I ever could have imagined, but even more than that, I look forward to continued research and scholarship thanks to you.

Dr. Moore, thank you for fundamentally changing the way I look at and think about problems and opportunities. I am grateful to have had you as an instructor, and committee member along this doctoral journey.

Rebekah, thanks for being a true friend these four years. Look how we've grown! I can't wait to see what the next chapter brings.

To my CMStep people, thank you for believing in me, cheering me, and being patient with me while I tried to balance all the things.

To my Keller-Wood family, thanks for the love, prayers, support, and cheerleading.

And to my Jonathan, thank you for being the best friend and partner in this life that I ever could have imagined. Fifteen years in, and I still pinch myself sometimes.

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Chapter 1: Introduction

School leaders have been shown to have an important impact on student success. There is a growing body of evidence to support the idea that school leadership is one of the most important factors impacting a student's education at the school level (e.g., Coelli & Green, 2012; Grissom & Loeb, 2011; Leithwood et al., 2004; Robinson et al., 2008), even if the influence is indirect. The importance of school leaders is also recognized in current national policy: the 2015 Every Student Succeeds Act (ESSA) acknowledges the role of school leaders as a factor in achieving national educational goals and allows states and districts to use federal funds for the development of school leaders (Young, Winn, & Reedy, 2017). This development of school leaders is often driven by professional standards, which can shape both the curriculum and the experiences provided (Young, Mawhinney, & Reed, 2016).

According to Leithwood, Harris, and Hopkins, "almost all successful school leaders draw on the same repertoire of basic leadership practices" (2008, p. 27). Although there is room for debate to this claim, there have nevertheless been a number of attempts to synthesize what these "basic leadership" practices are, in order to better understand what factors play into successful school leadership. Two such comprehensive syntheses are described here.

First, Hitt and Tucker (2016) synthesized peer-reviewed journal articles since 2000, along with three leadership frameworks, including the Ontario Leadership Framework (Leithwood, 2012) the Learning-Centered Leadership Framework (Murphy, Elliott, Goldring, & Porter, 2006), and the Essential Supports Framework (Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006), to propose a unified framework of successful leadership practices. The five domains of this framework are "(a) establishing and conveying the vision, (b) facilitating a high-quality learning experience for students, (c) building professional capacity, (d) creating a supportive

organization for learning, and (e) connecting with external partners" (Hitt & Tucker, 2016, p. 542). This framework fits well with earlier work that the the essential levers for school leaders are that they build vision and set directions for the school, they understand and develop people, they (re)design the organization, and they manage the teaching and learning program, and that the most powerful influence of the school leader is in the staff motivation, commitment, and working conditions (Leithwood et al., 2008).

Second, Gurr (2015) synthesized findings from the International Successful School Principalship Project (ISSPP) contained in four project books, seven special journal issues, and more than 100 other papers to offer a synthesis of themes that may suggest the nature of effective school leadership. These ISSPP findings also confirm that effective principals demonstrate competence in core leadership practices as confirmed by Hitt and Tucker (2016), including setting direction, developing people, leading change, and improving teaching and learning. Gurr's synthesis also includes personal characteristics and general leadership approaches of effective leaders, including high expectations, at both the personal and collective levels; pragmatic approaches, including both transformational and instructional leadership; distributed leadership among school stakeholders, including parents, teachers, and students; a commitment to human capacity building for both students and adults in the building; integrity; a commitment to their own continuous learning and growth; and personal resources, including persistence, acumen, optimism, and empathy.

It is important to note that these roles of school leaders in developing people and managing the teaching and learning program, taken with the significant impact school leaders have on staff motivation, commitment, and working conditions, means that school leaders have an important and direct impact on the most important influence on student learning: teachers.

Given the impact that school leaders make on student learning and some known high-leverage leadership practices, the question becomes how to best prepare current and aspiring school leaders for success in their work. A system of school leader development should ideally utilize skills and knowledge demonstrated in educational research and by professional organizations as the benchmarks for success throughout preservice preparation, licensure, and into professional practice (Vogel & Weiler, 2014; Young & Mawhinney, 2012). Preparation programs for school leaders, as the first step in this system, are typically focused around covering specific content and providing key experiences in order to support emerging school leaders in what they should know and be able to do (Young, Anderson, et al., 2017). Since the development of national standards regarding educational leaders in the mid-1990s, and in contrast to leadership preparation prior to that time, preparation programs for school leaders have come to use national standards as the "recommended curriculum" (Osterman & Hafner, 2009) or even the "taught curriculum" (Young, Anderson, et al., 2017). Standards for educational leaders, then, clearly have a tremendous impact on induction-level school leaders, so it is critical that the standards applied to school leader preparation programs suit the current and future needs of the schools served by their graduates.

Standards for educational leaders do and should evolve over time (Young & Perrone, 2016). Changes can be due to increased understandings about the nature of teaching and learning, to the changing responsibilities of school leaders (which are themselves a function of current understandings about the nature of school leader work), and even due to the nature of standards themselves. Standards can be thought of as a regulatory process, "a way to make society legible and manageable" (Popkewitz, 2004, p. 244). Critics would advise a cautious view of standards, as schools and our understanding of schools change quickly. As Davis points out,

the very existence of standards suggests that "it is possible to identify a prescribed set of priorities that can be shared among school leaders across a variety of contexts to effect desired educational outcomes" (2015, p. 342). Similarly, English (2005) advocates for an approach to standards and professional preparation that is "deeply suspicious of current practice and beliefs as the central focus" because "our standards and our tests of them reflect the times…[and] are about what we know… [but] what we know is tiny and much of it will be shown to be dead wrong" (p. 82). Nevertheless, much is known about effective teaching and learning, so if standards for the preparation of school leaders takes these as its center, in service to the academic success and well-being of each child, standards can remain useful levers for school success.

Furthermore, even if leadership standards function as an imperfect tool, within the context of the current high-stakes accountability educational paradigm, it seems unlikely that the preparation of school leaders is likely to return to the pre-reform era where they were not utilized in leadership preparation programs. As Popkewitz argued, "standards are a condition of life, There is no way out of working with standards because they are built into the very language and reason that makes legible schooling, teachers, and children" (2004, p. 254). So if indeed standards are "part of the modernity in which we live" (Popkewitz, 2004, p. 255) the adoption of high-quality standards, which can serve as useful tools in preparing school leaders for success in their future work, is critical. Indeed, school leaders have too significant of an impact on teaching and learning to not utilize every method, including the adoption of leadership standards, to support their work.

The Problem: Preparation for Montessori School Leaders

Montessori schools, like all schools, need well-prepared leaders. Yet there is evidence to show that Montessori school leaders have unique needs, a function of the unique philosophical

and methodological approach of Montessori schools (e.g., Culclasure, Fleming, Riga, & Sprogis, 2018; Kripalani, 1992; McKenzie, 1994), which are unlikely to be addressed in traditional leadership preparation programs.

Montessori approach. The Montessori approach, established by Dr. Maria Montessori, can be understood both as a philosophy and as a specific pedagogical method, the latter being a function of the ages of students served. Montessori education takes as its goal "to allow the child's optimal development (intellectual, physical, emotional and social) to unfold" (Marshall, 2017, p. 1). To this end, Montessori teachers receive specific training in both the philosophy and the methods appropriate for the ages of their students and earn Montessori credentials (also sometimes called "diplomas") for these different ages levels: infant-toddler level indicates students from birth until age three, early childhood level indicates students from ages three to six; elementary level indicates students ages six to 12 (usually broken into two sub-groupings), and secondary level indicates students ages 12 to 18 (usually broken into two or three sub-groupings). The credential, specific to the ages of the students, indicates a teacher's expertise in and preparedness for teaching a given level. These credentials typically require a minimum of 300 to 500 hours of in-person and/or online work, in addition to a teaching internship (usually one year), and are often thought of as equivalent to a graduate degree.

While all Montessori teacher education programs emphasize both the philosophy of Montessori and the specific pedagogies for the ages of students, there is a difference in approaches for training early childhood and elementary teachers (which account for the vast majority of Montessori classrooms and teachers) and training infant-toddler and secondary teachers. First, Maria Montessori devoted much more time to developing a program for and writing about young children and elementary-aged children, including the development of

specialized learning materials appropriate for these ages. Thus, the training of teachers at these levels is commonly understood to be "materials-based[1]," where the specialized learning materials (such as rods, beads, and cubes) developed by Dr. Montessori are seen as the primary pedagogical tools. Teacher training for early childhood and elementary levels focuses intensely on the materials, so that teachers are able to present them to students at the correct time and in the correct manner. Infant-toddler programs and secondary programs, on the other hand, do not use these materials in the same way. Therefore, both infant-toddler programs and secondary programs are best understood as being "philosophy-based," where the philosophy of Montessori (in relation to the needs of children that age) guides programmatic decisions. Teacher training for these levels focuses less on ensuring that teachers are able to give specific lessons in a specific way, and more on how to use Montessori principles to meet the academic, social, emotional, and spiritual needs of the children and adolescents. Montessori school leaders, then, must be familiar both with the philosophical principles which drive Montessori education, but also with the ways that the Montessori pedagogical approach can and will differ according to the age levels of students in a classroom.

To draw on the Hitt and Tucker (2016) framework, being well-versed in the Montessori approach is necessary in order to convey a clear vision for the school and to support teachers, both in creating high-quality learning experiences for students and in building professional capacity. In adhering to Montessori principles, discussed in more detail below, school leaders will also help to create and maintain a supportive organization for learning, and they will connect with (at least some) external partners. In this way, understanding and adhering to Montessori

[1] Thanks to Dr. Betsy Coe for sharing both the terms "materials-based" and "philosophy-based" and the distinction between these training approaches with me several years ago.

principles call allow principals to embody all five domains of the Hitt and Tucker framework (2016).

Indeed, Montessori schools by their nature have the tremendous opportunity to demonstrate high instructional program coherence, defined by Newmann, Smith, Allensworth and Bryk as "a set of interrelated programs for students and staff that are guided by a common framework for curriculum, instruction, assessment, and learning climate and that are pursued over a sustained period" (2001, p. 297), because the Montessori approach can serve as just such a framework. However, if Montessori school leaders do not understand or are not convinced of the efficacy of this Montessori framework, competing frameworks may arise, thus lowering overall program coherence. In such cases, school leaders may also be at odds with their Montessori teachers, who have undergone extensive training, as described above. Such a situation may also lower the quality of coaching or support that Montessori teachers receive, and would likely impact teacher satisfaction and efficacy, perhaps with significant disruption to teaching and learning.

Furthermore, Montessori school leaders who do not adequately understand or are not convinced of the efficacy of Montessori educational paradigms hold the potential to reduce school capacity, or "the collective power of an entire faculty to strengthen student performance throughout their school" (Youngs & King, 2002, p. 645) by showing less support for the Montessori program they supervise (e.g., Wright, 2015; Youngs & King, 2002). Essential elements of the Montessori philosophy (which are common to all levels but which may be expressed differently according to the level of the students served) are described below.

Elements of Montessori philosophy. Certainly Maria Montessori and others have written volumes to describe in detail essential elements of the Montessori approach. Drawing on

the helpful primer by Pederson and Pederson (2008), the following is not designed to be an exhaustive list of Montessori elements, but rather to provide an overview of some of the essential Montessori principles that a Montessori school leader would need to understand, model, champion, and consider from a whole-school perspective.

Prepared environment. The goal of the prepared environment is to facilitate the full development of each student by making available opportunities and activities that best suit a student's stage of development. The prepared environment hinges both on the physical classroom, including how it is arranged and what is or is not present, and on the teacher's observation of what each child might need next. The prepared environment empowers students to be able to take initiative and work with as much autonomy as possible.

Freedom and limits. Montessori teachers aim to provide freedom to students to explore the learning environment and new ideas, yet within carefully designed limitations. The prepared environment functions as one limit, as not all learning materials are available to all students at all times. Classroom norms, an essential aspect to classroom community (described below) functions as another limit. Within these limits, and with periodic guidance from the teacher, student work can be largely self-directed.

The teacher as guide. Montessori teachers do not consider students "empty vessels" waiting to be filled with knowledge, but instead have a deep respect for the inherent intelligence of all humans. They seek to function as "guides" to learning, carefully observing each student and providing appropriate lessons, materials, and experiences to stimulate interest and growth. In order to act in this capacity, Montessori teachers strive to work collaboratively with students, demonstrating deep respect and avoiding extrinsic motivators which can lower intrinsic drive.

Montessori teachers also strive to always model appropriate behavior for students and to maintain a balanced temperament.

Principle-based learning. Montessori student learning is based on principles, as opposed to a narrow focus on specific facts or rote memorization. Across all levels, the emphasis for student learning is on building core knowledge and reasoning skills which can then be extended to and applied in various situations.

Purposeful work. Within a Montessori classroom, work is considered incredibly important, even noble. Students who are working are not to be disturbed, and even very young children refer to their classroom activities as "work," not play. Work done in a Montessori classroom is to purpose, and the purpose for all work is clarified for students whenever necessary.

Classroom responsibility. Students in a Montessori classroom are responsible for themselves and their behavior and for contributing to the classroom community. This includes care of the environment: maintaining personal materials, caring for and replacing classroom materials to their proper location, restoring the prepared classroom environment to pristine condition each day, and caring for any plants or animals.

Community. Montessori classrooms strive to model a high-functioning mini-society, where students develop as whole people and learn how to function as independent beings within an interdependent network. Montessori classrooms emphasize the value of collaboration, service, and close relationships with peers, teachers, and family members. Peaceful and restorative conflict resolution is taught and modeled.

Montessori organizations in America. Despite finding a common basis in the work and writing of Dr. Montessori, Montessori schools are not a homogenous group. One concern of the

Montessori community in general has long been the fact that since "Montessori" is not a trademarked term, the public may be misled regarding the quality (sometimes termed "authenticity") of a particular program (Debs, 2016b; McKenzie, 1994). There is nothing illegal about a school or program claiming to be "Montessori," while not adhering to important Montessori practices or philosophy.

In part because of this concern, a number of Montessori membership organizations currently exist, with functions of both ensuring quality and advancing member interests. Unique among Montessori organizations is the Montessori Accreditation Council for Teacher Education (MACTE). Since 1995 MACTE has been recognized by the US Department of Education as an accreditor for Montessori teacher education, providing several benefits to the Montessori community. Most importantly, since MACTE serves as a uniting organization for a variety of affiliated Montessori organizations; it allows the Montessori community to learn from one another and to speak with "one voice" to policymakers and stakeholders about Montessori education. MACTE and other Montessori affiliate representatives have advocated to state policymakers across the county, and a teaching credential from a MACTE-accredited program is now part of an alternative path to teacher licensure in several states, including Montana, South Carolina, Georgia, Hawaii, Iowa, Minnesota, Connecticut, and Wisconsin.

In hiring qualified Montessori teachers, a diploma or credential from a MACTE-accredited program is often considered essential. Most, though not all, MACTE- accredited teacher education programs are also affiliates of an additional Montessori member organization, which has teacher education as a part of their overall mission. The largest such program in the United States is the American Montessori Society (AMS), comprised of approximately 16,000 individual members worldwide, over 1,000 member schools, and roughly 100 affiliated teacher

education programs to date. Also well-recognized in the US and abroad is the Association Montessori Internationale (AMI), which has 223 recognized US schools starting the 2018-2019 school year and 20 affiliated teacher education programs.

Both AMS and AMI accredit schools, have clear guidelines for teacher education (sometimes in addition to MACTE requirements), and support their individual and school members with a variety of resources and opportunities. Although they are the oldest, largest, and most well-recognized Montessori organizations today, AMS and AMI are not the only Montessori organizations with affiliated schools and teacher education programs. Other similar organizations include the Montessori Education Programs International (MEPI), the International Montessori Council (IMC), the International Association of Progressive Montessori (IAPM), the Montessori Institute of America (MIA), and the Pan American Montessori Society (PAMS). All of these organizations also have affiliated training programs, many of which are accredited by MACTE.

School leaders in Montessori settings. Since Montessori settings are based on the unique philosophical and methodological approach of Maria Montessori, Montessori school leaders must be versed in both the philosophy and the methods of Montessori, in addition to having the requisite knowledge and skills promoted as best practice for any school leader.

The 2015 Professional Standards for Educational Leaders (PSEL) represent the most current iteration of aspirational standards for school leaders, developed and approved by the National Policy Board for Educational Administration to inform the preparation, licensure, and professional practice of school leaders. The introduction to the 2017 *Handbook of Research on the Education of School Leaders* describes the creation of the 2015 PSEL as the most current step in the evolution of school leader standards, revised from the Interstate School Leadership

License Consortium (ISLLC) standards, which were approved in 1996 and then adopted or adapted by over 40 states, with a revision occurring in 2008 (Young & Crow, 2017). Montessori school leaders not only need an understanding and awareness of the items represented in the PSEL, they must also consider how the PSEL are best manifest within a Montessori context, so that the expression of these standards is consistent with the Montessori approach.

Specialized training for Montessori school leaders (either in conjunction with or in lieu of traditional programs) can serve to fill this gap in order to prepare school leaders for success in Montessori settings. Indeed, policymakers and researchers include "Montessori-trained administrators" among important best practices for Montessori schools (Debs & Brown, 2017; National Center for Montessori in the Public Sector, 2016). Yet many, perhaps even most, Montessori school leaders take their positions without any specialized training that is specific to leading Montessori schools (e.g., Culclasure, Fleming, & Sprogis, 2016). School leaders who lack essential knowledge and skills for leading in Montessori settings has been often cited as a concern of Montessori teachers, who see administrators who lack an adequate understanding of the Montessori approach as a challenge to implementing Montessori best practices and a source of frustration (e.g., Culclasure et al., 2018; Murray & Peyton, 2008). Such leaders are therefore incapable of leading Montessori teaching and learning, so they cannot function as the instructional leaders of the school.

Current training options for Montessori school leaders. MACTE does not currently accredit programs for the training of Montessori school leaders, but a handful of options offering specialized training, workshops, and/or networking options for Montessori school leaders does exist. AMS is the only MACTE affiliate currently offering training for Montessori school leaders which leads to a credential: the AMS Administrator Credential. At present, there are eight

training programs approved by AMS to offer this credential. To gain approval, each training program has shown that they meet and adhere to the published standards for the AMS Administrator Credential, and they undergo a self-study and peer review process for initial approval, for any substantive changes, and at least every seven years. Outside of AMS, there are a handful of organizations which offer a formal course of study for school leaders, but none of these currently result in a Montessori credential of any kind upon completion, and they are not known to adhere to any written standards.

Peer reviewed research focused specifically on the preparation backgrounds of Montessori school leaders does not currently exist, leaving several unknowns. In the public sector (excepting, perhaps, some charters) Montessori school leaders almost certainly hold licensure appropriate for their state, and have therefore likely completed some form of traditional school leader preparation, usually through an accredited university. In the private sector, for charter schools, or for leaders who took an alternative route to licensure, this may not be the case. Indeed, it is possible that some Montessori school leaders take their positions without any formal preparation for educational leadership, especially in the private sector. Beyond traditional preparation, it is also currently unknown what percentage of Montessori school leaders have participated in any of the leadership training options offered by Montessori organizations, or what their experiences have been in such programs. In short, it is currently unknown whether high-quality preparation exists to meet the specific needs of Montessori school leaders, and if such training does exist, whether it is currently widespread.

A growing need. The need to prepare school leaders for their work in Montessori settings is also a growing concern with the continued growth of Montessori. Montessori education generally has been expanding at increasing rates, and in the public sector particularly,

over the past four decades (Debs, 2016b; National Center for Montessori in the Public Sector, 2014; Whitescarver & Cossentino, 2008). There are currently over 500 public Montessori schools in the US, making the Montessori approach the single-largest alternative pedagogy in American public schools today (Debs & Brown, 2017).

There are several possible reasons for the continued growth of Montessori schools generally, and public Montessori schools in particular. Public Montessori education has been linked to positive student outcomes, (e.g., Culclasure et al., 2018; Lillard & Else-Quest, 2006; Lillard et al., 2017), including more equitable outcomes for students of color as compared to traditional programs (Culclasure et al., 2018; Debs & Brown, 2017; Lillard et al., 2017). Because of wide appeal, public Montessori schools may show promise for school desegregation efforts (Debs, 2016a), although there are also diversity challenges, especially among charters (Debs, 2016b). Montessori models may hold particular interest for policymakers as well, as a model that is potentially well suited to meet the ESSA goals of "college and career readiness" while prioritizing family and community partnerships (Nitecki, 2015) and demonstrating high levels of teacher satisfaction (Culclasure et al., 2018).

Yet despite growth, Montessori schools are not without their challenges. Often-cited concerns for Montessori schools include balancing the Montessori method with external pressures, such as the pressures and time requirements of standardized testing (Culclasure et al., 2018; Murray & Peyton, 2008); equity concerns, such as maintaining diverse enrollments (Debs & Brown, 2017); and managing resources, including Montessori materials, trained teachers, and environments (Murray & Peyton, 2008). It is imperative that Montessori school leaders have an understanding of these challenges and that they be prepared to meet them creatively.

Problem of Practice

Given that the unique needs of Montessori school leaders are unlikely to be addressed by traditional leadership preparation programs, high-quality specialized training for Montessori school leaders is needed to fill the gap. Preparation standards can be in important lever for driving program quality (Young & Perrone, 2016), so the standards applied to the preparation of Montessori school leaders should be a function of both current educational research and the unique philosophical and methodological approach of Montessori schools.

At present, AMS is the only Montessori organization known to have written standards related to the preparation of Montessori school leaders, the standards for the AMS Administrator Credential. It is unknown to what extent these standards ensure that Montessori school leaders obtain the knowledge and skills needed to support Montessori schools in a variety of contexts.

The Montessori community could be well-served by a set of research- and theory-based aspirational standards to inform the preparation of Montessori school leaders. If these standards were adopted by MACTE, as accreditor of Montessori training programs, other Montessori organizations might also use them to develop high-quality preparation programs for Montessori school leaders, thus meeting the growing need for well-prepared Montessori school leaders. In addition, a credential from a MACTE-accredited leadership preparation program could conceivably become a path for school leaders who want or require administrative licensure or leadership endorsements specific to Montessori settings, just as a credential from a MACTE accredited teacher education program has become an alternative path to licensure in some states. Further research is needed to determine whether current AMS Administrator Credential standards are suitable for adoption by MACTE, or whether the Montessori community would see MACTE accreditation as beneficial.

Purpose and Significance of the Study

The problem of practice is that this study addresses is that much is unknown about the impact of current AMS Administrator credential standards. There is currently no research specific to the preparation of Montessori school leaders, despite the facts that Montessori school leaders have unique needs, and high-quality training can help prepare leaders for success in Montessori schools. Although standards can be an effective lever for program quality, only one set of standards for the preparation of Montessori school leaders (the AMS Administrator Credential standards) is known to currently exist. The purpose of this descriptive mixed-methods study is to better understand the preparation needs of Montessori school leaders and to what extent the AMS Administrator Credential standards currently meet those needs.

Research questions. This study addresses the following questions:

1. What kinds of preparation for school leadership do Montessori school leaders receive before taking their positions?
2. What do Montessori school leaders report as essential aspects of their work? How well do these align with current AMS Administrator Credential Standards?
3. What do experts in Montessori school leadership (current and former Montessori school leaders, as well as Montessori leadership training program coordinators and faculty) see as the role of standards for Montessori school leaders?
    a. Does the Montessori community see value in incorporating existing national leadership standards (e.g., the PSEL) into standards for Montessori school leaders?
    b. Would MACTE accreditation of Montessori school leadership programs be seen as a benefit? Why or why not?

Conceptual Framework

The conceptual framework, or logic that guides this study, is that since school leaders make an important (albeit indirect) impact on student outcomes, the preparation of school leaders is important. Since standards often drive the content of school leader preparation programs, it is important to determine how standards are currently being utilized. (See Figure 1.) Although Montessori school leaders have unique knowledge and skill needs, it is unknown how current standards for Montessori school leaders are utilized, or to what extent these standards represent the knowledge and skills needed by Montessori school leaders today.

