

Perspectives on Montessori:
Indigenous Inquiry, Teachers, Dialogue, and Sustainability

Ann D. Sutton

Submitted in partial fulfillment for the degree
of Doctor of Philosophy from Prescott College
in Sustainability Education

December 2017

Denise Mitten, PhD
Committee Chair

Elisabeth J. Coe, PhD
Committee Member

Damara Paris, EdD
Committee Member

Phyllis Povell, PhD
External Reader

Abstract

This research aimed to deepen understanding about effective Montessori teachers and broaden the context of the topic by examining aligning Montessori theory with Indigenous theory and sustainability theory. The research was guided by an Indigenous research paradigm and involved using appreciative inquiry and tapping into the wisdom of experienced Montessori educators, considered as coresearchers and elders. Using Bohm's dialogue process, six small groups of elders pondered together about the essence of Montessori and their insights about teachers who effectively implement the Montessori concept. The total of 20 coresearchers concluded that the essence of Montessori was when Montessori became a way of life, a process, coresearchers believed, is lifelong. The elders determined effective Montessori teachers are those who can apply the Montessori concept in their classroom. Key attributes of effective Montessori teachers included ability to trust, exercise keen observation skills, and develop mindfulness. One insight offered for teacher educators included allowing more time for adult learners to practice implementation of the theory. For administrators, elders believed that teachers' development unfolds just as students' and requires in-kind support. Findings help inform prospective and current Montessori teachers, teacher educators, and school administrators. Findings show an alignment between Maria Montessori's educational theory and how it is practiced, reveal the complex nature of the Montessori concept, and indicate Montessori education fosters a sustainability mindset.

Keywords: appreciative inquiry, Bohm dialogue, Indigenous inquiry, Maria Montessori, Montessori education, Montessori teachers, sustainability

Copyright © 2017 by Ann D. Sutton

All rights reserved.

No part of this dissertation may be used, reproduced, stored, recorded, or transmitted in any form or manner whatsoever without written permission from the copyright holder or her agent(s), except in the case of brief quotations embodied in the papers of students, and in the case of brief quotations embodied in critical articles and reviews.

Requests for such permission should be addressed to

Ann D. Sutton

8221 Kingsbrook Road #209
Houston TX 77024 USA

anndsutton@msn.com

Acknowledgments

What a rich experience this life is, in large part because you never really travel alone. First, acknowledgment of all who have come before us, whose lives and work inform us over the ages. Next, acknowledgment that accomplishments are all shared, creating or adding to bonds that remain long-lasting and meaningful. This work represents influences that span decades of a full life and contributions so many have made toward this research. Though left unnamed here, those people are remembered and acknowledged throughout and within my whole being.

I acknowledge by name those who are closest to this endeavor. Drs. Rick Medrick, Pramod Parajuli, Denise Mitten, Noël Cox Caniglia, and Joan Clingan were the core professors in this program when I entered. I think of them as the Fabulous Five because they were each fabulous in many wonderful ways. To Pramod, in particular, besides consistent inspiration, your grace and encouragement at a critical point moved me along more than you likely know.

Dr. Denise Mitten, my core faculty, receives special recognition. Denise, a most accomplished scholar, consummate professor, and masterful guide, you have a real knack for moving your students along with calm and ease. Just when I would think I had attained a certain level of scholarship, you raised the bar just a tad more. How many times does one have that kind of attention, care, love, and support in completing a challenging endeavor about which one is so passionate? Thank you from the depths of my heart and soul. It is an honor being a recipient of your tutelage.

Thank you to Deb Morrison and Heather Dievendorff, unsung heroes at Prescott, who made sure I got those sticky requirements recorded, just as you continue to do for so many graduates.

To my fellow Cohort 8 (Infinity) scholars, from our beginning through the end, I thank you each and all for the lasting gifts of your ponderings, shared vulnerabilities, laughter, and support that you bestowed not just on me, but the entire gang.

To course mentors Dr. Suzanne Dunn (a former student from years ago whose cards of encouragement and support sent throughout this process buoyed me along the way), Dr. Brad Faircloth (who offered enlivened, patient, tireless conversations over the phone), and Dr. Marna Hauk (who inspired Figure 6.2 in this work among other things), thank you three for helping me widen my knowledge that spanned the intricacies of quantitative research to complexity theory. A special nod to Dr. Jared Aldern, who seemed initially to stop up the works that spring, by insisting I write out the connections I found between Indigenous and Montessori principles. I thank you for your insistence; it is what led me to delve deeply into the subject that ultimately opened the doors to use of Indigenous inquiry. A reminder to all us teachers to hold high standards, which in essence serves the learner.

My life continues to be enriched by associations with Indigenous scholars and being welcomed into the Indigenous Inquiry Circle. Four Arrows went above and beyond in offering encouragement and connecting with me, a random outsider who emailed him out of the blue. I remain grateful for his substantive and prompt replies, given in spite of his full and demanding schedule. Dr. Margaret Kovach, how to express the magnitude of gratitude I feel for your work

and your presence in my life. To Maggie and all in the IIC, your support and acceptance, given generously and genuinely, continues to warm and inspire.

To Dr. Kierstyn Hunter, gender org. learning guru and now dear friend, who served as a willing and tireless pro bono editor, a debt of gratitude for everything you read with such kindness and support about Montessori education. Eric Grass (and former student), thank you for your enthusiasm, energy, and time given to help me with those PowerPoints!

To Jen, thank you for reading my work, offering unwavering support and helpful insights for this and for many years. Jen, Dorothy, and brother Jim, thank you for your help with the graphics!

To Pam Firth (Detail Devil Editing Services) who provided professional copyediting and formatting services according to the guidelines laid out in the university-endorsed national *Guidelines for editing research theses* (Institute of Professional Editors, 2010), 'twas a wonderful experience of encouragement, highest competence, and care. Thank you!

To Sharon Molloy, who topped off this project by quickly and enthusiastically responding with permission to use one of her stunning art pieces, thank you for the inspiration your networkism art provides and the beauty readers will see when they get to the end of this paper.

I must mention all the exceptional teachers with whom I am and have been privileged to work. You have inspired and informed this quest unaware.

To the coresearchers/elders in this study, all of whom are named in this work, thank you a thousand fold. Your pearls of wisdom are the substance herein. Your time and love, laughter, and associations touch my head, heart, and hands. What a true fortune and gift to be part of the Montessori community. We all seem to carry a joy, sense of gratitude, and humbleness for being part of this work with children that we find so meaningful and fulfilling.

I have had the most incredible and supportive committee in addition to Dr. Denise Mitten. Dr. Damara Paris, thank you for serving as my Indigenous inquiry mentor with fortitude and attention during a most challenging and heartbreaking period in your life. I feel our hearts are connected forever, humbled and grateful for that bond. To Dr. Phyllis Povell, what a treasure to have your spunky spirit and stellar authority on Maria Montessori as a voice in birthing this research. Thank you. Betsy (Dr. Elisabeth Coe), I can hardly write through the tears of gratitude and joy our friendship and association means in my life. You have been here all along the way toward this end, beginning over twenty years ago. I can honestly say this work would not have happened were it not for you.

Anyone who knows me well knows how much my three daughters (all nearly perfect) energize and fill my life with love. Lauren, Jen, and Dorothy, you remain steadfastly supportive, ever encouraging with your love and spirit, in this and all endeavors. *Everything*.

Table of Contents

Abstract..... i

Acknowledgments iii

Table of Contents v

List of Tables xiii

List of Figures..... xiii

List of Abbreviations xv

PROLOGUE..... xvi

CHAPTER 1: Introduction..... 1

 Background and Rationale 2

 Montessori Education 2

 The Montessori Teacher 3

 Indigenous Inquiry..... 5

 Sustainability 6

 Significance of the Study 7

 Study Overview..... 8

 Use of an Indigenous Research Paradigm 13

 Education As Sustainability 13

 Definitions of Terms 14

 Appreciative Inquiry..... 14

 Indigenous 15

 Indigenous Inquiry..... 15

 Indigenous Research Paradigm 16

Montessori 17

Montessori Educators/Practitioners 17

Teacher/Guide 18

Sustainability 18

CHAPTER 2: Review of the Literature..... 19

Montessori Theory 22

 View of Education 23

 Role of the Teacher..... 28

 The Prepared Environment..... 30

Indigenous Theory..... 32

 Language 34

 Holism 34

 Spirituality 35

 Role of Elders 35

 Decolonizing Research 36

Sustainability Theory 38

 Paradigm for Sustainability 39

 Systems Thinking 41

 Adaptability 43

Summary 44

CHAPTER 3: Research Design 46

 Research Paradigm 46

 Conceptual Framework 48

Methods 51

 Participant Selection 53

 Relationship, respect, and trust. 55

 Participants as coresearchers..... 56

Sampling Size 57

Consent 58

Dialogue 59

 Number and accommodation. 62

 Preparation and format..... 63

The Researcher 66

Ethics 67

Analysis of Data 69

 Credibility and Trustworthiness 70

 Representation of the Results 73

Summary 74

CHAPTER 4: Elders as Coresearchers 76

 Experience in Montessori Education..... 77

 International Experience..... 77

 Range of Years and Instructional Levels..... 78

Background Information: Montessori and Related 79

 Private and Public Montessori School Experience..... 80

 Education 81

 Conventional Education Experience 81

Coresearchers Named.....	81
CHAPTER 5: Analysis and Findings.....	83
Analyzing the Findings	83
An Emic and Constant Comparison Approach	84
Alignment With An Indigenous Research Paradigm	86
Bohmian dialogue.	87
Trustworthiness.....	88
Reporting the Findings	88
Question 1: The Essence of Montessori.....	89
Way of Life.....	92
Respect.....	94
Focus on the child.....	96
Community.....	97
The prepared environment.....	99
Interrelatedness.....	102
Peacefulness.....	103
Love.....	104
Dialogue Question 1 Takeaways	106
Question 2: Describing Effective Teachers.....	110
The Issue of Characteristics, Traits, or Dispositions	112
Insights For Prospective and New Montessori Teachers.....	113
On transformation.....	115
Trust.....	118

Trusting the children.	119
Trusting the process.	122
Trusting self.	125
Exercise keen observation skills.	127
Cultivate mindfulness and self-awareness.	131
Create psychologically and physically prepared learning environments.	135
Psychological preparation.	136
Physical preparation.	138
Flow with imperfection.	140
Communicate and keep records well.	144
Final thoughts from coresearchers.	147
Applying the Concept.	149
Why effectiveness matters to coresearchers.	155
Insights for Montessori Teacher Educators.	157
Communicate key expectations.	158
Discernment of the philosophy and methods.	158
Able to express oneself.	161
First few years are challenging.	162
Create sense of community in adult cohort.	162
Keep the learning relevant.	164
Changing demographics.	164
Need to have current experience.	164
Learning from fellows.	165
Inspire.	168

Be patient and allow time.	169
Insights for Montessori School Administrators.....	173
Selecting teachers.....	176
Supporting teachers.....	179
Supporting new teachers.	180
Supporting all teachers.....	184
Preparing self as administrator.....	192
Summary of Findings on Effective Montessori Teachers.....	197
CHAPTER 6: Discussion.....	199
Research Overview	199
Primary Findings.....	200
Theory and Praxis.....	202
Interrelatedness and view of the child.	203
Prepared learning environment.	204
Observation.	204
Practice and theory interweave.	205
Complex Nature of the Montessori Concept.....	208
Complex adaptive systems.....	209
Unpredictability.	210
Need for observation.....	211
Values.	212
Feedback loops.....	212
Dynamic and emergent properties.	213
Holism.....	214

A whole greater than the sum of its parts. 215

Cultivating A Sustainability Mindset 217

 Complexity and systems thinking. 217

 Worldview..... 218

 Transformation..... 218

 Skills. 219

 Wonder..... 221

Philosophical Underpinnings and Larger Context..... 222

Limitations 225

 Data Saturation 226

 Number of Participants 226

 Time Constraints 227

Future Research..... 227

Practical Application of This Research..... 229

 Impacting the Work of Researcher 229

 Disseminating the Findings 230

 To the Montessori community..... 230

 To the Indigenous research community..... 232

Conclusion..... 233

EPILOGUE 236

References 239

Appendices..... 253

 Appendix A: Overview of Maria Montessori’s Life..... 254

Appendix B: Maria Montessori’s Geometric Image of the Planes of Development	257
Appendix C: Chart Showing Similarities Between Montessori Education Concepts and Indigenous Education Concepts	259
Appendix D: Letter of Invitation to Participate in Montessori Research.....	260
Appendix E: Prescott College IRB Approval (Signed Pages)	263
Appendix F: Participant Consent Form.....	265
Appendix G: Basic Guidelines for Dialogue.....	269
Appendix H: Questionnaire for Participant Demographics and Dialogue Feedback.....	270
Appendix I: Coresearcher Experiences	273

List of Tables

Table 2.1 Montessori Expressions and Meanings Used Among Montessori Educators	26
---	----

List of Figures

<i>Figure 1.1.</i> An example of a physically prepared environment in a 3- to 6-year-old Montessori classroom illustrates key qualities of aesthetically pleasing, orderliness, durable learning materials, furniture, and wall hangings appropriate for the age of the students. Elementary classrooms look similar but have more materials and usually a class pet. Outside the classroom are extended areas for students to work outdoors. Photo in the public domain.....	11
<i>Figure 1.2.</i> An example of a physically prepared environment in an urban Montessori middle school illustrates the same qualities of aesthetically pleasing, orderliness, durable learning materials, furniture, and wall hangings appropriate for the age of the students. At the end of the classroom is an extended area for students to work outside that includes a large picnic table, class garden, and chicken coop. White Rock Montessori Middle School, Dallas, Texas. Reproduced with permission.....	12
<i>Figure 3.1.</i> This Indigenous research paradigm considers epistemology, ontology, methodology, and axiology as interconnected; the relationship among the entities is viewed as inseparable. From <i>Research is Ceremony: Indigenous Research Methods</i> (p. 70), by S. Wilson, 2008, Black Point, Nova Scotia, Canada: Fernwood Publishing. Copyright [2008] by Shawn Wilson. Reprinted with permission.	47
<i>Figure 3.2.</i> Conceptual framework for the research on Montessori perspectives. Adapted from <i>Research for Indigenous Survival: Indigenous Research Methodologies in the Behavioral Sciences</i> (p. 220), by L. Lambert, 2014, Pablo, MT: Salish Kootenai College. Copyright [2014] by [Salish Kootenai College].	50
<i>Figure 3.3.</i> The philosophical underpinnings of the research on Montessori perspectives profess a view that everything is connected. To guide this exploratory and descriptive study, viewed through the lens of a Montessori educator, Wilson's (2008) Indigenous research paradigm served as the framework. Data were gathered through dialogue circles with Montessori elders using appreciative inquiry.	51
<i>Figure 4.1.</i> Shaded countries on the world map show 30 countries in which experienced Montessori educators, who participated in this study covering perspectives on Montessori, had worked with Montessori teachers and includes Montessori programs on six continents.	78
<i>Figure 4.2.</i> Coresearchers who contributed to the dialogues in this research about Montessori teachers represented perspectives from (a) four different native languages with a majority of native English speakers, (b) accumulated years of experience in Montessori education, (c) infant/toddler through secondary instructional levels, and (d) holding certifications received from one of two major organizations.....	80

- Figure 5.1.* During Question 1, coresearchers in the study on Montessori perspectives cumulatively described that the essence of Montessori becomes a way of knowing, being, and doing—a way of life in the classroom and outside the classroom cultivated over years—that is full of respect and values the child, community, the Montessori prepared environment, interrelatedness, peacefulness, and love. 91
- Figure 5.2.* Information about effective teachers that came out of the dialogues for this research on Montessori education provided insights to three groups: prospective and new Montessori teachers, teacher educators, and school administrators. 111
- Figure 5.3.* The image shows a list of abilities the elders in this study on Montessori perspectives revealed about Montessori teachers who can apply the Montessori concept effectively. Coresearchers' insights were ordered during the analysis phase based on the importance they gave to these abilities. 117
- Figure 5.4.* Coresearchers in the Montessori perspectives study considered five ways that teacher educators might support the development of effective teachers during the teacher preparation course. 158
- Figure 5.5.* Coresearchers in the study on Montessori perspectives provided administrators with insights about (a) selecting effective teachers, (b) the importance of supporting teachers continuously, and (c) ways to prepare themselves as administrators in creating a culture that fosters Montessori teacher effectiveness. 176
- Figure 6.1.* The braid illustrates how coresearchers responded to the central research question: What insights on implementing the Montessori educational concept can experienced practitioners offer to Montessori teachers? One strand (blue) represents Montessori becoming a way of life and one strand (green) the abilities effective Montessori teachers need to cultivate. The ribbon (pink) interwoven through the two strands represents the support teachers need from teacher educators and school administrators on the path to becoming effective/able to fully implement the concept. 207
- Figure 6.2.* This art piece illustrates the relationship of the philosophical underpinnings in this research. The whole image symbolizes the expansive concepts applicable to striving for a sustainable world. *Infinite Connections*, oil on canvas, by S. Molloy, copyright 2010. Reprinted with permission. 223

List of Abbreviations

AI	appreciative inquiry
ASL	American Sign Language
AMI	Association Montessori Internationale
AMS	American Montessori Society
ICQI	International Congress of Qualitative Inquiry
IIC	Indigenous Inquiry Circle
IRB	Institutional Review Board
MACTE	Montessori Accreditation Council for Teacher Education
QRIS	quality rating and improvement system
STEM	science, technology, engineering, and mathematics
TEP	teacher education programs

PROLOGUE

When I entered a PhD program in 2012, I was impassioned about the connections I felt existed between principles of Montessori education and those of sustainability. A few years before this, a man with whom I had served on a task force had asked me what I was passionate about. When I replied, “Montessori and sustainability,” he responded, blank-eyed, “I don’t know what you mean by either of those.” At the time, my simple reply was “Montessori is a concept of education; sustainability is about how humans might continue to live on this earth.” As I entered the graduate program, I was wondering whether the connections between those two could be raised in research I might undertake. From the outset, the two criteria for my query were to contribute to the Montessori community and connect the research on Montessori to sustainability, if possible.

Why a passion for Montessori education? For over forty years I have enjoyed a deep and abiding love for education, working with adolescents and fellow educators in conventional public school systems and Montessori private and public schools. I’ve seen the dedication and devotion to students that teachers and administrators have in both conventional and Montessori education. However, in this 21st century, the prevalent concept of education for children in their formative years, found in public and private conventional school sectors, remains rooted in a mindset born with the ascension of modern industrialization over a hundred years ago. Despite mounds of research that offer more effective ways to educate, unintentionally or not, the conventional models all too often promote the primacy of basic cognitive knowledge and the standardization of human beings. My experience with Montessori (including my own children’s experiences, who attended Montessori schools) revealed a way of educating that seemed to offer much more. While my view is limited, Montessori education appears to foster a student’s holistic

growth and human development far beyond what I have witnessed in the conventional realm. In my research project for this degree, I wished to help shed more light on what seems to me like an auspicious educational concept.

Once I started narrowing my research topic, I concentrated on research that might contribute to Montessori. Little did I know that the focus I selected to explore in Montessori would reveal connections with the concept of sustainability and more, open up connections with Indigenous ways of living and learning. This prologue provides a bit of the backstory to this study.

At the end of my first year in the graduate program, as I listened to various dissertation presentations, one in particular stood out. The presenter talked about using Indigenous inquiry to guide her research on ecotourism with Indigenous groups in Botswana. Captivated by the congruency of an Indigenous research framework, I wondered if a non-Indigenous person could follow an Indigenous research paradigm for research on a topic that was non-Indigenous. I was at the stage of learning about methodologies, struggling because it felt like a boa constrictor was around my heart as I considered whether my research was a phenomenological study, ethnography, or other. The congruency of the Indigenous research paradigm reflected the congruency of the Montessori educational approach; it made sense to me to follow a research paradigm that mirrored that congruency.

I created a mentored course with two others in my cohort to explore Indigenous research methodologies. Among the books I read was Dr. Margaret Kovach's (2012) *Indigenous Methodologies*. Her book stood apart from the others for how much was covered and how she seemed to speak from her heart and mind. Early in December of my second year, with winter break right around the corner, I emailed her. She responded kindly and explained she couldn't

make time to read what I had written; she had many students. I asked if she and I might meet if I traveled to where she lived and worked. Ultimately, I booked a flight from Houston, Texas, to Saskatoon, Saskatchewan, Canada for mid January even before she answered me. It was a risk I was willing to take. A couple of weeks before the trip, she replied with a yes. Within 10 minutes of our meeting, we were digging into how I might use Indigenous inquiry for research on Montessori. The conversation made me feel sane; I continue to feel deep gratitude for her kind attention, receptiveness, and expertise.

My associations in Montessori put me in regular contact with longtime, respected educators who have spent years working in Montessori education. Conversations with these peers (and elders, as I came to view them) during conferences and other gatherings were filled with purpose, laughter, and love for the work we were all doing. I determined I could tap into the wisdom of these elders to record their insights on a topic dear to their (and my) hearts: the Montessori teacher.

My research design was coming into clear view, but there remained one surprise I did not yet see. Delving into abilities that Montessori teachers demonstrate who implement the philosophy effectively, I discovered within the voices of the Montessori elders evidence of how Montessori education shares salient connections with the goals of sustainability. Though unaware, their reflections on Montessori offered specific examples for ways of educating advocated in the literature on education as sustainability.

I am a privileged White female. My core beliefs, attitudes, and values have been informed by my loving family and many diverse influences over a period of many years. I feel grateful for and humbled by the life I've experienced. I remain invigorated by how much I still don't know. I am awed by the mysteries of the universe, revealed throughout my life, including during this

research process. Work with Montessori practitioners and Indigenous scholars has made this research a labor of love; I hope readers feel some of that.

CHAPTER 1: INTRODUCTION

The experiences that influence our worldview tend to be rooted in our upbringing and involve our family, our schooling, and our community (Crompton & Kasser, 2009; Ray & Anderson, 2000). The family, educational, and community environments where we spend our formative years (birth to 18) determine to a large extent how we view the world and our role in it; these environments retain influence throughout our lifetime. Our viewpoints can become so internalized that we do not consider them as changeable (MacNaughton, 2004). In his book, *Blessed Unrest: How the Largest Social Movement in History is Restoring Grace, Justice, and Beauty to the World*, Hawken (2007) referenced the role our upbringing plays in shaping our mindset; he noted that what is familiar to us frames what we see and “what we see frames what we understand” (p. 15). I mention the influences in our formative years that can affect our way of thinking and being throughout adulthood because this research digs deeper into the Montessori concept of education. Ultimately, the work considers how the way we educate our young might influence how we interact with the world as adults.

Maria Montessori¹ believed that focusing on the holistic education of the child would best prepare the child (who becomes the adult) to contribute to a more socially moral and peaceful world (Loeffler, 2002; Montessori, 1936, 1949b; Povell, 2010); she conceptualized education for children that cultivated a way of learning, thinking, doing, and being that might foster a level of consciousness needed for creating a better world. At the core of the Montessori concept of education are the teachers. It remains up to the teachers to establish the environment of learning, which in Montessori education is as crucial as the content. This research involved gathering

¹ For purposes of this work, the word Montessori designates the philosophy and concept of education. When referring to her specific thoughts, Maria Montessori is used. For a context of who Maria Montessori was, the times in which she lived, and implications of her philosophy, see Appendix A.

insights from experienced and respected Montessori practitioners about the essence of the Montessori educational concept and teachers who successfully implement this educational paradigm. One aim of the study was to offer a clearer description of what teaching within the Montessori concept entails and ways teachers can be supported.

A second aim of this research was to broaden the context of the topic, examining aligning Montessori theory with Indigenous theory and sustainability theory. The three grounding standpoints, Montessori theory, Indigenous theory, and sustainability theory, are used to (a) orient Montessori education as an educational paradigm that upholds everything is connected, (b) enhance conceptual understanding for Montessori educators, (c) extend use of Indigenous inquiry, and (d) illustrate ways education to age 18 might foster a sustainability mindset.

Background and Rationale

This section includes background information about the key concepts on which this research is focused. A broad review of Montessori education, the Montessori teacher, Indigenous inquiry, and sustainability provides the rationales for their relevancy and inclusion.

Montessori Education

Montessori education has a global reach; it is practiced on all continents except Antarctica. There are Montessori schools in cities in Europe, the Middle East, Africa, and throughout Canada, the United States, and countries in Central and South America. Montessori schools exist in remote areas of the Australian outback for aboriginal children, and there are Montessori programs for Indigenous people living in the remote archipelago of the Torres Straits (Reed, Singleton, Dillon, & Boulden, 2013).

Conceived and first implemented in the early 1900s by Maria Montessori, Montessori education continues to be recognized for its methods and practices founded on sound principles

of living and learning (Hughes, 2012; Lillard, 2005; Loeffler, 1992). The philosophy and approach are pertinent on a widening scale that reaches into neuroscience and brain research (Diamond, 2013; Hughes, 2012), experiential learning (Swiderski, 2011), creativity (Ness, 2013), emotional/social child developmental theory (Goleman, 1995; Rathunde, 2001), systems thinking (Lewis, 2012), cosmology (Swimme, 2012), business (Denning, 2011; Sims, 2011; Wasserman, 2015), and dementia (Lin et al., 2009). The number of existing Montessori programs in the world is difficult to determine. Many schools affiliate with larger organizations, and each organization keeps its own count.²

This study describes Montessori education that faithfully adheres to the concept Maria Montessori forwarded. It is safe to say there are thousands of schools that identify as Montessori operating around the world. The name Montessori resides in the public domain; schools may call themselves Montessori without having any credible oversight or trained teachers (Blessington, 2004; Lillard, 2005). Some of the most renowned schools that practice sound Montessori do not use the term in their name (Loeffler, 1992).

The Montessori Teacher

The role of the Montessori teacher/guide remains paramount in implementing the Montessori approach. The Montessori community seeks more knowledge about what fosters a teacher's ability to grasp and apply the Montessori concept in the classroom in an effort to communicate teacher expectations more clearly, especially for prospective teachers before they undertake the intensive, time consuming, and costly teacher education course. Choosing to take a Montessori teacher education program entails sacrifice (time, money, and being with family) and

² School memberships can be viewed on websites that represent the largest Montessori organizations: <http://amshq.org/> and <http://ami-global.org/>

commitment. The requirements for teacher education programs vary, though generally someone entering into a Montessori teacher education program must have a college degree.³ Teacher education programs are considered intensive in the sense that much is required of the adult learner. Adult learners/teachers must understand the complex curriculum for three age levels⁴ and understand the cognitive, physical, social/emotional, and moral development of the children for the plane of development they plan to teach.⁵ Paramount, of course, is learning about the comprehensive Montessori philosophy that guides everything in the classroom. For many adult learners, the learning often feels overwhelming for its depth and breadth of information. Most adult learners who hold master's degrees equate the Montessori teacher education program as more intense than their master's program, and the cost can be about the same as for a master's degree.⁶

The teacher education programs require approximately 300 to 500 classroom instruction hours (depending on the instructional level) and a number of observation hours. These teacher education programs usually occur over a period of two to three summers or a full school year. In addition to the classroom hours, some Montessori affiliates require a full-year practicum and a yearlong research project before a credential is granted. Others require several weeks of observation and practice in a classroom before a diploma is awarded. The larger Montessori

³ The degree does not need to be in education; many have studied in another field for their undergraduate degree.

⁴ Classrooms serve three age levels of students, ages 3 through ages 12, in three year increments. Secondary instruction (ages 12-18) studies adolescence in three-year developmental increments, though a secondary classroom may only have two age levels.

⁵ The figures in Appendix B show how Maria Montessori defined the planes of childhood development. Montessori teacher education programs typically offer programs for these designations: infant/toddler (birth to age 2), early childhood (ages 3–6), lower elementary (ages 6–9), upper elementary (ages 9–12), and secondary (ages 12–15 and 15–18).

⁶ There are some teacher education programs associated with university master's programs that give credit toward a master's degree, though many adult learners are unable to take advantage of this extension.

organizations have initiatives in various states to recognize a Montessori credential or diploma sufficient for teaching in a Montessori public school program, though most Montessori educators working in the public sector must acquire their state's teaching credential in addition to their Montessori one.⁷

Maria Montessori wrote extensively about the preparation of the teacher, the fundamental role the teacher plays, and the dispositions required of teachers to implement her approach (Montessori, 1914, 1936, 1948b, 1949b). She recognized the critical role the teacher/guide plays in creating the learning environment she considered necessary for cultivating a child's full potential. Her descriptions of teachers often are intermingled throughout her numerous works, making them difficult to ascertain without extensive reading. Sometimes her words appear antiquated and her ideas elusive (Chattin-McNichols, 1992). There have been only a few attempts to distill Maria Montessori's thoughts on teachers into identifiable teacher traits through research (Gordon, 2007; Huxel, 2013; Whitescarver & Cossentino, 2007). This study aimed to expand upon the available literature about Montessori teachers by adding insights revealed through the lenses of those who have spent years in the field.

Indigenous Inquiry

Indigenous inquiry refers to a research process that follows Indigenous ways of knowledge exploration and learning. The research design for this study reflects use of an Indigenous research paradigm. The Indigenous epistemology sets Indigenous methodologies apart from modern Euro–Western approaches (Chilisa, 2012; Kovach, 2012; Smith, 2012). The holistic aspects and congruency found within the epistemology, ontology, methodology, and axiology

⁷ There are currently at least 500 public Montessori programs in the United States, some of which are charter schools that still require teachers to have state certification (see <http://www.public-montessori.org/growth-public-montessori-united-states-1975-2014>). The issue of state certification exists also in countries outside the United States.

(values and accountability) of the Indigenous research paradigm complement the Montessori concept. Montessori represents an educational paradigm described as holistic and developmentally informed where the cognitive, social/emotional, physical, and moral/spiritual development of students are integral in the program design. Schonleber (2008) determined three main areas in which she found an overlap between Maria Montessori's and Indigenous beliefs: a belief that (a) everything in the world is interconnected, (b) children have a spiritual essence (see Ball & Simpkins, 2004), and (c) the Earth is sacred and living. The framework for this research on Montessori allies with the ontology, epistemology, methodology, and axiology of an Indigenous research paradigm.

Maria Montessori held a worldview that all things in the universe are connected and interrelated (Montessori, 1948c). It is a worldview central in Montessori philosophy and mirrors the worldview common among Indigenous peoples (Schonleber, 2008; Walker, 2013). Correspondingly, Montessori methods for educating children reflect Indigenous ways of thinking about life, learning, and educating⁸ (Four Arrows & Miller, 2012; Schonleber, 2008, 2011).

Sustainability

Montessori educational theory and Indigenous theory complement the epistemological view espoused in sustainability theory. The definition for sustainability used prominently for years describes human use of resources in a way that the resources remain available for future generations (see Brundtland Commission, 1987). Today, the scope of sustainability has been deepened. Sustainability enjoys a holistic interpretation that considers agricultural, educational, environmental, cultural, economic, social justice, health, peace, scientific, and technological

⁸ The chart in Appendix C juxtaposes the Montessori approach with passages that reflect Indigenous education principles. The chart offers commonalities yet does not capture the full breadth and depth of similarities found between the two approaches.

dimensions (Benyus, 2002; Berkes, 2012; Brundtland Commission, 1987; Carson, 1962; Folke, Hahn, Olsson, & Norberg, 2005; Hawken, 2007; Hawken, Lovins, & Lovins, 1999; Hedlund-deWitt, Boersema, & deBoer, 2014; Macy & Johnstone, 2012; McDonough & Braungart, 2002; Parajuli & Logan, 2011; Shiva, 2008; Stibbe, 2012; Walker & Salt, 2006; Wheatley, 2007). Meadows, Meadows, and Randers (1992) wrote, “A sustainable society is one that can persist over generations, one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical or social systems of support” (p. 209).

The values and beliefs promulgated in Montessori, Indigenous, and sustainability theories serve as the rationale for using an Indigenous inquiry-inspired research approach and examining connections with sustainability in this research on Montessori education. In an effort to capture the salient relationship among the three perspectives—Montessori theory, Indigenous theory, and sustainability theory—those three theories serve as the philosophical underpinnings for this study.

Significance of the Study

The Montessori community wishes to better serve Montessori teachers by communicating teaching expectations more clearly. This research offers the potential to address that desire. While the teacher education program can be considered transformational for the adult learner, it can take years in the classroom to reach a level of comfort with its implementation. It can be defeating for an adult learner/teacher to complete the extensive teacher education program then find it difficult to actually implement the approach. Even for those who embrace the philosophy, putting it into practice, usually a significant shift from how they were educated, can become taxing. Not all teachers find Montessori a good match. In these cases, it is a great loss for the time and money spent by the adult learner/teacher as well as the school that has hired them and,

for the children. This study is significant to the Montessori community because of the community's interest in offering clearer information about what is expected from a teacher to fully implement the Montessori approach.

In this work, I aimed to reflect the practice of serving multiple purposes by setting the research focus and significance of the study in a larger context. Recognizing direct and indirect aims of an endeavor is a practice accustomed in the Montessori community and found within Indigenous principles and sustainability principles. Use of Indigenous inquiry to examine the heart of the Montessori system beckons a connection with both the Montessori community and the Indigenous research community. A purposeful alignment of these two has the potential to extend the relationship already established between Indigenous knowledge and principles of sustainability (Hill et al., 2012; Rist & Farid, 2006) to the Montessori educational concept and practice. It seems particularly relevant to raise the awareness of these complementary views today as the global community experiences the effects of living unsustainably and seeks solutions and guidance.

Study Overview

The main question considered in this study asked, “What insights can experienced Montessori educators offer about teachers who implement the Montessori educational concept effectively?” To answer the question, I turned to longtime Montessori educators for their knowledge and experience; I believed their reflections on teachers might inform the main research question in a manner not yet captured in the literature. Dialogues held with seasoned Montessori educators that focused first on the essence of Montessori then expanded into what these practitioners have observed in highly effective Montessori teachers have the potential to add depth to understanding what it takes to practice the philosophy and methods successfully.

Elders in Indigenous communities are considered valuable “not in their own individual right, but for what they contribute to society as a group” (Martin & Mirraboopa, 2003, p. 209). Such designation of the role of Elders reflects the spirit of what this research sought to accomplish. Dialogue participants in this study were considered as Montessori elders and served as coresearchers to the extent they were willing,⁹ which included providing verification of the analysis and findings.

The Montessori educational concept is complex. A shift in thinking about the purpose of education for children aged birth through 18 years often is required for many who teach in Montessori schools. While the theory may be embraced by adults seeking to become teachers, it can be challenging for teachers to apply in the classroom. A Montessori teacher must move away from being the main authority in the class, with emphasis on student attainment of core curricula measured for standardization goals, to fostering students’ joy of discovery and cultivating students’ intrinsic motivation and passions, independence, and interdependence within the class community. The concept can require teachers to act counter to many societally held expectations about children’s education.

One distinctive feature of Montessori education involves grouping children according to their developmental stages (see Appendix B; Grazzini, 2004). In elementary programs, for instance, teachers need to be fluent in a broader range of lessons because children are in the same classroom with the same teacher for three years (e.g., first to third grade). In general, a teacher in a Montessori classroom is authoritative yet never authoritarian (Montessori, 1914). The teacher is there to guide students. External rewards in Montessori are discouraged; intrinsic motivation is

⁹ The use of the words participant, coresearcher, contributor, and elder (as in Montessori elder) are meant to be synonymous and are used interchangeably.

purposefully fostered. The reward for doing well is in the doing; Montessori schools follow a mastery-based learning approach (Lillard, 2005; Montessori, 1948b).

The design of the learning materials and daily schedule in a Montessori classroom cultivates student independence. The manipulatives and tactile materials in the early childhood and elementary classrooms often have what is referred to as control of error. Control of error describes a learning material, for instance, where a child is able to spot errors through feedback from the material rather than being corrected by the teacher. Another feature considered essential in Montessori education includes having large, uninterrupted blocks of work time (i.e., 90–150 minutes). During these uninterrupted periods of work, students are able to move about freely, selecting which work they want to work on from an array of different areas—for example, mathematics, language, botany, social studies, or cultural studies (Lillard, 2005). The role of the teacher/guide is more on the periphery during these extended work periods; the teacher is charged with observing children’s work habits thoughtfully while also respecting the choices students make, because having choice and time to concentrate on one work for an extended period of time is considered important to cultivate students’ intrinsic motivation (Montessori, 1948b).

These examples capture only some of the complexity of the concept; an overriding philosophy guides the teacher in how she interacts with students, prepares the learning environment, and selects lessons to introduce. Loeffler (1992) described Montessori education as a system of education because “it includes all facets of a dynamic whole; and when the parts of the Montessori system are working well, the whole becomes more than their sum—a synergy” (p. 19). The intent of the philosophy and methods is to honor the whole child at every stage of development (aged birth through 18), supporting her to realize her full potential, recognizing that

the education of a child impacts the role each assumes as an adult. The concept requires a consistent and cohesive process for how students experience learning and interact within a school environment throughout their formative years.

Figure 1.1 shows a classroom for 3- to 6-year-olds; Figure 1.2 shows a middle-school classroom. Both are included to illustrate what is meant by a physically prepared environment.



Figure 1.1. An example of a physically prepared environment in a 3- to 6-year-old Montessori classroom illustrates key qualities of aesthetically pleasing, orderliness, durable learning materials, furniture, and wall hangings appropriate for the age of the students. Elementary classrooms look similar but have more materials and usually a class pet. Outside the classroom are extended areas for students to work outdoors. Photo in the public domain.



Figure 1.2. An example of a physically prepared environment in an urban Montessori middle school illustrates the same qualities of aesthetically pleasing, orderliness, durable learning materials, furniture, and wall hangings appropriate for the age of the students. At the end of the classroom is an extended area for students to work outside that includes a large picnic table, class garden, and chicken coop. White Rock Montessori Middle School, Dallas, Texas. Reproduced with permission.

The Montessori classroom functions like an ecosystem; it is structured as a network, rather than a hierarchy. Huxel (2013) explained that “Montessori teachers view the classroom each day, each year, as fluid and ever changing” (p. 33). She continued by clarifying that the classroom environment “allows children to make choices while encouraging and supporting independence, curiosity, intrinsic motivation, and movement” (p. 33). The content and process of learning in a Montessori classroom remains interwoven and interactive. Writing about chaos and complexity as they might manifest in educational settings, Smitherman (2008) captured the essence to describe a classroom:

Chaos and complexity theories easily lend metaphorical analogies for education. . . . Instead of isolating students into one specific situation, ‘what is important, epistemologically and pedagogically, is a comparison of the patterns an individual develops operating in a number of different situations—this is an ecological, holistic, systemic, interrelated view. Within this view, lie

patterns otherwise unseen' (see Doll, 1993, p. 92). These patterns allow students not to suspend part of who they are in order to participate but rather encourage the development of oneself, and thus produce even richer and more meaningful interactions. (p. 177)

Tantamount to an ecosystem, the complexities of the Montessori educational system can become difficult to convey. Understanding the holistic and comprehensive concept of Montessori education is imperative for Montessori teachers and is often difficult for them either because it varies from how they were educated themselves and/or reflects a way of educating that is not espoused nor dominant within the culture and society.

Use of an Indigenous Research Paradigm

Because Montessori philosophy differs paradigmatically from conventional Euro–Western educational approaches, I believe it is important to follow a research framework that reflects the Montessori concept of education in kind. I recognize much research already exists in Montessori education where Western constructs adequately prevail. I understand there is a shift underway in Euro–Western research thinking that expands latitudes within these dominant research approaches, adopting room for elements and methods I seek (Bentz & Shapiro, 1998; Four Arrows, 2008; Lincoln & Guba, 2000; Taggart, 2001). However, these openings still felt like fragmented additions to existing or new Euro–Western paradigms. I sought, in essence, a research paradigm fully encompassing of and congruent with fundamental Montessori principles.

Education As Sustainability

Studies in sustainability examine concepts that include diversity, adaptability, collaboration, and restoration, as well as chaos and complexity theories, in the sciences and within human living conditions and interactions (Davis & Sumara, 2008; Folke et al., 2010; Goldstein, Hazy, & Lichtenstein, 2010; Hawken, 2007; Jones, Selby, & Sterling, 2010; Mason, 2008; Sterling, 2011; Stibbe, 2012). Writing about sustainability education, Sterling (2011)

noted, “The key to creating a more sustainable and peaceable world is learning. It is the change of mind on which change towards sustainability depends” (p. 12). The discussion about education as sustainability involves looking at the purpose of education. Education that addresses the “whole person—spirit, heart, head and hands” (2011, p. 12) signals a purpose of education that cultivates a sustainability mindset. Inclusion of the concept of sustainability in this work might enlarge the view of Montessori education beyond the sole benefits of holistically educating children. Incorporating sustainability theory became a natural complementary philosophical underpinning to this study.

Definitions of Terms

Some terms and concepts used throughout this dissertation may not be familiar to all readers. The list below is intended to be a useful reference point. Some words are included to clarify the use of interchangeable terms used throughout the paper.

Appreciative Inquiry

Appreciative inquiry (AI) can be an effective approach in the collection of data with various research paradigms including Indigenous inquiry. Whitney and Trosten-Bloom (2003), associates of David Cooperrider, considered a founder of the AI concept in the mid 1980s, described appreciative inquiry as a “relational process of inquiry, grounded in affirmation and appreciation” (p. 1) that can be used in organizations to build upon strengths, bringing people together and stimulating creativity and innovation. Reed (2007), writing about AI’s use in research, identified two main themes of AI— inclusivity and a focus on the positive—and advocated ways AI might be used as a process of collecting information in situations that are organic in nature (where tight control over what information is being collected is avoided). Use

of AI complements the principles espoused in Indigenous inquiry and Montessori theory and met the needs for this study using dialogue with Montessori elders.

Indigenous

There are varying ways to describe the term indigenous (Berkes, 2012; Deloria & Wildcat, 2001; Smith, 2012; Wilson, 2008). The description presented by a United Nations Permanent Forum on Indigenous Issues (n.d.) factsheet on indigenous peoples captures the meaning the term holds in this study. Because of the diversity of indigenous peoples, the United Nations paper states that there is no official definition appropriate for use. The list of descriptors for the term indigenous determined by the United Nations (n.d.) includes

- self-identification as indigenous peoples at the individual level and accepted by the community as their member
- historical continuity with pre-colonial and/or pre-settler societies
- strong link to territories and surrounding natural resources
- distinct social, economic, or political systems
- distinct language, culture and beliefs
- form non-dominant groups of society
- resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. (p. 1)

Indigenous Inquiry

I use an Indigenous framework and research paradigm with the deepest respect and regard, and hope the alignment serves to foster recognition in research of the value and importance an Indigenous research approach offers the academic world at large. Indigenous inquiry refers to a

research approach that reflects Indigenous knowledges and ways of being. Kovach (2012) wrote that “Indigenous inquiry is a relational methodology; its methods are dependent upon deep respect for those (or that) which it will involve, and those (or that) which will feel its consequence” (p. 174). The holistic epistemology found in Indigenous research approaches includes “specific tribal knowledge [that] directs method” (p. 176). I am viewing the Montessori elders who informed this research as representing a form of tribal knowledge and a methodology of respect and reciprocity inherent in Indigenous inquiry.

The correlation I am making intends not to appropriate (take without permission or with thoughtless intent) Indigenous methodology. Lewis (2016) wrote about the importance of non-Indigenous researchers being an ally to Indigenous scholars in research. Ahenakew (2016) wrote about the use of Indigenous epistemologies in non-Indigenous situations. He described what he called a “concept of grafting to refer to the act of transplanting ways of knowing and being from a context where they emerge naturally to a context where they are artificially implanted” (p. 323). I sought alignment with a research approach that honors the holistic epistemology and methods specific to one (the Montessori) community. Ahenakew submitted that while grafting was important to advance the use of Indigenous methodologies, it needed to be acknowledged. He proposed steps to counter the negatives of grafting in the research process that included “making grafting visible by highlighting the absences of our modes of inquiry and learning how to write tentatively about our data and findings” (p. 337). I attempt to use Indigenous inquiry in the manner that honors Lewis and Ahenakew’s charge.

Indigenous Research Paradigm

I used Wilson’s (2008) Indigenous research paradigm. His is a research framework that includes an integrally related epistemology, ontology, methodology, and axiology; the entities

cannot be separated. Wilson explained that a mutual reality is determined in the ontology and epistemology, and accountability to the relationship is done through the axiology and methodology. The congruency of the Indigenous research paradigm reflects the congruency of the Montessori educational perspective and is the reason for its inclusion in this study.

Montessori

Montessori is a concept of education established by Maria Montessori in the early 1900s. Maria Montessori considered her philosophy and approach to education to be a scientific one, based on observations of children around the world during their formative years. She believed children from all backgrounds exhibit certain developmental characteristics and went about creating a system for educating children based on these developmental attributes. The overriding purpose of Montessori education is to nurture the whole child to realize her full potential. The concept is complex and involves a pedagogy based on developmental theory, teachers who have completed an intense Montessori teacher development program, and an interrelated and spiral curriculum that spans the full range of years in a child's education.

Montessori Educators/Practitioners

As used in this research, Montessori educators are people who hold credentials or diplomas from Montessori teacher development programs and teach children, teach adults to be teachers, and/or serve as school administrators in authentic Montessori schools. In this study, Montessori educators are also referred to as practitioners because they are well practiced in working in Montessori education.

Teacher/Guide

Maria Montessori referred to teachers as guides or directresses to distinguish the role of teacher as a guide that facilitates a student's learning rather than one who fills a student with information. In this paper, the words teacher and guide hold the same meaning.

Sustainability

There are hundreds of definitions for sustainability that encompass a range of concepts. In a broad sense, the term sustainability represents an outlook or actions that foster preservation (or restoration) of resources (including human and more than human) in our world today so that those resources will continue to exist in the future. Sustainability involves the way humans participate in the preservation and restoration of all Earth's resources.

CHAPTER 2: REVIEW OF THE LITERATURE

The research question for this study asked experienced Montessori educators for their insights on the essence of Montessori and how they would describe effective Montessori teachers. The standpoint for this research assumed a wide lens. Montessori theory, Indigenous theory, and sustainability theory provided the philosophical underpinnings from which the findings were examined. The purpose of this review is to examine these three theories as a foundation upon which to further explore their connection to Montessori education and the reflections that Montessori educators made about the Montessori teacher during the analysis and discussion phase. The review may be helpful in highlighting relationships that heretofore may not have been considered, opening up discussion on the value of seeing the larger contexts in which a complex concept (in this case, an educational concept) falls. The review also may be useful in broadening the use of Indigenous inquiry within the research realm of academics; a discussion about decolonizing research is contained in the section on Indigenous theory.

While the review of literature grounds the study in these three major theories, this introduction begins with a more concentrated overview of Indigenous theory that reveals a congruency with Montessori philosophy. The review then extends into how each theory might inform the larger context from which Montessori education and Montessori teachers can be viewed.

Worldviews are the lenses ingrained in one's ways of perceiving the world (Koitsiwe, 2013). They are so much a part of us; we often do not recognize their presence. Lane, Brown, Bopp, and Bopp (2014) believed an Indigenous worldview is one where

all things are interrelated. Everything in the universe is part of a single whole. Everything is connected in some way to something else. It is therefore possible to understand something only if we understand how it is connected to everything else. (p. 26)

Maria Montessori (1948c) expressed a worldview akin:

Let us give [the child] a vision of the whole universe. The universe is an imposing reality, and an answer to all questions . . . for all things are part of the universe, and are connected with each other to form a whole unity. This idea helps the mind of the child to become fixed, to stop wandering in an aimless quest for knowledge. He is satisfied, having found the universal center of himself with all things. (pp. 5–6)

Four Arrows and Narvaez (2015) described an Indigenous worldview as nature-based, centering around interconnectedness, and reflecting a mutually beneficial relationship among all living things. The authors suggested a worldview can appear hidden yet often influences our thoughts and actions more than a religion, an ideology, or a culture.

It is apparent that Maria Montessori found guidance in looking at nature; her works are rife with references to following what she referenced as the laws of nature (Montessori, 1948a, 1948c, 1949c). She believed that nature is the teacher of life (1948c) and could guide us in realizing our full potential (1949c). She submitted that the perils humankind face could be attributed to “going against nature’s laws in the education of the child” (1949c, p. 66).

With the centrality nature plays in Indigenous thought and worldview, it seems appropriate to look at how Indigenous perspectives and Montessori education share similar views on nature and on learning. One example is found in Deloria and Wildcat (2001) who wrote,

You see and hear things by being in a forest, on a river, or at an ocean coastline; you gain real experiential knowledge that you cannot see by looking at the beings that live in those environments

under a microscope or in a laboratory experiment. You experience places and learn, if attentive about processes and relationships in those places. (p. 36)

Maria Montessori (1948a) wrote,

There is no description, no image in any book that is capable of replacing the sight of real trees, and all the life to be found around them in a real forest. Something emanates from those trees which speaks to the soul, something no book, no museum is capable of giving . . . The myriad of lives around the trees, the majesty, the variety are things one must hunt for, and which no one can bring into the school. How often is the soul of man, especially that of the child, deprived because one does not put him in contact with nature. (p. 35)¹⁰

Montessori and Indigenous complementary views extend deeper into the interrelationships found within nature. Aboriginal academic Mirrabooa and Noonuccal woman Karen Martin (Martin & Mirrabooa, 2003) explained that “no one person, or Entity knows all, but each has sets of knowledges to fulfill particular roles” (p. 207). Maria Montessori (1948c) described a similar perspective when she considered, “Plant life and animal alike . . . [have] their function in the cosmic plan” (p. 26). She spoke about the “tiny protozoa . . . [who] filtered the water by passing it through their bodies, taking from it the salts to transform into their own structure, and giving back the water” (p. 24) and how “the corals took over the important work of keeping the necessary equilibrium in the waters of the ocean” (p. 25). She acknowledged “the cosmic function of each living thing, and even of inanimate natural objects, working in collaboration for the fulfillment of the Purpose of Life” (p. 27).

¹⁰ Maria Montessori’s use of man is recognized to represent universal man (including women) which today seems better stated as humankind.

In this study, Indigenous scholars are identified by their specific community or tribal associations; however, the Indigenous principles, as used here, raise the values in which there appear fundamental commonalities among all groups considered Indigenous. My use of Maria Montessori's works is limited to English translations; the translations recognized by either the Association Montessori Internationale (AMI) or the American Montessori Society (AMS) have been used. In-text citation dates given for Maria Montessori's works reflect the year in which her work was first published. Her theory about education developed and grew over time, and it can be informative to recognize her works in that continuum of development.¹¹

Montessori Theory

Maria Montessori's (1949a) overall goal for education of the child revolved around development of the whole child throughout her formative years so that human beings could, in essence, raise the level of humankind. She believed education could support human psychic evolution so that humans would be abler to contribute positively in an evolving world. The focus on individuals, she believed, impacts the whole formation of a society. Her vision of education considered how to meet the needs of children developmentally, cognitively, physically, emotionally, socially, and spiritually (Montessori, 1948b; Wolf, 1996). Writing about Montessori education, Chattin-McNichols (1992) noted, "The Montessori method is seen to be a whole system, in which all of the elements are necessary for the program to work well" (p. 66). Whitescarver and Cossentino (2007) wrote about "the profound coherence that exists within the system" (p. 9) of Montessori education.

¹¹ In the reference list, both the date of first publication and the date of publication for the actual copy used are provided for Maria Montessori's works. This format was determined to show Maria Montessori's works in historical context while also accurately identifying the specific source that is cited.

The Montessori teacher is responsible for ensuring the physical and psychological learning environment is maintained. A physically prepared environment includes the size of furniture, student supplies, ability for movement, arrangement of room and furniture to accommodate individual and group work, whole-group community meetings, and outdoor access. The classroom should be ordered (a place for everything) and aesthetically pleasing (Chattin-McNichols, 1992; Montessori, 1948b). The psychological environment entails having a physically and emotionally safe, respectful, and supportive environment where children feel free to make mistakes, discover, and learn (Huxel, 2013; Montessori, 1936, 1948b). Whitescarver and Cossentino (2007) suggested the demands on the teacher to create the necessary classroom environment requires “vigorous attention to the details of learning and teaching” (p. 9).

View of Education

Maria Montessori (1948a) described at length how her educational design came from her close observation of children (see also Povell, 2010). She believed the human being is organized as a complex organism and that human beings continuously develop as they grow from the embryo (Montessori, 1948b, 1949b, 1949c). She viewed all humanity as an organic unity that is in the process of being born (1948c, 1949c), developing continuously toward progress, rather than being simply caused. She recognized the need for humans to be adaptable and for education to consider the personality of the children in meeting that need:

It is necessary that the human personality should be prepared for the unforeseen, not only for the conditions that can be anticipated by prudence and foresight. Nor should it be strictly conditioned by one rigid specialization, but should develop at the same time the power of adapting itself quickly and easily . . . Adaptability—this is the most essential quality. (1948a, p. 99)

She upheld that unknown mysteries within each person contribute to the formation of the adult and that education has an obligation to recognize this (Montessori, 1914, 1948a, 1949b). She believed children moved through developmental planes during their formative years and that each plane displayed certain characteristics that should be regarded in the design of the classroom (Grazzini, 2004). Maria Montessori considered that education must “necessarily be complex and altogether different from what is ordinarily meant by the word *education*” (1949a, p. 55, emphasis in original). She reflected,

The one thing that will forge true human unity is love. We . . . must make the great effort of lifting up our eyes and hearts to understand it. We are undergoing a crisis, torn between an old world that is coming to an end and a new world that has already begun. (1949a, p. 25)

Education, she upheld, must foster the development of the individual and that will in turn foster the development of society (1949a). She considered that humanity has made significant progress outwardly but none inwardly (1948c). She firmly believed that humans themselves are responsible for their problems and “if man is disregarded in his construction, the problems will never be solved . . . man must be cultivated from the beginning of life when the great powers of nature are at work” (1947, p. 20).