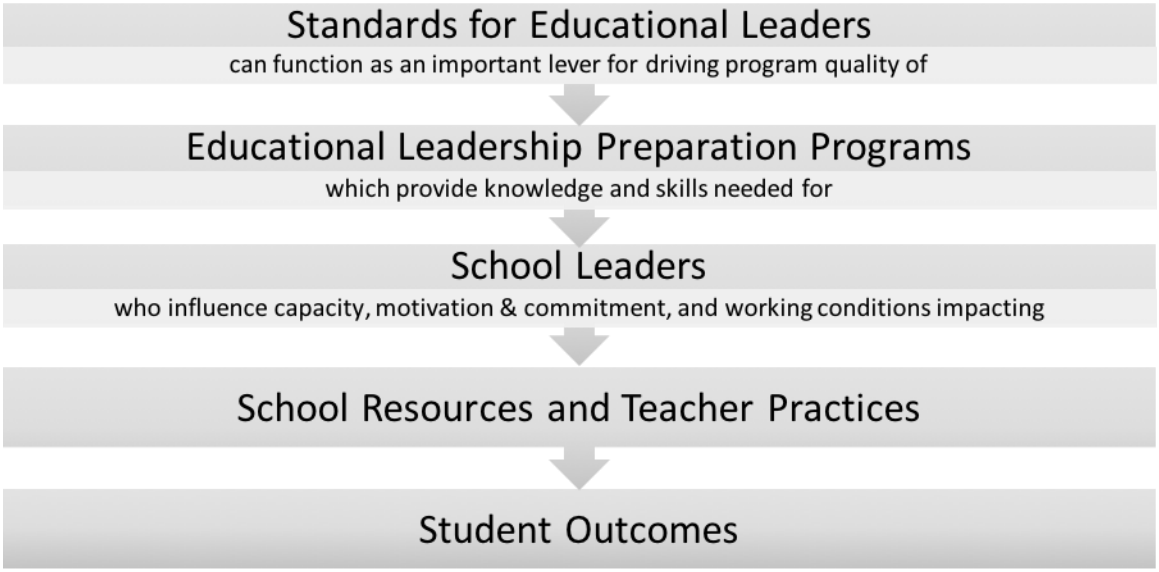

Figure 1. Conceptual Framework, adapted in part from Leithwood, Harris, and Hopkins (2008).

Theoretical Framework

Integrated school leadership. Understanding leadership theory "provides a guide to leadership practice" (Bush & Glover, 2014, p. 565). Integrated school leadership (Marks & Printy, 2003; Printy, Marks, & Bowers, 2010), which combines shared instructional leadership

and transformational leadership models, represents one school leadership theory which holds promise for Montessori settings.

As outlined by Hitt and Tucker (2016), theories of school leadership have mostly followed a developmental arc, with new theories building on and extending previous ones. By the mid-1980s, instructional leadership was the dominant paradigm, with an emphasis on the principal as responsible for engaging in leadership functions most directly tied to teaching and learning, though this was expanded to include managerial behaviors (Marks & Printy, 2003). Instructional leadership was criticized, however, in the context of teacher professionalization as "paternalistic, archaic, and dependent on docile followers" (Marks & Printy, 2003, p. 373). Shared instructional leadership then, was adopted by Marks and Printy (2003) as representing a more inclusive instructional leadership paradigm, where principals and teachers interact and collaborate to address the instructional program of the school. Shared instructional leadership as a framework works nicely for Montessori schools, where trained teachers would be expected to highly competent, experts in both the Montessori pedagogical approach and in the needs and characteristics of the students they serve. In fact, teacher leadership, a concept closely related to shared instructional leadership, fits so well within Montessori settings, a new and growing model of Montessori schools (Wildflower schools) is based on small, independent and self-contained classroom-schools, led solely by "teacher leaders," who take responsibility for all aspects of the school (Cohen, 2017).

Transformational leadership began to take hold in the 1990s, with influence from non-school organizations and building on the work of Burns (1978). Transformational leaders "motivate followers by raising their consciousness about the importance of organizational goals and by inspiring them to transcend their own self-interest for the sake of the organization"

(Marks & Printy, 2003, p. 375). Leithwood (1994) described transformational leaders as having a focus on vision and group goals, while maintaining high expectations, modeling appropriate behavior that is consistent with values, providing intellectual stimulation in the form of challenges to staff regarding the nature of work, and providing respectful support. Transformational leadership also fits extremely well in a Montessori setting, as Montessori teacher training emphasizes personal work and transformation of the teacher, as well as a commitment to peace and justice, which are precisely the kind of ideals that can inspire teachers to transcend self-interest to engage in Montessori's grand vision of education as a means to improve society and the world.

In examining shared instructional leadership and transformational leadership, Marks and Printy (2003) reported that effective school leaders in fact utilize both kinds of leadership simultaneously, thus engaging in integrated school leadership. They state that "When the principal elicits high levels of commitment and professionalism from teachers and works interactively with teachers in a shared instructional leadership capacity, schools have the benefit of integrated leadership; they are organizations that learn and perform at high levels." (Marks & Printy, 2003, p. 393)

Integrated school leadership "provides a rich theoretical base" (Hitt & Tucker, 2016, p. 535) in the way that it recognizes both instructional and transformational leadership as complementary frameworks: "When teachers perceive a principal's instructional leadership to be acceptable, and sense that their input is valued, they then may become more accepting of the invitation to innovate and transcend" (Hitt & Tucker, 2016, p. 536). Integrated school leadership then is useful as a model for considering desired outcomes of the education of Montessori school leaders.

Definitions of Terms

Montessori approach. Used here to convey the entirety of the Montessori paradigm as established by Dr. Maria Montessori, including the pedagogical approaches (which are specific to the ages/level of the students) and the overarching philosophical considerations.

Montessori Accreditation Council for Teacher Education (MACTE). The body which is recognized by the US Department of Education to accredit Montessori teacher education programs.

American Montessori Society (AMS). The largest Montessori member organization, comprised of approximately 16,000 individual members worldwide, over 1,000 member schools, and roughly 100 affiliated teacher education programs. AMS is also a MACTE affiliate, and all AMS teacher education programs are required to hold MACTE accreditation.

School leader. A purposefully broad term, meant to include not only the primary school leaders: building leaders (principals or school heads), but also teacher leaders and other leaders, as outlined in the integrated school leadership model. Although the majority of school leaders who participate in this study will likely be building leaders, the broader term is used here to indicate the value of considering standards which can support teacher leaders as well.

Instructional leadership. Leadership focused on teaching and learning; a framework of leadership practices which encompasses leadership actions to support the achievement of students and the ability of teachers to teach (Marks & Printy, 2003).

Shared instructional leadership. A model where teachers and principals collaboratively engage in instructional leadership practices.

Transformational leadership. Leadership which develops the capacity of the organization via commitment to collective goals and the larger good (Leithwood, 1994).

Integrated school leadership. A model of leadership which combines shared instructional leadership and transformational leadership (Marks & Printy, 2003).

Summary

School leaders make an important impact on student learning through a variety of skills, approaches, and attributes. In order to equip school leaders for success in a variety of settings, the preparation of school leaders is important. Professional standards often drive the content of school leader preparation programs, so it is important to have high-quality standards that are utilized appropriately by preparation programs. Although Montessori school leaders have unique needs, it is unknown how current standards for Montessori school leaders are utilized, or to what extent these standards represent the current knowledge and skills needed by Montessori school leaders.

Chapter 2: Literature Review

The problem of practice is that this study addresses is that much is unknown about the current impact of the AMS Administrator Credential standards. To inform and contextualize this work, the following literature review briefly outlines the challenges and opportunities currently facing Montessori schools, the impact and practices of effective school leaders, and standards informing the preparation of school leaders in the United States.

Montessori Schools: Opportunities and Challenges

As Montessori schools have grown in both number and ages of students served, educational research on Montessori has also expanded to examine outcomes of Montessori programs as well as challenges to and tensions within them. Montessori school leaders should be prepared to both harness opportunities and address challenges facing Montessori schools.

Montessori appeal. Since the mid-1990s Montessori schools have proliferated in what has been described as a new, "third-wave" (Whitescarver & Cossentino, 2008, p. 2590) period of intense interest in the United States, including in the public sector. According to Debs (2018), there are 511 public Montessori programs in the Unites States, serving approximately 125,000 children between ages three and 18, more than half of whom are students of color. The growth of Montessori as an educational paradigm can be attributed to an educational approach that has broad appeal to parents and policymakers for a variety of reasons.

Families choose Montessori education for a variety of reasons (Debs, 2016a; Parker, 2007). These reasons can include a belief that Montessori schools (with their emphasis on intrinsic motivation) will foster a love of learning, the ways Montessori programs emphasize each child's development as an individual, or because they believe that academic outcomes in Montessori schools exceed those of other approaches. (Montessori organizations also often

advertise the testimonials of famous Montessori alumni, including Larry Page and Sergey Brin, co-founders of Google, and Jeff Bezos, the founder of Amazon, which may contribute to this kind of thinking.) Both families and policymakers can also be attracted by the student-centered and holistic approach, including an emphasis on social-emotional learning. Families and policymakers may also appreciate the ways in which the Montessori approach values family and community partnerships.

The growth of public Montessori may be attributable to the fact that in a political climate that increasingly wants to emphasize personalized learning and graduates who are "college- and career-ready," a Montessori approach can be seen as way to promote such goals. Policymakers may also find other aspects of Montessori schools appealing: high satisfaction of teachers with low rates of plans to leave their Montessori classrooms (Culclasure et al., 2018), and the possibility of Montessori schools aiding in desegregation outcomes (Debs, 2016a).

Montessori outcomes. Research on outcomes in Montessori is diverse and does not yet constitute a reliable body of evidence. This section provides a listing of some recent outcomes studies (within the last 15 years) related to Montessori education, with a brief discussion of general limitations to these kind of studies, followed by a more detailed look at two recent studies which have implications both for future evaluations of Montessori programs and for Montessori school leaders.

A number of studies (e.g., Ansari & Winsler, 2014; Byun, Blair, & Pate, 2013; Culclasure et al., 2018; Dohrmann, Nishida, Gartner, Lipsky, & Grimm, 2007; Hanson, 2009; Lillard & Else-Quest, 2006; Lillard et al., 2017; Lopata, Wallace, & Finn, 2005; Mallett & Schroeder, 2015; Md-Yunus & Peng, 2014) have looked at outcomes for Montessori students as compared to non-Montessori students, but these results overall have been decidedly mixed, and

the field in general faces several significant limitations, including (but not limited to) a lack of studies incorporating or approximating the design of a randomized control trial (e.g., Dohrmann et al., 2007; Hanson, 2009; Lopata et al., 2005; Mallett & Schroeder, 2015), the use of only one Montessori school or even class (e.g., Lillard & Else-Quest, 2006; Lopata et al., 2005), and lack of documented fidelity in Montessori practices (Ansari & Winsler, 2014; Dohrmann et al., 2007; Lopata et al., 2005).

However, when Montessori fidelity is taken as a central feature of study design, as it has been in two recent studies on Montessori outcomes (discussed in detail below) some Montessori settings have shown promising student outcomes, including among low-income students and students of color, groups which are traditionally underserved in American schools. Although Marshall's review of the evidence base around Montessori offered only the Lillard and Else-Quest (2006) study as providing particularly robust outcomes findings, Marshall nevertheless conceded that "fidelity is important because variation in how faithful Montessori schools are to the 'ideal' is likely to be an important factor in explaining why such mixed findings have been found in evaluations of the Montessori method" (2017, p. 4).

These two more recent publications on Montessori outcomes (which were not included in Marshall's 2017 review) utilized study designs that included documenting the fidelity of Montessori classroom. While there are limitations to both studies, and the evidence base on Montessori outcomes is still extremely limited, both studies offer important implications for the direction of future evaluations of Montessori education and for Montessori school leaders, and so they are included in more detail here.

Culclosure, Fleming, Riga, and Sporgis (2018). The Riley Institute at Furman University recently released the final report of its multi-year evaluation of Montessori education at the early

childhood and elementary levels in South Carolina public schools. This comprehensive examination also utilized a two-part fidelity study to determine to what extent classrooms were implementing the Montessori pedagogical approach with fidelity. The first part of this fidelity study entailed a survey (sent to each principal of the 45 Montessori programs in the state of South Carolina, which had an 80% response rate) that covered a variety of Montessori practices, including use of materials, multi-age groupings, and training of teachers (Culclasure et al., 2016). The second part of the fidelity study involved 126 unannounced 60-minute classroom observations. Observations were conducted by retired Montessori teachers who held a credential for the level they observed and who are described as having "extensive training" (Culclasure et al., 2018, p. 2) in preparation for these observations, though this training is not further described. Likewise, although the final report (Culclasure et al., 2018) does not describe the instruments used or their psychometric properties in great detail, several aspects are included. The observation instruments are described as being based on the Eight Principals of Montessori Education (Lillard, 2017) and on the Classroom Assessment Scoring System (Pianta, 2003), and as having been reviewed by experts from international and national organizations, as well as piloted and calibrated prior to use in this study, with an inter-rater reliability study conducted to establish and confirm the reliability of the instruments. The observation instruments focused around four areas: prepared environment; classroom climate; student learning; and teacher and assistant. Stratified random sampling was used to select classrooms for these visits, so that at least one Montessori classroom was observed for one hour in each school. Teacher interviews were also included in these classroom observations, focusing on lesson planning; record keeping; and student assessment. In classifying fidelity, scores in each of the above categories from the observation and the interview contributed to a score for that category, which was then each

averaged to assign each classroom a score ranging from 0% to 100%. Each school with a Montessori program could then also be assigned a score, based on the observations of classrooms in that school. High-fidelity programs (schools) had scores of 88% to 100%, and mid-fidelity programs had a score of 75% to 87%. Low-fidelity programs scored 74% or lower, and the students of these programs were not classified as "Montessori students" for the purposes of outcomes analysis. Although the report does not provide extensive details about the properties of instruments used nor of precise scoring methods, leaving questions about the validity of scores for each category and overall, this fidelity study nevertheless represents a new approach to Montessori evaluations; no previous research of Montessori programs has attempted such measures of fidelity on such a large scale.

To analyze academic student outcomes, researchers examined a dataset provided by the South Carolina State Department of Education containing all public school students in the state from the start of the 2012-2013 school year until the end of the 2015-2016 school year. Importantly, the database contained an indicator for students in Montessori classrooms, but as described above, researchers ensured correct coding for students. Selection bias is a significant threat to evaluations of Montessori, and while this threat could not be eliminated entirely, the researchers utilized three methods for estimating the effect of Montessori education. First, analysis focused on growth or change over time for individual students, rather than a one-year snapshot of progress. Second, the authors describe using statistical techniques (though neither the techniques nor the factors are not described in detail) to account for factors such as family income or disability. Finally, the research team employed a matching technique similar to the virtual control records popularized by the Center for Research on Education Outcomes (CREDO) of Stanford University by matching each Montessori student with a non-Montessori student who

attended a school in the same district and had the same race, gender, language status, special education status, and free/reduced lunch status. In addition, students were matched by the previous year's test scores, with any potential match that had differed in these scores by more than .20 standard deviations being rejected. This allowed researchers to create a comparison group of non-Montessori students who were as similar as possible to the Montessori students on these observed characteristics.

Academic proficiency and growth were measured by South Carolina standardized tests in math, English-Language Arts (ELA), science, and social studies. The authors reported that "when compared to non-Montessori public school students across the state, Montessori students were more likely to have met or exceeded the state standards in each of the four subjects" (Culclasure et al., 2018, p. 3). Analysis found that differences between ELA scores of Montessori students and non-Montessori students were statistically significant for all three years of data, with Montessori students showing more growth. Differences between the math and social studies scores of Montessori and non-Montessori students were each statistically significant in two of the three years, with Montessori students showing more growth each time the difference was significant. Differences between the science scores of Montessori and non-Montessori students were also statistically significant in two of the three years, but results were mixed, with Montessori students showing more growth than their matched peers one year, but less growth in another year.

Researchers also examined affective outcomes for Montessori students, including measures of executive function, creativity, work habits, and social skills, choosing characteristics that have been conceptually linked to Montessori practices (such as sustained attention, freedom and choice, and community building) and prior research (e.g., Lillard & Else-Quest, 2006).

Results for executive function were mixed over the years, but researchers asserted that "Montessori students generally perform similar to or better than non-Montessori students" (Culclasure et al., 2018, p. 3) on these measures. Montessori students scored significantly higher on measures of creativity, and there were no differences found in measures of work habits or social skills.

Finally, researchers examined behavioral outcomes for Montessori students using data from PowerSchool (which is utilized by all South Carolina classrooms), including attendance rates, disciplinary incidents and suspension rates. After matching, Montessori students demonstrated significantly higher attendance rates and were significantly less likely to have had a disciplinary incident or served a suspension.

Beyond fidelity and student outcomes, this evaluation also examined the demographics of Montessori students and Montessori teacher perceptions of their work, including job satisfaction and concerns. Looking at 7,402 students participating in Montessori public programs in 45 schools across 24 districts, it was found that while Montessori students were "generally quite similar demographically to other public school students across the state, Montessori students were more likely to be white and higher income when compared to non-Montessori students in the same district " (Culclasure et al., 2018, p. 3). Teachers reported overwhelming job satisfaction and an intent to stay in their Montessori classrooms. Even still, their work was not without challenges. Teachers reported concerns over "the authenticity of their school's program, school and district administrators' lack of understanding of Montessori, the pressure of a standards- based curriculum, and the amount of time spent testing" (Culclasure et al., 2018, p. 4).

School leaders well-versed in the Montessori approach could function not only as the complete solution to one of these concerns, but could reasonably be expected to have significant power to help mitigate the impact of other documented concerns as well. The concern of "authenticity" could be addressed by school leaders who shape a vision for the school that is grounded in the Montessori approach. The "pressure of a standards-based curriculum" could be addressed by the provision of instructional support for teachers wrestling with best practices for implementing Montessori within a standards-driven context, a task which would fall under integrated school leadership. Testing concerns could be addressed by Montessori school leaders in two ways: reworking school schedules to reduce the impact of testing time on Montessori work cycles, and by engaging in advocacy and education regrading high-fidelity Montessori practices and the impact of testing time on Montessori classrooms.

Lillard et al. (2017). Although less extensive in scope than the evaluation described above, this study is important for not only taking into account measures of fidelity (measured by AMI recognition), but for a longitudinal study design which utilized a randomized lottery-based admission to two public Montessori schools in order to compare students who attended the Montessori schools with students who had applied, but were not selected to attend the Montessori schools. Taking advantage of this kind of lottery system allows researchers to more closely approximate a randomized control trial, mitigating the selection bias common in evaluations of Montessori programs, as students who were randomly selected for admission should not be substantively different from children who applied but were not selected for admission.

Although the two Montessori schools in this study served children through elementary and secondary levels (one school to sixth grade, one school to eighth grade) the scope of this

study, in keeping with Lillard's previous work (e.g., Lillard, 2012; Lillard & Else-Quest, 2006), was to focus on children ages three to six, following them from the first semester of preschool and for the next three years, corresponding to the early-childhood classroom cycle. The final sample included 141 students, 70 in Montessori, and 71 in other schools. Students were tested four times on a variety of measures (described below) from the first semester of preschool as a three-year-old (point one) every year until age 6, the natural end of a Montessori early childhood classroom.

The researchers focused on comparing Montessori students with non-Montessori students on various measures. Academic achievement was measured utilizing the Woodcock Johnson IIIR Tests of Achievement (Woodcock, McGrew, & Mather, 2001), combining scores of various tests for an overall academic achievement. Theory of Mind, a construct which measures social cognition (which predicts later social competence) such as understanding that a person can hold a false belief social problem solving, was measured with the Theory of Mind Scale (Wellman & Liu, 2004). Social competence was measured even more directly using Rubin's Social Problem-Solving Test (Rubin, 1988), where students come up with strategies to solve a social dilemma presented in story form. Executive function was measured by two tests, as a complete battery was not feasible due to time constraints: the Head-Toes-Knees-Shoulders task (McClelland et al., 2007), where students must do the opposite of a command (e.g., touching their shoulders when told to touch their knees) and the Copy Design subtest from the Visuospatial Processing section of the NEPSY-II (Korkman, Kirk, & Kemp, 2007), where students see a design and hold it in mind to create a visual copy of the image they were shown. Mastery orientation refers to the belief that one can master challenges and increase abilities with effort, and was measured by a puzzle task (Smiley & Dweck, 1994) where students were given a very easy puzzle and a very

difficult puzzle, and then offered the opportunity to work on either puzzle again. School enjoyment was measured by assessing children's liking of school lessons and reading via smiley face scales, along with their liking of leisure activities, such as playing, since young children frequently give highly positive responses to such measures. Creativity, the final construct measured at the four time points was measured by the Alternate Uses task (Guilford & Christensen, 1973), which asks children to come up with as many uses as they can for an ordinary item, such as a paper clip.

Although there were no differences between Montessori and non-Montessori students at the first testing point, the researchers reported that over the three years, Montessori students demonstrated stronger outcomes on measures of academic achievement, social understanding (theory of mind), and mastery orientation, and reported greater enjoyment of academic tasks than non-Montessori students. There were no differences noted for executive function (unlike in prior studies), for social competence, or for creativity. Also of note, researchers found that Montessori schools tended to equalize academic outcomes among subgroups which typically demonstrate unequal outcomes. For example, although a statistically significant difference between academic achievement of low-income Montessori students and higher-income non-Montessori students was present at the first time point, this difference was smaller at each subsequent testing point, and was not statistically significant at the end of the study.

While this study offers support for high-fidelity Montessori as an efficacious early childhood educational approach, the Montessori approach nevertheless remains something of a "black box" in terms of how various components may contribute to outcomes, and it does not address other levels of Montessori classrooms. Indeed, while fidelity has been shown to have an impact on student outcomes (Lillard, 2012) it nevertheless remains unknown to what extent

Montessori teacher training, Montessori teacher characteristics, or the value-added components of Montessori materials and their presentation impacted student outcomes in this study. Not addressed by the authors, but worth mentioning are also the Montessori school leaders, who may have also had an impact on teacher training, the purchase of Montessori materials, and supporting practices considered essential to high-fidelity implementation of the Montessori approach, such as mixed-age groupings of children within a class and classroom schedules which allow for extended periods of uninterrupted work time.

Challenges facing Montessori education. Even with some promising research regarding the impact of a Montessori approach for student outcomes, research and other publications have demonstrated a number of challenges facing Montessori schools. Montessori school leaders can help to address these challenges, but they must first understand the challenges facing Montessori schools, and then make a commitment to advocating for high-fidelity Montessori practices, including the pursuit of equity and social justice.

Racial Disparities. As mentioned, more than half of the students in public Montessori settings are students of color, and black students in particular were enrolled in public Montessori schools at a rate that 11% higher than the nationwide rate for public schools (Debs, 2016b). In their review to examine how students of color are served in Montessori settings, Debs and Brown (2017) indicate that Montessori schools are not immune from racial disparities seen in the broader American educational landscape.

Like the traditional public schools nationwide (Taie & Goldring, 2017), Montessori schools have a discrepancy between the racial makeup of students and that of teachers; Montessori teachers are still overwhelmingly white and female (Debs & Brown, 2017). While access to (including outreach and funding for) teacher training may be one facet of the problem

(Debs & Brown, 2017), the discrepancy is concerning for a number of reasons, including that white teachers may have lower expectations for students of color (Gershenson, Holt, & Papageorge, 2016). In fact, Achinstein, Ogawa, Sexton, & Freitas summarized research which indicated that "teachers of color can produce more favorable academic results on standardized test scores, attendance, retention, advanced-level course enrollment, and college-going rates for students of color than White colleagues" (2010, p. 72).