Maria Montessori recognized that the spiritual nature of children is vital to address in their education (Montessori, 1948b; Schonleber, 2008; Wolf, 1996). She wrote about the importance of the spiritual well-being of the child (Loeffler, 2000; McFarland, 1993, 2004) and believed a child’s relationship with the natural world forms the underlying foundation for what she called cosmic education (Crain, 1992; Gordon, 2007; Loeffler, 2002; Montessori, 2006). Maria Montessori (1948c) believed everything on Earth has a cosmic task, and for human beings, there

are two purposes of that task— the conscious and unconscious. She wrote that humans are conscious of their own intellectual and physical needs,

but [man] has yet to become conscious of his far deeper responsibilities to a cosmic task, his collaboration with others in work for his environment, for the whole universe . . . towards creative fulfillment. (p. 27)

She explained that “the universal syllabus that can unite the mind and the consciousness of all men in one harmony, [is what] we intend by Cosmic Education” (Montessori, 2006, p. 111).

Guided by Duffy and Duffy’s (2002) work, Coe and Morgan (2014) listed the following attributes of Montessori cosmic education:

- Provides a unitary vision of the universe that demonstrates the oneness of all creation;
- Involves a pedagogy that passes from whole to detail and back to whole;
- Promotes knowledge of the universe as evolving and transformational;
- Uses the universe as primary context; all subjects are related and taught inside this context;
- Fosters an appreciation that all things are dependent upon and in communion with each other;
- Instills an awareness of cosmic gift/task that we have to work to accomplish on behalf of the universe; and
- Believes that each generation experiences new possibilities and responsibilities.

Cosmic education, first envisioned for the elementary years, now is considered integral in the Montessori curriculum from birth through the adolescent years (Coe & Sutton, 2016).

Maria Montessori (1949a) postured that the human species does not act selflessly, as do other animals in the nurturance of their young. She bemoaned the opinions adults commonly

hold about the child, that “the child . . . has been thought to be of no importance, since we customarily think that the only thing that matters is a human will focused on an external goal” (p. 111). She added,

The greatest difficulty in the way of an attempt to give freedom to the child and to bring its powers to light does not lie in finding a form of education which realizes these aims. It lies rather in overcoming the prejudices which the adult has formed in his regard. (1949c, p. 48)

Phrases familiar to Montessori educators express concepts that are intertwined and embedded within the Montessori philosophy and methods. Table 2.1 offers a few of the Montessori expressions and their meanings commonly understood among Montessori educators. The words and phrases reflect larger beliefs about education and are expressions that likely would not be interpreted the same by those in conventional Euro–Western education.

Table 2.1

Montessori Expressions and Meanings Used Among Montessori Educators

Montessori expressions	Montessori meaning
normalization	The process of healthy development and adaptation in an individual or group, exhibited by concentrated learning (Montessori, 1949b)
observe	To look for ways a student reveals herself (Montessori, 1948c, 1949b)
follow the child	Through observation, to guide an individual from where her/his skills, interests, and strengths exist (Montessori, 1949b)
remove obstacles	Obstacles refer mainly to teacher awareness of and freeing self from own prejudices (Montessori, 1949b, 1949c). Can include obstacles like special learning needs of a student
valorization	The process in adolescence of realizing one’s capabilities through intellectual and manual work, becoming aware of social life (Montessori, 1948a)

Maria Montessori (1949a) upheld that the way children are educated is the best way to create a better and more peaceful world and determined an approach to education that differed from the approach being implemented during her time. She saw the importance of viewing the

approach, the child, and the curriculum in a truly holistic way (1948c). Coe (1988) described holistic as having three attributes: (1) The learning environment fosters cognitive, physical, psychosocial, and moral aspects of the student, (2) the courses of study are interrelated so that the student understands the interconnections of life, and (3) a student–parent–teacher partnership is an integral part of the learning environment.

Maria Montessori (1949a) explained her overarching goal for education:

Our principal concern must be to educate humanity—the human beings of all nations—in order to guide it toward seeking common goals. We must turn back and make the child our principal concern. The efforts of science must be concentrated on him, because he is the source of and the key to the riddles of humanity. The child is richly endowed with powers, sensitivities, and constructive instincts that as yet have neither been recognized nor put to use. In order to develop, he needs much broader opportunities than he has been offered thus far. Might not this goal be reached by changing the entire structure of education? (p. 31)

The Montessori concept of education was based on Maria Montessori’s astute observations of children. From her observations, she concluded that there exist developmental stages of children that should be respected and used to establish the classroom learning environment. She determined that children have a mysterious and inherent drive, regardless of where they are born or the circumstances of their lives, to self-construct themselves (Grazzini, 2004; Montessori, 1948b). She considered the purpose of education is to accommodate children’s developmental needs and individual interests, and that in tending to the individual child’s development, society as a whole will evolve (1949a). She set about creating a complex concept of educating that she believed would accomplish that lofty goal (1948c, 1949b).

Though her concept was conceived in the first half of the 20th century, her insights are affirmed today in many areas of current interest, including (but not limited to) psychological

research (Hughes, 2012; Lillard, 2005, 2010), neuroscience research (Diamond, 2013), and writings on sustainability and systems thinking (Hodgkinson, 2013; Lewis, 2012). As the research on Montessori education mounts, the relevancy of her views on education continues to be examined and recognized.

Role of the Teacher

For Maria Montessori, the role of the teacher is central to implementing her educational approach. She contended that the ability to consciously and continuously observe the child becomes paramount for the teacher (1948b, 1948c). Maria Montessori (1949a) instructed her teachers, “The first and most important step is for each of us to examine his own conscience, realize his own shortcomings and defects, and seek to remedy them” (p. 85) because teachers, she believed, are ready to guide children only after they have prepared their inner selves. She continued,

A Montessori teacher is to shed omnipotence and become a joyous observer. If the teacher can enter into the joy of seeing things being born and growing . . . and clothe himself in humility, many delights are reserved for him that are denied to those who assume infallibility and authority in front of the class. (1948c, pp. 83–84)

Maria Montessori (1949c) believed the greatest barrier in educating the child arises from the “barrier of prejudices in the adult” (p. 26) blinded by assumptions from a fixed paradigm about children that too often render the adult unable to learn from children, see their viewpoint, and resolve inextricable issues. She believed that conventional education is based on a casual system, upholding the premise that a teacher causes the learning in children (1948b, 1949b, 1949c). She insisted that the teacher exists to provide what children need in their self-construction. The role of the teacher “consists rather in stimulating interest” (1949c, p. 40); the

teacher's role is that of a gardener, who tends the soil to keep it fertile and removes obstacles that impede growth (Montessori, 1914, 1936, 1948b, 1949b). The obstacles that are greatest to overcome are the prejudices and biases of the teacher (Montessori, 1948b, 1948c, 1949a).

Maria Montessori (1949b) believed "the master whom the teacher serves is the child's spirit" (p. 281). She wrote extensively about the needed disposition and spiritual preparation of the teacher in service to the child (1936, 1949a, 1949b). According to Standing (1998), she invoked teachers "to be filled with wonder" (p. 309) in order to be fully prepared. Whitescarver and Cossentino (2007) explained, "To be filled with wonder requires the teacher to connect to both an inner spirituality and to the cosmos" (p. 3).

Whitescarver and Cossentino (2007) determined three teacher dispositions central in the Montessori approach: flexibility, restraint, and love. The three qualities were viewed as intertwined; each attribute describes a way to serve the child. Flexibility involves the ability to observe and give direction so the child can find appropriate work. To be successful, a teacher needs to have command over a large and varied repertoire of lessons to be able to improvise how to best meet a child's needs. Being flexible also means knowing when to interrupt a child to "break the flow of disturbing activity" (Montessori, 1949b, p. 254) and when not to.

Restraint includes the ability to observe children carefully without them being aware. Restraint involves the ability to allow children to become absorbed in their work. Maria Montessori (1948b, 1949b) believed it is through concentration that the process of self-construction can occur. Love as a disposition involves a sense of selflessness, an honoring of the spirit of the child. It is a love that removes one's ego in their role as teacher, a kind of love that is "transformational for the adult as well as for the child" (Whitescarver & Cossentino, p. 7). Love circles back to the need for restraint and flexibility.

Maria Montessori's works represent a belief that teachers play a significant role in shaping children's social lives (Montessori, 1949a), that the process or way of educating is as important as the content (Montessori, 1948a, 1948c), that the materials used in the learning must represent the larger world, and that the impact humans have on the social and natural environments becomes far reaching (Montessori, 1949a).

The Prepared Environment

Just as Maria Montessori wrote extensively about the preparation of the teacher, so too did she write about the prepared environment the teacher must maintain. The environment is the "locus of control" (Whitescarver & Cossentino, p. 4). Maria Montessori (1949b) believed that deep concentration within the child cultivates a state of "normalization" (p. 206). She wrote, "When the child is placed in certain conditions that favor him, he manifests an extraordinary activity. His intelligence surprises us because all his powers work together as is normal for man" (1948a, p. 10).

Maria Montessori's philosophy and methods were developed through acute observation of young children with whom she originally worked. It was from these observations that she first witnessed children engaged in their work with their whole personality such that nothing going on around them could interrupt their deep concentration (Kramer, 1988; Montessori, 1949c). She wrote, "An interesting piece of work, freely chosen, which has the virtue of inducing concentration rather than fatigue, adds to the child's energies and mental capacities, and leads him to self-mastery" (1949b, p. 207).

Captivated by the phenomena of peak experiences that individuals as well as groups can obtain, Csikszentmihalyi (2008) used the term flow to describe a state of heightened consciousness or optimal experience. The requisite traits for fostering flow include doing

something that matches one's skills with an appropriate challenge, having a clear goal with immediate and constant feedback on the achievement of the goal, and being free to concentrate fully on the task.

In his years of research, Csikszentmihalyi (2008) has conducted studies with Kevin Rathunde on family contexts that promoted these optimal experiences for children. Subsequently, Rathunde (2001) turned to research on Montessori education and optimal experience. An outsider to Montessori education, Rathunde noted that studies in child development had paid increasing attention over the last two decades to the development of a child/person over a period of time, stressing the importance of experience, which "moves closer to the universe of Maria Montessori's ideas" (p. 13). Invoking the Montessori prepared environment, Rathunde (2001) explained,

Flow theory is a person–environment interaction theory . . . Flow always refers to a relationship to the environment wherein a person is fully concentrated on some task . . . A psychological system or a social system is more likely to promote optimal experience when it can hold its shape and structure . . . while opening itself to change . . . A complex social system (e.g., a classroom), one that would remove developmental obstacles and help children sustain concentration, in Montessori terminology, is called a *prepared environment*. (p. 15, emphasis in original)

Maria Montessori (1949a) explained to her teachers, "We must investigate and discover the limits of the difficulties the child can handle and discover the level that keeps him most interested" (p. 95). She believed students do best when students are able to find their own errors and constructed learning materials to accommodate that (Lillard, 2005). Rathunde (2001) discerned the key element to the setting that promotes flow in the Montessori classroom is not only the freedom of choice, but also "the need for order, structure, and discipline in the environment" (p. 28).

Rathunde (2001) acknowledged the primary role of the Montessori teacher: “A good teacher becomes a protector of the child’s focus; distractions in the environment are eliminated to avoid disorder and the dissipation of energy, thus allowing the child to receive clearer feedback that can help sustain concentration and flow” (p. 29). Sawyer (2008) focused on flow conditions found in groups and reiterated that “conditions for group flow must be created” (p. 44) and that “innovation emerges from the bottom up, unpredictably and improvisationally . . . It can’t be planned, it can’t be predicted; it has to be allowed to emerge” (p. 25). In a Montessori classroom, flow conditions rely on the teacher protecting a large block of uninterrupted work time and establishing an atmosphere that allows for deep concentration and collaborative learning. Children/adolescents use learning materials with a control of error as much as possible.

The literature about the Montessori prepared learning environment reviews how the classroom environment is intentionally maintained by the teacher and is purposeful in its design (Lillard, 2005; Loeffler, 1992). The classroom environment is responsive to the culture in which the child is a part (Chattin-McNichols, 1992; Povell, 2010), designed to provide children a physical and psychological space that allows for movement and fosters concentration and collaboration within a community of fellow learners (Lillard, 2005). The application of the theory of Montessori education seems to be contingent on how well the teacher understands the philosophy and is able to prepare the learning environment, an indication of an alignment between theory and praxis (Argyris, & Schön, 1991; Warren, Mitten, & Loeffler, 2008).

Indigenous Theory

This review of Indigenous theory concentrates on Indigenous research theory and aspects of language, holism, spirituality, Eldership, and decolonization. Maggie Walter, a descendant of the Trawlwoolway Aboriginal people of North Eastern Tasmania, and Chris Andersen, Michif

(Métis), conceptualized Indigenous methodology as having three elements: standpoint, theoretical framework, and methods (Walter & Andersen, 2013). The authors maintained that a research standpoint consists of the researcher's epistemology, ontology, axiology, and social position:

Who we are, the values that underpin our concept of self, our perspectives on the world and our own position within it, our realities, and our understandings of how knowledge is construed and constructed are each . . . involved in exploring the underpinnings of methodology. (p. 45)

While the authors acknowledged that these aspects exist in Western research constructs, for Western researchers, the standpoint usually represents dominant views and values in academia and often, as a result, are not discussed (Walter & Andersen, 2013).

When Martin and Mirra-Boopa (2003) considered the theoretical framework for Indigenous research, they identified three main constructs and their processes: “ways of knowing, being, and doing” (p. 208). Ways of knowing reflect one's distinctive ontology; ways of being beckon one to recognize they are “part of a network of relations that are reciprocal and occur in certain contexts” (p. 209). Ways of doing represent a “synthesis of one's ways of knowing and being” (p. 210). Deloria and Wildcat (2001) reminded that the way one views the world is learned through living; how one interacts on a daily basis shapes how one thinks and speaks.

Indigenous research paradigms present distinctive elements from modern Euro–Western constructs (BanffEvents, 2014; Deloria & Wildcat, 2001; Smith, 2012). Mertens, Cram, and Chilisa (2013) pointed out that “Euro–Western paradigms of research are indigenous to Euro–Western societies” (p. 16). Indigenous researchers have struggled with the disconnections found in Western research paradigms; it has felt impossible to retrofit Indigenous perceptions of reality into a Western framework (Wilson, 2001, 2008). Mi'kmaq/Abenaki scholar Lori Lambert (2014)

reminded that a culture defines its reality and that reality informs the constructs of belief. Some cultures share different perspectives and worldviews than found in Euro–Western and other research paradigms (Little Bear, 2000; Mertens et al., 2013).¹²

Language

Language provides the framework to a way of thinking and being, contextualizing life and communicating values (Battiste, 2012). Indigenous scholars have suggested that language reveals a people’s worldview; language and ways of knowing cannot be separated because the creation of knowledge manifests through language (Koitsiwe, 2013). Indigenous ways of knowing are not easily defined, deconstructed, or compartmentalized (Coleman, Battiste, Henderson, Findlay, & Findlay, 2012) because Indigenous perspectives envision a world that is interconnected, nonfragmented, dynamic, and whole (Deloria & Wildcat, 2001; Wilshire, 2006). Reductionist language often used in Western research tends to generalize and categorize; it often is avoided in Indigenous research because Indigenous thinking is conceptually and relationally holistic (Berkes, 2012). For Plains Cree/Saulteaux scholar Kovach (2012), Indigenous language reflects a “non-binary complementary philosophy” (p. 59). She noted it becomes a challenge to “think and be in a non-binary way . . . when we live in a binary world” (p. 61).

Holism

Indigenous perspectives are holistic in nature (Little Bear, 2000; Okalik, 2013). Walker (2013), of Cherokee and Anglo–European descent, explained that holistic thinking and interrelationships of mind, body, emotion, and spirit remain integral to human experience. Berkes (2012) elaborated, “Holistic thinking among the Inuit is possible because precise

¹² The Montessori concept of educating derives from a different viewpoint and worldview than found in conventional education and aligns with key aspects of Indigenous perspectives; the research paradigm used in this study, I felt, needed to reflect that distinction.

categorizations and generalizations are avoided. If all the concepts and relationships embedded in a holistic term were to be specified, the whole idea would become unmanageably complex” (p. 211). For Kovach (2012) a holistic orientation to research is fundamental.

Spirituality

Māori scholar Linda T. Smith (2012) asserted, “The values, attitudes, concepts and language embedded in beliefs about spirituality represent, in many cases, the clearest contrast and mark of difference between Indigenous peoples and the West” (p. 78). For Cajete (1999), a Tewa Indian, the phrase spiritual ecology constitutes the essence of American Indians’ perceptions of self and their relationship to and participation with the landscape. An Indigenous worldview perceives spirit existing within the natural world, the forest, the mountains, the desert, the land, and so forth. The divine in the world is one of the most distinctive features of Indigenous knowledge traditions (Royal, 2002). Wilson (2008) explained, “Spirituality is one’s internal sense of connection to the universe . . . and may include one’s personal connection to a higher being, or humanity, or the environment” (p. 91).

When developing an Indigenous research methodology, Walker (2013) described her approach as “interconnected knowing based on multiple layers of interconnections” (p. 303) that included (a) spirituality, (b) peacemaking, (c) a worldview that everything in the universe is interconnected, and (d) an emphasis on the interrelationships of mind, body, emotion, and spirit.

Role of Elders

Among Indigenous groups, Elders are those who typically hold authority in maintaining and promoting a sense of community well-being and continuity (Barnhardt & Kawagley, 2005; Lewis, 2011; McLaughlin, 2007). In terms of age, being an Elder refers less to chronological

age¹³ than to the leadership and high regard one is given within the community. Paramount to being considered an Elder (with a capital E) is having the respect of the community members; respect and influence are earned by serving the community and being regarded as a role model (McLaughlin, 2007). Eldership is described as exhibiting a state of being as well as a process of continuous adaptation (von Faber et al., 2001). Aleut scholar Lewis (2011) determined four elements of Eldership: emotional well-being, community engagement, spirituality, and physical health. In describing the deep respect for the wisdom of Elders, McIntyre (2001) wrote, “They are extraordinarily skilled at listening to the ‘spirit,’ not merely the ‘will,’ of the large group of people; at being in touch with how the people about them are feeling and participating” (p. 110).

Decolonizing Research

I owe recognizing the need to discuss decolonizing research to acclaimed Indigenous research scholar Margaret Kovach. As I left her office that day in January (see “Prologue”), she encouraged me to attend the International Congress of Qualitative Inquiry (ICQI) in May where I could join the Indigenous Inquiry Circle (IIC) and meet other Indigenous scholars; she also advised me to include a section in my paper about decolonizing research. I did both.

Renowned Māori scholar Linda T. Smith (2012) wrote a foundational work on decolonizing research. She was thorough and evocative in reminding researchers of the importance of the motivations and assumptions that influence and inform research practices. She maintained it is essential to recognize wide avenues of research because “the responsibility of researchers and academics is . . . to share [all] theories and analyses which inform the way

¹³ In a study among Aleut, Athabaskan, and Yup’ik Eskimo, participants considered Elders range in age from 61 to 93 years (Lewis, 2011).

knowledge and information are constructed and represented” (p. 17). Tuck and McKenzie (2015) reflected,

In Western philosophical tradition, Descartes’s *Cogito ergo sum* has sprouted a lexicon that links what humans do to/with ideas only to the mind . . . the very words we use to describe how humans interact with ideas are over-coded by assumptions about where thinking comes from and goes to . . . The mind [is regarded] as apart from the body, the self as apart from others, the body as apart from the rest of matter, and humans as perhaps part, but also discreet and unique from, the rest of the living world . . . but this coding is not a good match for how Indigenous philosophies engage questions of self, us, the world, interactions with it, and interactions with ideas. (p. 53)

Dominant research practices often are not a good match for Indigenous and some non-Indigenous research perspectives (Guba & Lincoln, 1994; Lincoln & Guba, 2000). Okalik (2013) wrote, “Western research is more of a fact-finding approach, whereas to Indigenous researchers, it is key to preserve and include cultural and traditional knowledge” (p. 246). Opening perspectives for research methods that are more holistic and enhance a query offers greater avenues for exploration and understanding our complex world at deeper levels.

Patel (2016) reminded, “The courses in research methodologies to study the ways in which research knowledge is framed, gathered, and communicated” (p. 21) originated from a Western research perspective of compartmentalizing facts, control over data, and the primacy given accuracy. While she acknowledged the value of deep and expert inquiry and knowledge, she added, “In the interest of understanding and stewarding complexity and holism, I ask how research makes use of studying parts at the expense of the whole” (p. 20). The author invited the need to boldly examine established worldviews and methodologies and be open to other valid ways of gaining and viewing knowledge heretofore less acknowledged.

Sustainability Theory

For many, the clarion call for sustainability came with Rachel Carson's (1962) book, *Silent Spring*, alerting readers in the early 1960s that humans were slowly poisoning themselves by the misuse of chemical pesticides. Her work inspired an environmental movement around the world. The term sustainable development was coined and first defined in the Brundtland Commission (1987) as the need to develop Earth's resources in a way that would not sacrifice the ability of future generations throughout the commons (as in the Earth) to meet their needs. Mindful that harmful environmental and social conditions are not contained within politically set boundaries, the United Nations created the Brundtland Commission in 1983 to develop a mission for sustainable development that could unite all countries. The report, over three hundred pages, addresses common (or Earth) concerns and common challenges (e.g., population, human resources, food security, species and ecosystems, energy, industry, urban). Common endeavors (attempts to achieve common goals) referenced in the report cover oceans, space, Antarctica, peace, and security (see Brundtland Commission, 1987). Over time, the implications of what sustainable development and sustainability mean continue to evolve and be explored.

In the Euro-Western world, ecofeminists and systems thinkers like Donella Meadows (2008)¹⁴ and Macy and Johnstone (2012) led the charge to re-examine the way we (Westerners) view our relationships in the world, imploring readers and audiences to understand that the way we harm the Earth affects all people, and how we treat one another is reflected in how we treat

¹⁴ Donella (Dana) Meadows, considered a pioneer in systems thinking, wrote prophetically about systems before her untimely death in 2001. A Harvard PhD in biophysics, she based the prescriptions she espouses for working with systems on her own observations in biophysics and working in collaboration with others in disparate fields. Meadows watched her colleagues adopt the practices she shared "consciously or unconsciously, as they encountered systems" (Meadows, 2008, p. 170). Meadows completed a draft for a book devoted entirely to systems thinking in 1993; her first work highlighting this topic dates back to the early 1970s. After her death, with her 1993 draft still unpublished, her colleagues arranged for her manuscript to become a published book.

the Earth. One can see their influence in thinking by looking at the evolution of Hawken's work. When first writing about sustainability, Hawken (1993) appealed chiefly to the development mindset of the business world and the need to create a restorative versus a destructive economy. Six years later, he partnered with Amory and Hunter Lovins (Hawken, Lovins, & Lovins, 1999) in a work that expanded the conversation on sustainability to include hypercars, neighborhoods, architecture, waste, water, industry, food systems, financial markets, and climate conditions. In 2007, Hawken shifted his narrative about sustainability to focus on the restoration of "grace, justice, and beauty to the world" (2007, p. 5). Over time, he recognized that the division between ecology and human rights is artificial, understanding that the issue of social justice and how humans treat one another is paramount to acknowledge and address before we can truly impact environmental issues.

This research looks at aspects of sustainability that relate to education as sustainability and includes a review of a paradigm for sustainability, systems thinking, and adaptability with an emphasis on how humans view their place in the world and how we might recognize that our actions need to involve cultivating positive (wholesome) relationships. An overriding description for sustainability that seems to best fit purposes of this work is found in Meadows et al. (1992) who believed a sustainable society is one that can demonstrate foresight and be flexible enough, and mindful enough, not to weaken or destabilize either its physical or social systems of support.

Paradigm for Sustainability

Paradigms, considered as frameworks for how we think, inform a way of understanding and explaining the world. Our paradigms or perceptions about the world are derived from our worldview (Ferguson, 1980). Exploring worldviews, environmental attitudes, and sustainability, Hedlund-de Witt, Boersema, and deBoer (2014) discovered in their findings that worldviews

provide a relevant indicator of sustainable lifestyles. The authors' data verified that worldviews inform perceptions and views of reality and offer the larger context within which attitudes, values, and beliefs are formed. Conclusions in their research indicated a worldview that expresses an intrinsic interconnectedness of all things and holds an epistemology that emphasizes feeling, intuition, and self-discovery not only fosters, but also facilitates, sustainability. Koitsiwe (2013) added that an Indigenous paradigm and epistemology in research is important "because the global knowledge economy will be based on new and diverse ways of generating and developing knowledge for sustainable livelihoods" (p. 274).

Drawing upon the work of Thomas Kuhn (1962), Ferguson (1980) discussed paradigm shifts as occurring when old problems become viewed with a distinctly new way of thinking. When writing about sustainability education, Sterling (2011) and Stibbe (2012) discussed the importance of a paradigm shift in looking anew at education. Sterling (2011) worried that most education today is "still informed by a fundamentally mechanistic view of the world, and hence of learning, and blind to the rise of ecological thinking that seeks to foster a more integrative awareness of the needs of people and the environment" (p. 13). He believed un-learning, re-learning, and new learning were necessary to meet the challenges we face. Susan Santone (2010) advocated switching to a sustainability paradigm in the elementary school years in order to provide a holistic view of economics that students would recognize from the beginning of their studies. She maintained that the sooner students are given a new paradigm for viewing the world the better, because it would prevent children from having to unlearn a way of thinking that we know no longer promotes the viability of society.

Systems Thinking

Ewert, Mitten, and Overholt (2014) viewed systems theory as a coherent scientific framework that understands that everything is connected and affects everything else and that everything known to humans is in effect one living system of which humans are a part. Systems thinking relies on systems theory. Capra (2002) believed systems theory is not so much a theory as an approach, a language, and perspective that emphasizes the interrelatedness and interdependence of all phenomena. Capra (1996) credited the emergence of systems thinking in the modern Euro–Western world to the early 20th century organismic biologists; he noted that “function is essentially a mechanistic concept” (p. 27) and these biologists shifted the outlook of study from function to organization.

Renowned for her work in systems thinking, Meadows (2008) wrote, “We can never fully understand our world, not in the way our reductionist science has led us to expect. Our science itself . . . leads us into irreducible uncertainty” (p. 168). She submitted we cannot know what to optimize nor make the world better by thinking we can control or conquer it. “The future,” she maintained, “can’t be predicted, but it can be envisioned and brought lovingly into being. Systems can’t be controlled . . . they can be designed and redesigned” (p. 169).

Meadows (2008) noted that the universe is nonlinear, unstable, dynamic, and has emergent properties; it does not behave in mathematically ordered symmetries. She observed that the universe self-organizes and evolves, and “that’s what makes it beautiful, and that’s what makes it work” (p. 181). She teased that while humans tend to like straight lines, whole numbers, certainties, and concrete knowledge, humans also make complex designs in architecture, symphonies, and novels. The ability to think in systems, she contended, resides within all of us.

Systems thinking aligns with complexity theory and recognizes that the whole is greater than the sum of its parts, and the properties of the parts are understood only within the context of the larger whole (Davis & Sumara, 2008; Davis, Sumara, & Luce-Kapler, 2007; Goldstein, Hazy, & Lichtenstein, (2010); Folke, 2004; Marten, 2001; Smitherman, 2008). Systems cannot be understood by analysis of its parts and a worldview that understands that everything is connected is required to comprehend systems (Laszlo, 1996). A systems view concentrates on principles of organization and patterns of collaboration, relationship, and interdependence.