Although it is unknown to what extent such differences between white teachers and teachers of color exist in Montessori settings, it is not likely that Montessori settings are immune from such issues. As one indication of such possible racial disparities, Brown and Steele (2015) examined racial disparities in discipline between three public Montessori and three public non-Montessori schools in a large, urban, southeastern school district. After choosing a district which had at least three Montessori schools that met racial diversity criteria, the authors chose three schools from within the same district that could be matched to the Montessori schools in racial and socio-economic demographics, as measured by the percentage of student who qualified for free and reduced lunch programs. The authors then calculated the Relative Rate Index of out of school suspensions for black students and white students using suspension data from the Office of Civil Rights Data Collection. The authors' calculations of racial disparities in discipline, as measured by the rates of out of school suspensions in these schools during the 2011-2012 school years indicated that while the effects were significantly less pronounced in Montessori settings, such disparities were still statistically significant in both Montessori and non-Montessori classrooms (Brown & Steele, 2015).

Montessori school leaders must pay careful attention to issues of equity in schools, and certainly they wield tremendous power in hiring practices, training and professional development

for staff, and discipline approaches. Although this is true for all school leaders, Montessori schools in particular should be on the forefront of educational practices which prioritize equity, given that the Montessori approach takes the inherent worth, capability, and dignity of each person as foundational. Beginning with Maria Montessori herself, Montessori schools have a long history of valuing, supporting, and finding success with students underserved by broader society, but this does not immunize Montessori schools from challenges facing the broader American educational landscape.

Resources. Other challenges to high-fidelity practices include budgetary concerns, such as the expense of training teachers, given that previously-trained Montessori teachers can be difficult to recruit (Murray, 2005), and maintaining complete sets of Montessori materials. Training a Montessori teacher can cost a school or district anywhere from six to 15 thousand dollars, depending on the training program, level of certification, and travel involved, as many places do not have access to local Montessori training. A full set of new Montessori materials for an early childhood or elementary classroom can also run between 20 and 30 thousand dollars. Although high-fidelity practices would ensure that these materials are impeccably maintained (with any broken or missing components replaced immediately) Montessori classrooms typically utilize far fewer consumable resources, so it is possible that maintaining a Montessori classroom over time may be equal to or less expensive than maintaining a non-Montessori classroom. Nevertheless, the high costs incurred in opening a new Montessori classroom can be daunting, and if materials or teachers need to be replaced, the costs are significant. Indeed, budget concerns were by far the greatest challenge uncovered in the research of Murray (2005), with concerns about salaries for classroom assistants, competitive teacher salaries, and the cost of materials mentioned most frequently.

Competing stakeholders. Like all schools, Montessori schools have a variety of stakeholders and influences, including students, faculty and staff, student families, and governance: board members and/or district influences. Montessori school leaders are responsible for maintaining, promoting, and clarifying a Montessori vision of education for their school, which also involves navigating external demands (district requirements, wishes of parents or board members) in such a way that the Montessori program is able to maintain fidelity. While not all stakeholders will place demands that are inconsistent with the Montessori approach, school leaders are nevertheless certain to face some such demands, so it is imperative that school leader decisions are considered with the Montessori approach as a guiding framework. Lakshmi Kripalani, a well-known Montessori teacher, trainer and consultant who was trained by and worked in close contact with Dr. Maria Montessori spoke to this need. She wrote in 1992 that "a principal in a Montessori school must familiarize him/herself comprehensively with the unique principles of Montessori pedagogy and its practice," citing also the need for special training for Montessori school leaders, which "would help them to function as a link and facilitator for the staff, children, parents and total community" (p. 2). No studies regarding the training of Montessori school leaders were found for this literature review.

Montessori Leadership. While research specific to Montessori school leadership is rare, and mostly not peer-reviewed, there are nevertheless a few sources which can shed light on the work of and recommendations for Montessori school leaders.

McKenzie (1994) surveyed fifty-seven teachers of three Montessori elementary principals, in order to describe instructional leadership practices of these Montessori school leaders. This research also outlined the most difficult and most frequent job responsibilities of Montessori school principals. McKenzie reported themes describing responsibilities that would

be common to any school leader, such as communication (including building consensus; communicating calmly, clearly, and fairly among diverse school constituents; and practicing public relations) as well as responsibilities that are unique to Montessori school leaders, including preserving and supporting the Montessori program (including educating parents to preserve the Montessori program, modeling Montessori philosophy, and mobilizing to obtain needed Montessori materials).

Murray (2005) surveyed 85 school leaders (the majority of whom were principals) in public Montessori elementary programs in order to learn more about the challenges facing such programs, specifically in regards to aligning Montessori practices with traditional standards, including increased standardized testing requirements. While this study did not examine the role of school leaders specifically, data on participants reveals interesting trends regarding Montessori school leaders, especially since the sample was shown to be reasonably representative of public Montessori elementary school leaders at the time of the study. With the caveat that data from over a decade ago may no longer be indicative of the field at large, it is still interesting that of the 85 participants, only two reported having a Montessori administrator credential. Furthermore, although 30 reported having some type of Montessori certification, only two respondents reported having spent time as teachers in Montessori classrooms themselves, indicating that even of the 30 participants who did pursue Montessori teacher training of some kind, 28 did not spend significant time practicing these skills or applying this knowledge in the classroom. Taken together, the participant demographics of this study indicate a field of Montessori school leaders which lacked significant training in the Montessori approach. This study indicated budget cuts (resources) as the most pressing concern of Montessori school leaders, followed by federal and state testing requirements, teacher issues, and district support.

Parent and community support were not found to be of pressing concern to the Montessori school leaders surveyed.

Youngs and King (2002) included a Montessori elementary school as one of four schools in which they examined the impact of principal leadership for professional development on school organizational capacity. In examining the principal leadership within the Montessori school, the researchers reported that the principal, who was initially unfamiliar with and unconvinced of the efficacy of the Montessori approach, had a turning point after visiting several urban Montessori programs and attending a Montessori conference. After this, the Montessori school principal increased program coherence by "buffer(ing) the school from the potentially negative effects of the new district initiatives by informing teachers that the school's focus would be on implementing the Montessori program" and by "align(ing) schoolwide professional development in Montessori (as well as literacy) with the school's goals for student learning, which helped restore the faculty's commitment to Montessori" (2002, p. 662). While the experiences of this principal would hardly qualify as training, the case nevertheless points to the both the need for Montessori school leaders to understand the Montessori approach and to the impact that a Montessori school leader can have when this need is met.

The Impact and Practices of Effective School Leaders

A body of educational research points to the impact that school leaders, including leaders of Montessori schools, have on school functioning and student outcomes. Thus, determining the specific leadership practices which make this impact has also been an important line of inquiry for educational researchers. This section outlines literature establishing the impact of school leaders on student outcomes and provides an overview of recent research, theory, and models which seek to establish some of the specific practices utilized by effective school leaders. Such

research provides an important basis for the establishment of educational leader standards, the focus of the next section.

Impact of school leaders on student outcomes. Educational research supports the idea that school leaders have an impact on student outcomes, as demonstrated by researchers utilizing a variety of analytical methods and strategies. This body of evidence supports the dedication of resources to the development of high-quality school leaders, as seen as in the inclusion of school leader development in recent federal policy, including the Every Student Succeeds Act (Young, Winn, et al., 2017).

In their review of research, Leithwood et al. (2004) report that "Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" and that "total (direct and indirect) effects of leadership on student learning account for about a quarter of total school effects" (p. 5). In reporting that the effects of leadership are considerably greater in schools which face more challenges, the authors comment that "there are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader" (p. 5).

Supporting the claims of Leithwood et al. (2004), Marzano, Waters, and McNulty (2005) conducted a meta-analysis of findings from 69 studies, "involving 2,802 schools, approximately 1.4 million students, and 14,000 teachers" and reported "the correlation between the leadership behavior of the principal in the school and the average academic achievement of students in the school to be .25" (p. 10). This correlation converts to a z score of .38 (Robinson et al., 2008) and provides compelling results to further the claim that school leaders can have a significant impact on student achievement.

Coelli and Green (2012) utilized an economic analysis of school principals, taking advantage of the way that school districts in British Columbia (BC) rotate principals to use the turnover of leaders within schools over time to examine the effects these leaders have on student outcomes, independent of individual effects (such as gender, First Nations status, home language spoken, or age) peer effects (using the same characteristics as examined for individual effects, but finding the average characteristics for all other students in the same school and year), or neighborhood effects (using census data to code students according to neighborhood characteristics, including single-parent households, average number of rooms in a housing unit, proportion of houses rented, unemployment rate, average family income, and other measures). Many districts in BC have an explicit policy regarding principal rotation (such as an explicit policy to rotate teachers every five years), creating an opportunity to examine a large data set for the impact principals may have.

Using data on all youth enrolled in grade 12 between 1995 and 2004 from the BC Ministry of Education, the authors use looked at grade 12 graduation rates and grade 12 English exams as the two student outcomes. The English 12 exams were chosen as the only academic measures which are required of all students and are scored centrally. The authors explained that because BC principals are not offered any obvious incentives for higher student exam scores (unlike in many parts of the United States), principals were unlikely to over-emphasize "teaching to the test" to try and game or cheat the system.

In total, the authors analyzed 504 principals leading 224 schools over this 10-year period to create a model of principal effects. One weakness of their model, however, was an inability to draw out teacher effects as a separate term, so teacher effects were absorbed into principal effects and/or the error term. To the extent that principals hire, retain, and develop high-quality teachers,

it may be appropriate to absorb teacher effects into the principal effects, as the impact of principals is commonly understood to be indirect and occurring (at least in part) through the teachers (e.g., Leithwood et al., 2008). One strength of the Coelli and Green model, however, was in the way that their analysis took into account that principals may only have a measurable impact on a school after a period of time. When analyzing principal effects after only the first year of a switch, changes were not significant. But when allowing time for a new principal to "make their mark" (Coelli & Green, 2012, p. 93) on the school, principal effects were small, but significant. In real terms, the authors indicated that a school receiving a principal who was one standard deviation better in their principal effects distribution could expect grade 12 graduation rates which were higher by one third of a standard deviation and English 12 final exam rates which were higher by one standard deviation. In short, "individual principals can matter in terms of affecting high school student outcomes" (Coelli & Green, 2012, p. 107).

Practices of effective school leaders. In establishing that school leaders play an important role in student outcomes, researchers have therefore sought to understand the "black box" of leadership practices in order to understand which practices have the greatest impact student outcomes. Even after establishing what kind of student outcomes to examine, there are at least two major challenges facing educational researchers in this work: data requirements for such lines of inquiry and the complexity of the work of school leaders (Grissom & Loeb, 2011). Collecting or accessing useful data is a challenge because such data needs to be comprehensive in order to statistically separate the effects of a principal from other school-level effects, and this is complicated by the fact that principals affect student outcomes indirectly (Grissom & Loeb, 2011). The complexity of the work of school leaders can also make it difficult to adequately categorize specific behaviors (Grissom & Loeb, 2011). Nevertheless, researchers have produced

studies which attempt to illuminate specific leadership practices and domains which most impact student outcomes. These attempts have typically been "theory free" (e.g., Marzano et al., 2005) or "theory driven" (e.g., Marks & Printy, 2003) with instructional leadership as the most common theoretical model (Leithwood & Sun, 2012, p. 388). Indeed, prevailing theories about school leadership both influence and are influenced by research on leadership behaviors, resulting in a variety of leadership models.

Towards an understanding of integrated school leadership. As referenced earlier, prevailing leadership theories have often followed a developmental arc, with current theories building on previous theories (Hitt & Tucker, 2016). Instructional leadership, defined as ''everything a principal does during the day to support the achievement of students and the ability of teachers to teach'' (Marks & Printy, 2003, p. 373) has been a prevailing model since the late 1970s. While transformational leadership (Burns, 1978) also gained popularity for school leaders during the 1990s, the emphasis on standards and testing in the 2000s brought instructional leadership models to the forefront again as having a greater impact on student outcomes than transformational leadership practices (Robinson et al., 2008).

Yet there remains evidence that the best school leaders in fact utilize both approaches (e.g., Day, Gu, & Sammons, 2016; Hitt & Tucker, 2016; Printy et al., 2010) and integrated school leadership (Marks & Printy, 2003) therefore holds great promise as a model which can predict and explain successful leadership practices (Hitt & Tucker, 2016). Indeed, Hallinger's (2003) review of instructional and transformational leadership points out the substantial similarities: both focus on leadership practices of creating a sense of shared purpose, cultivating a positive school climate and culture (of high expectations, and of improving teaching and learning), staff development, being a presence and modeling school values, and shaping reward

structures to match school priorities. The differences between the two models might be summed up as a top-down vs. bottom-up approach. Instructional leadership, targeting first-order changes where leadership resides primarily in an individual who coordinates and controls would be considered "top-down," whereas transformational leadership, targeting second-order changes where leadership is shared and an empowerment approach is utilized, would be considered "bottom-up" (Hallinger, 2003). However, at the level of what is measured, the two have much in common (Leithwood & Sun, 2012), supporting the claim that "almost all successful leaders draw on the same repertoire of basic leadership practices" (Leithwood et al., 2008, p. 27).

Indeed, successful school leaders, as conceptualized by these theories not only impact student learning as measured by academic achievement, but also strive to promote other essential aspects of "successful" schools, such as the promotion of "positive values (integrity, compassion, fairness, and love of lifelong learning), as well as fostering citizenship and personal, economic, and social capabilities" (Day et al., 2016, p. 223). Mulford and Silins (2011), contributed a model of successful school leadership which takes into account student empowerment and social development (along with academic outcomes) and which also draws on leadership practices that are consistent with integrated school leadership, including supporting regular, relevant professional development, a shared school vision, and a transparent and inclusive decision-making process.

One easily-overlooked aspect of integrated school leadership as conveyed by Hitt and Tucker (2016), is that it would be assumed to include organizational management within the instructional leadership framework: "broader views of instructional leadership also included managerial behaviors" (p. 534). This is important because research indicates managerial leadership practices, such as attending to school safety, budget management, and attending to

staff concerns, have important implications for student outcomes as well. Grissom and Loeb (2011) examined the impact of school leaders' skills using factor analysis of data collected from surveys of principals, assistant principals, teachers, and parents. The survey contained 42 task items adapted from the categories of major principal duties (Spillane, Camburn, & Pareja, 2007) which were organized into five dimensions: instruction management, internal relations, organizational management, administration, and external relations. In contrast to what Grissom and Loeb (2011) described as a prevailing emphasis on instructional leadership as the only relevant work of school leaders (and separate from organizational management practices), the authors' analysis found that the organizational management dimension to have an important impact. In fact, only the organizational management dimension, which included tasks items such as hiring personnel and dealing with staff concerns, consistently predicted all of the success measures examined in the study, whereas the instruction management dimension, seen in task items such as such as using data to inform instruction, evaluating curriculum, and planning professional development for teachers, was not shown to have the same impact. Thus the authors suggest that "we might conceive of effective instructional leadership as combining an understanding of the instructional needs of the school with an ability to target resources where they are needed, hire the best available teachers, and keep the school running smoothly" (Grissom & Loeb, 2011, p. 1119). This kind of instructional leadership, combined with transformational leadership, is the basis for the integrated school leadership model discussed here.

An integrated framework for the practices of effective school leaders. As described earlier, the framework put forth by Hitt and Tucker (2016) provides a cohesive set of practices based on towards which the authors posit school leaders can direct their efforts, based on their

synthesis of three current leadership frameworks and fifty six empirical studies published since 2000. From this extensive analysis, the authors determined 28 specific leadership practices shown to influence student achievement. From these 28 practices the authors created five overarching domains, resulting in a more unified framework for effective school leadership. As described, these five domains are "(a) establishing and conveying the vision, (b) facilitating a high-quality learning experience for students, (c) building professional capacity, (d) creating a supportive organization for learning, and (e) connecting with external partners" (Hitt & Tucker, 2016, p. 542). While a limitation might be that Hitt and Tucker utilize only student achievement data, the scope of their work in synthesizing leading scholarship nevertheless provides a useful snapshot regarding what is known about the practices of effective school leaders.

Standards for School Leader Preparation

As educational research and theory have evolved to further map the impact and practices of effective school leaders, standards regarding the role and preparation of educational school leaders developed as well, a function of both the accountability movement and the reform movement among scholars and teachers in university education leadership programs that began in the mid 1908s (Gordon, Taylor-Backor, & Croteau, 2017). This section outlines the development of national standards for school leaders and discusses current national standards for school leaders, as well as their possible application to Montessori settings. A discussion of the current AMS Administrator Credential concludes the section.

Development of standards for school leaders. Standards for school leaders evolved in response to two forces in American education, the accountability movement in the broader educational landscape, and a movement for reform within the field of educational leadership. As described by Gordon et al. (2017):

> The accountability movement [was] initiated in 1983 by the National Commission of Excellence in Education with its report, *A Nation at Risk: The Imperative for Educational Reform*, and codified on a national level 18 years later with No Child Left Behind. The accountability movement first focused on student achievement, but in domino style soon spread to accountability for teachers and administrators. The other force leading to the Standards came from the educational leadership professoriate, with a reform movement that started in the mid-1980s. (pp. 198-199)

Young, Anderson, et al. (2017) describe this reform movement taking shape "as professional associations like the University Council for Educational Administration (UCEA) sought to define a knowledge base for educational administration" (p. 228).

According to Young and Crow (2017), standards first became an established part of the educational leadership landscape with the development of the Interstate School Leadership License Consortium (ISLLC) standards, which were approved in 1996 and then adopted or adapted by over 40 states, with an update in 2008 (Young & Crow, 2017). Within a decade of this approval, the ISLLC standards became "the de facto educational leadership standards" (Young, Anderson, et al., 2017, p. 229), and by 2005, 46 states had either adopted or used the ISLLC standards in some way (Canole & Young, 2013).

Similarly, after the adoption of the ISLLC standards, the Educational Leadership Constituent Council (ELCC) developed a set of leadership preparation standards, in order to provide school leader preparation programs with the key knowledge and skills for school leaders at the beginning of their careers. These ELCC standards were then adopted by over 1,000 leadership preparation programs, resulting in school leader preparation curricula across programs

that was significantly more similar by the early 2010s than it had been in the 1980s, before the introduction of standards (Canole & Young, 2013; Young, Anderson, et al., 2017).

In the introduction to the 2017 *Handbook of Research on the Education of School Leaders*, Young and Crow describe creation of the 2015 PSEL as the most current step in the evolution of school leader standards. The purpose of the PSEL, similar to that of the ISLLC standards, is "to guide professional practice and how practitioners are prepared, hired, developed, supervised, and evaluated" (National Policy Board for Educational Administration, 2015, p. 2). The PSEL are incredibly robust, seeking to outline best practices for educational leadership broadly, across career stages and contexts. The National Educational Leadership Preparation (NELP) standards (as the updated ELCC standards) are related to and draw on the PSEL, but are designed to provide specificity for what beginning building leaders should know and be able to do as a result of completing a high-quality preparation program. While the PSEL have 10 standards and 83 corresponding elements, the NELP standards attempt to combine this content to fit into seven standards and twenty eight elements, with an additional standard relating to the internship/clinical experience of aspiring school leaders (Auchter et al., 2016). At the time that this study was conceived and proposed, the final version of the NELP standards was not available on the National Policy Board for Educational Administration website.

Discussion of current standards. Given that the final version of the NELP standards was not available in the planning and proposal stages of this study, the decision was made to focus on the PSEL as an update from the 2008 ISLLC standards. In their review of trends shaping leadership preparation research since 2006, Cobb, Weiner, and Gonzales (2017) settled on seven prominent trends: distributed leadership, leadership for data use, teacher evaluation, instructional leadership, turnaround school leadership, the evolving role of the district, and

leadership for social and justice and diverse learners, all of which can be seen in the PSEL. Gordon et al. (2017) classified the elements of the PSEL according to content and a comparison of that content to literature. Their analysis of the PSEL found 25 elements related to school improvement, 20 related to technical management, 16 related to instructional leadership, eight related to social justice, seven related to collaboration between the school and the community, four related to school law, policy, and governance, and three related to professional/ethical leadership. Murphy (2017) provides an overview of research upon which the PSEL are based, building on and extending similar work to map standards with empirical research (e.g., Canole & Young, 2013; Murphy, 2015).

Critiques of current standards. No standards are without critique. As mentioned, the very existence of standards posits that "it is possible to identify a prescribed set of priorities that can be shared among school leaders across a variety of contexts to effect desired educational outcomes" (Davis et al., 2015, p. 342). Regarding the ISLLC standards, Murphy (2005) offered a compelling overview of and answer to the most common critiques of the standards, which included concerns that they lacked empirical foundations, leaned too heavily on ideals, over or under emphasized certain content, were over- or under- specific in their requirements, and included "dispositions," a function of values and beliefs that school leaders hold. While some critiques are addressed in the PSEL (such as the decision to exclude specific lists of dispositions), others critiques (over or under emphasize content, too idealistic, lack of research-based evidence) are still credible.

It is important to note that while the PSEL are based in both theory and research (see Canole & Young, 2013; Murphy, 2015; 2017 for a review of research informing the standards), the PSEL are also characterized as "aspirational" standards (National Policy Board for

Educational Administration, 2015, p. 3), and they include the kinds of items described by Murphy as "craft knowledge" (2005, p. 170), both of which may be problematic to certain stakeholders. Gordon et al. assert that the two forces which created the PSEL (the accountability movement and the university-based reform movement) are "incongruent" (2017, p. 199), so stakeholders focused on one area (i.e., accountability or university-based reform) may have opposite objections to stakeholders with a different background.

Two specific critiques of leadership preparation standards, released at nearly the same time as the PSEL, were that the (ISLLC) standards lacked explicit references to race (Davis et al., 2015), and a failed to make equity a cornerstone of, and not just an addition to standards (Galloway & Ishimaru, 2015). While the PSEL have made great progress in this area, it is unlikely that critical scholars would view the standards as having a "cornerstone" of equity. Gordon et al. also make it clear they view the PSEL emphasis on technical management as problematic, especially when coupled with the disappearance of elements from the behavioral and social sciences from the PSEL. They assert that "the developers of the Standards have been more successful in reducing the influence of behavioral and social scientists than of the corporate sector" (2017, p. 202).

Strengths of current standards. Yet despite imperfections, there is much to appreciate in the PSEL. The PSEL, like the ISLLC standards, continue to build on both empirical evidence and craft knowledge, and make no apology for the attempt to create standards which are forward-thinking, aspirational, and adaptable for various contexts. Described as "model" professional standards, the authors assert that the PSEL "communicate expectations to practitioners, supporting institutions, professional associations, policy makers, and the public about the work, qualities and values of effective school leaders" (National Policy Board for Educational

Administration, 2015, p. 4). At the same time, the PSEL do not claim final authority on what school leaders should know and do. Instead, the document is clear that the standards should always be continually revised with new understandings and evaluated for their impact on the field. In addition, the PSEL embody a strengths-based approach, are student-centered, are supportive of teachers and teacher leadership, and demonstrate a commitment to equity and cultural responsiveness.

The PSEL are written in an optimistic tone, and encourage leaders to work with stakeholders for the benefit of all children, demonstrating a strengths-based approach to working with children and families. They specifically encourage collaborative leadership approaches, including several references to supporting teacher leadership and partnering with families and the local community. They value student and family culture and language, and encourage leaders to view each child's strengths, diversity, and culture as an asset for teaching and learning.

The standards put students at the center, emphasizing both academic success and well-being at the beginning of each standard. They include a reference to the education of the "whole child," and specifically call for school leaders to attend to a learning environment that meets the academic, social, emotional, and physical needs of each student, as opposed to focusing exclusively on academic achievement.

The PSEL recognize that the impact of school leaders on student outcomes is indirect, a function of high-quality teachers. Two standards specifically reference teachers and other staff who work directly with children, including standard six, which outlines the leader's role in developing the professional capacity and practice of school personnel, and standard seven, which references the leader's role in fostering professional community. The PSEL also contain several references to supporting teacher leadership, both explicitly in standard six and implied in

standard seven with calls to encourage "faculty-initiated" programs, to "empower and entrust" teachers with collective responsibility, and to "promote mutual accountability among teachers." In addition, the standards specifically reference the personal well-being and work-life balance of faculty and staff.