Based on systems theory, employing systems approaches means understanding and using systems thinking when making decisions. It means taking actions that support the processes, interrelationships, and feedback loops; it means letting go of reductionist and mechanistic thinking approaches. Ewert et al. (2014) offered an example using an automobile; from a mechanistic perspective, a car can be viewed in pieces such as the body, engine, tires, battery, exhaust system, and interior features, while a systems approach would see the exchange between the car's parts and how the relationships found within the parts impact the car's entire performance, the exchange of labor in making the car, and the exchange between the environment and the car's features and operations.

In 1998, the American Council on Education highlighted the need for systems thinking:

Beyond problem solving, education should place more emphasis on systems thinking. Rather than teaching students how to solve problems that are presented to them, students should be taught to examine why the problem arises and how it is connected to other problems. Students should be taught that problems can usually be redefined according to where you look in a broad system of forces, variables, and outcomes, and that unexpected relationships and potential solutions can be discovered by examining this larger terrain. (Oblinger & Verville, 1998, p. 129)

Peter Senge (2006), working in organizational learning, elaborated,

Children are natural systems thinkers. In schools where systems thinking is woven throughout the curriculum, and students and teachers work together as learners and mentors . . . these innate skills can truly flower. If we can succeed in moving toward a learner-centered, systems-based education system, I believe we will see how readily systems citizenship develops . . . and how ineffective the traditional classroom actually is. (p. 361)

When Capra (2002) expanded the scope of quantum and complexity theory to understand issues such as sustainable living, he observed the need to abandon the mechanistic view of the mind and consciousness because he believed both are processes, not separate entities, that include perception, emotion, and actions. Meadows (2005) also cautioned to avoid the trap of paying attention to only what is quantifiable and only to what presents in the immediate situation. No one can measure a value, for instance. If people fail to consider values like justice, love, respect, and security in their design of a system, she explained, the values may not exist as part of the system or unintended values may become part of the system.

Adaptability

Adjusting to new conditions involves adaptability. Walker and Salt (2012) considered adaptability and transformability as complementary processes; if adaptability would not make a change in a system for the better, there was a need to re-envisage what the system might become. Focusing on adaptability and sustainability, Chinn (2011) noted that sustainability depends on a society's ability to deal with change. She considered the ability to adapt is a characteristic most Indigenous cultures have recognized for generations. "Learning [for the natives]," she concluded, "is adaptive, enabling social-ecosystems to be resilient in the face of change" (p. 231).

Vandana Shiva (2008), addressing Earth democracy, invoked the need for our actions to demonstrate adaptability and transformability. She explained that addressing pollution of the atmosphere could be dealt with beyond making changes in the atmosphere; it includes changing our ways of doing agriculture, designing buildings and towns, and the ways we shop. Our adaptability involves and invokes our ability to reimagine life. Anderson (1998) demonstrated that kind of adaptability (and transformability) thinking when he committed to making his carpet company the first fully sustainable corporation in the world. He recognized being sustainable meant not only changing his largely fossil fuel-based product, it also meant requiring all his suppliers to practice equally stringent and thoughtful practices.

At the beginning of his address to open the National Bioneers Conference, Ausubel (2007) reminded the audience that “Charles Darwin observed it is not the strongest of the species that survives, nor the most intelligent, but the ones most responsive to change.” He concluded his address by stating, “We can go in any direction we want—by dreaming it. Our dreaming can shift the course of the world. That’s our deepest well of resilience . . . One day we may awaken to find ourselves living in our wildest dreams.” He encouraged that it will depend largely on how we experience adapting to change and our ability to transform our vision.

Summary

The worldview, values, and beliefs espoused in Montessori, Indigenous, and sustainability principles seem to be congruent. While each of these theories is complex, the central belief that all things in life are intertwined, inseparable, and bound with a spirit emanating from within are supported in Montessori theory, Indigenous theory, and sustainability theory. The language used to convey Indigenous, sustainability, and Montessori principles reflects a larger view of life each

holds. It is a view that remains holistic and interconnected, encompassing cognitive, physical, social/emotional, and spiritual aspects of life.

Sustainability involves viewing the world as interconnected and realizing that a more comprehensive and holistic view of human endeavors can move societies closer to preserving (or restoring) the vitality of the Earth. Cultivating a way of thinking and doing with a systems mindset and raising the value of adaptability constitute ways sustainability can be forwarded. How humans interact with the world culturally, economically, and socially impact a society's ability to be sustainable and thrive. Education that reflects a paradigm maintaining the interrelatedness of life can help meet the challenges we face today on the planet.

Grounding this research on these three theories aimed to feature the connections among these views, and in so doing, provide a larger context for inspiring the role of the Montessori teacher. Incorporating well-established research principles and methods from those aligned with our deepest past makes sense. Today, many Western researchers struggle to use accepted research methodologies and paradigms that fit the complexities they know exist and seek to examine. Opening research avenues that build upon the wisdom and knowledges of Indigenous scholars might expand research horizons in the quest to deepen our understanding of what living sustainably in our world involves.

CHAPTER 3: RESEARCH DESIGN

Establishing the requisite prepared learning environment in a Montessori classroom is contingent upon the teacher/guide. Maria Montessori (1936, 1949a, 1949b) considered the preparation of the teacher to be at the root of the prepared learning environment. This study dug deeper into the often elusive, yet critical, abilities a teacher needs to have in the hope of deepening understanding of this conceptually critical aspect in Montessori philosophy. The study clarifies more extensively the expectations of a Montessori teacher/guide for those who teach or wish to teach as well as informs those who seek to support Montessori teachers.

A research design is created for its ability to satisfy the aims of the study. The research was explorative and descriptive in nature. This study involved gathering collective thoughts, experiences, and stories from seasoned Montessori educators. These Montessori educators met together in small groups. Their dialogues were recorded, ultimately to share with the Montessori community. For centuries, tribal Elders have been revered for their wisdom and service to their tribal communities. Tribal Elders are considered knowledge keepers who help ensure traditions, values, and language are passed down to new generations (Ball & Simpkins, 2004; McLaughlin, 2007). The contributors in this study represented that same standing and role. Use of an Indigenous inquiry framework highlighted the role of Montessori elders, enriching the research approach.

This chapter covers the research paradigm, conceptual framework, methods, ethics, and analysis of the data that constitute the design of this study.

Research Paradigm

A Western research paradigm typically includes epistemology, ontology, theoretical perspective, and methodology. For my research purpose and intent, using an Indigenous research

paradigm captured the unity of the epistemological, methodological, ontological, and axiological concepts of the research design I sought. An Indigenous research paradigm mirrors the Montessori educational concept in its holistic, congruent, and comprehensive sense.

Indigenous epistemologies are relationally integrated, circular, accountable, fluid, and emergent (Cajete, 1999; Smylie et al., 2003; Wilson, 2001). Reflecting Indigenous epistemological perspectives, Wilson (2008) explained that the ontology, epistemology, methodology, and axiology (values; accountability) of an Indigenous paradigm are intertwined and served together. For Wilson (2001), the research paradigm constitutes “a set of beliefs about the world and about gaining knowledge that go together to guide your actions as to how you’re going to go about doing your research” (p. 175). Figure 3.1 is taken from Wilson (2008) to illustrate the perspective.

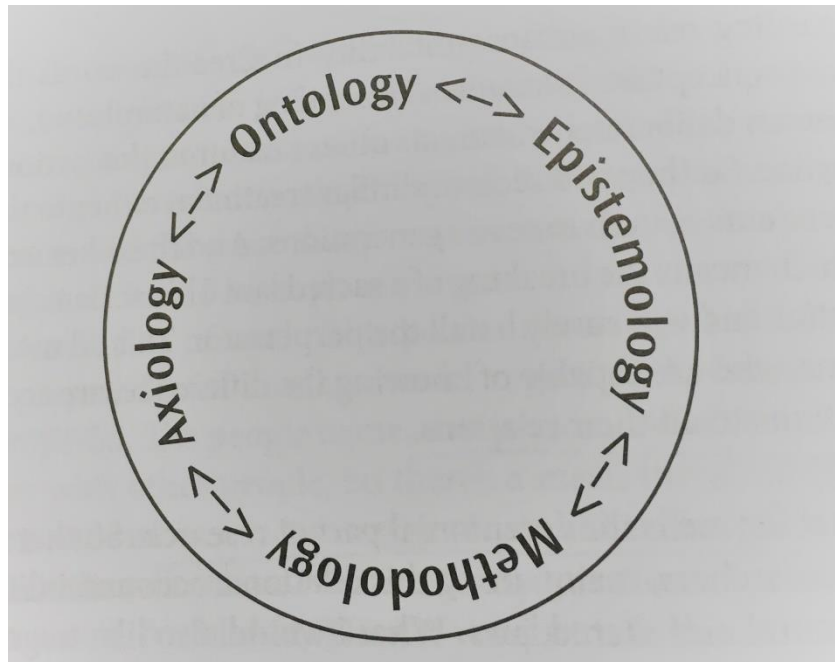


Figure 3.1. This Indigenous research paradigm considers epistemology, ontology, methodology, and axiology as interconnected; the relationship among the entities is viewed as inseparable. From *Research is Ceremony: Indigenous Research Methods* (p. 70), by S. Wilson, 2008, Black Point, Nova Scotia, Canada: Fernwood Publishing. Copyright [2008] by Shawn Wilson. Reprinted with permission.

Several Indigenous scholars have upheld that both the research paradigm and the conceptual framework are informed by assumptions about reality, knowledge, and values of the researcher and the researched (Chilisa, 2012; Lambert, 2014) as understood through the researcher's worldview (Martin & Mirraboopa, 2003).

An Indigenous research paradigm is congruent with Maria Montessori's worldview, the holistic and interconnected design of Montessori theory and praxis, the spiritual aspect of life so central and integral in Montessori philosophy, the respect for relationship within the Montessori community, and my own beliefs as the researcher and fellow Montessori educator.

Conceptual Framework

Eisenhart and Jurow (2011) considered the conceptual framework the foundational structure for organizing a new study. Indigenous scholar Lori Lambert (2014) believed the conceptual framework should be grounded in an Indigenous paradigm. Citing Chilisa (2012), Lambert wrote, "The conceptual framework reflects the researcher's perceptions of reality, what counts as knowledge and values and how this impacts the way we gather data, the questions we ask, the interpretation of the data and dissemination" (p. 200). A medical ecologist, Lambert conceived of a spiderweb for her conceptual framework because she understood that spiders exist on all continents except Antarctica, which was fitting for her international work. Similarly, the spiderweb represents the international reach of Montessori education and experiences of the educators included in this research. Patterned after hers, the framework for my research is illustrated in Figure 3.2.

I entered a PhD program in sustainability education largely because of the connections I saw between Montessori education and sustainability (Sutton, 2009). It was imperative for me to conduct research that would benefit the Montessori community. The research topic explored the

role of the teacher, a core component in the Montessori concept of education. I believed research that contributed to Montessori could indirectly benefit education as sustainability. Following an Indigenous research framework, mirroring the congruency of the Montessori concept, provided the unity I wished for in the research design.

At the center of the conceptual framework in Figure 3.2., the researcher is asked to identify why they wish to conduct the research, to name their “place, heart and voice” (Lambert, 2012, p. 220). The study focused on an aspect of Montessori education on which other educators (and I) wished for greater clarification—what qualities seem to help a teacher apply the Montessori concept. As a Montessori classroom teacher and teacher educator, the topic was an avenue for which my individual experiences were suited. Conducting the research commensurate with the Montessori way of doing things and disseminating the findings in a way that benefited the Montessori community was crucial. Initially, I wished to accommodate a collaborative effort among Montessori educators. As the research design took form, and I began to correspond with a few Indigenous scholars, that wish extended to collaboration with Indigenous researchers. Likewise, the ownership and sharing of knowledge, for both Montessori educators and the Indigenous research community, became important.

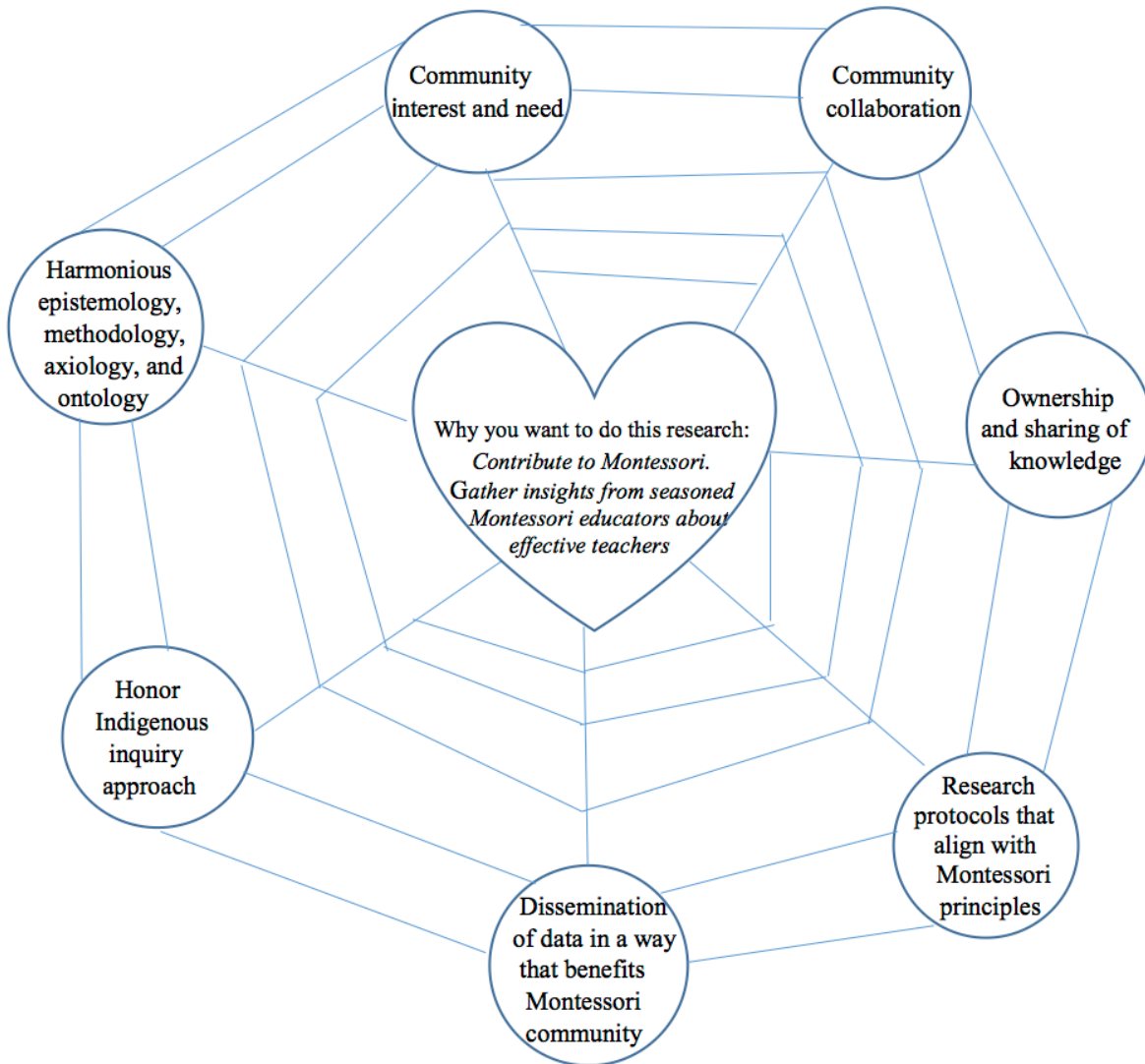


Figure 3.2. Conceptual framework for the research on Montessori perspectives. Adapted from *Research for Indigenous Survival: Indigenous Research Methodologies in the Behavioral Sciences* (p. 220), by L. Lambert, 2014, Pablo, MT: Salish Kootenai College. Copyright [2014] by [Salish Kootenai College].

Figure 3.3 illustrates key aspects of the research design. The philosophical underpinnings of the research were Montessori theory, Indigenous theory, and sustainability theory. One salient commonality among the theories is that each espouses a similar worldview that all things are connected. To inform the research design, Wilson’s (2008) Indigenous research paradigm

provided the holistic and congruent view of the epistemology, ontology, methodology, and axiology. To deepen knowledge about implementation of the Montessori educational concept, dialogues that followed an appreciative inquiry (AI) approach were used to tap into the wisdom of experienced Montessori practitioners.



Figure 3.3. The philosophical underpinnings of the research on Montessori perspectives profess a view that everything is connected. To guide this exploratory and descriptive study, viewed through the lens of a Montessori educator, Wilson's (2008) Indigenous research paradigm served as the framework. Data were gathered through dialogue circles with Montessori elders using appreciative inquiry.

Methods

AI and Bohm's (2000) dialogue method were used to gather insights from experienced Montessori educators. These educators dialogued together in six different small groups that were held at different times and locations over a period of five months. A total of 20 longtime Montessori educators participated; they represented an accumulated 770 years of experience. To inform the central research question ("What insights on implementing the Montessori

educational concept can experienced educators offer to teachers?”), dialogue participants were asked to discuss the essence of Montessori (Question 1) to establish the commonalities of their perceptions and understanding of the philosophy. Next, coresearchers were asked to describe teachers they know or have observed over the years who effectively implement the integral and comprehensive Montessori concept in the classroom (Question 2).

The dialogic method allowed experienced Montessori educators to, in essence, ponder the central questions together, bringing in multiple perspectives from those who have worked with various age groups in Montessori education. Based on my research, such a collection of thoughts is not found in the literature.

Indigenous scholar Peters (2013) wrote that the research methods should be consistent with the core values of the participants or stakeholders being researched and should honor the research participants' ways of expression and propriety. From an Indigenous perspective, conducting research purely for academic purposes is not what matters most. Skilled data collection and interpretation occurs within relationships rather than in isolation. In her chapter on research in relationship with humans, the spirit world, and the natural world, Walker (2013) summarized a concept originally conveyed by Manulani Meyer in which Meyer (1998) emphasized that intelligence occurs within relationships, and to break that sense of interconnectedness is harmful, unviable, and should be avoided. An Indigenous research process reflects reciprocity and respectful relationships between the researcher and the research participants (Mertens et al., 2013; Victor et al., 2016). Indigenous scholars acknowledge the importance of relationship and research benefiting the community (Kovach, 2012; Lambert, 2014; Traore, 2013).

The Indigenous priority given standpoint, respectfulness, and reciprocity reflects essential elements for the approach needed in this study. The elements found to be congruent with Indigenous and Montessori principles are examined below and include (a) sampling size, (b) participant selection, (c) consent, (d) use of dialogue, (e) view of the researcher, (f) research ethics, (g) the approach to interpretation and analysis of the data, and (h) representation of the results.

The features discussed represent approaches that met the particular research needs and describe processes found in Indigenous research literature that are in harmony with Indigenous inquiry. It is important to acknowledge, however, that most if not all the methods and practices exist in other, non-Indigenous research methods. Indigenous scholar Lavallée (2009) explained, “Indigenous research is not qualitative inquiry; however, the methods used may be qualitative. Indigenous approaches or research frameworks encompass far more than just the methods [because] it is an epistemology” (p. 36).

Participant Selection

To gain a better understanding of teachers who implement the Montessori concept effectively, I wanted to tap into the wisdom of longtime Montessori practitioners who, similar to Elders in an Indigenous community, are respected and held in high esteem for the contributions they make to the community. The people contacted to participate in the study were members of the international Montessori community. The Montessori community, as used in this sense, consisted of Montessori teachers, administrators, and teacher educators who have mentored Montessori teachers throughout the world and have expertise in various instructional levels. The criteria for recruitment of teacher educators and/or administrators were established to meet what I envisioned. Participants were required to

- be currently active in this work (because their experiences working with teachers are fresh/current);
- have a minimum of 20 years of Montessori experience;
- represent experience over the range of levels in Montessori education (birth to 18 years);
- have taught for at least five years in a Montessori classroom;
- have a credential or diploma from an internationally recognized Montessori organization.¹⁵

The study focused on gathering information from longtime Montessori educators who met the criteria, with the intent to include those who reside in the United States and some who either live and/or work or have worked with teachers in other countries because Montessori education is practiced globally. It was important to include Montessori educators who held certifications that covered all Montessori instructional levels. Most invitees were native English speakers, though three were non-native English speakers (common within the U.S. and international Montessori community). A wide range of perspectives and experiences within these parameters would enhance the findings, I believed.

I created a list of potential contributors identified from my personal knowledge of those working in Montessori education and with the help of Betsy Coe, my Montessori mentor and doctoral committee member. Betsy is well respected in the Montessori community and has many associations within the international Montessori community. Selection of participants was based in part on their proximity to other contributors. I sent invitations to 18 educators, and all

¹⁵ American Montessori Society (AMS) and International Montessori Association (AMI) represent the largest Montessori organizations in the world. Representatives from these major organizations were included in this study to build on the recognition of their shared goals and perspectives.

accepted. One ultimately had to decline, unable to participate due to health issues. On two instances, I asked an invited participant to identify one or two more candidates, who met the criteria, to join the dialogue. In that sense, there was some selection of the 20 total participants similar to snowballing (Chilisa, 2012; Nardi, 2006; Ravitch & Riggan, 2012).

Relationship, respect, and trust. I was not in any authoritative position over the coresearchers; to the contrary, most have greater experience and standing in the Montessori community than I do. I anticipated that those who were invited would view the request as an honor; the topic of a teacher's ability to implement the Montessori concept is one that is discussed often among educators at conferences and other gatherings. Based on the feedback received when an elder agreed to participate, and later, after the dialogue had been held, it is accurate to say the contributors appreciated being part of the research (see also Appendix I).

I personally met the criteria established for participants. While I facilitated the dialogues and did not contribute, my similar experience served to authenticate the level of respect I hold for the elders and for the topic of study. Having similar experiences fostered trust among us. Chilisa (2012) wrote that the methods used in Indigenous research should “privilege relational ways of knowing that valorize respect for relations people have with one another” (p. 206). In my study, most contributors were people with whom I already had a rapport and trusting relationship. Kovach (2012) clarified that “having a pre-existing and ongoing relationship with participants is an accepted characteristic of research according to tribal paradigms” (p. 51). Shared relationship added to the trust and respect among cocreators (Hart, 1999; Peters, 2013; Weber-Pillwax, 2001, 2004). South African Indigenous researcher Koitsiwe (2013) added that Indigenous methodologies allow Indigenous researchers to fully be themselves during the research process. Indigenous research becomes a partnership between the researcher and the

researched and is considered reciprocal in that the study is relevant and meaningful to the participants (Lambert, 2014; Smylie et al., 2003).

Participants as coresearchers. Contributors in the study were invited to participate because of their expertise and wisdom; most had known each other or of each other for many years. These connections addressed a key relational aspect that remained important for this research conducted with Montessori colleagues. In the invitation to participate, a review of the expectations was provided (see “Consent” section). Contributors were given the opportunity to read dialogue transcriptions of which they were a part and participate in the analysis and interpretation of the data to the extent they were willing. Participants, then, were considered coresearchers.

Though not distinctive to Indigenous ways, participants in Indigenous research often serve as cocreators or coresearchers in the process, providing input at all the stages in which they wish to participate. From an Indigenous perspective, coconstruction of knowledge, especially through sharing one’s stories, reflects a relationship-based approach, congruent with the relationally based Indigenous research paradigm (Kovach, 2010, 2012; Weber-Pillwax, 2004). It was important to me that the participants were acknowledged as coresearchers; their contributions are at the center of this research exploration.

As coresearchers, participants were asked to be identified in the findings, not by their specific contributions in the dialogue, rather in a list of contributors. Chilisa (2012) explained that there is often an emphasis on revealing participants’ names “so that the knowledge in the study can be traced to its originators” (p. 119). I believe it is important to devote a separate chapter to describe the participants’ experience and background. Chapter 4 reveals the coresearchers by name and includes relevant educational experiences. Chapter 4 likely holds

greatest meaning within the Montessori community. Naming participants in Indigenous research is considered a valuable element, lending credibility, authenticity, and integrity to a process of research seeking deeper inquiry (Peters, 2013). Knowing the sources of information used in the research can foster acceptance of the findings within the Montessori community as well as community ownership—a view many Indigenous scholars embrace (Lambert, 2014; Lavallée, 2009; Menzies, 2001).

To effectively manage communication with coresearchers during the process, a tracking sheet was prepared indicating dialogue dates, when transcriptions had been sent for review and confirmed, and when feedback was received about the analysis. Email notes that explained each request with a time frame for turnaround and friendly reminders near due dates were sent when appropriate while each phase was underway.

Sampling Size

The number of participants recruited for the study was 20. Indigenous scholar Chilisa (2012) described smaller sized samples as purposive selection; participants were chosen because of their knowledge on the topic that was specific to the study. For my research, the Montessori educators who were asked to participate represent a homogeneous group who met criteria relevant to the study (see criteria listed under “Participant Selection”).

It was logistically challenging to include more than a 20-participant population. Contributors for each dialogue had to be able to meet at the same date, time, and location. I had to be able to travel to cities where coresearchers lived. For me, videoconferencing among elders would not provide the warm, comfortable, and relaxed setting I wished to establish for the dialogues. Bohm (2000) attested to the organic and intimate nature of dialogue. The dialogue groups were similar to Indigenous sharing circles; videoconferencing would not accommodate

the experience of human presence important in a sharing circle. For this study, 20 participants afforded a substantial contribution, accomplished the research goal, and was logistically feasible.

The invitation sent to contributors contained a brief synopsis of the research proposal and an overview of my current occupation and educational pursuits. The invitation informed participants of the purpose of the research, the format for data collection, the use of an Indigenous research perspective, and the expectations for their participation. For a sample invitation, see Appendix D.

Consent

Contributors were given the research overview in the invitation, and before their dialogue began, the consent form was read individually, questions answered, and the form signed by each person. The consent form, found in Appendix F, included the following information:

- The research involves participating in a dialogue for two hours.
- The study intends to shed more light on understanding effective Montessori teachers.
- The researcher considers the experiences of participants of great value to the study and seeks their input.
- The participants are encouraged to consider being identified by name as a contributor to the information gathered because that personal information can enhance as well as lend credibility to the findings.
- The data will be presented as a composite; no words or phrases will be attributed to one individual.
- Participation is voluntary and can be withdrawn without penalty at any point.
- If a participant chooses to remain anonymous, s/he has that option.

- Participants will be asked to sign a consent form that agrees to an audiorecorded dialogue session.
- Participants will give consent about the inclusion of their personal information after they have submitted it and it has been edited or revised by me before the work is published.

Copies of the signed consent form were provided to each contributor, either as a paper copy or electronically, and the originals kept by me.

Dialogue

The data collection process for my research needed to be open to all insights, the conversations fluid and reflexive. I chose to follow Bohm's (2000) dialogue process because it is a way of dialoguing that tends to enhance and deepen the thoughts shared among participants. While I facilitated the dialogues, my participation was to ask clarifying questions as needed, which was seldom required. The guiding dialogue questions were designed to keep the focus while allowing fluidity in order to remain open for varying perspectives. The two questions asked during the two-hour dialogue session were: (a) What is the essence of Montessori? and (b) How would you describe teachers you have observed or hired/worked with who are able to implement the Montessori concept effectively? Examining the essence of Montessori corroborated the shared foundation upon which to explore the second dialogue question.

The positive focus and organic nature of an AI approach was a particularly good fit for use in the group dialogues and in fostering the intent of my study. Indigenous scholar Chilisa (2012) encouraged an AI approach because it guides the study by affirmative assumptions, keeping the conversation away from the problems, to allow deeper insights through reflexive discoveries on what is effective rather than what is not. An AI approach addresses the desire of a researcher to

exercise less control over the data collection, one that allows the process to evolve naturally, focusing on what knowledge is constructive (Reed, 2007).

The practice of dialoguing offered by Bohm (2000) is in harmony with Indigenous ways of examining and exploring issues relevant to the community (Ermine, Sinclair, & Jeffrey, 2004; Parry, 2015). Bohm's dialogue methods are commensurate with Montessori practices of exploring ideas of interest together. Similar to talking or sharing circles, dialogues are more conversational and anecdotal (Lambert, 2014; Lavallée, 2009; Parry, 2015). Sharing circles, used by Indigenous groups and others with an oral history tradition, provide an avenue for discussion that is egalitarian and nonconfrontational and fosters "values of sharing, supporting each other, and respecting life experiences through personal interactions" (Rothe, Ozegovic, & Carroll, 2009, p. 336). Kovach (2010) noted that Indigenous groups seek knowledge in ways that often differ from those who uphold a Western worldview and approach. Mercurieff and Roderick (2013) explained,

When you ask someone a direct question, it puts the person on the spot. It's disrespectful and sometimes it's like a challenge. It also shows that the person is strictly in their head, because they have a singular kind of question, narrowly focused. The nature of the question directs the response you get . . . Specific questions demand specific answers . . . the narrower the focus of the question, the narrower the response is going to be. Alaskan Native knowledge is contextualized . . .

Indirectness contextualizes the questions and creates teaching and storytelling opportunities that directness doesn't allow. It gives [the participants] wider latitude in how they respond. (p. 58)

Dialogues by design are more informal and allow group members to ponder together as ideas are examined. The dialogic process is organic and supports the importance given relationship in the Indigenous research paradigm (Ermine et al., 2004) and honors the value of relationship within the Montessori community.

Dialogues for Indigenous researchers educed a familiarity because group dialogue is a common practice among Indigenous people who believe sitting in a circle represents the equality of members and fosters respect, togetherness, and everyone being guaranteed a voice in the discussion (Kovach, 2010). While cultural protocols vary among tribal practices, protocols become part of the process (Castellano, 2004; Hornung, 2013). To acknowledge the Montessori principles of beauty, grace, and courtesy, I served snacks between the two sessions of the dialogue, used cloth napkins, and brought a vase of flowers. Ultimately, Kovach (2012) concluded protocol is about respect. These small gestures I describe intended to signal respect to the coresearchers; everything within the Montessori philosophy and methods revolves around respect (Montessori, 1948b).

Mohawk scholar Castellano (2004) clarified that “individual perceptions [must be] validated by community dialogue and reflection before they become collective knowledge” (p. 105). Validation includes recognizing the value given inward knowledge (intuition or dreams). Participants in Indigenous research are encouraged to share their inward knowings. Kovach (2012) pondered, “It is likely this form of knowledge matters to non-Indigenous researchers; the . . . difference is that Indigenous researchers count inward ways of knowing as part of knowledge construction . . . subsequently legitimizing them in academic research” (p. 127).

The presence of intuition continues to be acknowledged in disparate fields that include social work (Brown, 2010), psychotherapy (Marks-Tarlow, 2014), philosophy (Parry, 2015), and brain research (Siegel, 2013). Former astronaut Edgar Mitchell (2009) considered intuition as our first sense (as opposed to how it is often referred to as the sixth sense) based on findings in quantum information that existed before our solar system and planet were formed.

Montessori practitioners have written about intuition and inner voices (McFarland, 1993), and several elders acknowledged the importance of intuition during the dialogues. Several elders referenced perceptions that emerge from different native languages and realities and from different ways of knowing.

Number and accommodation. I conducted six dialogues: two separate dialogues in Houston, TX; one in the San Francisco Bay area of Northern California, CA; one in Prague, Czech Republic; one in Dallas, TX; and one in Minneapolis, MN. The intent was to hold the dialogues in as geographically broad locations as possible. With that aim in mind, the sites were determined by the number of available elders with whom I knew or knew of in each place and my ease of accessibility to each.¹⁶ The dialogues were held in one of the coresearcher's homes or in a school meeting room.

Three to five people were invited to each dialogue. Four coresearchers were able to attend one dialogue, three people were present for three dialogues, and in two dialogues, there were two elders. In spite of the smaller number for those two dialogues, I believe the coresearchers and I considered the experience meaningful. Bohm (2000) viewed an adequate number for a dialogue to be at least two. Kovach (2012) held five sharing circles in her research with varying numbers of participants, two of which had three participants, and those two circles proved equally effective in providing data.

For the three people who had been invited and wished to participate in my research yet were unable to attend the dialogue sessions, an alternative for responding to the two dialogue questions was offered. The three were invited to respond to the questions in writing and send

¹⁶ I currently live in Houston, TX, and work in Houston, Northern California, and Prague. Dallas is close in proximity to Houston and is where I lived and worked for years. I travel to Minneapolis several times a year to visit family. In each location, several renowned Montessorians reside.

their responses to me. The intent of the research was to gather a collection of responses, so this option could suffice if it became necessary. It may not have been as optimal because those elders were unable to be part of the free flow of thoughts that occurred as contributors pondered together. The option, however, provided an invited elder a way to have her/his voice included in the collective. I believe this option was viable. I had answered the two questions in writing before the first dialogue to have on record and to consult when checking personal biases and had found the experience thought provoking and meaningful. Use of this alternative form of participation added insights to the data from invitees who wished to attend the dialogue and could not.

An outside person was used to transcribe the dialogues, and I checked the written transcriptions against the audiorecording before sending the written transcripts to coresearchers for their review.¹⁷ I allowed at least a month for contributors to read the transcript and respond. Fifteen coresearchers verified the written transcriptions; a few added or clarified information as requested in communication that was sent with the transcript. The remaining five elders were sent several friendly reminders and ultimately a deadline that would assume acceptance of what had been transcribed if a response from an elder were not received.

Preparation and format. Bohm (2000) began his chapter on dialogue, “The way we start a dialogue group is usually by talking about dialogue—talking it over, discussing why we’re doing it, what it means, and so forth” (p. 6). Before we talked about dialogue and the expectations of the gathering, I wanted to provide some kind of physical movement that served to focus and center all of us. Some of these dialogues were held in the afternoon or evening after

¹⁷ Several Indigenous research accounts emphasized the value of the researcher transcribing the audiorecordings, but I discovered transcription is not a skill strength for me. I was satisfied to double-check the audios with the written versions that my paid (and highly adept) transcriber provided and was able to make the few changes that were needed with ease before sending to coresearchers.

coresearchers had had a long day at work. The movement activity was familiar to this group of Montessori educators; it seemed welcomed, in fact, as a way of preparation to be present for pondering questions that were reflective and thoughtful in nature.

The movement activity consisted of five simple Capacitar moves. Capacitar, a word that means to empower, refers to the organization Capacitar International that teaches simple wellness practices intended to foster healing and wholeness. The organization operates in over 35 countries throughout the world. I selected the movements for patience, slowing down, listening, giving and receiving love, and celebrating (see www.capacitar.org/).¹⁸ After the movement exercises (approximately five minutes), the dialogue guidelines were read aloud by the elders on a rotating basis, by paragraph, to review the guidelines together, allow for any questions, and to sound check the audio recorder.¹⁹

Bohm's (2000) dialogue methods guide participants to deeply examine an issue and openly share thoughts and reflections, suspending judgment, assumptions, and without seeking immediate answers. David Bohm was a renowned physicist whose studies in the complexities of the universe led him to examine the complexities of human communication (Jaworski, 2011). Bohm determined communication guidelines that support a safe and open exchange of ideas. I have a number of years of experience using Bohm's dialogue process, having conducted dialogues with adults in business, older adolescents in the classroom, young adults in college, and adults in teacher education. The facilitator's role in dialogue involves setting the tone and providing clear guidelines to accommodate the flow of thoughts. This includes asking the main

¹⁸ I learned about Capacitar movements from organizational consultant David Kelleher, cofounder of Gender at Work, who has worked with groups on organizational change in South Asia, South Africa, and the Horn of Africa as well as with Amnesty Canada (D. Kelleher, personal communication, July 22, 2016).

¹⁹ A version of the dialogue guidelines used is listed in Appendix G. Coresearchers had been sent the dialogue guidelines when they received the letter of invitation to participate.

question at the beginning of each section and watching to see that participants feel safe and respected throughout the discourse, which describes the role I performed.

The dialogue participants for this research were directed to suspend assumptions and judgments, listen to others without thinking ahead to what might be said, remain open-minded and openhearted, and set ego aside. Bohm's dialogue process intentionally allows time for "silence that can lead to deeper levels of insight" (McGee-Cooper, Looper, & Trammell, 2007, p. 17). Silence is comfortable for Montessori educators who purposefully provide children opportunities to realize how silence helps in opening one's mind and heart (McFarland, 2004).

Bohm (2000) referenced dialogues lasting one to two hours. Kovach (2012) informed her participants in the sharing circle to "keep in mind that although I am saying this could be around two hours, likely it might be more" (p. 136). While I was inclined to seek an arrangement similar to Kovach's, I felt the demands on my coresearchers' time obligated me to designate a specific time frame and adhere to it. The group dialogue lasted two hours. The format for the dialogue was as follows:

First hour:

Consent form (review, take questions, sign)

Brief movement/centering

Short lesson on dialogue guidelines

First question about which to dialogue (Question 1)

Second hour: (after brief and appropriate food, etc., break)

Second question about which to dialogue (Question 2)

The time given to dialogue Question 1 varied; adjustments were made to honor that the entire session would end in two hours as promised in the invitation coresearchers received. The average length of time spent on the essence of Montessori was 28.5 minutes, with the longest

running 39 minutes and the shortest 18 minutes.²⁰ The average length of time spent dialoguing on Question 2 was 39 minutes, with the longest running 56 minutes and the shortest at 23 minutes.²¹ Both sections of the dialogue were audiorecorded for transcription later. At the conclusion of each dialogue, I asked coresearchers to be included in a group picture.

The Researcher

As the primary researcher, I had a prior relationship with most of the research participants and shared being a part of the Montessori community with all of them, which in the case of this study increased my credibility and a relationship of trust. I have taught in Montessori secondary classrooms for 14 years and currently work as a Montessori secondary teacher educator and serve as a field consultant to teachers in their practicum year. I am immersed in Montessori work and treasure my relationships with joyful and pleasant Montessori colleagues, in large part because of our shared values on education, view of children, and the world.

Walter and Andersen (2013) wrote that values upheld by the Indigenous researcher influence the choices made throughout the research process and for that reason should be acknowledged within the research itself. The researcher must have a complete understanding of the community's epistemology and ontology (Lambert, 2014). Paramount for Indigenous researchers is keeping a journal of observations because "all events affect the way the study is conducted, analysis is made, interpretation is reached, and conclusions are made" (Chilisa, 2012,

²⁰ For the first dialogue, I had asked elders to allot three hours for this project, so the time given for Question 1 was the longest. Because most coresearchers manage full workloads, I realized a two-hour time frame would accommodate their availability best while still providing a satisfactory amount of time for collecting the data; thus, the invitation as well as the time for Question 1 was adjusted accordingly for subsequent dialogues. Other factors contributed to the variance in length (e.g., arrival time of all participants, social chat time, etc.).

²¹ Again, the first dialogue ran longest because participants had allocated three hours for the project. Factors contributing to the variance in length for Question 2 included length of break taken between questions and time remaining before the two hours ended.

p. 168). Keen observation skills are core to Indigenous ways of learning (Mercurieff & Roderick, 2013).

Reflexivity involves examining oneself as researcher and the research relationship (Ryan, 2005) and is a vital component of research for Indigenous scholars. While acknowledging that the inward reflection of the researcher is necessary in all research (Alvesson & Sköldberg, 2009; Denzin & Lincoln, 2011), Indigenous scholars Martin and Mirraoopa (2003) explained that “reflexivity challenges us to claim our shortcomings, misunderstandings, oversights, and mistakes, to re-claim our lives and make strong changes to our current realities. Being reflexive ensures we don’t compromise our identity whilst undertaking research” (p. 210).

I journaled throughout the research process and include the personal reflections that elucidated the data in Chapter 5. The Montessori teacher preparation program strives to cultivate reflective practice in teachers. As the researcher, I benefited from my years of experience in work that requires regular and mindful observation and personal reflection. Coe and Donahoe (2015) acknowledged that the ability to observe carefully and reflect introspectively on one’s thoughts is core in the Montessori philosophy and considered a requisite for Montessori teachers. Honing the skill of observation was specifically addressed throughout Maria Montessori’s works, as was the importance of reflection and reflexivity upon one’s observations (Montessori, 1918, 1948a, 1948b).

Ethics

Institutional Review Board (IRB) approval for this research is found in Appendix E. Castellano (2004) explained research ethics as “the rules of conduct that express and reinforce important social and cultural values of a society. The rules may be formal and written, spoken, or simply understood by groups who subscribe to them” (p. 99). The protocols and ethics of the

community being researched determined the design and implementation of the study (Menzies, 2001). Kovach (2012) acknowledged that while certain ethical standards cross cultures, such as informed consent and member checks, specific ethical considerations occur within Indigenous frameworks where one's values and how one views oneself matters. She reiterated that Indigenous knowledges are holistic and that researchers utilize knowledge sources like intuition, dreams, and inner voices that other methodologies might not consider legitimate.

Ermine et al., (2004) believed the use of dialogue is central to what the authors deemed ethical space because dialogue fosters a “realignment and shifting of the perspective, particularly from the Western knowledge perspective” (p. 43). African pastor and teacher Mkabela (2005, as cited in Chilisa, 2012) described a process of collective ethics he found applies to the Indigenous research process, which includes

- appreciation of the importance of individuals in the research group;
- understanding that research is part of a very complex whole;
- inclusion of elders and cultural committees in the research process;
- understanding of the interconnectedness of all things and long-term perspectives in dealing with research issues;
- understanding that researchers must act in an appropriate and respectful way to maintain the harmony and balance of the group. (p. 196)

Ethically speaking, to preserve epistemological principles, most Indigenous scholars maintain that the community own the data (Castellano, 2004; Lambert, 2014; Patterson, Jackson, & Edwards, 2006). Paramount for Indigenous scholars is that the researcher remains accountable to herself and the community that is being researched (Castellano, 2004; Menzies, 2001; Patterson et al., 2006). Smith (2012) explained that Indigenous principles of respectful

reciprocity and feedback are part of the ethical standards. Kovach (2012) added that ethical implications surface primarily within the evaluative phase of the research.

In this research, the use of dialogues to gather information, the protocols used during the dialogues, the respect and relationships honored between the elders and me, and the designation of participants as coresearchers represented the ethical considerations expected within the Montessori community. Several elders spoke about the use of intuition required of a Montessori teacher during the dialogues. During the analysis phase, it would be accurate to say I relied on my intuition many times when discerning which categories best represented the meaning of ideas about which an elder had spoken.

Analysis of Data

The dialogues created a space for Montessori elders to share insights about the essence of Montessori and teachers who effectively implement the approach and philosophy. The purpose was to record a moment in time when these practitioners gathered in small groupings to share thoughts and ideas collectively. Their input adds to the literature and was solicited specifically to inform the Montessori community.

Kovach (2012) reflected that research is fundamentally about learning and discovering new information; correspondingly, “method, methodology, and epistemology cannot be isolated nor work independent of each other . . . they make up an interdependent relational research framework” (p. 122). Interpretation and analysis follow suit, and while patterns and themes constitute facets of the evaluative phase, the contextual aspect of the information needed to be included and the knowledge kept from becoming isolated because Indigenous epistemologies are holistic and nonfragmented. Kovach asserted that the analysis ultimately becomes the responsibility of the readers to take what they need from the findings.

As presented in the conceptual framework, all aspects of this research reflect the importance of relationship. Respectfulness, collaboration, inclusiveness, interconnectedness, spirit, and integrity are values behind the actions that I believed were imperative for me to demonstrate throughout all phases of the research. These values exist within Montessori theory, Indigenous theory, and sustainability theory and continued to guide me in the analysis phase.

Indigenous scholars Walter and Andersen (2013) contended that methodology informs what data are collected and how they are analyzed and interpreted. The standpoint of the researcher, then, figures into how the methods become shaped; “Who is asked what, in what manner, by whom, for what purpose, and how those responses are then analyzed, interpreted, and presented . . . are more a product of that standpoint than they are of the topic of the research” (p. 56). The approach followed in the analysis phase of this study reflects shared perspectives in Indigenous and Montessori ways of being and doing.

This research involved gathering collective responses to the two dialogue questions and communicating them as a collective. The nature of dialogue is to open opportunities to share individual and collective consciousness in a spirit of discovery, free from fragmentation and judgment (Bohm, 2000). Themes and patterns were gleaned from repeated, thoughtful, and manual review of the transcriptions. I did not intend to distill nor ascribe more value to any particular insight. It seemed fitting to include what had been spoken in its essence because I cannot know what thoughts might become meaningful to the reader and did not want to exert that kind of authority.

Credibility and Trustworthiness

Menzies (2001), member of the Gitxaala Nation, believed that the analysis phase is crucial and must be done within the community and among the participants as much as possible. Kovach

(2012) proposed that “relational validity is only questionable (or suspect) if one’s worldview does not ascribe to it” (p. 103). I asked my coresearchers to participate in the analysis phase with the aim of strengthening the validity and vitality of the findings by having their input.

In discussing criterion for credibility or trustworthiness in Indigenous research methodologies, Chilisa (2012) maintained that credibility is established when the research participants recognize their thoughts have been represented and interpreted accurately. She invoked the need for the researcher to take time in evaluating the data in order to discern the salient aspects that have been discussed.

As someone who might be considered an elder within the Montessori community (based on the criteria used), I am mindful of the interplay this research required from me as the researcher. Citing Miles and Huberman (1984), Chilisa (2012) offered,

The trustworthiness of the [researcher] is enhanced if the following four conditions are fulfilled:

1. The researcher is familiar with the setting and phenomenon under study.
2. The researcher has a strong interest in conceptual or theoretical knowledge and has the ability to conceptualize the large amounts of qualitative data.
3. The researcher has the ability to take a multidisciplinary approach.
4. The researcher has good investigation skills. (p. 168)

It became my role as researcher to recognize these four conditions and weave the thoughts the elders shared into credible and valid findings that would be accepted within the Montessori community and the research design and methods accepted among Indigenous researchers.

Strategies for augmenting the credibility of this study included member checks, researcher journaling, reflexivity, bracketing, and other forms of triangulation. I journaled after each dialogue and other times deemed relevant. Logistics (location, food, time frame, equipment use)

were recorded as well as information that reflected relationships among the elders (**with me and the others**), any difficulties, embarrassing moments, the emotional tone of the dialogue experience, any surprises, any ethical dilemmas faced, or questions with which I was left (see Chilisa, 2012).

Bracketing requires the reflexive ability of the researcher and is the process of setting aside personal biases, preconceived ideas, experiences, previous research findings, and theories about the research topic (Creswell, 2007). Prior to the first dialogue, as the researcher, I provided written responses to the two dialogue questions to serve as a source upon which to return when checking my biases and prejudices during the analysis phase. My written thoughts provided one way for me to bracket my own perceptions in order to retain a fresh perspective on the study.

Bracketing can occur throughout the entire research process. Under the best of circumstances, bracketing is recognized as a fluid practice (Holstein & Gubrium, 2011). I mentally put aside my thoughts about the topic before the dialogues began; I considered the phase of data collection uncharted territory because I could not know what coresearchers would say nor in what context. I remained mindful and disciplined about what I voiced during any part of the dialogue session. During the analysis phase, I strove to venerate the context for passages elders had spoken. For me, bracketing became an interplay of what I was thinking, what I believed the elders were saying, and whether I was attaching meaning that might not be intended by a speaker.

How the data in this study became organized and presented was critical; I wanted several perspectives active in the verification of the findings. Bentz and Shapiro (1998) considered triangulated design to be representative of mindful inquiry. The dialogue participants, serving as

coresearchers to the extent they were willing, verified the transcripts from their own dialogue and later reviewed the analysis and findings discussed in Chapter 5 (see Appendix I).

One form of triangulation Chilisa (2012) suggested involves collaboration of two or more researchers (e.g., one Western and others Indigenous). I solicited two outside researchers to review the entire body of transcriptions with my analysis and findings (one Montessorian, one non-Montessorian). I relied on one of my committee members, Damara Paris, an Indigenous scholar, to help me navigate thoughtful use of Indigenous research practices and references. Another form of triangulation Chilisa addressed is using different theoretical perspectives to review ideas. Montessori, Indigenous, and sustainability theoretical foundations elevate the values of respect, relationship, collaboration, and inclusiveness that I attempted to honor in the analysis phase. Ravitch and Riggan (2012) saw triangulation as a “kind of jazz you create when you layer [the methods] on top of each other” (p. 74) more than how different forms confirm one another, a description that mirrors the process I aimed to follow.

Representation of the Results

Characteristic of the Montessori way of educating, stories that elders shared are found in the final representation, a practice Coulter, Michael, and Poynor (2007) determined was particularly effective for preservice teachers, one group this study intended to inform. Aleut scholar Mercurieff and non-native scholar Roderick (2013) explained an Indigenous perspective of storytelling:

Stories allow the teller to express whatever is most important and give listeners the latitude to take away whatever they are able to see or learn. Each person sees and learns different things from the same story. The story does not dictate the lesson to be learned; rather it creates the opportunity to learn whatever the individual is capable of learning. (p. 59)

Tachine, Yellow Bird, and Cabrera (2016) highlighted the use of story in Indigenous research. The authors also acknowledged how familiarity among participants in a sharing circle could enhance understanding of the stories told: “As facilitators we felt connected to the stories because we recognized and shared similar experiences with them and/or we had a prior relationship with them and therefore knew a little more about their lives” (p. 290). Storytelling is employed regularly in Montessori classrooms to convey lessons to the students, setting the learning in a larger context and striking the imagination (Lillard, 2005; see also Montessori, 1918). Among practicing Montessori teachers, stories become a regular part of instruction and conversation.

Summary

The strategies and conceptual and theoretical underpinnings discussed in this chapter support the practices undertaken during evaluation of the data. These included

- numerous readings over the transcriptions and reflective and unhurried distillation of the ideas expressed within all the dialogues;
- bracketing of my personal thoughts and reflections;
- coresearcher input after the analysis and findings phase to the extent each was willing;
- use of two independent/outside researchers who reviewed the work, ensuring my findings were represented accurately and thoroughly;
- upholding values reflected in the theoretical foundations;
- use of story in the representation of findings.

The identities, backgrounds, and experiences of the dialogue participants, key in establishing trust in the findings within the Montessori community, are provided in Chapter 4, established purposefully to acknowledge and honor the rich insights and perspectives these valued coresearchers contributed to this explorative study on the essence of Montessori and a teacher's effective implementation of the concept.

CHAPTER 4: ELDERS AS CORESEARCHERS

I considered contributors in this study as coresearchers, invited to participate as esteemed members and elders within the Montessori education community. The intent of the research was to gather insights from longtime Montessori educators (teachers, teacher educators, and administrators). The coresearchers were viewed as elders, similar to the designation afforded those in an Indigenous community— individuals who are highly respected and regarded, have an earned status for service and leadership within the community, are keepers of knowledge from the past, and are consulted on issues of interest or concern for their wisdom and insights. The elders or coresearchers in this study were recognized for their contributions in fostering Montessori education and acknowledged as role models and influential within the Montessori communities of which they are a part.

To capture the relevant and meaningful experiences of contributors for purposes of this research, a questionnaire was sent to the elders after all the dialogues had been held. In honoring the value of relationship, the questionnaire asked for demographic information that would be relevant to the study as well as feedback about participation in the research. Indigenous scholar Chilisa (2012) contended that the demographics should not remove a person from the context of their place or relationships of which the participant is a member; she wrote, “Demographic variables in the conventional research process seek to understand the participant independent of the environment” (p. 144). The goal for this study was to provide a picture of the coresearchers that would be meaningful to fellow Montessori educators, enhance the context of what coresearchers shared during the dialogues, and substantiate the value of their insights. A sample of the questionnaire is found in Appendix H and summaries of key data points are provided in Figures 4.1 and 4.2.

Experience in Montessori Education

Coresearchers in this study had a breadth of global experience, an impressive number of years spent in Montessori education, and experiences in all the different Montessori instructional levels. Their international experience, range of years of experience, and certifications in instructional levels are described in the next two sections.

International Experience

As a collective, coresearchers had worked with Montessori teachers in 30 different countries. The number 30 reflects countries with Montessori programs that had invited elders to work with teachers and does not include the countries of teachers who had traveled outside their native homes to attend teacher preparation courses. The map shown in Figure 4.1 visually represents the breadth of experience coresearchers had in working with teachers globally.

Some coresearchers had taught children in Montessori schools in countries around the globe (Czech Republic, India, Mexico, Russia, and Saudi Arabia) as well as worked globally with teachers. All coresearchers had taught children in classrooms in the United States (including Puerto Rico). The combined total of years coresearchers had taught children in the classroom was 502.



Figure 4.1. Shaded countries on the world map show 30 countries in which experienced Montessori educators, who participated in this study covering perspectives on Montessori, had worked with Montessori teachers and includes Montessori programs on six continents.

Range of Years and Instructional Levels

Years of experience in Montessori education refers to years coresearchers had held positions as instructors and/or field consultants in teacher education, school administrators, consultants to Montessori schools, in leadership positions within a Montessori organization (including accreditation team members), and/or in the classroom with children. The range of years of experience for each coresearcher included one contributor with 22 years of experience, one with 25 years of experience, nine contributors with 30 or more years of experience, five with more than 40 years of experience, and three with more than 50 years of experience. Total participants represented a collective 770 years in Montessori education.

Several contributors had taught in more than one level of instruction. The numbers of those who held certification (a credential or diploma) for each level, including Montessori administration, are as follows: Two held certification for the infant/toddler level, 15 held

certification for the 3–6-year-old level; eight held certification for the 6–12-year-old elementary level, two held certification for the secondary 12–18-year-old level, and two had certifications in Montessori administration. The certifications coresearchers held were issued by either AMS, AMI, and/or AMI–USA.

Nine coresearchers had received a diploma for teaching a certain instructional level from an AMI organization, and 14 had earned a credential from AMS; three coresearchers held certifications from both AMS and AMI. Acknowledging representation from the major Montessori organizations highlights participants' shared perspectives on the core principles of the Montessori concept.