While critical theorists may object to equity as a standard, rather than as the centerpiece of all standards, (e.g., Davis et al., 2015) the PSEL do not shy away from explicit calls for leaders to "confront" and "alter" inequitable dynamics, including "institutional biases for marginalized groups" which are further explicitly named to include "race, class, culture and language, gender and sexual orientation, and disability or special status" (National Policy Board for Educational Administration, 2015, p. 11). Throughout the standards, student and family culture, including language, is presented as an asset, and equity and social justice are presented as a central components of school leader ethics and professional norms.

Current AMS standards. The problem of practice is that this study addresses is that much is unknown about the current impact of the AMS Administrator Credential standards, so a brief discussion of these standards is needed. Unlike the PSEL, the current AMS standards are not meant to be aspirational standards. Written for AMS school leader preparation programs for the purposes of ensuring that programs meet required standards, AMS Administrator Credential standards function as prescriptive standards, describing all requirements for preparation programs delivering the Administrator credential. Items include minimum contact hour requirements, qualifications for enrollees, qualifications for various faculty and directors of the program, content standards to be included, and requirements for course delivery (such as which components may be delivered online). The standards also provide a broad outline of the goals for the preparation program and list the competencies that graduates of the program would

demonstrate.

The AMS standards allow preparation programs to deliver the administrator credential via three possible models, with one model designed for school leaders who lack prior Montessori training, one for school leaders who lack prior training/expertise in educational administration, and one for aspiring school leaders who have neither Montessori training nor educational administration background. Training programs may offer one, two, or all three of these models. All models require that participants hold at least a bachelor's degree, and participate in a practicum phase of at least 720 hours where they serve in an administrative capacity at a school which contains at least one Montessori classroom. In describing content to be covered, the AMS standards describe five course components, each with relevant curricular elements listed via bullet points. These five course components are: "Program Development/Leading a Montessori School, Montessori Philosophy, Montessori Curriculum, Educational Leadership, and School Operations" with room for "other administrative topics" as well (American Montessori Society, 2018).

While the work of this capstone is to examine the extent to which the AMS standards help prepare school leaders for success in a variety of Montessori settings, analysis here of the current AMS Administrator Credential standards is meant to highlight possible strengths and weaknesses of these standards, both of which are explored in this study.

Possible strengths. Three possible strengths of the AMS standards stand out initially. First, the standards take into account the background expertise that adult learners may already possess by offering three possible models for adult learners. This allows adult learners to focus their contact hours more deeply on the areas of lesser expertise, thus honoring the time of busy professionals and tailoring the work to items which are most relevant, an important principle for

adult learning (Knowles, Holton III, & Swanson, 2014). Second, the AMS standards require graduates to demonstrate expertise in the two areas critical for Montessori school leaders: Montessori elements (philosophy and curriculum) and educational leadership. These two facets address the unique needs of Montessori school leaders, as discussed previously. Third, the AMS standards also include "other administrative topics" to allow training programs to expand beyond listed competencies. This is valuable because no list of standards can be exhaustive, and it allows training programs to deliver content according to their experience and expertise as well.

Possible weaknesses. In examining current AMS standards, two primary characteristics stand out as possible limitations of the current standards: the way that the three models overly separate Montessori elements from educational leadership elements, and the curricular elements listed under the five course components.

The first possible limitation of the current AMS standards relates to the prerequisites and exemptions of the three models. Although differentiating between adult learners who already hold a Montessori credential and/or a degree in educational administration/principal licensure is helpful, it is concerning that the current AMS standards imply that these areas of expertise are mutually exclusive. As an example, if an applicant already holds a principal's license, only content related to Montessori philosophy and curriculum would be required. One possibility for this adult learner to obtain this Montessori content would be to spend 250 contact hours receiving training from an AMS-affiliated teacher education program of a particular level (such as the early childhood or elementary level), as long as those 250 hours included Montessori philosophy content. While certainly such expertise would be valuable, such a graduate may continue to view the Montessori approach and educational leadership as discrete elements, thus potentially lacking one of the most urgent needs for a Montessori school leader: an

understanding of how Montessori philosophy can infuse and shape all aspects of a school's program. Only then would Montessori schools be likely to demonstrate the school capacity (Newmann, King, & Youngs, 2000) and instructional program coherence (Newmann et al., 2001) that a unified philosophical approach can provide. Thus, it seems reasonable that Montessori school leaders might need to not only understand some basics of Montessori Philosophy, but may also need time to practice enacting this philosophy within a whole-school context. Training for Montessori school leaders that does not include course time to examine these issues from a whole-school perspective may limit the success of graduates.

The second possible limitation of the current AMS standards is the curricular elements list contained within the five course components (described as Program Development/Leading a Montessori School, Montessori Philosophy, Montessori Curriculum, Educational Leadership, and School Operations). The list of course components and curricular elements is where one might expect some alignment between the AMS standards and other national standards based in grounded in research and relevant leadership theory, like the PSEL. Possible concerns here relate to the brevity (and resulting lack of clarity) of curricular elements, curricular elements that may not be useful to all school leaders, and important topics excluded from the curricular elements lists.

Certainly, some connections can be made between the AMS standards and other national standards. For example, both the PSEL and the AMS standards include elements on school operations, including references to school law and financial practices. However, while the AMS standards offer no descriptors of the content (e.g., "legal issues" is listed under "school operations" without further elaboration) the PSEL offers a much more expanded statement: "know, comply with, and help the school community understand local, state, and federal laws,

rights, policies, and regulations so as to promote student success" (National Policy Board for Educational Administration, 2015, p. 17). Since the AMS curriculum elements consist of only short descriptors (as compared to the expanded PSEL descriptors) it may be up to training programs to discern depth of coverage. Without further clarification of components like "communication skills" or "working with teachers," preparation programs may vary tremendously in the fostering of deep understanding and relevant skills.

In addition to a possible lack of clarity, some of the items listed give the impression that the standards have been written specifically for private schools, such as the inclusion of "marketing and enrollment" and "public and charter schools" under the "school operations" course component and "starting a school" under the "program development/leading a Montessori school" course component. Given the explosion of public Montessori, and the stated goals of Montessori leaders to support continued growth in the public sector (Whitescarver & Cossentino, 2008), these elements may not add value for all school leaders.

Finally, the AMS standards lack any reference to a variety of topics which have been seen as critical for school leaders today, including service of students with a wide variety of needs and exceptionalities, equity and cultural responsiveness, professional capacity of school personnel (beyond "professional development" listed under "program development/leading a Montessori school,") or school improvement (beyond "accreditation," listed under "program development/leading a Montessori school"). These exclusions, unless added by training programs under "other administrative topics" could leave graduates underprepared for leadership in these critical areas, some of which have been documented as challenges facing Montessori education, such as equity and cultural responsiveness (e.g., Brown & Steele, 2015).

Summary

This literature review described the challenges and opportunities currently facing Montessori schools (and, by extension, Montessori school leaders), the impact and practices of effective school leaders, and standards informing the preparation of school leaders in the United States. The next chapter will describe the methods used in examining standards for the preparation of Montessori school leaders.

Chapter 3: Methodology

The problem of practice that this study addresses is that much is unknown about the impact of the AMS credential standards. In order to better understand the preparation needs of Montessori school leaders and to what extent the AMS Administrator Credential standards currently meet those needs, I conducted a mixed-methods descriptive study, where I surveyed and interviewed two primary target groups: Montessori school leaders and the directors of training programs that currently offer the AMS Administrator Credential.

Mixed-Method Descriptive Study

Descriptive studies comprise a "critical component of the scientific process" because "in order to know what types of interventions might be useful—what problems need to be solved—we must understand the landscape of needs and opportunities" (Loeb et al., 2017, pp. v, 1). Descriptive analysis can also stand alone as valuable research, especially when the findings focus on previously undocumented phenomena, as is the case with the implementation of Montessori school leader preparation and standards, or in diagnosing real-world needs that warrant policy or intervention (Loeb et al., 2017). By deepening understandings about how and to what extent current AMS standards reflect the knowledge and skill needs of Montessori school leaders today, the findings of this study may be informative to any Montessori organization interested in standards related to the preparation of Montessori school leaders. This study aimed to provide insight into the kinds of preparation that Montessori school leaders receive and/or desire, facets of Montessori school leadership which are or are not represented in the current AMS Administrator Credential standards, and what experts in Montessori school leadership view as the role of standards for the preparation of Montessori school leaders.

Mixed-methods, defined here as utilizing both quantitative and qualitative data, offered the opportunity to gain more insight about the use of standards to prepare Montessori school leaders than if either approach was utilized alone (Creswell, 2017). Using an embedded strategy for mixing methods, I first conducted surveys, which captured both qualitative and quantitative data to provide a broad overview of the population. I then engaged in interviews as qualitative data to allow for further understanding of preliminary data. As described by Creswell (2017) this model provided a manageable scope for the time and resources available, while still maintaining the advantages of using both quantitative and qualitative data, including the ability to gain different perspectives from different types of data within a study.

Participants

This study had two target populations: Montessori school leaders and members of training programs that currently offer the AMS Administrator Credential. As described by Teddlie and Yu (2007), mixed methods studies typically draw on multiple samples, depending on the research strand and question. Furthermore, in the sampling of some strands/questions there is a focus on representativeness, while sampling considerations for other strands may require an emphasis cases which are information-rich (Teddlie & Yu, 2007). Thus, the sampling strategies of initial strands focused on representativeness, with follow-up sampling decisions based on additional information or perspectives likely to be obtained.

Montessori school leaders. The sample of Montessori school leaders to be surveyed was obtained with the support of the American Montessori Society, which lists research among its areas of involvement, along with public policy, school accreditation, and teacher education and professional development (American Montessori Society, 2019). As a result of this support from AMS, significantly more Montessori school leaders were invited to participate in this research

study than would have been otherwise possible. While the Montessori Census lists a total of 2,641 schools who have added themselves to the Census so far (National Center for Montessori in the Public Sector, 2018), other estimates put the total number of Montessori schools in the United States at 4,500 or more (North American Montessori Teachers' Association, 2019). Staff members of AMS sent the IRB-approved recruitment email containing the School Leader Survey link to the school leaders of AMS schools, reaching a total of 1,112 school leaders. So while this number is not inclusive of all Montessori schools in the United States, AMS member schools certainly represent a significant percentage (between 20 and 50 percent, depending on the estimated total used) of Montessori schools in the United States. One follow-up reminder also went to these school leaders six days after the initial request. Since the goal of this sample was to achieve representativeness of the general population of Montessori school leaders (about which very little is known) I monitored the demographics of survey responses to see if the resulting sample was inclusive of both public and private Montessori school leaders, leaders who serve all levels of Montessori students, and leaders who have experience with AMS Administrator Credential programs. Having a cross-section of the population of Montessori school leaders was prioritized as a means of answering the research questions and to begin unpacking whether the responses or needs of Montessori school leaders varied at all by school context.

Of particular concern was whether the sample would also be representative of public Montessori schools, the challenges and opportunities of which are outlined in chapter two, in order to address the research question about school context. This was noted as a possibility since AMS could only reach member schools, and AMS school membership requires an annual fee based on the number of students served. It was noted that private schools, which may serve fewer total students and are likely to operate with a greater degree of financial independence than

public (especially non-charter) settings, may therefore represent a larger proportion of AMS school membership.

When initial survey responses indicated that indeed public Montessori schools were significantly underrepresented, the IRB-approved recruitment email containing the School Leader Survey link was also emailed to 65 school leaders associated with the National Center for Montessori in the Public Sector initiatives, including recent participants of their Leader's Workshop program. This group received no follow-up reminders.

No other attempts were made to increase or enhance the sample, once the proportion of public and private school leader responses was deemed reasonably representative of Montessori schools in the United States. Further demographic information for the final sample of Montessori school leaders is included at the start of the next chapter.

While an additional reminder or two would likely have bolstered the response rates, this was deemed not feasible. Not only was the time frame for data collection limited, I also did not have access to the email contact information for the AMS school leaders or the Leaders' Workshop participants, and so I was not able to send such reminders to those groups myself. Understandably, these organizations also needed to limit and prioritize communications with members and stakeholders.

Preparation Program Directors. Since there are only eight preparation programs currently offering training towards an AMS Administrator credential, the directors of all eight programs were invited to participate. I sent the IRB-approved recruitment email containing the survey link directly to each one of these directors to invite them to participate in the Program Director Survey. Directors were deemed likely to have the most knowledge of and interaction with current AMS Administrator Credential standards, so all eight program directors were

invited to participate in the survey, with the hope of getting the broadest view possible of the current field of training programs implementing AMS Administrator Credential standards.

Data Collection

To examine how AMS Administrator Credential standards currently meet the skill and knowledge needs of Montessori school leaders, I conducted a survey of Montessori school leaders and a survey of directors of training programs currently offering the AMS Administrator Credential, along with follow-up interviews of program directors. Utilizing more than one method of data collection, and separating data collection into two phases to answer the various research questions (see Table 1) allowed for methodological triangulation and for me to check and confirm preliminary findings, and to explore the meanings of those findings.

This study had two, somewhat overlapping, phases of data collection. Upon IRB approval, phase one began, consisting of dissemination of two surveys: the School Leader Survey to Montessori school leaders, and the Director Survey to the program directors heading the eight preparation programs currently offering the AMS Administrator Credential. Surveys were initially distributed the first week of March, and remained open for six weeks.

Phase two consisted of follow-up interviews with five of the six program directors who completed the survey. These were conducted in the last week of March, when a rough estimate of the school leader sample was known, after six program directors had completed the Program Director Survey, and after some initial analysis of School Leader Survey data had been completed. Consent was required at the start of each interaction with a participant, so participation in phase two required continuing consent from each school leader, even though program director willingness to participate in follow-up interviews had also been recorded as part of the survey responses.

Survey designs. Electronic surveys offered the benefit of allowing me to reach a large group of people all over the United States in a short period of time for a very low cost. These were critical considerations for both the resources available in conducting this study and to adequately sample the two populations of interest.

Two initial surveys, the Program Director Survey and the School Leader Survey were distributed in phase one of data collection. Methods to reduce survey coverage error and sampling error included inviting all of the directors of preparation programs currently offering the AMS Administrator Credential to participate and monitoring the demographics of school leader responses for sample representativeness. Non-response error is a common concern of web-based surveys (Glazer, Farberg, Svoboda, & Rigel, 2018) so care was taken in the design to maximize response rates. Both surveys were designed (and assessed in two rounds of cognitive interviewing each) to be easy to access, not overly time-consuming or complex, to ask for help/advice from the participants, and to offer a potential value to respondent. In exchange for participation, both surveys offered a free year-long subscription of 50 issues to *The Marshall Memo: A Weekly Roundup of Important Ideas and Research in K-12 Education*. That said, school leaders are exceptionally busy professionals, so even a 10 to 15-minute survey can pose a challenge. Most school leaders who began the survey also completed it, as only 13 surveys had completion rates of less than 70%, the cutoff for inclusion in this study.

In addition, both surveys were constructed to minimize measurement error by ensuring that questions are clear and understandable (for example, by offering examples in case question categories are initially unclear), that one question was asked at a time (i.e., there were no double barreled questions), and that questions were organized in a logical manner. An explanation of the different sections of the survey was included at the beginning, along with a reminder of how

long the survey was expected to take to complete. A progress bar was also utilized. Prior to distribution, I conducted separate cognitive interviews with two experts in Montessori school leadership (who also had familiarity with AMS Administrator Credential Standards, but who did not participate in the study) to ensure that the surveys were likely to function as intended. The surveys were also reviewed by two members of my faculty committee before obtaining IRB approval. See Appendix A for the text of the School Leader Survey and Appendix B for the text of the Program Director Survey.

Semi-structured interviews. Interviews were conducted via phone and/or video conferencing (Zoom) with five of the six Program Director Survey participants. Protocols were designed to better understand and examine the prior survey responses of these program directors, and to check data from School Leader Survey responses. See Appendix C for the semi-structured interview protocol for program director interviews. These interviews were audio recorded and transcribed for analysis.

Table 1

Data Sources used to Address Research Questions

	Survey: School Leaders	Survey: Program Directors	Interview: Program Directors
RQ1: Kinds of preparation for Montessori School Leaders	X		
RQ2: Montessori school leadership work and representation in standards	X	X	X
RQ3: Role of standards for Montessori school leaders	X	X	X

Red: Phase one data collection Purple: Phase two data collection

Data Analysis

Analysis of data also happened in two distinct stages: analysis that was concurrent with the data collection, and final analysis that occurred after the collection of all data. The conduction of analysis concurrent with data collection allowed for the identification of themes for further exploration in phase two data collection.

Data analysis also occurred within both the quantitative and qualitative components of this study, as well as between the two, utilizing data transformation, typology development, and data consolidation as part of general mixed-methods analysis strategies (Caracelli & Greene, 1993). Data transformation was utilized when counts of qualitative answers were useful in including other descriptive statistics, such as the number of program directors in favor of or opposed to particular changes. Typology development was used when themes emerged from quantitative data that provided useful codes for further qualitative analysis, such as when directors were asked to comment on means scores and overall rankings of particular survey items. Data consolidation was utilized when the transformed (qualitative) data (e.g., comments from program directors regarding survey items scores and rankings) was then combined for analysis with quantitative data for the purposes of further analysis.

In addition to the analysis strategies outlined above, I also adhered to three other specific practices during the phases of data analysis. First, during all stages of data analysis, I wrote reflective and analytic memos to help me document, ask questions of, and make sense of the data being analyzed. Second, the analysis of quantitative survey data was primarily limited to simple statistics. As described by Loeb et al., "Good descriptive research relies primarily on low-inference, low-assumption methods that use no or minimal statistical adjustments. Measures of central tendency, variation, and basic frequency analyses are particularly useful tools" (2017, p.

27). So although regression analysis was also used to check for differences between groups, this was not the primary data analysis strategy, and the results of the regression analysis are not the basis of primary findings. Third, all interviews were audio-recorded and transcribed for further analysis using both inductive and deductive coding, with deductive codes derived from relevant literature and survey data of the prior phase.

Establishing Credibility and Validity

In data collection, in data analysis, and in reporting, I have tried to remain mindful of the problem of legitimation in mixed-methods research, defined as "the difficulty in obtaining findings and/or making inferences that are credible, trustworthy, dependable, transferable, and/or confirmable" (Onwuegbuzie & Johnson, 2006, p. 52), with "legitimation" being the term recommended by the authors to replace "validity" in mixed-methods studies "in order to use a bilingual nomenclature that can be used by both quantitative and qualitative researchers" (Onwuegbuzie & Johnson, 2006, p. 60). Primary strategies for addressing this challenge to high-quality mixed-methods research lie in my efforts to provide a clear audit trail, use of triangulation strategies, and strategies for the checking of instruments, data, and findings.

Audit trail. According to Creswell and Miller, an audit trail is developed "through journaling and memoing, keeping a research log of all activities, developing a data collection chronology, and recording data analysis procedures clearly" (2000, p. 128). Throughout this study, I kept a journal with numerous notes to outline the questions I considered, the decisions I made, and the unfolding of my understanding of the data.

Triangulation strategies. I employed triangulation of data sources (including multiple school leaders and program directors) and triangulation of methods (surveys and individual interviews) in order to corroborate findings and to further examine areas of disagreement.

Checking instruments, data, and findings. I conducted separate cognitive interviews with two experts in Montessori school leadership to ensure that survey and interview items were clear, relevant, and adequately mapped to the constructs of interest. Both experts were chosen for their experience in leading Montessori schools/organizations and in utilizing and assessing AMS standards. In addition, two members of this committee reviewed both surveys before IRB approval was granted. Member checking of program director survey data occurred with follow-up interviews. Finally, many conversations with a "disinterested peer" (Johnson, 1997) who served as a critical skeptic helped to push me to consider other forms of possible analysis, descriptions, and explanations of my data.

Researcher's Role and Reflexivity Statement

As a practitioner-scholar, I am shaped by my current passions and past experiences. Having spent over a decade as a full-time classroom teacher of adolescents, I have strong opinions about the importance and value of teachers as leaders. I also experienced firsthand the difference that school leaders can make on teachers in implementing integrated school leadership, and the challenges to doing my work in the classroom when this kind of leadership was not in place.

As the director of an AMS-affiliated, MACTE-accredited teacher education program, I have strong feelings about the value of the Montessori approach. Simply put, I believe the Montessori approach has the possibility to transform education for the benefit of both students and adults. However, even with these strong beliefs, I nevertheless try to position myself as something of a "critical supporter" of Montessori. That is, while I firmly believe that a high-fidelity Montessori approach has much to offer current students, teachers, schools, communities, and even the world, I also see that the Montessori community (or certain segments of the

Montessori community) can still face significant challenges, and addressing these challenges means acknowledging the ways and spaces where Montessori teachers, schools, training programs, or organizations may not be living into the fullest expression of the possibilities that the approach can offer. I believe this is especially salient in areas of social justice, and I believe that advocating for social justice issues is the most legitimate means for implementing Montessori's vision of peace education. I believe that the Montessori community must stay open to critique and be guided by research-based practices, just as Dr. Maria Montessori was both a scientist and a critic of many social and educational practices of her time.

I have also observed through my work in the training program the important impact that school leaders make on supporting the capacity of their teachers. I have often observed and remarked that even the best teacher can still be limited in their implementation of Montessori practices by school leaders who do not understand or support the Montessori approach. Whether the limitations are structural, such as a schedule that does not allow for extended blocks of time, or philosophical, such as disallowing practices designed to foster quiet reflection as a "waste of class time," teachers who do not have the understanding and support of school leaders may not be able to implement the fullest expression of their Montessori training, which I have observed as a primary source of stress and frustration for teachers in our training program.

Because I feel strongly about the work of Montessori school leaders, and I desire to support Montessori school leaders to be successful in Montessori settings, I designed a professional development course for Montessori school leaders which was first implemented in July 2018. In preparation for offering this course and as part of an independent study for my doctoral coursework, I also examined the AMS Administrator Credential standards in the fall of 2017. In my estimation at that time, the AMS Administrator Credential standards on their own

left much to be desired, both in content that was included and excluded, and for the limited guidance they seemed to offer training programs, as discussed in chapter two. This bias is something that I have worked hard to keep in mind as I collected and analyzed data in order to ensure that my personal opinions about the standards did not color the responses of survey and interview participants, or my analysis of them. For this reason, chapter four also presents findings without discussion, saving the discussion of findings for chapter five, where I look more holistically at the primary findings in order to make recommendations.

In the final stages of data analysis and reporting, my roles and connections within AMS and MACTE sometimes led me to feel uncomfortable when faced with data that could be interpreted as reflecting (even slightly) negatively on Montessori organizations or the people within them. After all, I began this work to explore the preparation, work, and needs of Montessori school leaders, and to critically examine standards, not people or organizations. The greatest challenge here stemmed from my deep personal respect and appreciation for the women of AMS and MACTE (and it is mostly women, though I also have a deep appreciation for the handful of men who serve in these organizations as well) who do the work of setting and reviewing standards, supporting preparation programs, preparing school leaders, advocating for Montessori education in a variety of spaces, and generally striving to live into the fullest expressions and best practices of the Montessori approach. Although no person or organization is perfect, there are too many strengths to allow deficit perspectives or thinking to color the discussion. However, in this piece of scholarship, I have tried to present a trustworthy reflection of the data collected, regardless of whether I personally agreed with a perception expressed in the data.

I am also aware of the ways that my experiences, beliefs, and interests (and perhaps particularly my beliefs around equity and teacher leadership) impacted the questions that I asked, the data I collected, and the recommendations that I provide in this study. Nevertheless, I believe that the recommendations presented here are supported by the data of this study as well as by other research on school leadership, school leader preparation, and the use of standards, as outlined in the previous chapter.

Significance

Montessori schools, like all schools, need effective leaders. One way of influencing the pipeline of effective school leaders is via standards for the preparation of these leaders. While Montessori school leaders have knowledge and skill needs that are unlikely to be addressed in traditional educational leadership programs, only one set of standards related to the preparation of Montessori school leaders is known to currently exist. This mixed-methods descriptive study addresses the problem of practice that much is unknown about current impact of the AMS Administrator Credential standards.