Background Information: Montessori and Related

For the majority of coresearchers, English was their native language. For two contributors, Spanish was their native language, and for one, Urdu and Hindi were native languages. One's native language informs one's perceptions and realities. It seems noteworthy to recognize differences in language usage and understanding apart from the shared language distinctive to the Montessori approach. On several occasions during a dialogue, those whose native language was not English acknowledged limitations with language usage when they were expressing certain thoughts. Dialogue members did not seem to consider these language challenges an issue. I believe the non-English language perspectives, which appear slightly in passages shared in Chapter 5, enhance the findings.

The varied perspectives represented among coresearchers are summarized in Figure 4.2 and include coresearchers' years of experience in Montessori, instructional levels for which contributors held certification, the Montessori organizations from which coresearchers received certification, and the languages that were native to coresearchers.

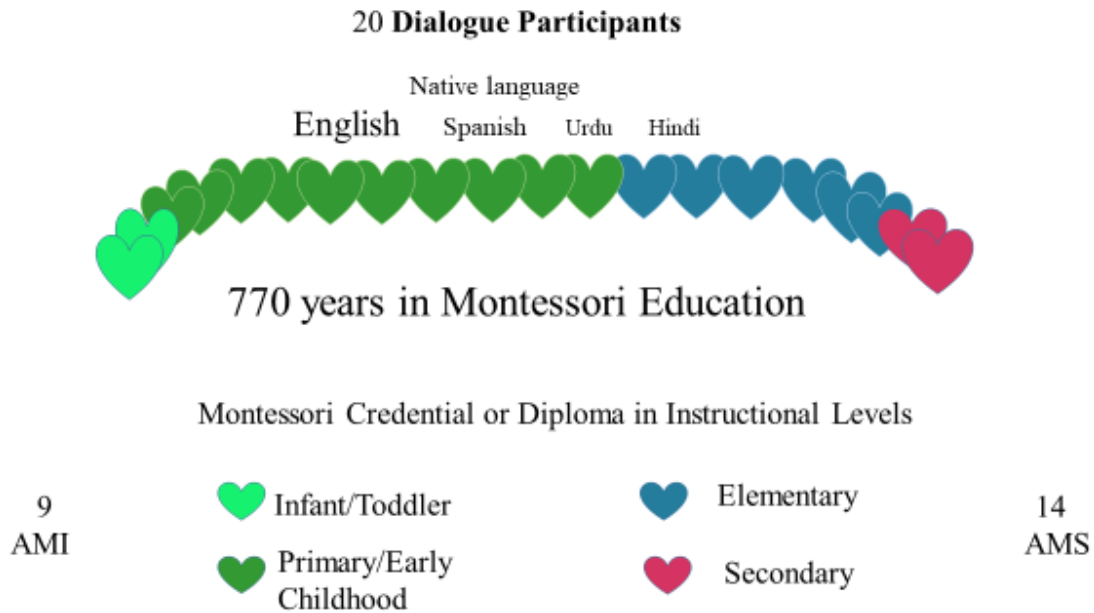


Figure 4.2. Coresearchers who contributed to the dialogues in this research about Montessori teachers represented perspectives from (a) four different native languages with a majority of native English speakers, (b) accumulated years of experience in Montessori education, (c) infant/toddler through secondary instructional levels,²² and (d) holding certifications received from one of two major organizations.

Private and Public Montessori School Experience

For many years, private Montessori schools were far more prevalent in the United States than were public Montessori schools or public charter Montessori schools. Over time, more Montessori programs have been added into the public sector, a move that has been celebrated within the Montessori community because more children are afforded the opportunity for a Montessori education. Nineteen of the 20 coresearchers had taught in private Montessori schools, four had taught Montessori in public schools, and three had taught in public charter schools. Ten of the coresearchers had held leadership positions in one of the major Montessori organizations.

²² Several coresearchers held certifications in more than one instructional level, as noted earlier. The representation in Figure 4.2 adjusts the numbers to provide as accurate a picture as possible when representing instructional level experience as a group of 20.

Ten had served on Montessori school accreditation teams. All 20 Montessori elders on this project were a parent of a Montessori child, and 13 were a grandparent of a Montessori child.

Education

Eighteen of the coresearchers had completed undergrad degrees; seven of these had a master's degree, one had earned a PhD.²³ The degrees coresearchers held represent a range of major studies. The list of majors includes science, sociology, philosophy, psychology, nutrition, mathematics, microbiology, music education, Foreign Service, English, French, German, education, dance, and creative writing.

Conventional Education Experience

Some contributors had experience in conventional education prior to working in Montessori. Experience outside of Montessori seems of value to note because that experience extended the frame of reference an elder had on education. Seven of the 20 had anywhere from one to 10 years of experience in conventional education prior to working in Montessori. In total, contributors had a combined number of 36 years of teaching experience in conventional education.

Coresearchers Named

The names of the 20 coresearchers considered Montessori elders are listed below, acknowledged with great respect and high regard. The list is created alphabetically by first name because it has been my experience in the Montessori community that each one is best known by her/his first name:

²³ Two elders held certification in the Infant/Toddler level. Until recently, one could receive certification for Infant/Toddler or ages 3–6 years' instructional levels without a college degree. Certification for all other instructional levels has always required a college degree.

Amy Henderson	Marge Ellison
Betsy Coe	Mary Loew
Charo Alarcon	Maria Bengoech
Dorothy Paul	Meher Van Groenou
Elaine Blasi	Molly O'Shaughnessy
Judi Bauerlein	Pat Schaefer
Judy Luman	Patti Yonka
Kathryn Miller	Sherry Herron
Kathy Anderson	Sonnie McFarland
Lynne Aiken	Tom Loew

Openly naming coresearchers and providing salient Montessori experience and background information about the 20 who contributed to the dialogues can enhance the findings and ownership of the research. I remain deeply grateful for the contributions of each elder whose time and participation made this research possible. The insights gathered during the dialogues from these 20 coresearchers is discussed fully in Chapter 5.

CHAPTER 5: ANALYSIS AND FINDINGS

This chapter discusses analysis and findings of the data collected to inform the question “What insights on implementing the Montessori educational concept can experienced practitioners offer to Montessori teachers?” I believe the collective voice of Montessori veteran educators, identified as Montessori elders and who were coresearchers, have the potential to add to the literature on this topic beyond what other scholars have written and what Maria Montessori offered in her rich and extensive writings, which are comprehensive yet not always easily accessible (see Chattin-McNichols, 1992; Gordon, 2007; Loeffler, 2002; Whitescarver & Cossentino, 2007). To explore the research question, the following two subquestions were asked to Montessori educators during six small group dialogues:

- a. What is the essence of Montessori?
- b. How would you describe Montessori teachers who are able to implement the Montessori concept effectively?

The six dialogues occurred over a period of five months (July 2016 to December 2016), involved 20 coresearchers, and were held in five different locations—four in the continental United States, one in the Czech Republic. These elders who participated in the research had a collective 770 years of experience in Montessori, had worked with Montessori teachers in 30 countries, and had experience in Montessori classrooms that covered all levels of instruction.

Analyzing the Findings

The two subquestions were considered during a two-hour session held for each of the six dialogues. During the first hour, coresearchers were asked to dialogue on the essence of Montessori to corroborate the shared foundation upon which to explore Question 2. After a short

break, Question 2 was posed during the second hour: How would you describe teachers you have observed or hired/worked with who are able to implement the Montessori concept effectively?

Dialogues were audiorecorded and put into a written text by an outside transcriber. After each dialogue, I listened to the audiorecording to ensure everything had been recorded and began the process of deeply familiarizing myself with what had been spoken. Once I received the written transcription for a dialogue, I reviewed the audiorecording and written text together, made notes or revisions as needed, then sent the written transcript to dialogue participants for their review and input.

The 20 elders who participated in the dialogues augmented the trustworthiness, authenticity, and integrity of the study by agreeing to be identified as coresearchers, reviewing dialogue transcriptions and checking and enhancing the analysis and findings as each chose. The discussion that follows reviews the process of analyzing the data, then presents findings on the fundamentals of the Montessori concept as identified by coresearchers and the reflections they provided about teachers who are successful in implementing the Montessori concept. In Chapter 6, I discuss the findings about Question 1 (the essence of Montessori) and Question 2 (effective teachers) examining what can be revealed using the philosophical underpinnings of Montessori theory, Indigenous theory, and sustainability theory that might enhance and broaden the context under which the Montessori concept is viewed.

An Emic and Constant Comparison Approach

The approach taken to analyze the data would be considered an emic approach (Li, 2011). As the primary investigator, I am a member of the Montessori community who shares the same experience required of dialogue participants or coresearchers. My years of experience in Montessori education exceed 20 years, I hold an AMS Montessori secondary credential, have

taught more than five years in a classroom, and have worked as a field consultant or classroom instructor in Montessori secondary teacher education for over 10 years. The nature of this investigation was to tap into the wisdom and insights of experienced Montessori teacher educators or administrators. Sharing similar perspectives with the coresearchers for this investigation was considered advantageous to (1) establish trust among the coresearchers, (2) understand the nuances and insights that would arise throughout the dialogues, and (3) report the findings faithfully.

The process used to assess the findings was similar to a constant comparison approach that involves memo writing, close reading and rereading, and creating displays and diagrams to make meaning of the information (Boeije, 2002). To review the complete set of data, the first step involved separating the written dialogue transcriptions for Question 1 (the essence of Montessori) from responses given for Question 2.²⁴ One document was created that contained all the transcriptions for Question 1; a second document combined all responses given for Question 2. Designations for each dialogue remained in the merged documents to accommodate return to responses for clarification or context orientation if needed.²⁵

At the end of each dialogue, contributors were asked to take a minute and then share a takeaway. Two additional documents were created to consolidate what elders said as their takeaways for each question, respectively. I separated the takeaways because by their nature, takeaways often elicit broader and deeper reflections of the content discussed and/or address the process and experience as a whole. The transcriptions, bundled by question, were then read and reviewed numerous times. The familiarity gained through repeated readings proved beneficial; as

²⁴ The merged documents for both questions totaled around one hundred pages.

²⁵ For instance, D1, D2, D3, etc. were used to designate dialogues in their chronological order.

I began writing up the results, passages that seemed connected came to mind even when those connections had not been noted initially. The process I followed to organize the content of the dialogues into patterns specific to each question is described where findings for each question are discussed.

The overarching goal in reporting the findings was to capture the essence of what was spoken during the dialogues accurately, sensitively, and at times, directly. My task was viewed as describing what an elder said in a way that incorporated the context and spirit of intent as much as possible. I felt my responsibility was to report rather than interpret what coresearchers said, though there are elements of interpretation based on the experience of witnessing the entire dialogue, the flow of ideas, hearing the inflections and tone of voice used, and my own knowledge and beliefs about the Montessori concept. Once I began organizing the information into key concepts, I periodically referred to the responses that I had written for each question prior to beginning the dialogues, a form of bracketing, to check my own biases.

Alignment With An Indigenous Research Paradigm

An Indigenous research paradigm considers the ontology, epistemology, axiology, and methodology as one and thus inseparable. Wilson (2008) explained the essence of the Indigenous paradigm as relationality:

Just as the components of the paradigm are related, the components themselves have to do with relationships. The ontology and epistemology are based upon a process of relationships that form a mutual reality. The axiology and methodology are based upon maintaining accountability to these relationships. (pp. 70–71)

Throughout the analysis phase, it remained important to respect and foster the relationship with and among the coresearchers. As the researcher and a member of the Montessori

community, I have a vested interest in the integrity of the methodology and the usefulness of the findings to the coresearchers and Montessori community at large. My intent was to demonstrate to the elders the respect, reciprocity, responsibility, and relevance requisite in Indigenous inquiry (see Weber-Pillwax, 2001, 2004). I feel accountable to the elders in the dialogues and to Indigenous researchers whose work and personal support I wish to respect. The following sections review how the process of analysis and reporting of the results are congruent with the research methods and paradigm.

Bohmian dialogue. Bohm's dialogue method reflects principles of relationality and holism (Bohm, 2000; Parry, 2015) found in Indigenous research approaches (Perkins, 2007; Wilson, 2008). The dialogue method is similar to Indigenous sharing or talking circles that have been used among Indigenous groups for thousands of years (Parry, 2015). The purpose of Bohmian dialogue is to think openly, respectfully, and nonjudgmentally together. Bohm (2000) explained the purpose behind the dialogue:

Conviction and persuasion are not called for in a dialogue . . . There's no point in being persuaded or convinced . . . If somebody has to persuade you, then there is probably some doubt about it . . . [When] all share a common meaning, we [participate] together . . . [Dialogue becomes] something between the individual and the collective . . . It's a harmony of the individual and the collective, in which the whole constantly moves toward coherence. So there is both a collective mind and an individual mind, and like a stream, the flow moves between them. (p. 27)

For this type of dialogue to be effective, having trust among dialogue participants was essential (see Bohm, 2000). Contributors within each dialogue group had an established trusting relationship. My relationships with the coresearchers were built upon mutual respect and similarities in teaching experiences, and this association helped establish elders' trust in me. While the integrity of the researcher remains paramount in all forms of research, I remind about

the relationships of trust requisite for this type of dialogue because in the analysis and reporting of the findings, it was crucial to honor these trusting relationships that would extend beyond the scope of this study as well as honor the principles of respect and relationship essential in Indigenous inquiry.

Trustworthiness. Trustworthiness and credibility in Indigenous research methodologies are maintained when research participants recognize their thoughts have been represented accurately (Chilisa, 2012). Fifteen coresearchers read and affirmed the analysis and findings. One offered a few grammatical and word usage edits that I incorporated into the narrative. One other requested to rewrite one of her passages to more accurately explain what was intended. It was the prerogative of the coresearchers to correct anything they felt needed more clarification and their corrections were incorporated. The two outside researchers who were used to further substantiate the analysis checked the findings with the entire dialogue transcriptions and agreed with the results.

Reporting the Findings

Dialogue participants had been informed their responses would be revealed in the study as a collective; direct passages or specific perceptions would not be attributed to individuals (see “Invitation to Participate” and “Consent Form,” Appendices D and F). Direct passages that are cited are kept anonymous; phrases such as “one participant said” or “another coresearcher added” indicate a change in speaker. There are direct passages used from every elder; it was important that each coresearcher could recognize their voice in the results. Fifteen of the 20 contributors chose to read the findings and analysis chapter; every one of the 15 affirmed the findings (see Appendix I). The use of ellipses in a cited passage indicates a need to reduce the

length or a removal of superfluous phrases or proper names. The words in brackets replace pronouns or clarify phrases an elder spoke that might not be apparent to the reader.

The thoughts elders shared revealed their own stories and often included anecdotes imparted to illustrate meaning in what was being said. Sharing coresearchers' stories are in keeping with Indigenous research views on use of story (Mercurief & Roderick, 2013; Paris & Wood, 2002). As with any use of story, some of the meaning making is left for the reader. In the takeaway reflections for the first dialogue, for instance, I intentionally avoided assigning categories to the final reflections in an effort to reflect the experience of dialogue and the essence of storytelling, allowing readers the room to ponder those closing thoughts without my interference.

Question 1: The Essence of Montessori

Dialogue participants knew that the subject of the research was to look closely at Montessori teachers and did not know the specific questions ahead of time. Question 1 was asked to reveal the philosophical foundation in the dialogue group upon which the query into teachers would follow. The prompt I gave for Question 1 was similar in each dialogue. An example of the opening to Question 1 follows:

The first question is very broad, and certainly, it can be considered a reflective thought provoking question that might warrant having told you before you came. And I feel confident that it's a question that each of you will be able to respond to just now hearing it. So for the first question, what I would ask is that you just talk about what you think the essence of Montessori is. And the goal of this is to get as many perspectives, so there are no wrong answers. Nor would our dialogue be the same if we were to do this tomorrow, and so we're collecting what comes out today. So

following the dialogue guidelines we've reviewed, please think about what is the essence of Montessori.

To assess responses, Question 1 in all six dialogues that had been merged into one document (40 pages) was read two additional times, marking at least the fourth read of the transcriptions. Handwritten margin notes and highlighting winnowed down remarks into loose categories. Notes were made when I saw one comment that connected with another comment in a different dialogue. Next, a chart with columns designating each dialogue was created to record all the main notes and highlights. The chart provided a way to view the responses in a combined and more organized way. A review of the chart found similar ideas across the six dialogues with varying elaborations and perspectives.

Some elders integrated into the discussion what they referenced as essential Montessori *methods*. Montessori theory and methods are inextricably connected. Not surprisingly, similarities intertwined with one another and were apparent in the review of results. The dialogue characteristically flowed and comments appeared to evolve off one another, moving from focus on one aspect that prompted an integral relationship with another. A depiction of what elders described as the essence of Montessori is shown in Figure 5.1. The figure illustrates values elders attributed to the Montessori educational concept that reflect how Montessori essentially becomes a way of life.



Figure 5.1. During Question 1, coresearchers in the study on Montessori perspectives cumulatively described that the essence of Montessori becomes a way of knowing, being, and doing—a way of life in the classroom and outside the classroom cultivated over years—that is full of respect and values the child, community, the Montessori prepared environment, interrelatedness, peacefulness, and love.

The perspectives offered for Question 1 provided the philosophical base established by the coresearchers. Responses to Question 1 revealed information relevant to the question that followed about teachers who are able to implement the concept effectively. The recorded responses have been consolidated and relay numerous reflections from the transcriptions with select passages represented directly. Passages taken directly from the transcripts are cited in quotation marks and are not ascribed to a particular elder. Use of ellipses indicates the need either to reduce a long passage or to omit superfluous phrases or names. Brackets replace pronouns or clarify phrases a reader might not understand.

Way of Life

This discussion about the essence of Montessori begins with how coresearchers determined that Montessori essentially becomes a way of life. Way of life refers to a way of thinking, being, and doing that incorporates Montessori principles inside and outside the classroom. One elder said, “[Montessori’s] just a natural way of doing and seeing things and receiving things.”

Coresearchers described a way of life that demonstrates respect for all living creatures, honors children and their role in the evolution of humans, maintains the importance of community and of the need for psychologically and physically prepared learning environments, sees the interrelatedness of life, exemplifies peacefulness, and shows love by supporting others.

Contributors indicated that Montessori becomes a way of life when the respect demonstrated in the classroom becomes the standard of respect in interactions outside of school. The same pattern could be said for the other descriptors. When a high regard for the development of children and a sense of community and a caring mindfulness is given to learning environments, when the interconnectedness of everything in the world and holding peace and love for others become manifest outside the classroom, the Montessori concept becomes a way of living. The viewpoint and values that elders described reveal how Montessori becomes a way of life for teachers and how, as elders expressed, Montessori principles might guide learning and living for students who experience Montessori education in their formative years.

One coresearcher said in her first response to Question 1, “I see it as a way of life, a way to look at the needs of not only individuals but communities. A way to behave in your own life.” Another explained, “To be the best Montessorian it comes from within. It’s not just because you study it, it’s not just because you read it, you live it.” One elder added,

But living this philosophy, this educational philosophy, does ask you to take responsibility for yourself and asks you to allow everyone around you to take responsibility for himself or herself, and to honor that. And to be present if they ask for your support but to not . . . in other words, codependence completely disappears in a Montessori environment.

Coresearchers often coupled their thoughts about Montessori being a way of life with the term transformation. Transformation appeared to imply a transition that in essence signals a raising of one's level of consciousness or mindfulness and manifests when Montessori principles begin to guide one's way of living. More is said about the teacher transformation when Question 2 responses are addressed. For purposes of reviewing transformation as a factor in Montessori becoming a way of life, the following extracts are included and reveal that transformation refers to possibilities and insights in thinking that emerge when a change in perspective on life occurs. The passages describing transformation come from several different dialogues:

You become aware of possibilities that you never thought of before. And I think that's a big essence of Montessori too because you know it is, you know the transformation of the adult.

I think you change as a person but it's always your, kind of, your responsibility then to help the child develop in that same way of all those intangible things that aren't part of our educational system, that we really want to help that child develop in his own life. And in doing that, I think you do that yourself in your own life.

The whole essence of it is in the child, in the elementary child and in the adolescent that it's not within the adult, and yet the adult has to be transformed in order for the transformation to occur in the child. So there's this denial in a sense of self that is extremely powerful and transformative. When you get that at a certain point it's just like, whoa, it's a different way of looking at life. And there you come to your original definition. It is a different way of living.

Another area is Montessori penetrates every part of your life. It's not about school, although that's where we probably introduce it and teach it, but most people who've been in Montessori long have learned how to take those principles and put it in every part of their life and see everything from a whole different paradigm or a perspective. And that, to me, is part of that transformation and that shift happens.

As I watched and listened to the elders talk about a transformation that can occur and how Montessori becomes a way of life, everyone in the dialogue group seemed to be nodding their heads in agreement more than when other aspects were spoken as an essence of Montessori. Their responses indicated to me a deeply felt belief of why Montessori education is important and why, as many said, they wished that every child could have Montessori. The attributes or values that coresearchers suggested represent Montessori as a way of life are elaborated below and include respect, focus on the child, community, prepared learning environment, interrelatedness, peacefulness, and love.

Respect. Respect as an essence of Montessori philosophy was described as reciprocal in that it is given and received between children and their peers and between adults and children. This phrase reflects the coresearchers' larger view of respect: "An essential thing for Montessori . . . is profound respect for life in all its forms including nonliving . . . and that profound respect is . . . in a way the motivation for the rest that comes." At the crux, respect seemed to be directed toward the child as a human being, or as one said, "Within the child is already the man he will become." That elder continued,

I would see a 3-year-old in absolute hysteria, a tantrum, and I would think within this little boy is already a ninety-year-old man. How would I approach a ninety-year-old man having a screaming tantrum? . . . And if I look, now, at this, you know, six foot fifteen-year-old, within him is already

the ninety-year-old man. And so I think the essence of Montessori is respect. Respect for the individual, respect for his autonomy, spiritual nature, his wisdom, his soul.

In another dialogue, a coresearcher pondered,

The word essence means the heart or core of something . . . At the heart of her philosophy is the idea of respect. To respect one another, one has to appreciate the uniqueness of the humanity of that person, to accept they are not you, have not lived your life story, yet are made from the same star-stuff—thank you Carl Sagan—as yourself.

As a dialogue continued, the idea of respect often resurfaced with these clarifying thoughts: “What does that mean? What does that look like? Does respect mean [children] do whatever they want? A lot of misinterpretation comes in of respect, which I do think is the essence of Montessori.” To answer those questions, the discussion turned to meeting the needs of the children as a whole class or one child, depending on what was appropriate in a given situation:

Sometimes those needs are elemental: If [the children] can’t function independently then be very directive. If they can’t choose, don’t give them choice. If they *behave* [stated emphatically] as if they can’t finish their work, tighten the structure until they *experience* [stated emphatically] completion, then raise expectations slowly. Et cetera.

The ways respect manifests in school encompasses how children and adults treat each other, treat the materials in a classroom, and everyone’s work space. One coresearcher offered, “Children know to carefully walk around the rugs where someone is working.” Having respect, some pondered, seems to foster self-awareness within the child and often brings greater self-awareness for the teacher by watching the child. It also was noted that a respectful environment creates peacefulness for children as well as for the teacher:

Every child and adult feels respected that they have a peacefulness about them. They feel like they are seen, heard, people care, they count . . . I think in a Montessori environment, we're very cognitive of treating each child not as an adult but as an equal person.

As an essential in the Montessori concept, respect includes respect for self, others, and one's work and encompasses a larger view that honors every living being as part of the entire living family. The omnipresent role respect plays in the overriding philosophy was affirmed frequently and essentially was cited as a basic tenet within all the dialogues.

Focus on the child. The phrase *focus on the child* intends to represent the depth of view held among coresearchers about the value of each child or adolescent with regard to the whole of humanity. A coresearcher used this phrase in her initial response to Question 1: "My first thought in response was the child, the focus of it is on the child." Another coresearcher referenced the love for each child because of "what that child represents as a possibility in our humanity."

These elders understood Maria Montessori, who wrote about the child in a global context with great attention. The essence I heard elders invoke appeared to include and go beyond the concept of constructivism and a learner-centered approach, as Maria Montessori also did.

Comments about fostering independence in children factored into how the child is at the fore in the Montessori perspective. The environment of school should be a place where children, as one coresearcher explained, can "figure out who they are, understand having choices, be joyful, self-directed, and stay motivated to learn." Beginning with the youngest children in a Montessori environment, the intent is to show respect for the child in as many ways as possible.

Thoughts about the child being at the center of the philosophy circled back to the paramount role of the teacher who creates the environment for the child and ensures the learning process assists the child, while remaining, in essence, on the periphery. Another contributor expressed,

Once the adult facilitator pays attention to the essence of that power of the child, that respect, then it's clear that their task has to be to set up an environment for this child to function in and then to facilitate and respect the child in that process.

All contributors in the dialogues in some way seemed to acknowledge that in Montessori education, the directive is clear; it is the child who is at the center, and a teacher/guide exists to serve each child and establish a classroom environment where each student can thrive. I noticed that the tone of voice used when elders were discussing the child seemed filled with a deep reverence, signifying what appears as a core spiritual belief within the Montessori concept.

The essences of Montessori begin to reveal an interconnectedness. Focus on the child in the Montessori concept brings in the importance of respect and the importance of the prepared environment. Attending to the development of the individual child/adolescent seemed to hold a direct relationship with the importance given community.

Community. Community refers to the sense of belonging felt among students, students and teachers, faculty and staff, and relationships among those groups and their families. The importance of a sense of community beyond the school setting (local, state, country, world), elders noted, is raised with students as they grow older and become more able to recognize and embrace expanded views of the world.

Coresearchers representing all levels of instruction talked about the importance of having a time at the beginning of the school day when children/adolescents come together. One contributor noted,

I think in the elementary class [the essence] looks like having a class meeting at the beginning of the day, you know, so that they know what to expect, everybody gets to contribute, there's acknowledgments, news. Kind of the start of the day. We're a team, we're gonna all work together.

Another recalled how on parent day, even very small children appeared comfortable, confident, and prideful as they showed parents around the school campus. It was offered that when children feel loved, accepted, and successful, they exhibit feeling and being “a part of a community which is also part of the essence.”

With regard to the importance of community, one elder made sure to explain,

We want independent people that move independently, that choose independently, that think independently. But then I thought you know the reason why we want the children to develop this independence, this individual independence, is so that they can learn that they live interdependently with everybody else. So there's that, you know, but in order to be able to appreciate your role in that interdependent web, first you have to understand yourself and what you are capable of doing. The essence . . . is yes, we want the child to be independent, not so that he doesn't need anybody but precisely so that she can understand how much she's needed and how much she needs everybody else.

Another coresearcher continued,

And Montessori . . . talks about the movement from independence, but it's being developed all the time of course in a social setting. It's not in isolation. But then the movement towards the consciousness of interdependence. And then the further stage is what she calls solidarity, this concept that you know we're not only dependent on one another but we are, I think Gaia or something like that, we are one solid base of humanity working in collaboration with everything else.

The importance of understanding one was part of a community appeared to be a vital aspect of Montessori that is cultivated daily within the classroom, celebrated on occasion within the entire school, and extended to the community outside the school as a child grows older.