Summary

Through surveys and interviews conducted in the spring of 2019, I examined what kinds of preparation Montessori school leaders receive prior to assuming their roles; what Montessori school leaders report as essential aspects to their work (in order to consider the facets of Montessori school leadership represented in current AMS Administrator Credential standards), and what experts see as the role of standards for Montessori school leaders.

Chapter 4: Findings

The data for this study come from surveys and interviews, the final samples of which are described first in this chapter. The central findings of this capstone are then organized into three sections: understanding the current status of Montessori school leaders in regards to formal preparation for school leadership, stakeholder perspectives regarding the knowledge and skill needs of Montessori school leaders, and stakeholder perspectives regarding standards for the preparation of Montessori school leaders. The implications of and recommendations regarding these findings are discussed in the next chapter.

Sample

School leader sample.

The school leader survey was sent via email to 1,112 people directly from representatives of AMS, with one follow-up reminder sent six days later. The survey was also sent via email to 65 school leaders connected with the National Center for Montessori in the Public Sector, though this group received no follow-up reminders. The total number of school leader survey recipients was therefore calculated to be 1,177. There were 182 total participants for the school leader survey, but 13 surveys had completion rates of less than 70% and were deleted, leaving a final N of 169. The survey response rate was 14%.

Low response rates are generally considered problematic, due to the potential of high non-response bias. However, survey methodologists have suggested that response rates alone are poor indicators of non-response bias (e.g., Schouten, Cobben, & Bethlehem, 2009) and that representativeness of the larger population is the critical feature. To that end, Glazer et al. (2018) compared response rates and data for three different survey methodologies and found the lowest response rate (nine percent) for email surveys. While other survey methods had higher response

rates (30% for mail surveys and 95% for live surveys), participant responses were generally consistent across modalities, suggesting that response rates may have a minimal impact on results, as long as a sample is representative of the target population. To better gauge the representativeness of this sample of school leaders, the following demographic information was collected.

Of the 162 who answered the question about their current position at the school, 86% (n=140) described their current role as principal or head of school, with another six percent (n=9) preferring some variation of the title "director" or "owner" of the school or program, so that in all, 92% of survey responses came from the role most associated with school leadership. Two percent (n=4) of the survey responses came from assistant principals or assistant heads of school. The remaining 6% of respondents (n=9) either left their position description blank (n=2), described themselves as an instructional leader/coordinator/specialist (n=3), as a former head of school (n=2) or as a teacher leader (n=2).

Of the 162 participants who indicated school type, 84% (n=136) were private/ independent school leaders, nine percent (n=15) were public charter school leaders, and 7% (n=11) were public, non-charter school leaders.

Of the 160 participants who answered the question, 84% (n=134) indicated white/Caucasian racial identity, 11% (n=17) indicated non-white/ person of color/ person of the global majority racial identity, one participant indicated a racial identity that was neither of the above, and five percent (n=8) indicated that they preferred not to say a racial identity.

Of the 161 participants who answered the question, 89% (n=144) indicated a female identity, nine percent (n=14) indicated a male identity, and 2% (n=3) preferred not to say. No participants indicated an identity that was neither male nor female.

Of the 162 participants who answered the question, 77% (n=124) hold at least one Montessori credential or diploma for teaching children: 10% (n=13) for teaching infants and toddlers (children younger than 3 years), 68% (n=84) for teaching children ages three to six, 52% (n=64) for teaching elementary-aged children (ages six to 12), and 10% (n=13) for teaching secondary students (ages 12 to 18).

Of the 162 participants who answered the question about levels served at their school, 60% (n=98) had infant and toddler programs, serving children younger than three years, 95% (n=154) had early childhood programs, serving children ages three to six, 67% (n=109) had lower elementary programs, serving children ages six to nine, 64% (n=103) had upper elementary programs, serving children ages nine to 12, 42% (n=68) had middle school programs, and nine percent (n=14) had high school programs. See Table 2.

Table 2
Program Levels Supervised by School Leaders

SURVEY ITEM	Percentage	N
Infant/Toddler (younger than age 3)	60.49%	98
Early Childhood (ages 3 to 6)	95.06%	154
Lower Elementary (ages 6 to 9)	67.28%	109
Upper Elementary (ages 9 to 12)	63.58%	103
Middle school (ages 12 to 14)	41.98%	68
High school (ages 14 and up)	8.64%	14

Taken collectively, demographic information collected here indicate that although the school leader survey response rate was lower than hoped for, the sample nevertheless shows indications of being representative of the Montessori school landscape in general, with one exception: school leaders in this sample supervise more levels of programs than would be expected. According to the Montessori census which lists 2,636 Montessori schools in the United States, infant/toddler programs are estimated to exist in about 37% (n=999), early childhood programs are estimated to exist in about 72% (n=1,888), lower elementary programs are

estimated to exist in about 42% (n=1,108), upper elementary programs are estimated to exist in about 36% (n=945), middle school programs are estimated to exist in about 15% (n=389), and high school programs are estimated to exist in about 4% (n=115). For a descriptive, first-level study of Montessori school leaders, this sample size and overall representativeness was deemed adequate, though further research to understand the population of Montessori school leaders would be of benefit.

Program Director Sample. Six directors of the eight existing AMS Administrator Credential programs took the program director survey, and all responses were useable, giving a total response rate of 75%. Five of the six directors also participated in audio-recorded follow-up phone or video conference interviews which ranged in length from 33 minutes to 61 minutes.

Section 1: Montessori School Leaders' Formal Preparation for Leadership

According to survey responses, nearly half of Montessori school leaders (46% of total respondents, n=77) reported that they did not receive any formal school leadership preparation or training for their current position. Of these, only 6% (n=5) did not think such preparation would have been helpful to have prior to their first years as an administrator in a Montessori setting. Sixty-nine percent (n=53) felt that such preparation would have been helpful, and 25% (n=19) were not sure. One school leader commented, "I've been doing this work for 20+ years now. I didn't have the benefit of any onboarding experience or mentorship opportunities. In retrospect, that would have been quite lovely" (Participant survey comment, 3/31/19). Of the 77 participants who did not have formal preparation for school leadership, 79% (n=61) indicated that they would have wanted pre-service content to include items that are specific to leading a Montessori school, such as how to apply Montessori philosophy to a school-wide setting.

Less than one third of Montessori school leaders surveyed (30% of total respondents, n=52) reported receiving formal school leadership preparation or training which also included content specific to Montessori school leaders. It is not known how many of these 52 responses refer to participation in an AMS Administrator Credential program as opposed to other professional development experiences, though 29 of these 52 did report holding an AMS Administrator Credential.

Similar to findings described above, of the 40 school leaders who had preservice preparation for leadership, but whose preparation did not include content specific to leading a Montessori school, 73% (n=29) reported that they thought such content would have been helpful when they first took their position. Furthermore, half (n=20) indicated that such training would still be helpful in their current work, while the other half were evenly split: one quarter (n=10) felt that content specific to leading a Montessori school would not be helpful to them now, and one quarter (n=10) indicated that they were not sure whether such content would be helpful to them now.

Of those who received Montessori content in their formal school leader preparation, the majority indicated that they found their preparation valuable. When asked "How well did this training equip you to successfully meet the challenges of your current role," 69% (n=36) indicated that their preparation "mostly" or "perfectly" equipped them, with no participants responding "not at all." Still, 31% (n=16) of participants indicated that their preparation only "somewhat" equipped them.

Program director perspectives. None of the six program directors indicated surprise that preliminary school leader survey responses showed nearly half of Montessori school leaders took their positions without any formal preparation for school leadership. However, all six

expressed concerned about the lack of formal preparation many Montessori school leaders receive.

One program director commented that she felt the percentages were "absolutely accurate for the private school world," saying, "I think this has been a huge need in the Montessori world for a long time … I think the vast majority of heads of schools have very little Montessori leadership for sure, other than what they got in PD, and most have just learned on the job" (Interview). Another director said the numbers concerned her "because I'm seeing schools failing because of the leadership. Not failing, but not doing well" (Interview).

A third program director shared that similar concerns had initially driven their creation of the administrator program in the first place, saying:

> The reason we started the course was because we thought we were doing a great job of training teachers. However, when [the teachers] went back to their schools, they couldn't implement what they had learned, for various reasons- public and private schools- because the administrator didn't know enough about Montessori, or how to support Montessori, or to use the principles that we do in the classroom at the adult level. (Interview)

A few program directors speculated on why so few Montessori school leaders had received formal preparation for their work. One program director attributed at least some of the trend to schools having a sudden or unexpected need for new school leaders: "a lot of cases it's really just by need, you know: somebody resigns, or somebody needs to be removed, or somebody retires and they haven't done a good job of succession planning, which I know is a big problem" (Interview).

Two other program directors spoke about time and financial barriers to formal Montessori school leader preparation. One director described the significant time pressure that school leaders feel, commenting that "These heads of schools said, 'You have to design an administrator program. We need it…' Yet, they don't have time to take it" (Interview). Another commented that price was also a barrier to school leaders, saying:

> We're not affordable for the vast majority of people who run small schools, at least from their perspective. I would say we could make a really good case, and maybe …that's our marketing miss, that we haven't made the case to small heads of schools to explain that in spending the six to ten thousand dollars that it will take for you to get your admin credential with us, you're actually going to be saving your school many, many thousands of dollars in the long run, in things that you woulda-shoulda-coulda, but you didn't know any better. So there's a there's a huge value in going through coursework that helps you be a more efficient, more equitable, more learned leader in your school, and thereby more respected and respectful. (Interview)

School leader reflections. In addition to data described above, several school leaders made survey comments to indicate a strong belief that understanding school leadership through a lens of Montessori philosophy was essential for success in a Montessori school setting. One school leader declared:

> It is EXTREMELY important for any administrator who leads a Montessori school to have a foundation in the philosophy and methodology of Dr. Montessori. They will not ultimately be successful without it and their school and staff will suffer from the lack of that knowledge. (Participant survey comment, 3/26/19)

Another school leader commented:

> Public school administrators need to be able to do everything that's expected of a "traditional" principal PLUS all the Montessori philosophy and pedagogy. And they need to know how to do the crosswalk between those two things. Often, that's where the problems arise. (Participant survey comment, 3/31/19)

A third school leader reported:

> I believe monessori [sic] school leaders need to be advocates for authentic Montessori education and can only do that by focusing a large amount of their training on this topic. However, for those of us that come to montessori [sic] school leadership already advocates of the philosophy, it would be nice to have knowledge of these other principles of school leadership. They must be delivered in relation to, and not instead of, montessori [sic] philosophy. (Participant survey comment, 3/5/19)

Montessori preparation for school leaders. The majority of stakeholders surveyed and interviewed indicated that not only was preparation for Montessori school leadership desirable, it was important for this preparation to include Montessori content. Although not all of the 52 school leaders who had formal leadership training with Montessori-specific content felt equally or fully prepared by this coursework/training, 77% (n=90) of school leaders who did not have such training indicated that it would have been desirable. As described above, comments from school leader surveys also supported the importance of Montessori content.

While the importance of Montessori content in the preparation for Montessori school leaders is clear from AMS Administrator Credential standards, these standards also tend to portray expertise in the Montessori approach and expertise in educational leadership as discrete elements. Yet one finding of this study is that the majority of the 123 school leaders who already had a Montessori teaching credential also indicated that they still would have desired

Montessori-specific content in their leadership preparation. These previously-credentialed teachers reported similar rates for formal leadership preparation for their position as the group overall; 48% (n=59) of these Montessori credential holders reported no formal preparation for leadership and 33% (n= 41) of these school leaders reported having formal preparation which included Montessori-specific content. Yet 75% (n=62) of these school leaders (who had previously obtained extensive training in the Montessori approach) still reported that they would have desired preparation which included content specific to Montessori school leaders, such as how to apply Montessori philosophy to a school-wide setting. This finding could indicate that Montessori school leaders may not view the Montessori approach as discrete from general school leadership principles, but instead desire a crosswalk to better understand how the Montessori approach is applied to school leadership. One school leader commented that "best practices for school leaders would be beneficial when taken from a Montessori perspective" (Participant survey comment, 3/5/19).

Section one summary. From the data collected for this capstone, it appears that a significant number (around, or just under, half) of Montessori school leaders do not receive formal preparation for leadership, and even fewer (around, or just under, one third) do not receive formal preparation for leadership which includes content specific to leading a Montessori school. Nevertheless, Montessori school leaders overwhelmingly indicated that such preparation would have been desirable. The data also indicate that leaders would prefer that expertise in the Montessori approach and expertise in educational leadership not be treated as discrete elements in preparation programs, but that they be examined holistically for ways that the Montessori approach is applied to school leadership. Time and financial barriers to Montessori school leader

preparation have been suggested, along with the view that the AMS Administrator credential is primarily designed to serve the needs of current, rather than aspiring school leaders.

Section 2: Knowledge and Skill Needs of Montessori School Leaders

In the electronic surveys, program directors and school leaders were asked to rank 31 items taken from AMS Administrator Credential Standards and PSEL standards. While these two sets of standards have some fundamental differences in their aim and approach (as discussed previously, the PSEL standards are aspirational standards which are designed to outline best practices for educational leadership broadly, across career stages and contexts, while the AMS Administrator credential standards are prescriptive standards which are written for preparation programs to ensure programs meet required standards) data from this capstone provided four insights regarding standards for the preparation of Montessori school leaders. First, both the AMS Administrator Credential standards and PSEL standards were regarded as important to and for Montessori school leaders; second, subgroups of stakeholders placed the highest priorities on some similar and some different items related to standards; third, some of the items taken from PSEL standards which are not included in current AMS Administrator Credential standards emerged as important themes; and fourth, program directors viewed Montessori school leaders as having diverse needs for leadership preparation.

Both AMS and PSEL standards are important to and for Montessori school leaders. School leaders ranked all items taken from both the AMS Administrator credential standards and from the PSEL standards as important to their work. School leaders were asked to rank 31 items according to the prompt "For a school leader in your position, how important is it to have an understanding of the following topics" on a scale of one to six, with one defined as "not at all" and six defined as "essential." (See Appendix A for a copy of the school leader survey.) Fifteen

of the 31 items listed in the survey were taken from AMS Administrator standards and 16 items were from PSEL standards.

Mean scores on each item ranged from 4.32 to 5.74. indicating that participants felt that all items had relevance for their work. That said, when ranked by mean, a few patterns stood out. Of the ten items with the highest means (ranging from 5.45 to 5.74), eight were taken from PSEL standards, and two from AMS Administrator Credential standards. These items also had nine of the ten lowest variances, indicating general agreement among the Montessori school leaders surveyed. The five items with the highest means were all taken from PSEL standards, and these five items also had the five lowest variances of all items. Of the ten items with the lowest means, eight were taken from AMS standards, and two were taken from PSEL standards. These ten items also had nine of the highest variances, indicating that although the means were lower, some participants still ranked them very highly. Indeed, even the item with the lowest mean, "Montessori's life history" was ranked as "6=essential" by 10% of the school leaders, and was ranked unimportant (as defined by a score of 1, 2, or 3) by only 14% of respondents. See Table 3.

Table 3
Range, Means and Variances of Item Ratings: All School Leaders

SURVEY ITEM	MIN	MAX	MEAN	VAR
Modeling the shared mission, vision, and core values of the school	4	6	5.74	0.24
Meaningfully engaging with families and the larger community	2	6	5.69	0.32
Developing, advocating for, and enacting a shared school mission and vision	3	6	5.63	0.34
Supporting a professional community for teachers and staff	3	6	5.61	0.36
Supporting the professional capacity of school personnel	4	6	5.55	0.31
Conflict management	3	6	5.54	0.46
Creating a learning community in harmony with Montessori principles	4	6	5.54	0.38
Ethics and professional norms for school leaders	3	6	5.51	0.44
Montessori curriculum	3	6	5.48	0.56
Inspiring and encouraging faculty and staff to enhance their own leadership practices	3	6	5.45	0.46
Observation techniques	2	6	5.37	0.58
Resource management, including human and financial resources	3	6	5.36	0.56

Montessori's concepts and theories, including peace and cosmic education	3	6	5.34	0.47
Equitable and culturally responsive practices	2	6	5.31	0.63
Montessori instruction	2	6	5.29	0.77
School improvement techniques	2	6	5.29	0.56
Montessori's planes of development	2	6	5.27	0.66
Scheduling practices which minimize disruption	1	6	5.2	0.73
Distributing school leadership and decision-making among faculty and staff	3	6	5.2	0.64
Montessori in relation to current research and relevance today	2	6	5.2	0.54
Leadership styles	3	6	5.19	0.56
School law	3	6	5.13	0.72
Marketing to support enrollment	2	6	5.05	0.79
Montessori materials	2	6	5.04	0.84
Methods of assessment for curriculum	1	6	5.04	0.82
School accreditation	1	6	4.83	1.12
Data use and management	1	6	4.77	0.81
Raising funds	1	6	4.64	1.35
Technology use	1	6	4.6	0.93
Starting or expanding a school	1	6	4.52	1.11
Montessori's life history	1	6	4.32	0.94

The fact that mean scores on each of the 31 items ranged only from 4.32 to 5.74 indicates that participants felt that all items had relevance for their work. Indeed, when the lowest item still has a mean score that falls between "4=somewhat important" and "5=very important," it must be noted that Montessori school leaders reported a need for both Montessori content knowledge and more traditional school leadership content knowledge.

After rating each of the thirty-one topics, participants were given a list of all items they had indicated were "6=essential" for a school leader in their position to understand, and were asked to choose the three items they considered most important. Because there were a large number of items, no item was chosen by a majority of participants. Nevertheless, the five items most frequently chosen as one of the three most important items to the work of school leaders also fell within the top 10 mean-ranked items. "Meaningfully engaging with families and the larger community" was chosen as one of the three most essential standards by 36% (n=61), of respondents, making it the most frequently chosen item. The next four most frequently chosen

items were more tightly clustered: “Creating a learning community in harmony with Montessori principles” was the second most frequently chosen item, with 22% of respondents (n=38); “supporting a professional community for teachers and staff” was the third most frequently chosen item, with 22% (n=37) of respondents; “developing, advocating for, and enacting a shared school mission and vision” was the fourth most frequently chosen item, with 21% (n=35) of respondents; and “modeling the shared mission, vision, and core values of the school” was the fifth most frequently chosen item, with 20% (n=33) of respondents. See Table 4.

Table 4
Items Chosen as Top Three Most Important

SURVEY ITEM	Percentage	Total N
Meaningfully engaging with families and the larger community	36.09%	61
Creating a learning community in harmony with Montessori principles	22.49%	38
Supporting a professional community for teachers and staff	21.89%	37
Developing, advocating for, and enacting a shared school mission and vision	20.71%	35
Modeling the shared mission, vision, and core values of the school	19.53%	33
Resource management, including human and financial resources	18.34%	31
Montessori curriculum	17.16%	29
Montessori’s concepts and theories, including peace and cosmic education	12.43%	21
Equitable and culturally responsive practices	11.24%	19
Montessori instruction	10.06%	17
Conflict management	8.28%	14
Montessori’s planes of development	7.10%	12
Marketing to support enrollment	6.51%	11
Montessori in relation to current research and relevance today	6.51%	11
Inspiring and encouraging faculty and staff to enhance their own leadership practices	5.92%	10
Supporting the professional capacity of school personnel	4.73%	8
Ethics and professional norms for school leaders	4.73%	8
Observation techniques	4.14%	7
School accreditation	4.14%	7
School improvement techniques	3.55%	6
School law	3.55%	6
Distributing school leadership and decision-making among faculty and staff	2.96%	5
Methods of assessment for curriculum	2.37%	4
Data use and management	2.37%	4

Raising funds	2.37%	4
Montessori materials	1.78%	3
Leadership styles	1.78%	3
Scheduling practices which minimize disruption	1.18%	2
Technology use	0.59%	1
Starting or expanding a school	0.59%	1
Montessori's life history	0.00%	0

Comparing priorities among some stakeholder subgroups. To examine whether these data suggested differing priorities among stakeholder subgroups, two approaches were utilized. First, regression analysis allowed me to check for any statistically significant differences among groups of participants. Second, a comparative analysis of the descriptive statistics revealed a few differences between and similarities among school leaders of different school types, with program director data also discussed for comparison.

Regression analysis. Although the mean ranked scores for these items were tightly clustered, I was interested to see if any statistically significant differences between groups of participants might exist. In particular, I was interested to see if school type, racial identity, prior preparation for leadership, or the possession of a Montessori teaching credential/diploma might have impacted school leader responses. Since a number of items on the survey were conceptually linked, such as items related to mission and vision of the school or items related to Montessori instruction /materials / curriculum, the thirty-one items presented in this survey were not analyzed individually. Instead, in order to investigate whether or how these different groups compared to one other in their perception of leadership standards, two composite scores were created. One composite was an average of all of a participant's rankings for items derived from AMS Administrator Credential standards. The other was an average of all of a participant's rankings for items derived from PSEL standards. These two composite scores were therefore

able to separate the survey items most conceptually related to one another. A separate regression model was created for each of these two outcomes.

Analysis revealed two significant differences between groups of respondents in their perceptions of the importance of items derived from PSEL standards, and only one significant difference between groups of respondents in their perception of the importance of items derived from AMS standards. First, public charter school leaders rated items derived from PSEL standards as significantly more important for their work than independent school leaders did ($p < 0.01$). Notably, they also rated items derived from AMS standards as more important for their work than independent school leaders did ($p < 0.05$). Therefore, it is also possible that this smaller sample of public charter school leaders simply rated items more highly than the larger sample of independent school leaders, which would account for both findings. However, the PSEL regression analysis also revealed that participants who reported having formal school leader preparation rated the items derived from PSEL standards as significantly more important for their work than school leaders who did not have formal school leader preparation ($p < 0.05$). While one possible explanation for this finding may be that participants with prior formal school leader preparation simply recognized PSEL standards from their prior preparation experiences and rated them as important because they had been taught to do so, it seems more likely that having had such formal preparation, these school leaders were better equipped to utilize such knowledge in their work, and were therefore reporting on the value and the importance of these standards to their work.

No significant differences were found between these groups in their ratings of items derived from AMS Administrator Credential standards. There were no significant differences found in the composite rankings of AMS or PSEL standards between public, non-charter school

leaders and independent school leaders; between school leaders of different racial identities, or between school leaders who have a Montessori teaching credential/diploma and school leaders who do not have a Montessori teaching credential/diploma. See Table 5.

Table 5
Composite PSEL Items

VARIABLES	PSEL	AMS
Prior Leadership Preparation	-0.167**	-0.114
	(0.0682)	*(0.0758)*
Public, Non-Charter	0.120	0.0257
	(0.137)	*(0.152)*
Public Charter	0.338***	0.279**
	(0.115)	*(0.128)*
Non-White	0.0204	0.150
	(0.109)	*(0.121)*
Neither White nor Non-White	0.618	0.746
	(0.422)	*(0.469)*
Racial Identity Not Shared	0.0213	-0.0436
	(0.153)	*(0.170)*
Montessori Teaching Credential	0.0201	-0.104
	(0.0837)	*(0.0930)*
Observations	159	159
R-squared	0.097	0.078

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Comparative analysis. Other differences in descriptive statistics and qualitative data emerged as well. Since private school leaders made up 84% of the sample, priorities of these school leaders were evident across a number of domains, and several program directors commented that that some results were likely driven by private school leaders. Due to small numbers of public (non-charter) school leaders and public charter school leaders relative to the overall sample, as well as the fact that these two groups are different from one another, no attempt was made to determine the statistical significance of differences between groups for specific survey items, many of which were conceptually linked to one another. Nevertheless, a few standards stood out for appearing to show different priority levels among groups, and a few

standards stood out for being highly valued across school categories, as well as among program directors.

Differences across school categories. "Methods of assessment for curriculum" was ranked more highly for public school leaders (both charter and non-charter) than for independent school leaders, having the second highest ranked mean (5.64) score for public (non-charter) school leaders, and the sixth highest ranked mean score (5.6) for public charter school leaders. By contrast, it was the 23rd highest ranked mean score (4.91) for private school leaders. Furthermore, this item was the most commonly chosen item for both public-sector groups when indicating professional development that would be of most benefit. 40% (n=6) of public charter school leaders and 36% (n=4) of public school leaders chose this item as one of the three most beneficial professional development topics, while 12% (n=12) of private school leaders chose this item.

"Data use and management" was another standard that public and private school leaders appeared to prioritize differently. It was the fifth most commonly chosen item among public charter school leaders for additional professional development, and one of the items with the third highest mean importance score (5.55) among public (non-charter) school leaders. By contrast, it had the 26th highest mean importance score (4.66) among private school leaders.

"Equitable and culturally responsive practices" was the item most frequently chosen as one of the three most important items among public (non-charter) school leaders, with 46% (n=5) choosing this item, and it was the second most frequently chosen (along with seven other items) among public charter school leaders, with 20% (n=3) choosing this item. Among private school leaders, 8% (n=11) chose this item as one of the three most important items.

School leaders of different school types also showed different priorities for further professional development. The top three items chosen by private school leaders as most beneficial for professional development were all related to the business side of running a school: "resource management," "marketing and enrollment", and "raising funds." By contrast, no public (non-charter) school leaders chose these items.

Similarities across school categories. However, not all descriptive comparisons showed differences between these groups of school leaders. Comparing rankings of the mean importance scores for items showed the same four items had the highest rankings for all three groups of school leaders. These items were: "modeling the shared mission, vision, and core values of the school;" "meaningfully engaging with families and the larger community;" "developing, advocating for, and enacting a shared school mission and vision;" and "supporting a professional community for teachers and staff." However, it is worth noting that public (non-charter) school leaders also had four other items with first or second highest mean scores. These items were "conflict management," "equitable and culturally responsive practices," "methods of assessment for curriculum," and "creating a learning community in harmony with Montessori principles."

The item "meaningfully engaging with families and the larger community," in addition to receiving the first or second highest mean score for importance across school types, was also the most frequently chosen item by private school leaders when asked to choose the top three most important items. It was also the second most frequently chosen item for public (non-charter) school leaders.

Program director responses. All four of the items with the highest rankings among school leaders were also unanimously ranked as "6=essential" by program directors, though program directors also indicated that it was essential for adult learners in their program to have

an understanding of "supporting a professional community for teachers and staff," "Montessori in relation to current research and relevance today," and "creating a learning community in harmony with Montessori principles." This last item, "creating a learning community in harmony with Montessori principles," was the most frequently chosen as one of the top three most important items to program directors.

PSEL standards of particular relevance. Since AMS Administrator Credential standards are best categorized as prescriptive standards for Montessori administrator preparation programs, and PSEL standards are designed to be aspirational standards to guide the field of educational leadership, it is perhaps not surprising that items taken from PSEL standards were frequently chosen by both school leaders and program directors as "essential." And while some PSEL standards had mean ratings higher than AMS standards, there is also a case to be made that while perhaps not explicitly mentioned, some PSEL standards are nevertheless implied in current AMS standards. For example, the Montessori approach can function as the foundation for a school's mission, vision, and core values, which were the basis of two of the four most highly ranked items across surveyed groups. So while the AMS Administrator standards do not explicitly use the words "mission," "vision," or "core values, it is nevertheless possible that in "creating a learning community in harmony with Montessori principles," Montessori school leaders may also be demonstrating competency in "modeling the shared mission, vision, and core values of the school" and in "developing, advocating for, and enacting a shared school mission and vision."

Still, a few aspects of school leadership present in PSEL standards which are not included in current AMS Administrator Credential standards emerged as important themes of this study.

These include: meaningfully engaging with families and the larger community, equity and cultural responsiveness, and teacher leadership.

Meaningfully engaging with families and the larger community. As described above, this item received the first or highest mean score for importance across school types, and was the most frequently chosen item among all school leaders when asked to choose their top three most important items.

None of the program directors expressed surprise about this trend. Explanations included a practical, business-oriented perspective, such as "if your parents and your families are happy, then they're going to stay and they're going to tell their friends about you… but when you have unhappy families it just can ruin the reputation of your school" (Interview), to the idea that Montessori schools should be a partnership between schools and families. As one program director explained, "We don't have children, we have families…but Montessori is about a partnership with families, so it's an appropriate thing, I think, to have at the top of the list" (Interview).

One program director also spoke about how a Montessori school leader who is grounded in a strong mission and vision of the school may be better equipped to help support positive relationships with families, even when anxiety-producing situations arise. When asked whether she was surprised that "meaningfully engaging with families and the larger community" was so important to school leaders, she explained:

> I think families terrify administrators. And sometimes can terrorize administrators too. It comes back to, do you know what you need to know in order to be doing this work, and are you communicating what you and your school believe, in advance, during, and through every crisis? Like, you have a strong sense of what your purpose is, and is it

> grounded in what Montessori education is? And you can then go back and say, "well, we have mixed age groupings because of" this or that, and not, you know, "because I want it this way." So when a parent comes, saying "well, I want my five-year-old in that elementary classroom because he's so advanced, and knows so much more than all the other five year olds in his class, and he's already been in that room for two other years, what more does he have to learn?" And they're in your face as an administrator, you can very calmly, not personally, you know, hear this and say, "I completely understand your perspective. Now, let me share with you the kinds of things that happen in the Montessori classroom for that oldest child and why it's a gift to have him stay in this room for the next year." … And if we could just help people, first and foremost, know what they're talking about and then communicate that out, they would avoid so much grief. It doesn't mean that grief won't come, you just have a much more solid footing, responding in a Montessori way- that's respectful, that informative, that builds trust, that is done in a way that helps. (Interview)

Equity and cultural responsiveness. As described above, "equitable and culturally responsive practices" was the item most frequently chosen as one of the three most important items among public (non-charter) school leaders, and it was the second most frequently chosen (along with seven other items) among public charter school leaders.

Five of six program directors also ranked this item as "6=essential," and four of the six directors indicated that if they were to add time to their training program, equity and cultural responsiveness would receive additional focus, more than any other item chosen.

Notably, in director interviews, two perspectives on equity and cultural responsiveness emerged. One perspective viewed equity as a kind of driving force that would be threaded

throughout all course content. Two directors seemed to take this perspective. One director commented:

> I think equity is the work of Montessori going forward now. We have to, teacher ed in particular, we have to come to own reckoning and recognize that we haven't done our due diligence in keeping up with this message and …integrating it in responsible ways within our teacher education programs. So I think that every teacher ed program at every level needs to figure out how to responsibly adjust practices, so that it's not a half-day session, it's something that that is woven through every topic in every way, and I think that's probably esp- well, everything is especially true for administrators. If you're talking about leadership, that's the height of responsibility for how others are going to experience Montessori. Let's be responsible there. And I do think it fits naturally into the work that we do as …Montessori educators. That idea of education for peace; this is education for peace in this day and age. And it's not the only thing we need to talk about around education for peace, but it is an inherent message that should be again integrated into everything we do. (Interview)

Similarly, another director described:

> Equity and access is really important to us at [training program]. We…were founded on the basic elements of diversity and inclusion. And so I think in just in light of our society and what Montessori philosophy is, just by its very nature, that if that [equity] was the driving force of everything, everything else would follow. (Interview)

Another perspective that emerged indicated that while equity and cultural responsiveness were important, they may not need explicit mention in preparation standards. The concern indicated here was that too many additions to the standards or changes that are made too

frequently could limit a program's ability to meet current needs of school leaders. One director shared:

> I don't have a problem adding [equity standards], but the list is going to get long… and I do what's current. Five years from now, maybe we've been there, done that, and it's still in the list. So I think staying current, looking at what the schools need… What is it they need? My public school people have that ABAR [anti-bias, anti-racist] stuff. Our private school people don't. So, you know, it depends on what I think's needed. (Interview)

Teacher leadership. Teacher leadership is a concept supported by PSEL standards, and implied in two of the items included in the surveys for this study. The first item, "distributing school leadership and decision making" had the 17th highest mean ranking of the 31 items, with a mean importance rating of 5.2. While only five school leaders included this item as one of the top three most important items, 30% (n=50) reported that they would find professional development on this topic valuable, and 9% (n=15) chose it as one of their top three priorities for further professional development.

The second item supporting the concept of teacher leadership, "inspiring and encouraging staff to enhance their own leadership practices" had the 10th highest mean ranking, with a mean importance rating of 5.45. Ten school leaders chose this item as one of their top three most important items; 32% (n=53) reported that they would find professional development on this topic valuable; and 10% (n=16) chose it as one of their top three priorities for further professional development.

Program directors spoke of the need of supporting pathways for leadership development as well. In describing the AMS Administrator Credential, one director said, "I think it was

originally designed to support getting a credential for people who are already heads of Montessori schools. And I think we're missing the boat" (Interview).

Another director commented:

> I think mentorship is one of the places where we have fallen down as a community… we've lost competent people for lack of stating that there are other ways that you could be a leader in Montessori. And I think AMS in the last few years has gotten more proactive. … but what else can we do? You know, how do we help the new blood, and especially the diverse new blood, find their footing in the world of Montessori? (Interview)

Meeting the needs of diverse leaders. One emergent theme from program director interviews was the wide variety of needs, interests, backgrounds, and perspectives of school leaders enrolled in the AMS Administrator Credential programs. One program director described:

> I think there are, there's a great more variety of needs, sometimes, I see in this level then in the teaching levels. Because the format and structure for teachers is relatively the same whether it's a public or private entity. But for administrators it's drastically different. (Interview)

In describing the ways that her program responds to the variety of needs, one program director spoke about the Administrator Credential program as being even more "Montessori" in form than their Montessori teacher preparation programs, in that the administrators of different backgrounds and experience levels mimic a Montessori mixed-age classroom, where students also teach and learn from one another:

> I always say our administrator's course is the most Montessori applied to adults of all of our coursework because we have to adapt to the needs of the individuals. They all come

> from such different backgrounds- have such different experiences and levels of experience. And so every course… there's always individualization that's taking place and specific details that we're inserting in- that this person is really looking for more on this; we'll connect them. (Interview)

Meeting the needs of public school leaders. Four of the five program directors interviewed reported that they saw public school leaders as having some unique needs (different from private school leaders), and felt that it was important to ensure that standards for Montessori school leader preparation programs were also meeting the needs of public school leaders. One director explained why she felt it was critical to support public school leaders, even though public schools make up a relatively small percentage of Montessori schools in America today:

> I think it's critical [that AMS Administrator credential standards also cater to the needs of public school leader], especially if we want to see the growth. And this is really a difficult conversation, isn't it, right now, in our Montessori world? Hey, the basis of our membership has always been private schools, but hey, the public schools are saying, the biggest growth is in public, and hey, if you want it to be mainstream and everybody know about it, it has to be in the public sector, right? Yeah, I think it's critical… I think there's all kinds of structural ways they [AMS] can approach that, and I think in a way it's also going to be, you know, good social justice work to have those conversations. (Interview)

Another program director indicated concern that not all Montessori preparation programs may have a deep understanding of the needs of public school leaders, saying:

> I think they [AMS Administrator Credential standards] need to be really updated for that. I mean, I don't even know how many Montessori Teacher training programs are even

> aware of some of the requirements [of public schools]…. There's a lot that I think that we're kind of missing as far as the requirements for state standards, you know, and how to mesh those with Montessori philosophy and Montessori curriculum, and I just think we're missing out there. (Interview)

Three other program directors reported that they appreciate having both public and private school leaders learning together, and that although administrators of different groups may have some unique needs, learning with and from one another provided important benefits. As one program director explained, "We make it fit whoever's there. And it's healthy to have both groups in there, I think. Sometimes the stories they tell on either end is a good awareness for the other group" (Interview).

Two other directors described that career paths and trajectories may change. One commented:

> You never know where you're gonna end up, you know, we talked about that with our current adult learners, that even though they're currently in private, or currently in public, it doesn't mean it's where they're going to be forever…You know, we try to balance it. (Interview)

The other described:

> We don't separate our students out for course work. So we don't have a public [group]…again, I think it's, this is our mixed-age grouping, these are different developmental levels, and I've seen so many public school Montessorians who have gone in their second or third education career, they end up in private Montessori schools. And so to separate them out, and then they don't hear about how to manage a board, and sometimes board management is very similar to local school council management, you know, there's a lot of overlap and in the different worlds. And same, you know, we see

that private Montessori people get involved in public when they are aware of the needs. (Interview)

It is worth noting that not all study participants indicated a positive view regarding the growth of Montessori in the public sector. One school leader commented in a survey response that "we have to be very careful not to allow the public system to co-opt what we are doing in Montessori. The two systems are very different and what we offer in Montessori is far superior" (Participant survey comment, 3/6/19).

One program director expressed concern about prioritizing public Montessori programs over private ones, desiring equal support for both:

> I'm interested in balance. I think we all have something to learn from each other. Public school people need to know they're accountable to the same principles of Montessori as private school people …So it's just back to: I don't want to have standards just for [public schools]. I want Montessori standards that get applied in the, in different funding models. But Montessori isn't what needs to change; they just have different funding models! And so to focus on one group over the other, I don't want to do. (Interview).

Section two summary. The data collected for this study indicate that both the AMS Administrator Credential standards and PSEL standards were regarded as important to and for Montessori school leaders; that subgroups of stakeholders placed the highest priorities on some similar and some different items related to AMS and PSEL standards; that some of the items taken from PSEL standards which are not included in current AMS Administrator Credential standards emerged as important themes; and that program directors viewed Montessori school leaders as having diverse needs for leadership preparation.

Section 3: Stakeholder Views of Standards for Preparing Montessori School Leaders

The third section of findings discusses three areas: stakeholder perspectives regarding the incorporation of national standards into standards related to the preparation of Montessori school leaders, program director perspectives on making changes or updates to current AMS Administrator Credential standards, and stakeholder perspectives regarding the accreditation of Montessori school leader preparation programs.

National standards for school leaders. The majority of participants indicated a belief that national standards for school leaders should be incorporated into standards for the preparation of Montessori school leaders, though responses were mixed regarding whether all Montessori school leaders should study this content, in order to examine items from a Montessori perspective, or whether this content should only be required for school leaders who did not already complete a graduate program focused on national standards for leadership.

School leader responses. When asked whether Montessori training programs for school leaders should be required to incorporate national standards, 63% (n=102) of Montessori school leaders answered in the affirmative, while 21% (n=34) answered in the negative, and 16% (n=26) were undecided.

Of those answering in the affirmative, 58% (n=59) felt that *all* Montessori school leaders should receive this content, while 42% (n=42) felt that this content should only be required for those who did not already complete a graduate program focused on these standards.

Of those answering in the negative, 12% (n=21) felt that training programs should not be required to incorporate national standards for school leaders into their Montessori school leader training, but could do so if they wished to. One participant answering this way commented that "required is a strong word" (Participant survey comment, 3/11/19). Only 8% (n=13) felt that

training programs should focus only on Montessori practices; that national standards for school leaders are not relevant.

Program director responses. Program directors were also asked whether Montessori training programs for school leaders should be required to incorporate national standards, and three answered in the affirmative, but indicated that these requirements should only to those participants who did not already complete a graduate program focused on these standards. Of the other three program directors, one felt that national standards should not be required, but that training programs could incorporate them if they wished. One was undecided and commented "need more info to weigh in. It would be great to have some time with others who lead these admin courses to go through the national standards and consider this question!!" (Participant survey comment). Finally, one skipped this question but commented that "We do incorporate them, they are part of our training course" (Participant survey comment).

AMS administrator credential standards. When asked if they would be in favor of making changes or updates to AMS Administrator Credential standards, program directors were evenly split: three program directors indicated that would be in favor of making changes to AMS credential standards, and three directors indicated that they were undecided about this. One undecided director commented in the survey:

> It really depends! I'd be in favor of further defining high quality admin programming as majority face to face. I'd be in favor of adding some more flexibility for "Independent Study" so that we could go back to offering "field trips" to other Montessori schools, and so on; I'd be up for the dialogue with others offering this program about what makes a good admin program. I don't want to see big changes to the major rules in the near future. (Participant survey comment, 3/12/19)

In the program director survey data and in the follow-up interviews to better understand the thinking and perspectives of program directors, several themes emerged: the challenge of writing standards, a desire for flexibility, concerns about possible burdens, and some specific suggestions for possible changes, both in the structure and in the content of AMS Administrator Credential courses.

Challenge of writing standards. Three program directors spoke in interviews that writing appropriate standards is a challenging process. Themes here included the challenge of writing standards that both ensure quality for adult learners and yet still allow for flexibility in program delivery, as well as the challenge of articulating standards, finding the right number of standards, and utilizing appropriate processes that allow for stakeholder input on standards.

In describing the tension between quality-assurance and overly prescriptive standards, one director (who had indicated being in favor of making changes to AMS Administrator credential standards) commented that "the challenge in writing standards is that it's like, policy … It's like bylaws. They have to be general enough to leave room for flexibility but specific enough to ensure quality…we don't want to be too prescriptive" (Interview).

Another program director indicated that articulating items as standards can be challenging. In speaking about one survey item she found important, she commented:

> …it's our job to guide them towards those [professional development experiences] and help support them in finding, you know, relevant options for whatever it is that they're doing. So, I don't know how you make that into a standard, it just- I think it's our, our work that we do. (Interview)

This same director also spoke about the challenge of deciding what to include or exclude from a list of content standards. She described:

> I feel like when you start to add too specific standards and come up with more, you know, bullet points or whatever, then you're making yourself almost more limited, because then it's like, well, what if you forgot something and then somebody thinks that it's not important. (Interview)

Finally, any updates or changes to standards of member organizations often includes a process for stakeholder review and comment. Yet finding a vehicle for this process can also provide challenges, especially if not all stakeholders feel represented. One director described that she did not feel that the majority of program directors regularly gave input on proposed changes affecting teacher and administrator preparation programs, due to the current format utilized for commenting on such proposals. She described:

> I do miss the meetings that used to happen before… where we used to sit at program level divisions and talk through the rules and make any suggestions of things that we saw that needed tweaking from the program perspective. I don't think they get that in any way, now. Maybe… from the most active participants, but not from the normal folks, who are busy, right? (Interview)

Desire for flexibility. When program directors described the varying needs of school leaders, they indicated valuing flexibility in their programs, as well as preparation standards that were not overly prescriptive. As one director explained:

> I don't want a bunch of stuff that isn't relevant to the group I'm doing. Hey, that's my job, is to find out what's relevant to this cohort and provide it. And by having the open-endedness… I can listen to their concerns and, you know, respond. (Interview)

Another director reported via survey that helpful changes to AMS standards would include "different formats for the models to provide additional customization for learners" (Survey response).

A third program director commented via survey that "Current practicum requirements make it hard for anyone not working full time in admin to complete the program in a practical way" (Survey response).

While some program directors expressed a desire for even more flexibility, one point of appreciation regarding the current AMS Administrator standards was the current level of flexibility contained in the three models available. As described, the three pathways provide different options and requirements, based on a candidate's prior background. Model I is designed for candidates who seek knowledge in Montessori philosophy, pedagogy and curriculum, Model II for candidates who seeks knowledge and skills in school administration, and Model III for candidates who seek knowledge and skills in both Montessori philosophy/pedagogy/curriculum and school administration. One program director explained:

> I do think AMS has done a good job with the three models…there are a lot of Montessori teachers who don't know how to run a school. And so they've got that piece, and then there are a lot of Administrators that don't know how to run a Montessori school, that need that piece, and then there are people who need the whole thing. And so having the models, I think it's respectful of what you do know, and focuses on what you don't know. (Interview)

Possible burdens. Several program directors indicated concern around the burdens that changes to the AMS Administrator credential standards might impose on their programs. One

director described the burden of making significant changes her AMS Administrator Credential program the last time that standards were updated:

> So when they started the reaccreditation process, it was not a fun process… I'm not in a hurry for them to update their rules because they haven't yet stabilized themselves as going through the process in a way that feels comfortable to those of us who have been doing this for a long time. (Interview)

A director with a newer program also agreed that changes now would feel disruptive, since the current standards drove her program's creation, and she feels that the program is benefiting school leaders. She explained, "I think just because… we really did use the exact standards to build our course. I feel like they're all giving the adult learners what they need" (Interview).

Another director indicated similar satisfaction with her current program, describing the both the administrative strain that new standards would put on her as a director and a feeling that additional standards might take away content time from current course content. She explained:

> I don't want any more people telling me what to do. I don't want more rules to have to follow. I'm not against learning new things, but I don't want to just keep, you know, adding more stuff that I don't think is useful, and more paperwork. You know, I've done the paperwork and paperwork is extraordinary… I don't really want more stuff. I want to do what I do well, instead of having a lot more, spreading thin on another bunch of other things. (Interview)

Suggested changes. Four program directors proposed or discussed changes to the AMS Administrator credential standards that they thought would be improvements. These included

suggestions for changing rules regarding both the structure and format requirements of AMS Administrator Credential programs, as well as suggestions for content changes.

Format and structure changes. One director described that she would propose changes to "admission and credential requirements for admission to the program. I think that this is very limiting" (Survey response, 3/4/19).

Another proposed "different formats for the models to provide additional customization for learners" (Survey response, 3/11/19). Describing her ideas for updating AMS Administrator Credential standards to provide even more flexibility and customization for adult learners, one program director explained:

> It could be a leveled, tiered approach- sort of like you have in states, where you have an entry level leadership, and then you go to school building, and then you go to district… But I also envision a program where there are sort of these mandatory requirements, because it is a Montessori school leader program, and there are some flexible, for lack of a better term, electives, that suit the situation that that person is in.

Later in the same interview, this director continued the theme:

> So that's actually the rationale for why I think there need to be electives. Yes, so that if you need more in-depth knowledge about some of those things then there could be more coaching around that. I mean, I'll say currently that's why our program has a strong mentoring piece… that's the purpose of the monthly individual mentoring-coaching, is to give additional support in those areas. I think in some cases it's not enough. So we have to think of how to be more flexible with the process. (Interview)

One program director was clear that she did not feel the program hour requirements for AMS administrator credential standards should be increased, saying "I do not believe we should

add more hours" (Survey response). Another director echoed this sentiment, saying "I don't want more coursework" (Interview).

Finally, one program director described a desire to see standards written as a continuum, rather than simply "met" or "not met," and to have programs reflect on the standards each year in their annual reports. She explained:

> I think standards, I think they become too cut and dry, do you know what I mean? …I think we need to be looking at, okay, here's the standard, now, where are you along that continuum? Are you, are you meeting that standard? Are you meeting that standard with progress? Are you meeting that standard with excellence? You know, I think we need to be looking at our professional development, and I actually believe our annual review each year needs to be more reflective. (Interview)

Content changes. Program directors indicated a feeling that some topics should be explicitly included in AMS Administrator Credential content standards. These topics included an emphasis on personal transformation, equity and cultural responsiveness, and special education.

One program director also felt that some items currently listed explicitly in the AMS Administrator Credential content standards might also be connected, saying "so I think some of those things could be combined into general topics" (Interview). However, none of the program directors indicated that any items currently included in the AMS Administrator Credential standards were unnecessary or should be removed. One director explained, "I can say that I think all those elements are relevant, extremely relevant, to the work that we do" (Interview).

In describing an emphasis that she would like to see Montessori school leader preparation courses take, one director described:

> It seems like the standards for administrators are so focused on… not the essence of Montessori, more the management of it, and I don't think that's what Dr. Montessori's view of what a leader should be like. I mean, obviously we've got to manage, that's got to be a good piece. But foremost, that's not what I think we need to be focused on. I mean, the jumping off point has to be more transformative… That personal transformation work and how important that is for administrators. (Interview)

In describing a focus on equity and cultural responsiveness, one program director affirmed that she felt the AMS standards should highlight these items explicitly. When asked the same question, another director commented:

> I'm of two minds when it comes to standards, because I think more rules is not necessarily better. But the rules- the, the broader sense of the rules- gives, shares what you're valuing. And so I do think there needs to be mention of this… it might be something where we say in the mission of Montessori TEPs [teacher education programs]… we should be saying this is, this is what we advocate for, more than having a standard that addresses it. But then again, if you don't make it a standard, you're going to have programs that just walk around it, and avoid it, right? (Interview)

Finally, one director was passionate about making sure Montessori school leaders are prepared to support special education, commenting in the survey that she would like to see a change of "Providing a course that helps administrators understand the needs of children with disabilities and special needs" (Survey response).