The prepared environment. Deemed by some as the heart of the method, the prepared environment refers to the physical and psychological environment of the classroom. The physical aspects of the environment comprise the learning materials that one coresearcher described as “beautiful, durable, accurate, safe, and age appropriate” as illustrated in Figures 1.1 and 1.2. The prepared environment also includes, as one interjected, “not just the materials but the [trained] adult.”

The use of multiage groupings in classrooms afford children an opportunity to start out in a classroom, one coresearcher described, as the “rookies that don’t know how things work, where things are, what are the rules, and then gradually becoming the leaders, is an experience that they take with them forever and draw strength from that.” Highlighting the importance of using developmental stages to determine the multiage groupings in the prepared environment, another contributor maintained,

The emphasis on the prepared environment is an essential . . . But understanding of the stages of development and key characteristics of each stage are *the* [emphasis made by speaker] essential components . . . Very fine Montessori can be and is being practiced in various parts of the world under sparse or Spartan material conditions. By contrast, there are elaborately equipped classrooms and schools without much evidence in the activity of the children of much understanding of bedrock Montessori principles.

Continuing to address the use of developmental stages in grouping students, this declaration was made:

The essence of Montessori is in the application of her keen and enduring insights describing the stages of human development from birth to maturity, and the differentiated psychological characteristics of each stage. These insights lead to a first principle that not only sets the tone and direction of our work, but puts her in stark contrast to most educational practitioners . . . Almost all

educators ask, ‘What should our children learn?’ This question drives the curriculum specialists, who in turn set the agenda for teachers [to] deliver this content on this timetable. Where is the regard for the learner, for the essentials that develop deep knowledge and mental agility—motivation, choice, experimentation, cooperation, and reflection? Dr. Montessori by contrast suggests that the first question is ‘What is the nature of the learner?’ When you start with this sensible question the paths of developmental education and standards-based learning diverge quite quickly and dramatically . . . Understanding these essential principles generates the creation of distinct prepared environments for the different stages.

One elder believed, “The heart of the method is really choice. . . . It gives [the child] a sense of their power and their own ability and that’s what I think is the magic of the system.” Another continued, “[The prepared environment] is that solidifying the intrinsic motivation in the child because they do have the opportunity to have free choice . . . in the environment and their interactions with . . . people in their environment.” In relation to having choice and longer, uninterrupted work periods, one contributor added,

I think . . . because of the kind of endless time that these children feel in these environments and that they can rest when they need to, which you know we all need to do after a big piece of work, I think they dig deeper into things than some of the traditional ways of educating children where the time is really broken up. And I think from my own experience I learn much more deeply when I really can have a lot of time to think about and investigate something . . . and I think it’s you know very essential. You said what’s the essence of Montessori, I think that time, that endless time is really essential. And children feel it.

The way a prepared environment might impact a child was noted with this example:

I’m thinking about this one example with a child who had been in three different schools and they said if he didn’t make it in Montessori . . . he entered the fourth level [grade], he would have to go

to juvenile. He found such power in taking care of the animals. It was amazing. And through by being able to do that he then was able to begin to work beautifully within the environment and with other students.

The physical and psychological classroom environment is maintained and orchestrated by the prepared/trained teacher, both aspects (e.g., instructional materials and learning atmosphere) kept responsive by the teacher/guide's ongoing sagacious observation that requires, as one stated, "standing back . . . clearing your own mind . . . honoring the spirit of that child . . . so you know you can give [the children] what [each needs]." Specific references during the dialogues were made about the importance for a teacher to be spiritually prepared in the sense of cultivating her/his own centeredness, being able to be present with the children, and becoming selfless when considering the child as foremost. One participant described the directive for a teacher this way:

Montessori says to observe a child you need to put everything aside and you need to be here and now with that child . . . So our mission statement for our training program is, develop what gifts reside inside the student-teachers for helping children in their self-learning. Most important of these qualities that we intend to nourish is an intuitive quality of attention. In its presence we will experience openness to the child's spirit and heart and receive its trust in return.

Overall, coresearchers indicated the prepared environment is organic in the sense it is dynamic yet critically structured for a consistent sense of beauty, order, and routine based on the developmental needs of the children in the classroom. One elder referenced Maria Montessori's sentiment saying, "A child is like the acorn which has the possibility of this beautiful, large oak tree. And for that oak tree to grow it must have the right environment." The essential prepared learning environment that coresearchers described seems rooted in grouping students according to developmental stages and is multifaceted, while appearing as a single key aspect.

Interrelatedness. The ideas elders pondered with regard to interrelatedness referenced the design of the Montessori concept, what children experience, and how the philosophical foundation recognizes that everything in the world is interconnected. Interrelatedness was invoked when discussing the holistic approach of the Montessori educational design that considers the social, emotional, cognitive, physical, and spiritual aspects of the child/person in each phase of development, the transdisciplinary continuum of the Montessori curriculum from birth through 18 years, and the importance in education of having teachers, administrators, students, and parents work in concert with each other. One coresearcher recalled realizing Montessori held a larger view of the world that recognizes everything is interrelated:

[Maria Montessori wrote], ‘We shall walk this path of life for all things are a part of the universe and are connected to form one whole unity.’ That’s page nine in *To Educate the Human Potential* and to me the interrelatedness of everything was what drew me to Montessori . . . the expression educating children to be citizens of the world just made sense to me . . . So I think the interrelatedness [reflects the essence].

While the reference to interconnectedness usually pertained to how this essence manifests in a teacher’s ability to grasp the integral aspects within the Montessori philosophy and curriculum, some mentioned the interrelatedness children experience in the classroom, alluding to the philosophical continuum found throughout the levels of classes:

They’re able to be in an environment where there’s interrelatedness. They see they’re a community you know in toddler eyes and then when they go to the primary class they get to experience that again. I mean how wonderful is that? What a gift that is.

It appeared the interrelatedness about which elders spoke referenced tangible and intangible aspects about the Montessori educational approach, indicating the concept is complex and difficult to express or convey.

Peacefulness. Peacefulness is an essential of Montessori. The coresearchers provided several perspectives. One spoke, “What comes to my mind first is the peaceful approach, the whole aspect of human development from the beginning . . . really encompasses all of that.” Another noted, “For me the essential part is to the education for peace.” The elder continued to explain that the dimensions realized within the concept of education for peace include the student “feeling powerful and good about yourself that you’re able to do things . . . and then having a sense of their place in the universe.”

Peace as essence appeared to refer to one’s inner sense of peace and occurs with routines, feeling trusted, trusting others, and practicing silence.

One contributor remarked that when children are “learning what they want and learning how to accept not always getting what they desire, they are learning peacefulness.” Children, one explained, need to be prepared

not only educationally and academically but being at peace themselves [which comes] if they have that same trust in their environment at school and the patterns and the routine and always knowing what is supposed to happen at school . . . the routines that puts them at peace so they can come in and really be ready to . . . do all the things that you do in the classroom.

Elders acknowledged that practicing silence in Montessori education begins with the very young children to help them feel a sense of their inner peace. Often the teacher of younger children will play what is known as the silent game with the students. During the game, children are challenged to remain silent for a short period of time, and space is given for each child to

note and feel the effects of silence throughout the entire classroom. One contributor illustrated the essential of allowing time for silence during an event she experienced with adolescents:

To get a little bit of an understanding of what Montessori was, [these adolescents] were brought to the training center and I wasn't used to these kind of big clunky people . . . and they came in and they went through the food we had for them within five minutes and then we did a silence activity. And at the end of it I asked them how it made them feel and they said so wonderful, can we do this again? They said my life is so scheduled; I'm always having to do something. So when they came back we did it again. So that ability to just be and be silent I think is really profound in Montessori's work.

The elders who acknowledged the role of peace as fundamental in the Montessori concept brought in varying perspectives. They discussed the importance of peace as connected to students feeling successful in their work as well as the practice of providing time to honor silence and help students gain access to their inner selves.

Love. Love can hold many different connotations, and one elder noted what several others said when referencing love: "Love is not a fluffy feeling around the hearts . . . it is willing the good of another . . . that's why you cannot like a child and still love a child." Another contributor speaking about love explained,

For me the essence of Montessori was love. When I think back as to where did it begin for me and it was with my own child. So it was trying to find the perfect place that I knew my child would be accepted and supported and loved, and just wrapped in a space or environment of positive growth and encouragement. I mean that's really where Montessori became for me not education, but Montessori.

One coresearcher repeated what Maria Montessori said about the love a teacher must cultivate: "The Montessori teacher has to be in love with the universe because the child is in

love with first his world, and then as they get older grow to encompass the whole.” In another dialogue, an elder echoed that the essence of Montessori “comes from within the heart to embrace and nurture the human potential.” One contributor described love as “that love and passion that [teachers] have for life.” Another elder elucidated,

What comes to me in this question is love. That it’s about truly being able to work from a place, as a teacher or an administrator, coming from a place of as much love as one can come forward and it shows up as respect, but it’s coming from a love place . . . And to me that’s the very, very key, is to have an environment that is safe, that is filled with love, and the respect . . . that is the deepest key in how I see Montessori.

Several talked about how important it is for children to feel love when they enter the classroom, equating a feeling of being loved to having a sense of emotional safety that can foster feelings of trust. An incident that was shared in a 3- to 6-year-old classroom captures the expressed belief that when children feel safe—indicated as feeling loved and respected—their ability to trust and sense of empowerment becomes augmented:

Yesterday I said you can ask so and so for help and she went over and said will you help me open the drawer? It was a recycling door to put the paper in. And the little girl [who was asked to help] just said no and sashayed away. And she came back and . . . [said] she said no. And I said ah hah, sometimes people say no and sometimes they say yes. And we looked at who else might help us. But you know that could have closed her down in a moment and instead we just kept going through and she found someone and it became something that she took control over . . . that didn’t work, what will work next? . . . becoming a strong enough person to be able to say let me move forward. Montessori . . . gives you the depth of trusting yourself to keep going . . . for me that’s really the essence.

One contributor referenced the peace curriculum she and others in the group had created. In their presentation, peace is illustrated by the lotus blossom and the petals represent four areas of awareness—self, others, culture, and environment. At the center of the flower is spirit, which is viewed as love. She continued during the dialogue,

So I think that spirit in the middle it's what guides all the pieces. Your attitude and your openness and your love of everything . . . and the love of learning that it's all a discovery, not something to memorize or to you know check off the list or whatever.

Coresearchers seemed to convey the importance of cultivating love within oneself and that the love for each child manifests in the dedication to foster a child's development in positive, accepting, and supportive ways, with a loving heart, even if you find a child's personality is difficult for you. Circling back to the fundamental of respect that all elders seemed to view as the best single way to describe the essence of Montessori, contributors voiced a belief that respect is grounded in this kind of love they had described.

Dialogue Question 1 Takeaways

Throughout the dialogues, it was noted that Montessori is complex, and that it takes time to absorb the essence. Question 1 appeared to resonate meaningfully with the participants, most of whom acknowledged the essence remains elusive and is a question they often contemplated. One contributor noted,

I think it's an essential question, and it's a question that I have been thinking about for many, many years. And I'm not sure that I have quite come up with those bullet points . . . I'm thinking of you know we visited . . . [an] outreach center . . . last year, and we went to this homeless shelter with a woman, a passionate woman who started Montessori with the help of the [named city] course. And these kids sometimes come for a couple of hours once a week, twice a week, three times a week,

and the testimony of the woman and the changes it made in the children with such a small amount of time with such an incomplete environment really made, I think all of us who were there think about this [what is the essence of Montessori] in another way . . . And it makes me think is there something so fundamental that speaks to what you said . . . so fundamental that we haven't really defined yet.

At the end of Question 1, elders were given a minute to ponder a takeaway and then share with the group (with exception of one dialogue due to time constraints). Because responses were generally short in length, their main thoughts can all be shared.²⁶ It seems fitting to leave the reader to contemplate these takeaway reflections, mirroring that experience of dialogue.

I think I've answered the essence of Montessori question a lot, and I never can ever, and I don't think I ever will, and I'm not sure it should be that there's just one thing. It's so many things that are, they lead to one another. So even though I talk about the essence of Montessori a lot it's still really hard.

My takeaway is the still always communication because that's what leads to being peaceful inside so that you can be intentional with your communication but also with your receiving information . . . and I guess the first thing that I think of is that it really is a lifestyle that it becomes a true part of your whole being, not only just your own self but the connectivity with everyone involved in it in your network or circle or wherever.

I've spent my life experiencing it but it's hard to package it.

²⁶ When coresearchers mentioned proper names in their takeaways, those names were omitted. A few covered specific thoughts about teacher training, and those are included in the "Describing Effective Teachers" section with regard to teacher educators.

Really working and believing in the connectedness of all things. And the importance of understanding that . . . the beauty of the awe of a child, and . . . self-awareness, learning about yourself and thinking about everything that you do in a perspective of the big picture.

All what we have said in a different maybe perspective it's to see the more realism into what we experience in our life as Montessorians, because everything is a different reality . . . to listen to all these things and to feel them . . . it's a real significance, and . . . to feel this greatness with your children and other children it makes me come to my own experience . . . but in another perspective.

Montessori is not materials, it's a culture. And it's so clear to me as we sit here talking . . . there's such a commonality of understanding . . . that's very powerful really, to have the collective minds, whatever our, and I would say . . . I respect all trainings that have the children as their base. That's my criteria . . . you know when I look at all the many different groups that do training I would suspect that . . . we could sit around with people from many different structures and we would all feel that we shared a vision; a vision, but then also we shared something about the path to realize that vision.

My real takeaway from this is how bonding it is to be Montessorians . . . we speak a language and have an understanding that transcends really everything . . . And we have this essence, as we started off the question, essence of Montessori that bonds people together. And that bond is really strong. And I just had that feeling again as we were talking that I've had so many, many times . . . So I think that my takeaway is that Montessori has this real important power to bring the essence of love together.

I think just the ability for . . . us to boil this down to that word respect and respect for the children, respect for our work and what we can do for the children.

If I had to land on one word or one concept it was respect, but then as I was listening . . . I realized that it's a different, more powerful respect and it's grounded in love because it's broader and

deeper. It's respect for the children . . . it's as if you belong to in a sense a cocoon of respect in this world that is bonded in love and is powerful . . . it's with the adults as well as the children.

I would say considering everything that we've talked about I think what has the most meaning for me is this unfolding. I see it as you know for the children that you work with, for the adult learners, for ourselves, and for any relationships that we have . . . Montessori is a way of life so to speak . . . personally with my husband I've been able to see that over the years, and it's very beautiful. And I feel very blessed.

I think my takeaway is awe and wonder that leads to the curiosity and the spirit . . . whatever you want to call it. Love that penetrates everything and connects everything together.

I think this love even in a greater sense is like a love of life, a love of everything. The world, the interconnectedness, and just that lifelong desire to learn more and build that unfolding . . . to want to be a part of it and to be aware of all of it.

Well that comes back to that I feel very connected in that place, at that center truly is finding that love and that joy within ourselves because then we can share it.

Coresearchers appeared to believe that Montessori essentially becomes a way of knowing, being, and doing that exhibits respect, peacefulness, and love and embraces the interrelatedness of everything. Montessori as a way of life appeared to mean having a viewpoint that values each child for their place in the universe, the importance of community, and learning environments that attend to developmental, physical, and psychological needs. The elders seemed to believe that for Montessori to become a way of life, most people undergo a transformation that leads to viewing the world with a deeper level of consciousness.

Question 2: Describing Effective Teachers

To introduce Question 2, it was important not to offer any more guidance than necessary for elders to respond; I did not want to prejudice the responses. Coresearchers knew to follow an AI approach, which had been explained in the initial invitation and was reviewed at the beginning of the dialogue. An example of the prompt for the second dialogue question is:

For this next period I would like for you to focus on teachers who you consider to be effective. Part of what I'm looking to understand in this research is what comes to your mind when you think about teachers who seem to embody the essence of Montessori. No names spoken, of course, but what I'd like you to do is describe those teachers who demonstrate the ability to implement the concept. You see it in their class. The goal remains to bring in multiple perspectives and to follow an appreciative inquiry approach. There are no wrong answers.

The term effective is used to mean those Montessori teachers who are able to implement the Montessori theory and methods in the classroom. Analysis of the data determined that coresearchers believed the term effective is tantamount to being able to apply the Montessori concept.

During Question 2, dialogue participants discussed ideas about effective teachers that included the role of teacher educators and school administrators. It seemed important to include in this study all reflections offered by coresearchers that would support teachers. I determined that the findings relevant for prospective teachers would be similar for those already in the classroom. While most practicing Montessori teachers already have taken the teacher preparation course (giving them a decided edge in understanding the concept), for those who find the implementation difficult, the information pertinent to prospective teachers could be equally relevant. Thus, data that addressed the ability of Montessori teachers to implement the

Montessori concept became allocated into three groupings: prospective and new teachers, teacher educators, and school administrators, as shown in Figure 5.2.

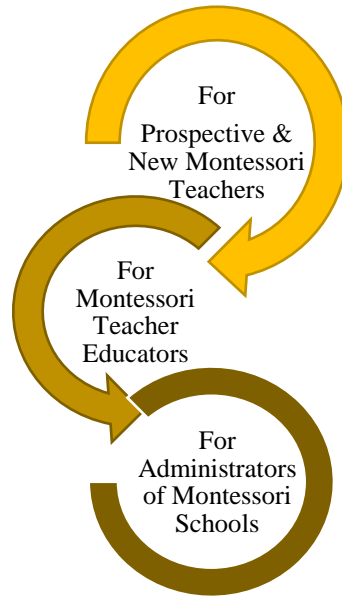


Figure 5.2. Information about effective teachers that came out of the dialogues for this research on Montessori education provided insights to three groups: prospective and new Montessori teachers, teacher educators, and school administrators.

The findings are connected by the blended thoughts that are integral in the Montessori concept, yet remain targeted in the findings in terms of which groups might benefit most. Under each grouping, insights are offered that could increase understanding of and support for effective Montessori teachers.

Just as had been done with Question 1, the data from the six dialogues for Question 2 were combined into one document (totaling 57 pages). Notes were made in the margins and sections were highlighted noting relevancy to the three groupings of prospective and new teachers, teacher educators, and school administrators, then assigned into those three designations to facilitate final review. Often notes were made next to one passage that connected with a passage in another dialogue. Though participants' names were not used in the transcriptions, I was

familiar with responses to the extent that I could simply mark, “See Sue, D2” (used as an example; there was no one named Sue who participated). Some information on effective Montessori teachers also had emerged during Question 1 about the essence of Montessori. Those responses were noted during the review of Question 1 transcriptions, then placed into one of the three groupings allocated to Question 2. An emic and constant comparison approach was used for Question 2 just as it was used for Question 1.

The Issue of Characteristics, Traits, or Dispositions

Maria Montessori spoke a great deal about the role teachers must play in establishing Montessori programs and included many thoughts about the disposition required of a teacher (1936, 1949a, 1949b). Coresearchers were aware of her thoughts regarding desired teacher dispositions, yet I found most elders hesitant to explore that area. Many noted throughout the second dialogue what one declared, “[I’m] not [thinking of] any one person, but just what I have seen over the years.” Perhaps more importantly, another contributor began Question 2 by articulating the concern of identifying individual traits:

I think we have to be a little careful because there’s as many different styles as [teachers], and one of the reasons we suggest people . . . visit three or four different schools during their training is so that they see [the differences] . . . I think when I first got into Montessori I thought that there was a little bit of a model of how to be, and it was based on a European, not very spontaneous, pretty quiet padding around the class, very, I don’t know exactly how to describe it. And then as I mentioned [a notable Montessorian] came and she was all over the place and giving lessons to kids that had never had the five things that came before it, and she was loud and she was whatever. I was like wow, oh so there is room for spontaneity in this work. But I think there’s a lot of, it depends on your personality. So I think we have to be a little bit careful not to type or discuss a type.

Several descriptors of effective teachers were repeated in most every dialogue, phrases like “love to learn things,” “firm but tender,” “comfortable in their skin,” and “empathy for children and parents.” Those short descriptors, however, became elaborated under certain abilities. The overall hesitation by the coresearchers to feature specific traits guided me to focus on the salient teacher abilities elders described. The abilities they recognized in teachers who are able to apply the Montessori philosophy and methods are discussed under “Insights For Prospective and New Teachers.” Strategies that might support effectiveness in Montessori teachers for teacher educators, and then school administrators, follow.

The insights gathered in the next three sections are intended to add dimension to understanding effective teachers in an effort to (a) convey expectations for prospective and new teachers and (b) offer suggestions to teacher educators and school administrators in their support of Montessori teachers. The findings provide insights that come from coresearchers’ years in the field.

Insights For Prospective and New Montessori Teachers

“Each journey is so different” frames these insights for prospective and new teachers about which elders spoke. Prospective teachers include degreed adults who consider taking the Montessori teacher preparation course for a self-selected instructional level or plane of development. Most adults who consider becoming a Montessori teacher enter into a teacher education program with some formal, experiential, or anecdotal knowledge about Montessori education, though as contributors noted, there are many reasons. Based on what coresearchers shared, some of these prospective teachers have their first exposure to Montessori when they place their own child in a Montessori school. Others who decide to apply to a teacher education course have learned about Montessori through academic endeavors and/or from other family

members or friends. Some have graduate degrees and have worked in fields outside of education. Some enroll who have taught in a conventional system. One coresearcher shared, “We get a lot of people come to training that have been traditional educators and they love teaching, they love children, but they think something’s kind of not right, something’s missing.” Another elder noted that a growing number of adults who become interested in Montessori education do so because they attended a Montessori school during their formative years.

Teachers who have undertaken the teacher development program and are already in the classroom experience varying levels of abilities to implement the complex concept. As indicated earlier, coresearchers acknowledged that grasping the full intent of the concept can take years. The elders noted that for many adults, the Montessori approach is significantly different from what they experienced themselves, and while they might embrace the theory philosophically, the implementation could be challenging; it is natural for one during actual incidences in the classroom to default to that which they have the greatest tacit knowledge.

Coresearchers acknowledged that in some Montessori programs, often in public schools though not exclusively, teachers must deal with two competing approaches and are tasked with the impossibility of satisfying both requirements (e.g., meeting standards-based criteria and state curriculum mandates, as well as the Montessori elements such as mastery learning rather than performance- [grade-] based learning, having long periods of uninterrupted work time, and classrooms filled with developmentally appropriate multiage levels). For some, grasping the concept fully, perhaps needing to unlearn ways of educating from their own experience and/or dealing with a school situation that requires managing two different sets of expectations, constitutes issues, some or all of which a new teacher must contend with. These matters could impact the Montessori experience for both prospective and new teachers and are addressed in the

discussion below. Figure 5.5 illustrates a pathway for prospective and new Montessori teachers that elders believed leads to becoming an effective Montessori teacher—one who can apply the concept effectively. However, before sharing what elders revealed about teachers for prospective and new Montessori guides, I think it helpful to readdress the subject of transformation.

On transformation. Transformation was discussed under the essence of Montessori, and elders discussed transformation when talking about prospective and new teachers and teacher educators. The crux of the meaning behind the term transformation seemed to involve looking at education from a perspective that in a very broad sense promotes education's role as enhancing a love of life and learning that pertains to teachers and their students. Coresearchers believed that to be able to apply the Montessori concept in the classroom effectively, a teacher has to be transformed in this broad sense. One elder clarified,

So back to the transformation point, I think it happens. I think some people are already transformed by the time they come to take training. But I also think that the process of transformation is lifelong and I think this work, I think it's lifelong work.

Another coresearcher expanded upon a transformation that teachers, parents, and students might realize through the experience of Montessori education:

We think we're going to do for people, you know, what I will do for these children. It's a two-way street . . . And it's not just us helping children and parents transform their lives. We get transformed by those interactions with them too, and it's a lovely little loop. But that's something you don't see . . . until you do it. And you do it from a place of being curious rather than from a place of expectations . . . [i.e., a teacher believing] this [curriculum] has to be accomplished by the end of the year.

One contributor thoughtfully reflected,

When many people go to school to be educators they get what would be considered a traditional style of learning how to be a teacher, which can be a lot of times, especially in the past, frontal teaching or direct instructional teaching. Well, when you become a Montessori teacher, all of that goes away and you have to be willing to guide or to lead children to plant those seeds and water them and let the child come to knowing or wanting or yearning to learn more.

In heartfelt words, the coresearcher concluded,

And because these traditional educators, there's nothing wrong with that at all, have been taught that you must do this, you must lead, you must control, that giving up of control and transforming into a role of trust, trusting the curriculum, trusting the philosophy, trusting the method, is really hard. And some of them cannot do it. They just, they try, and I think at times they don't even understand why they're not finding joy as a Montessori teacher. They don't see it, and it's not their fault. It's just something they've already learned, and they can't unlearn it and . . . relearn.

Coresearchers indicated that implementation of the Montessori concept involves the ability to apply the complex concept in the classroom. Effective teachers, coresearchers determined, demonstrate certain abilities that enable a teacher to guide students in the manner Maria Montessori envisioned.

The descriptions listed for effective teachers in Figure 5.3 were ordered based on the importance elders appeared to give to these abilities. Teachers who can have trust in children, the process, and self; exercise keen observation skills; cultivate mindfulness and self-awareness; create psychologically safe and physically appropriate prepared learning environments; flow with imperfection; and communicate and keep records well are the abilities coresearchers seemed to indicate are needed to implement the Montessori concept effectively.

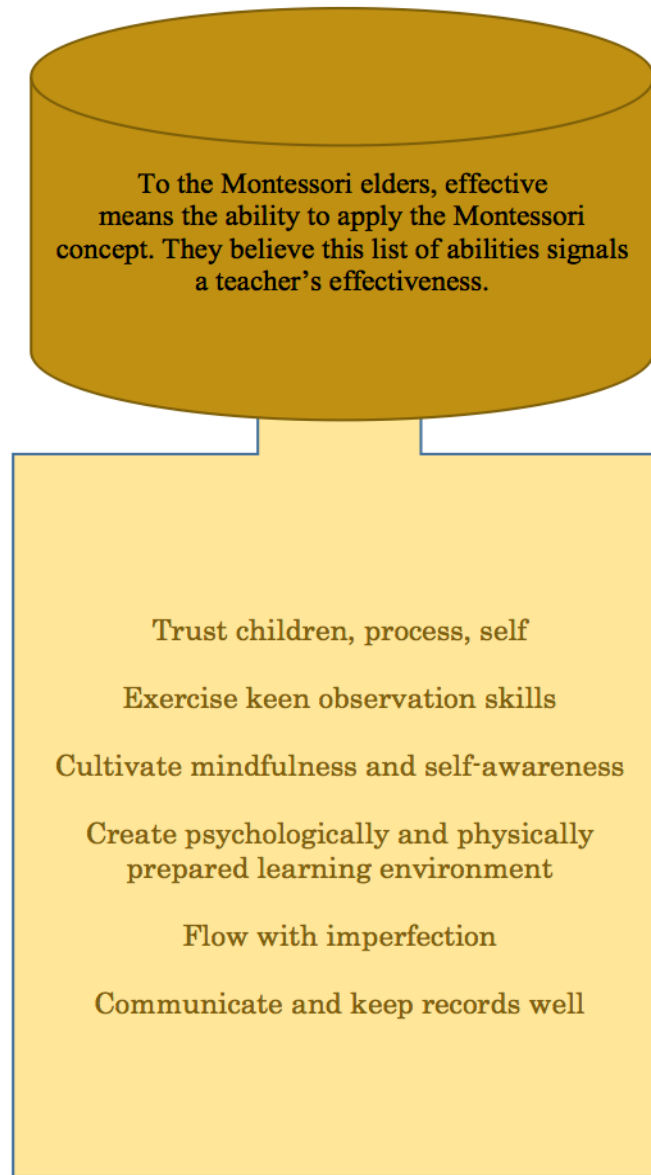


Figure 5.3. The image shows a list of abilities the elders in this study on Montessori perspectives revealed about Montessori teachers who can apply the Montessori concept effectively. Coresearchers' insights were ordered during the analysis phase based on the importance they gave to these abilities.