Accreditation for Montessori school leader preparation. The majority of school leader participants indicated support for MACTE accreditation of school leader preparation programs and also indicated that they would be in favor of an alternative path to school licensure that is

specific to Montessori school leaders. However, this support was not absolute, and several participants indicated significant concerns.

School leader responses. Seventy-four percent (n=120) of school leaders felt that MACTE accreditation of training would be beneficial to Montessori schools and leaders. 6% (n=10) felt it would not be beneficial, while 20% (n=33) were undecided.

Seventy percent (n=113) of respondents indicated that they would be in favor of an alternative path to school licensure that is specific to Montessori school leaders. 9% (n=14) indicated that they would not be in favor of this, and 22% (n=35) were not sure. However, among public (non-charter) school leaders, the response was significantly more mixed, with four school leaders indicating they would be in favor, three indicating that they would not be in favor, and four indicating that they were undecided. This is noteworthy because public (non-charter) school leaders are typically subject to licensure laws and regulations, while public charter school leaders and private school leaders may not be. See Table 6.

Table 6
Participants in Favor of Alternative Licensure Path

	Public (Non-Charter)		Public Charter		Private/Independent	
Answer	Percentage	N	Percentage	N	Percentage	N
Yes	36.36%	4	60.00%	9	74.07%	100
No	27.27%	3	13.33%	2	6.67%	9
Undecided	36.36%	4	26.67%	4	19.26%	26

Comments made within the school leader survey indicated that the primary concern was related to quality of preparation and making sure that school leaders were adequately prepared. Several expressed concern that Montessori school leadership programs may not cover the same depth and breadth of content that a traditional educational leadership degree provides. Such comments included:

- “The current leadership courses do not offer the same depth an advanced degree in school leadership offers” (Survey response, 3/11/19).
- “There also needs to be a strong component of standard school leadership. It would be great if MACTE could do a dual accreditation to allow participants to gain local administrative credentials accepted by public school systems” (Survey response, 3/11/19).
- “I don't think it is a replacement for taking courses to receive administrative state licensure, however” (Survey response, 3/7/19).
- “In addition to the knowledge of Montessori- all school educators need the basics of data collection and interpretation, education law, other areas that are covered through Education Administration programs” (Survey response, 3/31/19).
- “I am a public school leader, and as Montessori training is often not geared towards public schools, I donot [sic] feel that it could replace the training systems geared toward public school leadership” (Survey response, 3/18/19).
- “I would want to see very advanced study. Often times Montessori research and Professional [sic] development is not as sophisticated, up to date, myopic, etc. That puts us as an advantage. [sic] As a professional community we are doing so much RIGHT, but we need to continue elevate our our [sic] training, etc.” (Survey response, 3/5/19).

Other concerns did not specifically compare Montessori school leader preparation to traditional school leader preparation programs, but still indicated a concern about and desire for “quality.” Such comments included:

- “As long as it's a quality course that prepares leaders to lead in context to Montessori principles” (Survey response, 3/5/19).

- "Standardization of training would be a leading benefit, followed closely by due recognition of high-quality training. However, in order to do that, the content that currently exists will need to be strengthened" (Survey response, 3/5/19).
- "So long as it is rigorous" (Survey response, 3/11/19).
- "Yes, if it included all areas listed within this survey" (Survey response, 3/26/19).

Finally, a few comments indicated concern about the time requirements and burdens on busy school leaders:

- "Adding another layer of accreditation can be another burden. Accreditations are inconvenient to the job of actually running the school" (Survey response, 3/12/19).
- "We cannot complete a year long coursework in addition to school site work in our administrative role. So, if the leadership training is online and short period of time, it is beneficial" (Survey response, 3/11/19).

Program director responses. Program directors were evenly split on the idea of MACTE accreditation: Three of the six program directors indicated they would be in favor of MACTE accreditation of their AMS Administrator Credential program, one indicated that she would not be in favor of MACTE accreditation, and two were undecided. Benefits included wider recognition for Montessori school leaders, the ability to create an alternative path to licensure, and the ability to provide study visas to international students. However, concerns included increased costs and concerns about the robustness of standards that MACTE might adopt.

One director expressed the impact that additional MACTE fees might have on potential applicants, saying "then it just feels like another set of fees to have to pay, to be honest… you want to make sure that this program is accessible to as many administrators as there can be because it's a huge need" (Interview).

Two other directors expressed concerns about whether MACTE standards would be equal to AMS Administrator credential standards. One expressed concern about the percentage of online work that might be allowed and concerns about the practicum setting, indicating that she felt it would be "grave mistakes" to not require "any face-to-face [training] or any part of it [the practicum] to be done in a Montessori school" (Interview). Another director expressed similar concerns that the MACTE requirements might require fewer hours than current AMS standards allow, or a less robust practicum experience, either by the number of hours required for the practicum experience or in the requirements related to the quality of the Montessori school for the practicum setting. Her concern was that such standards would allow programs not affiliated with AMS to still achieve MACTE accreditation, and thus appear "equal" to AMS Administrator Credential graduates. She explained, "more people are doing it for less hours… less practicum, the practicum sites don't have to meet the same standards, and then it all appears equal" (Interview).

Five of the six program directors indicated that they would be in favor of an alternative path to licensure for Montessori school leaders; one was not in favor of such an option. However, even one director in favor of the alternative path noted that it would be a challenge for Montessori school leader preparation programs to deliver programs robust enough, given their small scales. Her suggestion was to partner with universities, so that the requirements for licensure could be met that way: "If it could be offered as a supplement to the Admin cert from AMS, that would be most helpful! E.g. get your Masters and state admin credential through XXXX university" (Survey response).

Section three summary. The majority of school leaders indicated a belief that national standards for school leaders should be incorporated into standards for the preparation of Montessori school leaders.

Program directors were evenly split between being in favor of and being undecided about making changes or updates to AMS Administrator Credential standards. Concerns included the challenge of writing appropriate standards and the burden that new standards might impose on programs, as well as concerns that adding content or seat hour requirements would be problematic. Program directors valued flexibility in their school leader preparation programs, and some program directors suggested structural changes to current AMS standards, including admission requirements, the use of electives, practicum requirements, and the use of standards as a continuum. Some program directors also suggested content changes to AMS Administrator Credential Standards, including standards to emphasize the importance of personal transformation for school leaders, equity and cultural responsiveness, and special education.

The majority of school leaders indicated support for the ideas of MACTE accreditation of school leader preparation programs and an alternative path to administrative licensure for Montessori school leaders. However, school leaders reported significant concerns related to the quality of preparation for Montessori school leaders, in order ensure that these leaders receive adequate preparation. In particular, leaders of public (non-charter) Montessori schools were split on the idea of an alternative path to licensure, with approximately equal numbers in this sample indicating that they were in favor of, opposed to, or undecided about an alternative path to administrative licensure for Montessori school leaders. Program directors were split on the idea of MACTE accreditation, with three in favor, one opposed, and two undecided. Benefits included wider recognition for Montessori school leaders, the ability to create an alternative path

to licensure, and the ability to obtain visas for international students. However, concerns included increased costs, the robustness of standards that MACTE might adopt, and concerns that new standards might cause significant burdens to administrator preparation programs in order to meet new requirements. Only one of the six program directors was not in favor of an alternative path to administrative licensure for Montessori school leaders, but two noted that it would be a significant challenge for Montessori school leader preparation programs to deliver all of the necessary content, given the current scale of programs.

Summary

The central findings of this capstone were presented in three sections of this chapter: understanding the current status of Montessori school leaders in regards to formal preparation for school leadership, stakeholder perspectives regarding the knowledge and skill needs of Montessori school leaders, and stakeholder perspectives regarding standards for the preparation of Montessori school leaders. The implications of and recommendations regarding these findings are discussed in the next chapter.

Chapter 5: Discussion and Recommendations

In this chapter, I first discuss the implications for the findings of each of the three sections presented in chapter four: the formal preparation for leadership of Montessori school leaders, the knowledge and skill needs of Montessori School leaders, and stakeholder views of standards for the preparation of Montessori school leaders, followed by a discussion of this study's limitations and directions for future research. I then offer four recommendations for AMS, MACTE, or any other Montessori organization concerned with the preparation of Montessori school leaders.

Discussion of Section One: Montessori School Leaders' Formal Preparation for Leadership

As described in chapter four, the data collected for this capstone suggest that a significant number (perhaps around, or just under, one half) of Montessori school leaders take their positions without any formal preparation for school leadership. Even fewer Montessori school leaders take their positions (around, or just under, one third) with formal preparation which includes content specific to leading a Montessori school. Nevertheless, Montessori school leaders, including those with prior training as Montessori teachers, overwhelmingly indicated that such preparation, including with content specific to leading a Montessori school, would have been desirable. Time and financial barriers have been suggested, along with the view that the AMS Administrator credential is primarily designed to serve the needs of current, rather than aspiring, school leaders.

Implications. Given that Montessori school leaders have unique knowledge and skill needs and that most Montessori school leaders take their positions without formal preparation for school leadership, a two-pronged approach is needed. First, the creation of a formal training pathway for aspiring Montessori school leaders would provide a way to gain relevant content

knowledge and leadership skills before taking leadership positions in Montessori schools. No such option currently exists within the scope of AMS Administrator Credential programs. Second, increased flexibility within existing administrator training programs would allow for greater customization of content for diverse school leaders, and may also provide an avenue to reduce time pressures and/or financial burdens, both of which emerged from these data as current barriers. Still, more research is needed to better understand current barriers, as there may be other factors which also limit the number of Montessori school leaders pursuing formal preparation for leadership.

For both prongs (training for aspiring and current Montessori school leaders) these data indicate that an approach which utilizes the Montessori approach as a lens for all aspects of school leadership, rather than treating Montessori philosophy and pedagogy as wholly separate from school leadership content, would be optimal.

Discussion of Section Two: Knowledge and Skill Needs of Montessori School Leaders

The data collected for this study indicate that both the AMS Administrator Credential standards and PSEL standards were regarded as important to and for the work of Montessori school leaders, though there were some clear trends regarding items with widespread consensus, and items which appeared more or less relevant to subgroups of Montessori school leaders. Some of the items taken from PSEL standards emerged as important themes, including "meaningfully engaging with families and the larger community," "equity and cultural responsiveness," and items related to teacher leadership. Program directors in this study viewed Montessori school leaders as having diverse needs for leadership preparation generally, and specifically recognized that school leaders in the public sector have some different needs and challenges from school leaders in the private sector.

Areas of consensus. Some items were consistently ranked highly across subgroups of stakeholders, such as "modeling the shared mission, vision, and core values of the school," "meaningfully engaging with families and the larger community," "developing, advocating for, and enacting a shared school mission and vision," "supporting a professional community for teachers and staff," and "creating a learning community in harmony with Montessori principles."

There is significant conceptual overlap among these five items. Clearly both "modeling the shared mission, vision, and core values of the school," and "developing, advocating for, and enacting a shared school mission and vision," speak to mission and vision of a school, but in a Montessori setting, mission and vision are also going to be driven by Montessori principles. Therefore, if a school is truly a "learning community in harmony with Montessori principles" it would likely be driven by and fully embodying the mission, vision, and core values of that school. Furthermore, a school that functions as a learning community in harmony with Montessori principles would likely also be supportive of a professional community for teachers and staff, and would meaningfully engage with families, as these are also widely considered core tenets of Montessori best practice.

Areas of difference. Public school leaders (charter and non-charter) ranked "Methods of assessment for curriculum," "data use and management" and "equitable and culturally responsive practices" more highly than private school leaders did. Private school leaders indicated that the most valuable professional development topics were those related to the business of running a school: "resource management," "marketing and enrollment", and "raising funds." However, no public (non-charter) school leaders chose any of those items as top professional development needs. Regression analysis also showed that school leaders who received formal preparation for

school leadership rated the items derived from PSEL standards as significantly more important for their work than school leaders who did not have formal school leader preparation.

Implications. These data suggest that preparation for Montessori school leaders should include national standards and that flexible preparation pathways to allow for differentiation and customization of preparation content would be ideal.

Some PSEL standards that should be included are items that are either missing entirely from current AMS Administrator Credential standards, or their inclusion is so implicit, they may not be adequately addressed in school leader preparation. One such item is a focus on "equitable and culturally responsive practices." While an argument can be made that equity would be included in peace education, and therefore included in the AMS standard "Montessori's concepts and theories, including peace and cosmic education" such connections are unlikely to be made by every instructor in a preparation program. Furthermore, the AMS standard as written does not require any examination of school and societal practices which may contribute to inequity, or how culturally responsive teaching practices are best implemented in a Montessori setting. These are essential items to ensure that Montessori schools promote the success and well-being of each student.

Other PSEL standards may be implied in current AMS Administrator Credential Standards, and so it may simply make sense to use the more precise or inclusive language seen in PSEL standards. As one example, "working with families" is already listed in current AMS Administrator Credential standards, but "working with" lacks the positive language used in the PSEL counterpart, "*meaningfully engaging* with families and the wider community" (emphasis added), and the AMS standard does not make any mention of the wider community. As another example, because there is significant conceptual overlap among the five items of broad

agreement discussed above ("modeling the shared mission, vision, and core values of the school," "meaningfully engaging with families and the larger community," "developing, advocating for, and enacting a shared school mission and vision," "supporting a professional community for teachers and staff," and "creating a learning community in harmony with Montessori principles") it may be less important to add such items as new or as separate items within preparation standards for Montessori school leaders. Rather, the wording of these standards may provide useful language to include in standards for Montessori school leaders. In this scenario, a parent, or over-arching standard might be listed as "developing, advocating for, and enacting a shared school mission and vision based on Montessori principles," with items like "supporting a professional community for teachers and staff," and "meaningfully engaging with families and the larger community," listed as key indicators of that parent standard.

Discussion of Section Three: Stakeholder Views of School Leader Preparation Standards

The majority of participants indicated a belief that national standards for school leaders should be incorporated into standards for the preparation of Montessori school leaders, though responses were mixed regarding whether all Montessori school leaders should study this content, in order to examine items from a Montessori perspective, or whether this content should only be required for school leaders who did not already complete a graduate program focused on national standards for leadership.

Program directors were evenly split between being in favor of and being undecided about making changes or updates to AMS Administrator Credential standards. Concerns included the challenge of writing appropriate standards and the burden that new standards might impose on programs, as well as concerns that adding content or seat hour requirements would be problematic. A desire for flexibility was widely expressed, and some program directors

suggested structural changes to the format of AMS Administrator Credential Standards, including admission requirements, the use of electives, practicum requirements, and the use of standards as a continuum. Some program directors suggested content changes to AMS Administrator Credential Standards, including standards to emphasize personal transformation for school leaders, equity and cultural responsiveness, and special education.

The majority of participants indicated support for MACTE accreditation of school leader preparation programs and also indicated that they would be in favor of an alternative path to school licensure that is specific to Montessori school leaders. However, school leaders reported significant concerns related to the quality of preparation for Montessori school leaders, in order ensure that these leaders receive adequate preparation. In particular, leaders of public (non-charter) Montessori schools were split on the idea of an alternative path to licensure, with approximately equal numbers in this sample indicating that they were in favor of, opposed to, or undecided about an alternative path to administrative licensure for Montessori school leaders. Program directors were evenly split on the idea of MACTE accreditation. Benefits included wider recognition for Montessori school leaders, the ability to create an alternative path to licensure, and the ability to provide study visas to international students. However, concerns included increased costs, the robustness of standards that MACTE might adopt, and concerns that new standards might cause significant burdens to administrator preparation programs in order to meet new requirements. Only one of the six program directors was not in favor of an alternative path to administrative licensure for Montessori school leaders, but two noted that it would be a challenge for Montessori school leader preparation programs to deliver programs robust enough to merit such a path.

Implications. National standards for the preparation of school leaders should be included in the preparation for Montessori school leaders; it is not sufficient to focus on Montessori philosophy and pedagogy exclusively. However, as shown by data presented in section one, even school leaders with prior training as Montessori teachers would have desired content specific to leading a Montessori school (such as how to apply Montessori Philosophy to a school-wide setting) in their preparation. So while flexibility for requirements based on prior learning and experiences is valued, it is reasonable that some national standards be included in all Montessori school leader preparation programs, even if a candidate already completed a graduate program focused on such standards. Even for school leaders with prior training in school leadership, Montessori school leader programs should include experiences like:

- Practice in analyzing and discussion of how a Montessori mission and vision shapes school leader actions, including the creation of a positive school climate for students and staff
- Examining best practices for inclusion and support of all students within Montessori classrooms, including those with various racial or cultural backgrounds; gender, gender expression, or sexual orientation; disability or special status; class; or language
- Examining how to foster productive partnerships between families of all types and backgrounds
- Examining the appropriate use of data-driven instruction and decision making within a Montessori school and classroom
- Methods of assessment of Montessori classrooms and programs

While these data also indicate the merits of examining traditional school leader content through a Montessori lens, both school leaders and program directors expressed concern about the ability of small programs to deliver the depth and breadth of content required for full administrative licensure. If an alternative path to administrative licensure for school leaders is a primary goal for pursuing MACTE accreditation, MACTE quality principles for school leaders may need to stipulate a wide variety of specific content to be included for programs focused on the preparation of Montessori school leaders. Such standards would likely pose a significant burden for existing AMS Administrator Credential programs, unless partnerships with universities are readily available. However, obtaining approval for alternative licensure is a state-by-state process, so one possibility might be for Montessori policy advocates to recommend the completion of a MACTE-accredited school leader preparation program in addition to, and not in lieu of, other school leader preparation coursework or assessments.

Recommendations Regarding the Preparation of Montessori School Leaders

Regarding the preparation of Montessori school leaders, I offer the following recommendations:

1. Incorporate content and language from the PSEL into any content standards for the preparation of Montessori school leaders.
2. Support any changes to AMS Administrator credential programs with robust change facilitation practices. The Concerns-Based Adoption Model (Hall & Hord, 2020) can provide a useful model for supporting meaningful change.
3. Provide flexibility within preparation standards so that preparation programs may assess, and candidates may demonstrate, areas of prior understanding and

competence, in order to allow for even greater customization of content for diverse school leaders.

4. Form partnerships between institutions of higher education and Montessori school leader preparation programs to allow for greater depth and breadth of content, without requiring two separate graduate-level programs for adequate preparation of Montessori school leaders.
5. Promote pathways to strengthen the leadership pipeline by providing avenues for formal leadership preparation for school leaders who have not yet assumed the role of principal or head of school.

These recommendations are discussed further in the following four sections.

Incorporating PSEL content and language into Montessori school leader standards. As described earlier in this chapter, Montessori school leader standards would be enhanced by some of the more precise or descriptive language of the PSEL (e.g., "engaging with families and the community in meaningful, reciprocal, and mutually beneficial ways" instead of "working with families"). In addition, Montessori school leader standards would benefit from the addition of standards relating to equity and cultural responsiveness (PSEL Standard 3), as well as explicit supports for teacher leadership, use of data, and school improvement.

Support any changes with robust change facilitation practices. The Concerns-Based Adoption Model (Hall & Hord, 2020) can provide a useful model for supporting meaningful change, as relevant components (stages of concern and levels of use in particular) can help identify both attitudes and beliefs regarding changes (in order to design appropriate interventions and supports) and current implementation levels (to track progress and identify gaps in implementation). Change facilitation is critical to any widespread change effort, but is

recommended here since data indicated that some program directors and school leaders did not support (and thus may be assumed to be actively opposed to) changes to standards regarding the preparation of Montessori school leaders.

Customizing preparation content and partnering with institutions of higher education. Montessori school leaders often come to their positions with a diverse set of needs and prior learning experiences. In order to meet this variety of needs, I propose a framework for the tiered preparation of Montessori leaders (Figure 2). As described previously, it is important for Montessori school leaders to study educational leadership utilizing a lens of Montessori philosophy. For this reason, separating Montessori school leaders into three categories (i.e., leaders who need Montessori content, leaders who need educational leadership content, and leaders who need both, as outlined in the three models of the AMS Administrator Credential) may not allow for this, since Montessori content and leadership content are treated as discrete elements.

Instead, it may be useful to think of leadership skills and knowledge as elements that might be layered, with flexibility for aspiring or current Montessori school leaders to demonstrate competency in skills or knowledge gained previously, to create a tiered approach to Montessori school leader preparation. In the model I propose, Montessori philosophy, as the driver of school mission and vision, forms the base, along with an understanding of integrated school leadership principles. Thus, to build a foundation for formal preparation of Montessori school leaders, all participants would spend time in a community of learners examining school leadership from Montessori perspective. Two themes would drive content. The first theme is a school's Montessori mission and vision as lens to inform school leadership principles, decisions, and priorities. The second theme would be the model of integrated school leadership, which

combines transformational leadership with distributed instructional leadership, as discussed in chapters one and two. Content here would also include an examination of the principles of and tools for continuous improvement in Montessori settings, as well as an examination of equitable practices in Montessori settings. Participants might also examine content such as adult development, systems thinking, and effective communication. The benefits of such a base are that, regardless of whether a participant has prior Montessori training or prior non-Montessori school leadership training, all school leaders have the opportunity to consider how the Montessori approach impacts school leadership.

The second layer of this leadership development model would represent the more technical knowledge of the Montessori approach: Montessori scope and sequence (the spiral curriculum), materials, assessment, and human development theory. Not all school leaders would spend significant time honing their understanding of these elements, as exemptions from some or all content here could be made, based on an individual's prior training and/or career trajectories. However, a teacher with training for a particular level may still find value in some of this content, as preparation for supporting, coaching, or supervising Montessori teachers of other levels. For example, an aspiring school leader with early childhood and elementary teaching credentials may be exempted from the study of Montessori's human development theory (the planes of development) and Montessori materials, but may still wish or need to gain a deeper understanding of Montessori infant and toddler and/or secondary programs.

The third and final layer of this leadership development also represents technical knowledge, but that of school operations and management. Items like school law, financial and human resources management, and governance policies would be included here. Like the second layer, exemptions from some or all content of this third level could be provided, based on an

individual's prior training and/or career trajectories. This may also be the most useful place for Montessori school leadership programs to partner with university-based programs, in order to include the content typically covered in educational leadership endorsements without requiring Montessori school leaders to complete two independent graduate-level programs. Ideally, in such a partnership, candidates in the Montessori school leadership preparation program would take university courses together as a cohort, and maintain regular contact with Montessori preparation program faculty and mentors as well, in order to continue examining school operations from their Montessori foundation.

With the exception of the base, the model (Figure 2) could provide flexibility within layers in order to meet the needs of current or aspiring school leaders. Indeed, it is the flexibility of this tiered approach that is most critical, in order to meet the diverse needs of various Montessori school leaders. If the training for different layers were also able to be spread out over time, perhaps with individual certifications for each layer, this tiered approach might also aid in the creation of a robust pipeline for Montessori leadership, described in the next section.

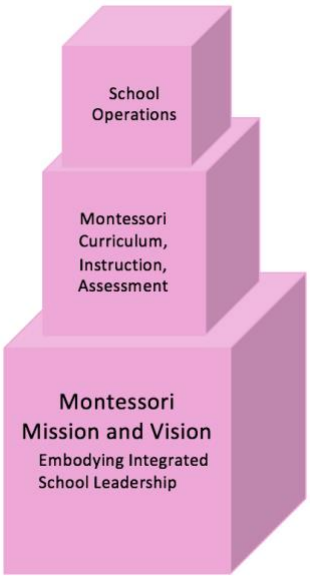

Figure 2. A Tiered Approach to Preparation for Montessori School Leaders

Promoting a Montessori leadership pipeline. Data from this capstone indicated that a large percentage (about, or just under half) take leadership positions in Montessori schools without any prior training for leadership. Currently, the AMS Administrator Credential practicum requirements make it difficult for teacher-leaders to obtain relevant leadership training before assuming a leadership role. In addition, Montessori schools may not always provide avenues to support or enhance teacher leadership, so many teachers may feel that their options are limited to classroom teaching or building-level leadership. It is possible that teachers with leadership potential then, end up leaving Montessori classrooms, schools, and organizations. Therefore the Montessori community faces two challenges: a dearth of qualified school leaders, and a lack of visible career webs for Montessori teachers.

Thus, in order to provide avenues for formal leadership preparation for school leaders who have not yet assumed the role of principal or head of school, and to make visible other leadership opportunities within the Montessori community, I propose a pipeline for Montessori leadership.

The theory of action which drives the recommendations for a Montessori leadership pipeline draws on ideas from both the Wallace Foundation principal pipeline theory of action, as described by Korach and Cosner (2017, p. 266) and from England's lattice system for school leadership as described by Supovitz (2014). This theory of action relies on standards for Montessori school leaders to both support the preparation of Montessori school leaders and to aid in the creation of Montessori school environments which will demonstrate increased support for teacher leadership. In this model, if Montessori teacher-leaders are supported, recognized, and encouraged to pursue leadership development, and if flexible, standards-driven pathways for leadership development exist, allowing aspiring Montessori leaders to pursue high-quality

leadership preparation over time and with multiple avenues for leadership, the result will be a pipeline of highly competent Montessori leaders, including those interested in and ready for Montessori school principalship/headship. See Figure 3.

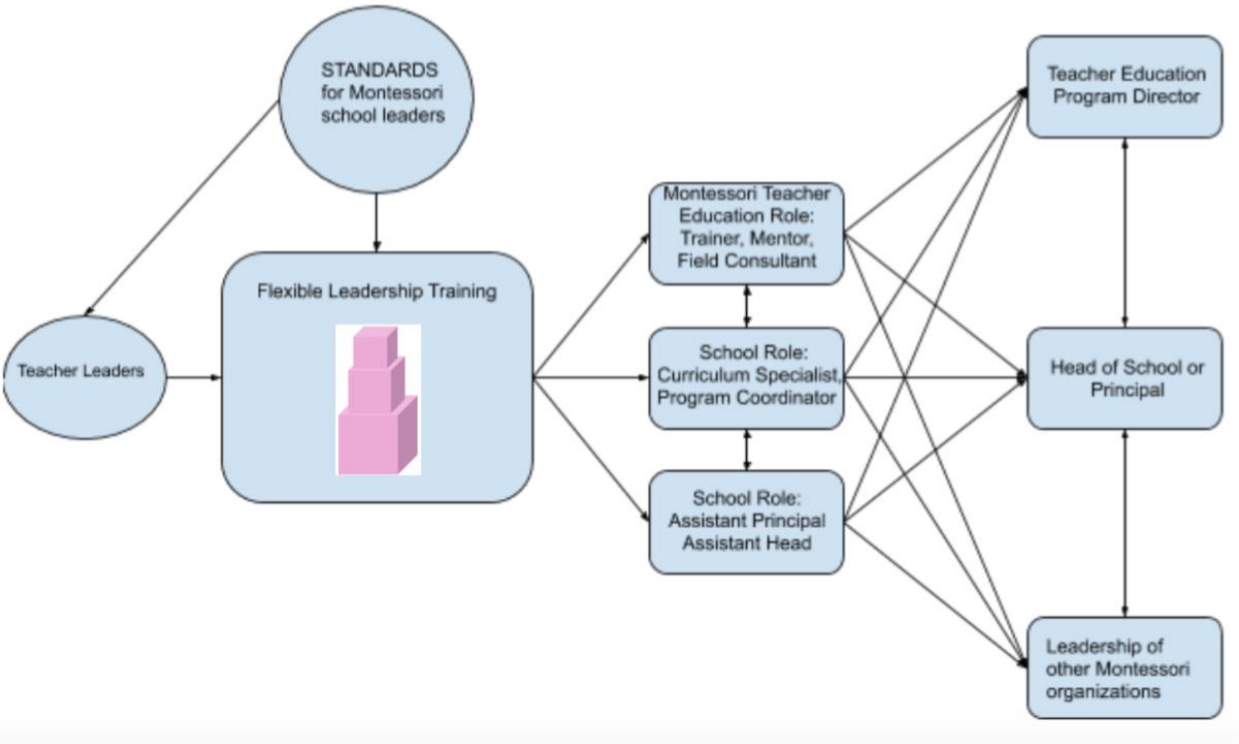

Figure 3. A Pipeline for Montessori School Leadership

In this pipeline model, standards drive the requirements for preparation, based on the tiered model described in the previous section. If the three layers provided separate certifications, which could be earned over time, such an approach may also allow aspiring school leaders to move into various leadership positions prior to assuming the headship/principalship. For example, in the pipeline representation above, school operations may not be needed for a role as a curriculum specialist or program coordinator. Thus, a teacher-leader might only need to complete tier one or tiers one and two before assuming such a role. However, after obtaining tier one certification and/or tiers one and two certifications, such a Montessori leader may also be

equipped for lateral moves in a Montessori school or organization, such as to the role of Assistant Principal or faculty member of a Montessori teacher education program.

Limitations and Directions for Future Research

There are a number of important limitations to this study. While the sample of school leaders appears reasonably representative of the population of Montessori school leaders, very little is actually known about this population, so it is difficult to determine whether non-response bias was, in fact, a significant factor for this study. Similarly, while AMS provided significant assistance to this study by allowing me to reach a much larger number than would have otherwise been possible, some survey best practices were outside of my control, including the number of follow-up reminders and the timing of the email distribution. In addition, no demographic information about the survey recipients was available to me, making representativeness even more difficult to assess.

The sample of program directors seems robust, but with such a small number of programs offering the AMS Administrator Credential, it would have been helpful to hear from all program directors. Non-response bias for the two who did not participate in the study may have been a factor, especially if these two had strong opinions about current AMS Administrator Credential Standards or MACTE accreditation of school leader preparation programs.

Since this study functioned as a first-level, descriptive study about the current preparation needs, work, and standards affecting the preparation of Montessori school leaders, there are many possible directions for related research in the future. An important first step might be an attempt to replicate some of the results found here, in order to better understand the population of Montessori schools and school leaders in the United States. In such a study, a gap analysis would

be helpful to better understand the factors which prevent Montessori school leaders from pursuing training.

A second useful direction would be a multi-case study of preparation programs, to better understand how preparation standards are utilized in programs, and to what extent the standards function as levers of program quality. Here, too, conducting a gap analysis to understand where the systems may have shortcomings (and what role standards may play in those shortcomings) could be of use.

A third possible direction, should preparation standards for Montessori school leaders change or be implemented anew by other Montessori organizations, might be an implementation study of the processes involved in such changes, in order to inform best practices for future standards. While the tiered approach to training and the pipeline model discussed above provide possibilities to address the current shortage of qualified school leaders and a lack of visible career webs for Montessori teachers, both approaches remain untested. Should such a pipeline model be adopted, additional research will be needed to assess both the impact of the model and any other needs which may not be addressed in the current model.

Summary

Based on the findings of this capstone, I offer five recommendations regarding the preparation of Montessori school leaders. These are:

1. Any content standards for the preparation of Montessori school leaders should include content and language from the PSEL.
2. Any changes to AMS Administrator credential programs should be supported with robust change facilitation practices.

3. Preparation standards should provide flexibility for programs to assess, and candidates to demonstrate, areas of prior understanding and competence, in order to allow for customization of content to meet the needs of diverse leadership candidates.
4. Preparation programs may wish to form partnerships with institutions of higher education in order to allow for greater depth and breadth of content, without requiring two separate graduate-level programs for adequate preparation of Montessori school leaders.
5. Montessori organizations should create and promote a Montessori leadership pipeline by providing formal leadership preparation opportunities for aspiring leaders who have not yet assumed the role of principal or head of school.

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Appendices

Appendix A

Survey for Montessori School Leaders

School Leaders Survey

(Administered via Qualtrics, text represented here)

This survey is designed to better understand the needs of school leaders in Montessori settings, and should take about 10 minutes to complete.

- *The first section asks questions about your personal leadership preparation path.*
- *The second section asks questions to better understand the specific knowledge and skill needs of Montessori school leaders.*
- *The third section asks questions about future possibilities for preparing Montessori school leaders.*
- *The survey ends with some questions about your school and your own background.*

SECTION ONE: Your personal leadership preparation path

Did you have formal school leadership preparation or training for your current position?

YES only:

Did this preparation include training that was specific to Montessori school leaders?

YES only:

On a scale of 1-4, how well did this training equip you to successfully meet the challenges of your current role?

1=not at all 2= somewhat 3= mostly 4= perfectly

Would you be willing to participate in a 20 minute follow-up phone/Zoom interview about your experiences in training?

- *Yes*
  - Please enter an email address where we may contact you:_____
- *No*

NO only:

Do you think formal leadership preparation that is specific to Montessori school leaders (such as how to apply Montessori Philosophy to a school-wide setting) would have been helpful to you when you first took your position?

- Yes
- No
- Not sure

Would such training be useful to you now?

- Yes
- No
- Not sure

NO only:

- **Do you think formal leadership preparation would have been helpful to have prior to your first years as an administrator in a Montessori setting?**
  - Yes
  - No
  - Not sure
- **Would you have wanted this preparation to include content that is specific to Montessori school leaders (such as how to apply Montessori Philosophy to a school-wide setting)?**
  - Yes
  - No
  - Not sure
- **Would formal leadership training be useful to you now?**
  - Yes
  - No
  - Not sure
- **Would you want this training to include content that is specific to Montessori school leaders?**
  - Yes
  - No
  - Not sure

SECTION TWO: Knowledge and skill needs of Montessori school leaders

For a school leader in your position, how important is it to have an understanding of the following topics:

1= not important at all *2= mostly unimportant* *3= somewhat unimportant*

4= somewhat important *5= very important* *6= essential*

- Meaningfully engaging with families and the larger community
- School improvement techniques
- Montessori curriculum
- Supporting a professional community for teachers and staff
- Marketing to support enrollment
- Equitable and culturally responsive practices
- Montessori instruction
- Methods of assessment for curriculum
- Montessori's planes of development
- Observation techniques
- Montessori's concepts and theories, including peace and cosmic education
- Supporting the professional capacity of school personnel
- Montessori in relation to current research and relevance today

- Resource management, including human and financial resources
- Montessori materials
- Scheduling practices which minimize disruption
- Ethics and professional norms for school leaders
- School law
- School accreditation
- Technology use
- Data use and management
- Conflict management
- Leadership styles
- Montessori's life history
- Developing, advocating for, and enacting a shared school mission and vision
- Starting or expanding a school
- Creating a learning community in harmony with Montessori principles
- Distributing school leadership and decision-making among faculty and staff
- Modeling the shared mission, vision, and core values of the school
- Inspiring and encouraging faculty and staff to enhance their own leadership practices
- Raising funds

You indicated that it is essential for a school leader in your position to understand the following topics: _____*(topics pulled from above lists)*___. Please rank the three topics you consider most important:

Would you benefit from further professional development in any of these areas? Check all that apply.

- How to meaningfully engage with the larger community
- School improvement techniques
- Montessori curriculum
- How to support a professional community for teachers and staff
- Marketing and enrollment
- Equity and cultural responsiveness
- Montessori instruction
- Methods of assessment for curriculum
- Montessori's planes of development
- Observation techniques
- Montessori's concepts and theories, including peace and cosmic education
- How to support the professional capacity of school personnel
- Montessori in relation to current research and relevance today
- Resource management, including human and financial resources
- Montessori materials
- Scheduling practices which minimize disruption
- Ethics and professional norms for school leaders
- School law
- School accreditation
- Technology use
- Data use and management

- Conflict management
- Leadership styles
- Montessori's life history
- How to develop, advocate, and enact a shared school mission and vision
- Starting or expanding a school
- Creating a learning community in harmony with Montessori principles
- Distributing school leadership and decision-making among faculty and staff
- Modeling the shared mission, vision, and core values of the school
- Inspiring and encouraging faculty and staff to enhance their own leadership practices
- Raising funds

You indicated you would benefit from _____*(topics pulled from above lists)*___.

Please rank the three topics most important to you:

Are there other professional development topics that you would recommend for a school leader like you?

SECTION THREE: Future possibilities for Montessori school leader preparation

MACTE, the Montessori Accreditation Council for Teacher Education, is currently recognized by the United States Department of Education as the accrediting body for Montessori teacher education. In some states, a credential/diploma from a MACTE-accredited training program is recognized as an alternative path to teacher licensure.

MACTE does not currently accredit Montessori school leader training.

If MACTE were to accredit Montessori school leader training, a leadership credential from a MACTE-accredited training program could eventually become an alternative path for administrative licensure and/or administrative endorsements.

Would you see MACTE accreditation of training for Montessori school leaders as beneficial to Montessori schools and leaders?

- Yes
- No
- Undecided

Optional comments/explanation:

Would you be in favor of an alternative path for administrative licensure that is specific to Montessori school leaders?

- Yes
- No
- Undecided

Optional comments/explanation:

Since the early-2000s, most states have used national standards in determining requirements for school leader licensure and preparation programs. Currently, these standards are known as

the Professional Standards for the Education of School Leaders (PSEL), and formerly they were known as the Interstate School Leaders Licensure Consortium (ISLLC) standards.

Should Montessori training programs be required to incorporate existing national standards for educational leadership (such as the PSEL) into training for Montessori school leaders?

- Yes; all school leaders should be familiar with these national standards and should examine (with Montessori colleagues and experts) how these standards are best implemented in a Montessori setting.
- Yes, but they should only be incorporated into training for those school leaders who did not already attend a graduate program focused on these standards.
- No, but training programs could implement these standards if they wish.
- No, Montessori school leadership programs should focus only on Montessori practices; national standards for school leaders are not relevant.
- Undecided.

Optional comments/explanation

SECTION FOUR: Demographics

Which best describes your school:

- Public
- Public charter
- Private/Independent

Which best describes your current position at your school:

- Principal or Head of School
- Assistant Principal or Assistant Head of School
- Other: _____

What levels/ages of students are currently served at your school:

- Infant/Toddler (younger than age 3)
- Early Childhood (ages 3 to 6)
- Lower Elementary (ages 6 to 9)
- Upper Elementary (ages 9 to 12)
- Middle school (ages 12 to 14)
- High school: (ages 14 and up)

Do you hold a Montessori teaching credential or diploma at any level?

- Yes

  Which teaching credential(s) do you hold (check all that apply)

  - Infant/Toddler
  - Early Childhood
  - Elementary I
  - Elementary II
  - Elementary I-II
  - Secondary I

    - Secondary I-II
- No

Which indicates your highest degree held *in the field of Education*?

- Bachelor's
- Master's
- Doctorate

I hold (check all that apply):

- A university degree in educational leadership
- An administrator license in my state
- An AMS administrator credential

I identify as:

- Male
- Female
- Neither
- Prefer not to say

I identify as:

- White/Caucasian
- Non-white/Person of Color/Person of the Global Majority
- Neither
- Prefer not to say

Would you be willing to participate in a 20 minute follow-up phone or Zoom interview about your work as a Montessori school leader?

- Yes
    - Please enter an email address where we may contact you:_____
- No

Thank you for your participation!

As a token of appreciation for your time in taking this survey, I would like to offer you or your designee a free, one-year (50 issue) subscription to "The Marshall Memo: A Weekly Round-up of Important Ideas and Research in K-12 Education." An individual subscription is valued at $50, and the Memo is delivered weekly via email. Please allow 4-6 weeks to process your subscription.

Please indicate the email address to which you'd like the Memo sent: _____.

Appendix B

Survey for Program Directors

AMS Administrator Credential Program Director Survey

(Administered via Qualtrics, text represented here)

This survey is designed to better understand the current work and needs of training programs offering the AMS Administrator Credential, and should take about 20 minutes to complete.

- *The first section asks general questions about your AMS Administrator Credential program.*
- *The second section asks questions related to the knowledge and skill needs of Montessori school leaders*
- *The third section asks questions about future possibilities for preparing Montessori school leaders.*

SECTION ONE: Your AMS Administrator Credential Program

Which Administrator Credential Program model(s) do you offer: (check all that apply)

- Model one: For adult learners who seek knowledge in the Montessori philosophy/pedagogy and curriculum
  - What percentage of your incoming adult learners typically enroll in this model? ___%
- Model two: For adult learners who seek knowledge and skills in school administration
  - What percentage of your incoming adult learners typically enroll in this model? ___%
- Model three: For adult learners who seek knowledge and skills in both Montessori philosophy/pedagogy/curriculum and school administration
  - What percentage of your incoming adult learners typically enroll in this model? ___%

Do you serve as the sole coordinator for this Administrator Credential course?

- Yes. There is no one else who coordinates this level of credential at our program.
- No, I also have a level coordinator for this credential.
  - May we also send this survey to the level coordinator for this Administrator Credential program? (They will get the same invitation email that you did.)
    - Yes
      - Please provide this person's email address:
    - No

Approximately how many instructors (including yourself, if applicable) deliver the majority of content for your AMS Administrator Credential program? (Please do not count anyone who serves only as a field consultant.)

- 1 to 3 instructors deliver the majority of content
- 4 to 6 instructors deliver the majority of content
- 7 to 9 instructors deliver the majority of content
- 10 or more instructors deliver the majority of content

How many years has your training center been offering the AMS Administrator Credential course?

____

Approximately how many adult learners have attended your AMS Administrator Credential course?

_____

How would you describe the majority of your adult learners?

- Aspiring school leaders, preparing for future career growth
- Current school leaders, seeking training for a position they already hold
- We have approximately equal numbers of aspiring and current school leaders

How would you describe the majority of practicum sites for the adult learners in your Administrator Credential program?

- They are primarily public school settings
- They are primarily private/independent school settings
- We have approximately equal numbers of public and private/independent school settings for practicum sites.

SECTION TWO: Knowledge and skill needs of Montessori school leaders

How important is it for the adult learners in your Administrator course to gain a thorough understanding of the following topics:

1= not important at all 2= mostly unimportant 3= somewhat unimportant

4= somewhat important 5= very important 6= essential

- Meaningfully engaging with families and the larger community
- School improvement techniques

- Montessori curriculum
- Supporting a professional community for teachers and staff
- Marketing to support enrollment
- Equitable and culturally responsive practices
- Montessori instruction
- Methods of assessment for curriculum
- Montessori's planes of development
- Observation techniques
- Montessori's concepts and theories, including peace and cosmic education
- Supporting the professional capacity of school personnel
- Montessori in relation to current research and relevance today
- Resource management, including human and financial resources
- Montessori materials
- Scheduling practices which minimize disruption
- Ethics and professional norms for school leaders
- School law
- School accreditation
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- Data use and management
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- Modeling the shared mission, vision, and core values of the school
- Inspiring and encouraging faculty and staff to enhance their own leadership practices
- Raising funds

You indicated that it is essential for adult learners in your Administrator course to thoroughly understand the following topics: _____*(topics pulled from above lists)*___. Please rank the three topics you consider most important:

If you were to add additional contact hours for your AMS Administrator Credential course, which topics would be likely to receive more coverage? Check all that apply.

- How to meaningfully engage with the larger community
- School improvement techniques
- Montessori curriculum
- How to support a professional community for teachers and staff
- Marketing and enrollment
- Equity and cultural responsiveness
- Montessori instruction

- Methods of assessment for curriculum
- Montessori's planes of development
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- Raising funds

You indicated that if you were to add additional contact hours to your Administrator course, the following topics would be likely to receive more time _____*(topics pulled from above lists)*___. Please rank the top three topics to which you would devote more time:

Are there other topics that you consider essential for adult learners in your Administrator program to study?

Which of the following best describes your use of AMS Administrator standards, as outlined in the March 2018 version of the AMS Handbook for Teacher Education Program Affiliation?

- We studied the AMS Administrator standards first, and then built a program to incorporate all of the standards
- We built a program for administrators first, and then modified as needed to incorporate the standards.
- Neither: Building our program and studying standards was a simultaneous process; one did not precede the other
- Other:

On a scale of 1 to 4, how easy did you find it to incorporate all of the standards into your Administrator program?

1=not easy at all 2= somewhat difficult 3=easy 4= very easy; effortless

Optional comments/explanation:

One a scale of 1 to 4, how much do you rely on current standards to inform and support the quality of your Administrator program?

1=not at all 2= minimally 3= somewhat 4= very much; they are invaluable

Optional comments/explanation:

On a scale of 1 to 4, how often do you pull in topics which are outside of the AMS Administrator Credential Standards in order to support your adult learners?

1=never2= occasionally 3= frequently 4= constantly

Optional comments/explanation:

Would you be in favor of changes or updates to the AMS administrator standards?

- Yes
  - What kind of changes or updates you would propose?
- No
  - Optional comments/explanation:

SECTION THREE: Future possibilities for Montessori school leader preparation

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- Yes
- No
- Undecided

Optional comments/explanation:

Would you be in favor of an alternative path for administrative licensure that is specific to Montessori school leaders?

- Yes
- No
- Undecided

Optional comments/explanation:

Since the early- 2000s, most states have used national standards in determining requirements for school leader licensure and preparation programs. Currently, these standards are known as the Professional Standards for the Education of School Leaders (PSEL), and formerly they were known as the Interstate School Leaders Licensure Consortium (ISLLC) standards.

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- Yes, but they should only be incorporated into training for those school leaders who did not already attend a graduate program focused on these standards.
- No, but training programs could implement these standards if they wish.
- No, Montessori school leadership programs should focus only on Montessori practices; national standards for school leaders are not relevant.
- Undecided.

Optional comments/explanation:

Would you be willing to participate in a 20- minute follow-up interview via phone/Zoom about your AMS Administrator Credential program?

- Yes
  - Please enter an email address where we may contact you:_____
- No

Thank you for your participation!

As a token of appreciation for your time in taking this survey, I would like to offer you or your designee a free, one-year (50 issue) subscription to "The Marshall Memo: A Weekly Round-up of Important Ideas and Research in K-12 Education." An individual subscription is valued at $50, and the Memo is delivered weekly via email. Please allow 4-6 weeks to process your subscription.

Please indicate the email address to which you'd like the Memo sent: _____.

Appendix C

Semi-structured Interview Protocol

Participant # _____

Date: _____

Time: _____

Introduction:

- Check for time constraints and outline the recorded section of the interview.
    - Reiterating verbal consent
    - Interview questions
    - 5 minutes at the end to tell you more about my study
    - Close with any questions you have for me

START RECORDING

Informed consent agreement-

- Review consent agreement, including the right to skip any questions, withdraw at any time.
- Reiterate that your name and the name of your training program will not be reported in this study.
- I will be recording the interview for transcription purposes.

Do you consent to this interview?

1. You indicated that you would/would not be in favor of changes or updates to AMS admin credential standards. Can you tell me more about your thinking on that?

2. You indicated top priorities of:
    a.
    b.
    c.

Why are these the most important to you?

Only one of these 3 is explicitly mentioned in current AMS standards? Do you think AMS standards should include these items?

3. Would you be in favor of changing or updating any other content areas currently required of the AMS admin credential? *(Go through standards, if requested)*

4. Would you be in favor of changing or updating any other content areas currently required of the AMS admin credential?

5. You indicated that you serve _____ percentage of public school leaders in your training program. Do you see public school leaders as having unique needs?

6. Given that public schools currently make up 10-20% of Montessori schools in the US, how important is it to you that AMS admin standards also cater to the needs of public school leaders?

Data from report:

7. So far, 48% of survey respondents indicated that they did not have formal school leadership preparation of any kind. (29% had formal leadership training that included content specific to Montessori.)
    a. Does this surprise you?

    b. Does this concern you?

8. School leaders rated the following standards as less important to their work:
    a. School accreditation
    b. Technology use
    c. Data use and management
    d. Montessori's life history
    e. Starting or expanding a school
    f. Raising funds

    Do you have any thoughts or comments about this?

9. About 35% of school leaders chose "engaging with families" as one of the 3 most essential topics for their work, which made it the most commonly chosen standard. Besides the fact that there were many standards listed, do you have any thoughts or comments about this?

This concludes our interview, and I'm stopping the recoding now.

Would you like to receive the Marshall Memo? To what email address: _____

Any questions for me?