The six abilities listed were viewed as abilities that a teacher continually cultivates. The list was created with the intent to capture the spirit, depth, and breadth of abilities about which elders spoke and are discussed in detail under each heading. Sections that provide examples of what

applying the concept might look like and why effectiveness matters to the coresearchers follows. A reminder that direct passages cited from the dialogues are not attributed to any one participant; the intent remains to represent coresearcher voices as a collective.

Trust. References to trust occurred throughout the dialogues when coresearchers discussed both the essence of Montessori and in describing effective teachers. Trust refers to having a firm belief in the nature of children, the integrity of the Montessori educational concept or process, and in one's own self. Trust, as in a firm belief, elders indicated, is needed in these three areas in order for a teacher to take his/her understanding about children and the Montessori philosophy and methods and apply those understandings in a classroom of children situationally. One passage from the dialogue transcripts seems to speak to the trust needed in all three areas:

You said something really important there, you said how can I ever do this? That's the wrong thinking. It's not, [the teachers] don't do it. [The teachers] just allow [a child's development and learning] to happen, but they have to have that confidence and trust that it will happen if you do your part.

The reflection signals the belief that being an effective Montessori teacher involves steady belief that a child wishes to engage with learning, that the educating process in its complexities is designed to support a child/adolescent holistically and developmentally, and that a teacher believes s/he possesses the skills to accommodate the child/adolescent's learning. Another coresearcher continued by alluding to the amount of time it might take a teacher to develop trust in the three areas (child, process, self). The reflection below includes a personal challenge the elder faced at the beginning of teaching and offers suggestions that might prove helpful to a new teacher:

And I would say you don't really know that [trust] until you've been in a classroom for two or three years, and you begin to see some of these manifestations. And meanwhile you're just saying well they said this would make a difference, I guess I'll keep doing what I'm doing. Or I don't see any change but I'm gonna go back tomorrow . . . so perseverance . . . Montessori said to be an effective teacher takes two things: patience and perseverance. So patience with yourself, with the children, with your boss, with everybody, and then keep doing it. You know, don't give up too soon. I always tell people don't quit after the first year. You might want to. I did . . . I cried every day the first year of my teaching. But don't. Now after three years if you still wanna quit, do.

Elders acknowledged how wonderful it is to see a teacher have trust in a child or the process and/or themselves and seemed disheartened when trust is difficult for teachers to exhibit. One participant shared, “[This teacher] trusted the child enough, and the philosophy and the process, that she knew there was gonna be success after this process was worked through. And a lot of teachers just don't do that and that's, we need more.” Another followed with these comments:

I think [this gets down to teachers having] a lot of trust in themselves, you know . . . we say trust the process [but] we're also in a hurry. If we don't get the results real fast we wanna intervene because it might not . . . happen, so the trust isn't there.

While it was difficult to separate the kinds of trust about which coresearchers spoke because the types of trust seem intertwined, it appeared that the issue of trust holds great importance in terms of being able to implement the concept effectively. The descriptions below intend to provide clarification for what trust in children, the process, and oneself each might involve.

Trusting the children. Elders explained that Maria Montessori believed each child possesses gifts and abilities when s/he enters into the world and that the teacher/guide's primary

role is to help each child in the development of her/his full potential. One elder stated, “It’s back to again that awareness that you can let go and let the child construct themselves instead of wanting to construct them. And that’s a lot of trust in children.” Another elder reflected, “Montessori teachers need to . . . provide an environment that allows children to construct themselves [*sic*] which is probably the definition of unfolding that we talked about earlier.” One contributor added to that sentiment, referring to the Montessori concept and trust in children: “It’s all about [children] constructing themselves and who they’re gonna be.” Another offered an example of what it looks like when a teacher appears unable to honor a student’s ability to self-construct:

There was a person that said to the students as a criterion of doing really well on a project was to wow [the teacher]. You know, and that was the biggest indicator that [the teacher] didn’t get it. I said it’s not about wowing you, it’s about wowing themselves . . . But the criterion was to wow [the teacher] . . . and . . . it’s not about [the teacher].

One coresearcher talked about overcoming the inner conflict a teacher could experience when trust is put in the child to learn what needs to be learned. The coresearcher considered that a teacher has to have

trust in the child so that [the teachers] are able to implement the method and [when a teacher does, the teacher] seems to grow in appreciating their training over a period of time . . . [because the work is] kind of overwhelming . . . How can I get all these lessons out?

As if in response, an elder spoke,

We have some children with really high behavioral problems with good reason and it’s really easy to get angry with them. Because what they’re doing, and you know I mean if we can look at it as a child that acts out like that is a hurting child rather than a child who is hurtful, it’s like I always tell

the [adult learners] I say let's not talk about difficult children. You know, talk about children with difficulties. It's a very different conversation. So I think it's really hard to be patient when you see things that are hurtful to other children, but that child probably more than ever needs you to love him or her . . . Somehow that's always at the base . . . It manifests so differently in, it's amazing how different each of those periods of development are. You know, graphically different how an adult approaches a 3- to 6-year-old or younger. Completely different approach. And yet from 6 to 12 still, and with the adolescents, still at the gut bottom of it is this respect and this love. Once you have that you kinda, it's like your antenna is adjusted to what [the students'] need is.

A couple of coresearchers talked about *why* it was deemed important to trust children in their self-construction. One contributor explained,

Montessori said that it was a series of independences and what you were saying about helping and knowing the difference between helping and fixing and constraint over getting in there and being an obstacle in [the students'] way versus, you know, letting kids struggle with appropriate amount of challenge. Because that's how [students] get into flow and just trying to . . . be able to have the right kind of independence for each level when [students] grow in each one of those areas, but I think Montessori really wanted the child to unfold and you know, you can't, nobody can unfold for you.

Another coresearcher shared a metaphor for why it remains important to allow a student to construct his/herself:

Reminds me of the butterfly story in which the little boy was trying to help the butterfly come out of the cocoon and so he tried to get the hole a little bit bigger so it would be easier. And then when the butterfly came out [the butterfly] hadn't struggled enough, so the blood didn't go to the wings and it couldn't fly. You know, which is a nice metaphor that the struggle is part of the journey, and if we help kids too much then they don't have the tools.

Offering another perspective on the value of trusting children, an elder remarked on a benefit that comes when a teacher puts her/his trust in students: “Then you can watch children do different things, they come up with far greater ideas than you ever thought of, and it’s like wow. And it’s so wonderful.”

Trusting the process. Trust in the process seemed to refer to trusting the Montessori philosophy as a way of educating children. The concept of education Maria Montessori devised and implemented entails a holistic and an encompassing and purposeful view of what education for children should look like. As has been noted, the Montessori educational concept remains complex. There exists an order and a structure for learning, yet the process allows for the organic nature of students and their learning. One must “do Montessori,” as one elder noted, with “dignity, humbleness in humanity, [to] work for life to a better world.”

Elders acknowledged that trust in the process is difficult for many teachers and considered that trust is critical in implementing the concept:

A lot of teachers don’t trust it, they don’t trust the process. They don’t trust that the child can experience mistakes or experience failure, learn from those mistakes or failures by a natural consequence and then recover and come out ahead because they have grown from that experience. Which is actually what we’re doing the whole time in Montessori is supporting children so that they grow with every experience so that in the end they’re very strong people . . . strong and independent, self-learners, self-directed.

One participant shared a personal story that exemplifies for her what trust in the process entails:

I was trying to be one of those moms that wanted to fix it for [my son]. Fix whatever it was, who knows, didn’t do his project, I don’t know. But [his teacher] came to me and said . . . this environment is the place to let your child fail. If he’s going to fail let him do it here where it’s safe,

and he can learn what it feels like, what that is, and how he can recover. You want him to know how to recover from failure or mistakes or whatever it is. And I looked at her and I said wow, you're really right, thank you.

Another coresearcher described a situation that conveyed what trust in the process means:

I had this opportunity to work with children, worked as a trainer for eight years, and then I went back to teaching in [an] inner city [school] . . . and it was so different that teaching experience . . . I co-taught with [a new teacher]. We had 35 kids and it was inner city . . . it was the little . . . five-year-old who could have lived on the street himself, his little friend who was a girl was found frozen in the winter because she was outside and it was cold and she had no place to go . . . And the children whose grandfather was shooting the TV because he got angry at a program. So there was lots of wild behavior. The kids were wild, and we started with too many. But, [the other teacher] was a new teacher, and I was not. And you know it didn't bother me. And I thought about this later . . . I just kept telling [the other teacher] it'll, you know, just, let's tweak this tomorrow or let's do that but it'll be okay. And what I realized is it wasn't all about me. What my years in training had given me [was] a deeper insight, and I realized that the children were only where they could be in that moment, and so . . . [if] it was crazy I didn't feel like it was all my fault. The children developmentally were not ready to be completely settled yet, and so they weren't. You know, but I didn't take it personally. I knew that at this moment I was doing everything I could do, and that next year it would look different. And it did. But that came from experience, not only understanding I think how to verbalize but also knowing that everything was going on is not because of you, and that it's a little pompous to think that it always is. But I think a new teacher thinks it's all about them.

The remarks below followed after hearing the classroom situation described above and indicated support for having trust in the process, humility, patience, perseverance, and

discernment, all abilities coresearchers discussed in various ways that are required of an effective teacher:

That's the humility of it isn't it? To be comfortable with small steps, to see something tiny. And that's a discernment issue too. To see something small, maybe it's simple as a child does not jump on a matt but walks around it for the first time, and that's your sign. But if you don't notice that, you know, you don't grab on that as a sign that this child is beginning to be more aware of that environment, which is a step. And to be happy and comfortable, not that it's gonna stop there, but to know that you're making progress.

Several contributors acknowledged the challenges many teachers have to consider in trusting the process:

And that really is a lot of faith and trust and letting go . . . And in our world where every 15 minutes you have to be accountable it gets in the way. And you know all the benchmarks and things. When you used to get tested in the end well that's a long period of time, but when you know it's every three weeks or whatever it is then teachers can't trust the process and can't let go very easily without repercussions.

Another participant said,

You know our society puts the blame on the adult a lot of times. Certainly on teachers . . . the responsibility of the test scores being whatever, however it gets delivered, and so you can't let go because you know it's your responsibility. So I think you have to go inward and find out what you believe is your responsibility for the child before you can let go of [those testing pressures].

One contributor added,

If you feel like you're responsible for [students] to learn certain things, or responsible for them to act a certain way, or you know that you own it as a reflection on you versus who they are, [it is difficult to let students] figure it out themselves.

Trusting self. Coresearchers seemed to imply that being able to trust children and trust the process infers one is able to trust oneself. Having confidence appeared to equate to self-trust and arose several times during the dialogues. One contributor talked about the need to have self-confidence, "as confident a person as they are I think is the measure of their success." Another addressed self-confidence and indicated what self-trust means personally:

You have to believe that what you're doing is right. I mean and it's not right or wrong, you just do it and you progress on that, but do it. Go ahead, think what you think is right and do it. And for me that was a big, big lesson.

One coresearcher shared a classroom example that illustrates what having trust in the child, in the process, and in yourself could look like:

[I watched this] little guy pouring and pouring and the glass has been full already, but he's talking and the glass is still full, and I wait, and I wait for it to drip off the table onto his pants, and then I see slow motion he looks down, he looks up, and his hand comes back, and I just, I knew what my instinct was and I knew I couldn't act on it, or there was no reason to. And then you have to just smile and stand back and think if I wasn't here that's what would have happened anyway so why do I think I should change it, you know? As long as [the children are] safe, and I was so happy you said trust because it is trusting them and then trusting yourself to let that flow happen naturally.

Many times when discussing trust, the phrase *letting go* appeared. A brief overview of what elders said about trust in children, trust in the process, and trust in self is provided, in essence, by a review of the term letting go that follows, concluding this discussion about trust.

The oft-invoked phrase letting go was interspersed throughout the discussions. Those discussions appeared mainly focused on letting go in order to trust the process or trust yourself. I must allow the reader to distinguish the application coresearchers meant when using the phrase letting go; the references often seem to overlap between trusting the child, trusting the process, and having trust in yourself. In one sense, letting go seemed to mean allowing the child and/or the process of learning to happen, yet inferred that it is the teacher who must let go within her/himself.

One elder attempted to describe letting go by referencing stressors one might feel and the value of detaching from stressors:

It's that detachment so that one can begin to think about well what did I do here, what can I do now? And that's about that letting go again of all of the things that have been laid on us. It's learning how to detach, I guess is the word I would like to add to it.

Another coresearcher opined that letting go involves relinquishing a sense of control over things for which one should realize there is no control:

I think when you can let go, which people have deemed something hard to do, it should be the easiest to do right? The more you let go the less there is to do, and the more you give up the sense of control [the better], it's an illusion anyway, but we think we have [control] and we fight to keep it.

Another suggested letting go means stepping back from an incident that might be out of control emotionally: "I think letting go is a process, and I think it's ongoing all the time, and you know just conflict management, knowing that when you're angry it's not the time to try to resolve anything." Some elders seemed to have empathy for those who struggle to let go. One

contributor said, “I think there’s different ways that you can learn about letting go. One is Marshall Rosenberg’s nonviolent communication.”

Every participant seemed to agree with the sentiment echoed by one coresearcher: “What I consider to be really beautiful is the ability to really let go and let the children take control of as much as they can of their learning, of their environment, of just the planning, the organization, just guiding them, but really supporting them to do it themselves.”

Several contributors suggested that letting go involves allowing a child or the process to succeed. One contributor pondered, “Maybe it’s like letting go of enough things so that you can make some progress, like not getting so stifled and making everything you know, everything has to change at once. Like being patient with yourself.” Another elder added that letting go could signal a shift in perspective on a situation, a shift that considers another’s viewpoint (in this case, seeing a student’s view over their own teacher perception): “I kinda think letting go . . . is just not taking things so personally that you do get your emotions in it . . . saying I think I can see [the students’] point of view.”

Exercise keen observation skills. For the elders, taking time to daily observe students and the classroom was considered crucial for a teacher to be effective. Contributors offered descriptions of what observation means, how it might be done in the classroom, and why it is so important. Observation seemed to involve careful, attentive, detached watching, meaning that “you learn how to just rinse yourself of your previous thoughts and . . . observe what is happening with those children in the environment.”

Coresearchers noted the attention Maria Montessori gave to observation in her speeches and writings. “I mean again look at [Maria Montessori’s] comments about observation. Those are not just superficial comments. The depth of what she’s saying about observing, observing

and standing back, pulling back and observing.” Pulling back indicates that a teacher must step back literally and watch what is occurring in the classroom free from the preconceived ideas or biases within the teacher; observing involves watching the children without judgment or without making assumptions.

One contributor indicated the amount of time a teacher might spend observing: “It can be one minute; it can be 10 minutes.” Another elucidated the importance of observation and explained it might involve only a few moments. The speaker acknowledged that taking time to observe might seem difficult and inopportune to the teacher initially, but the time to observe remains invaluable. The comments below are from the same speaker and were not continuous.

It’s not just to control those very far away who are talking . . . because we tend to do that as well.

It’s just, it’s some special moment that is [when the teacher] maybe [has an] a-ha moment or [thinks] wait a minute maybe this is not how I thought the noise or the silence was.

You notice that [this boy or girl] are stopped in their action to think. And they might be thinking in another way on this reality that I’m looking [at] now. So that’s beautiful . . . to take the time to observe and not completely control or present [a lesson] or do, do, do . . . It’s a difficult thing for a teacher.

One coresearcher described observation in greater detail, suggesting the subtler actions or movements children might make for which a teacher should be observing. The elder also noted the importance of continually growing one’s observation skills and how observation of the children can supersede focus on the curriculum:

One thing that I think the best guides are the ones who continue to really hone their ability to observe, you know, in a really deep way. Not just what children are doing but the small things that will tell you what they might be interested in, and even if they touch something or they always go

over to that shelf, I mean if you don't notice those things you might be missing your chance. So it's not just going through your albums.²⁷ Albums are not the answer. I mean they're a guide but it's that observation, and I find the best guides they really see in a different way than some who get more curriculum based.

One contributor struggled to describe what observation means and what its purpose is:

It's almost like I wanna find another word, not observation, how do we impart the honoring, observing what is . . . honoring the entity, the spirit of that child and who she or he is so that as you say . . . you know how to give him [the student] what he needs.

Another expanded upon the purpose of observation and how a teacher could ascertain not only what a child needs in her/his learning but also how a child might wish to learn. The elder explained that observation was to

not impose your own idea of what this child should be doing . . . but to stand back and watch and get in that child's mind and see what he needs and wants and how you can approach it. Because not only just know what he needs and wants because that is easier I think. We can always say oh he needs this or that. But how does he want it? Does he want it with a hug? Does he want a tight structure? Does he want some more adult [interaction] . . . you know, I'm just giving examples.

The purpose for observation seemed to be, in short, to allow the child to reveal her or himself.

One coresearcher continued to clarify why observation is so important and how insights arrived at through observation, though fallible, could prove beneficial in interactions with adults:

²⁷ Albums are put together by teachers during the teacher preparation course. The term albums refers to large binders that contain all the lessons or curriculum for which a teacher/guide is responsible in the multiage-level classroom in which the teacher is preparing to enter.

Children are not who we thought they were. They are more than we thought. There is an invisible potential there, and [we learn] that through the observation . . . once you have a little information learning how to look at a child and notice what they may be telling us without being able to say it. And that's probably true not only of children but at all ages . . . That sensitivity to the message that the other person, the needs of the other person, and then a willingness to do or to figure out or to be creative enough to pick and choose to offer something that might be what they needed, [though] we never know for sure.

Addressing the reasons for careful observation, another coresearcher explained, "We want the [teacher] to respond, not to react. And you can only do that when you become an observer." A contributor offered a specific example for a teacher in a younger children's class:

I might add that an inexperienced guide might have become upset when children begin mixing the materials, taking a block from a basket and a key from dress-up and a cylinder from a shape sorter to the infant toy. A more experienced guide will sit back and observe what problem the child is exploring.

In terms of the teacher not being an obstacle to a child's learning and knowing when and how to support a student, one elder explained,

[The children/adolescents] have to do their own unfolding, and [for the teacher] not being an obstacle in that unfolding but also, you know, being ready to support in an appropriate way. I think that's really a challenge. It comes from observation of really knowing when to step in and when to . . . watch them struggle.

Another contributor elaborated on the teacher's learning that comes from regular observation:

For me all [effective teachers] have great observation skills. It's just knowing when to stop and observe . . . Observation of a child's interaction with her environment is key. The adult will assess

when it is helpful to become part of the learning process and when it is imperative to step back and allow the environment to do the teaching. A Montessori guide is a facilitator for learning rather than a provider of information. In many ways, a Montessori teacher is a fellow learner rather than what is commonly considered ‘a teacher.’

One elder reflected that for the teacher, “to be respectful of that process [of observation] is transformative.”

The comments made throughout each dialogue touched on observation from several perspectives. Some coresearchers elaborated on the literal practice of observation and the different ways it might be done. Others expanded upon the reasons why observation is so vital to a teacher’s ability to serve each child’s learning and create the desired community of learners. Several talked about the need to avoid holding onto one’s preconceived thoughts about a child or situation, considered an obstacle, when making observations. Observation skills seemed to predominantly involve one’s ability to look inward, within themselves while at the same time being able to detach from one’s own perceptions or prejudices. The next ability addressed below continues to highlight the inner-self work that coresearchers believed is required of teachers to foster becoming effective in implementing the Montessori concept.

Cultivate mindfulness and self-awareness. The ability to cultivate mindfulness and self-awareness seemed to naturally follow the discussion of observation skills. Coresearchers described an ability to understand one’s own thoughts, beliefs, and emotions when making observations; they talked about cultivating a certain inner state of being and having an open heart and mind. Some referenced a selflessness or withdrawal of one’s ego to determine a student’s needs. One contributor stated, thinking about effective teachers, “I think [effective teachers] think in terms of what does *this child* [emphatically stated] need? This new child I’m getting into

my environment, what's going to make it successful for this child . . . I think a strong Montessori teacher can and will do that.”

I determined from what was said in the dialogues that mindfulness is a state of conscious being and pairs well with the ability to be self-aware. The terms are in sync and not synonymous. Both terms were included to describe one who is able to take an awareness and connect that awareness to one's own beliefs, attitudes, emotions, and motivations. In featuring observation skills as a requisite of an effective Montessori teacher, coresearchers described the importance of a teacher/guide focusing attention on a child or situation in a nonjudgmental way and removing biases within themselves to observe without prejudicing what a child is doing and needs.

One elder, speaking about the need for a teacher to remove her/his prejudices to serve the child/adolescent, connected mindfulness and self-awareness explicitly when referencing the need for teachers to be self-aware:

To really have their lens clean like Maria says, you know, to clean our own lens so we can see who the child is. Because if we've got a lot of our own stuff we just get annoyed. And so I think that that's a real key, is a certain level of self-awareness that makes it happen.

Another contributor noted the need for effective teachers to be able to understand and share the feelings of another, to have “empathy for children and parents.” While grappling with descriptors for what enables a teacher to successfully implement the concept, one pondered, “[Effective teachers] are confident without being, what's the word . . . they're humble.” Another elaborated in this same vein, speaking about effective teachers:

They're also humble and willing to look at themselves, you know, to say well I could get better here. So I think there's a certain level of consciousness that we're talking about, and how to name that I think the quality is what we're talking about and being able to truly . . . understand the child.

The elders considered that the task of being an effective teacher is demanding because, as one said, “Montessori teaching is harder because it requires our full attention for as much time as we can possibly manage. And that being willing to be in that attentive moment with the class.”

That statement was followed by another contributor who agreed and added,

And to be able to be gentle with ourselves around those points and say, I mean step one is to even notice where the obstacle in ourselves is happening and then not to get bummed out about it, and to be able to say oh yeah, I’m doing that again. Does that call for another action? Do I have to apologize to that child? Do I have to do something more with that, or just have to notice you know that I lost my cool, or that my prejudice about this point is coming out again, or this child that I really don’t like very much, I love that child . . . but is getting under my skin?

One coresearcher summed up *why* being mindful and self-aware matters in terms of a Montessori teacher’s work:

The job description of a Montessori teacher boils down to four things. There are really just four things you need to do . . . So the first thing . . . is observe. You know, and observe not just the children but observe the environment and observe yourself as part of . . . and then assess. Assess not just the progress of the children or how the environment is equipped or not equipped or whatever, but assess yourself. You know, am I using my resources, whatever those are, emotional, intellectual, material resources to the best of my ability. And that changes. The best of your ability is never the same, it changes from moment to moment . . . And then you know the fourth bullet point . . . is connect the child with the environment. And so that the child can discover the world. It’s not my job to say [to the child] ‘oh, look, look here, learn this, recite that.’ You know [the learning is] like ‘here it is, you tell me what you think’ . . . not to give [the students] everything, to give keys as we say.

That coresearcher continued by concentrating on one aspect of that four-point job description deemed most critical, a point that requires a certain mindfulness and self-awareness:

So observe, assess, remove obstacles, [connect to the learning] and I think [one] is the most important . . . success you know is greatly based on our ability to remove obstacles because ultimately I think any environment could work if you know how to remove the obstacles. It's not just the obstacles . . . in the environment, you know? [For example] that shelf is in the way . . . it's what obstacles within me are getting in the way of my offering an authentic learning experience to the children? Are my choices about what the children need, or are they about me looking real good when people come and observe my classroom? So coming to terms with that, you know, how am I becoming the obstacle here?

In concluding the insights shared around mindfulness and self-awareness, one elder suggested that Montessori teaching becomes a spiritual practice, yet the Montessori teacher should never feel superior to others. The coresearcher seemed to be speaking about teaching in a broad sense with an eye toward Montessori teachers in particular when this reflection was uttered:

[Teaching is] a journey of self-discovery too, and if we're not very patient we may not know that until we begin teaching. If we're not very humble, very quickly we will become humble. And so I think in that way teaching is a spiritual practice, and in that practice we come to flush out or develop our own beings even while we're serving . . . [Yet] I think we have to guard against being too pompous, and that although I agree our work is important I like the word meaningful better because I think, you know, there is a tendency for Montessori teachers to feel a little pompous especially in regards to parents and the general public and other teachers and . . . there's no room for that.

The next section discusses how elders believed that exercising keen observation skills with mindfulness and self-awareness aids a teacher in establishing the requisite Montessori prepared environment.

Create psychologically and physically prepared learning environments. The ability to create a psychologically and physically prepared classroom appeared to rest upon the classroom teacher/guide. Creating the proper environment involves a teacher understanding the theory well enough to establish the elements the theory requires. In this section, coresearchers talk about what psychological preparation involves, what a physically prepared classroom could mean, how each type of preparation manifests in the classroom, and why both types of preparation are important. The need for the teacher to be mindful and self-aware seemed to be imperative.

To begin, however, I want to share how one coresearcher broadly explained the Montessori concept and why the prepared environment is so important. The elder noted, “Instead of a linear teacher to student, student back to teacher . . . there is a three-dimensional student–environment–teacher model where the student largely interacts with an artfully prepared environment with the teacher as a guide.”

An effective teacher, one contributor declared, maintains preparation of the environment on a daily basis:

I don't think [a teacher] can walk out of your class at three o'clock or three thirty every day and be doing your job. I think it takes some reflection, I think it takes looking at the environment, it takes inventing something new to do tomorrow or whatever. It takes some planning.

Another coresearcher explained that in fact, a teacher often needs to prepare several weeks ahead of time. The elder, offering the metaphor of flooring to mean preparation of the curriculum, explained why:

[You need to prepare] ahead of time so you're free to be with the kids. But if you're always worried about what are you going to teach next or preparing for the next day you can't let go because that's where your mind is. But if you've uploaded for lack of a better word the foundation, the floor, then you can dance upon it. But if you don't provide that floor then you're always being pulled in so many directions and you can't be present. And I think in elementary and early childhood the materials on the shelf provide that, but it's not really the same in infant, toddler, or secondary because we have to provide [the curriculum] in a different form.²⁸

Another contributor echoed a similar sentiment: "If we haven't prepared or we haven't gotten a clear idea in the present moment, we're not [present with the children/adolescents]."

Psychological preparation. Creating the appropriate psychological environment, elders noted, requires what might be described as mindful action. Mindful action seemed to begin with establishing a welcoming classroom that children would feel every time they enter: "Teachers need to be able to go in and recognize that before anything can really happen in the classroom that the children need to feel . . . that they're loved and that they're safe and that they're a part of it." Speaking in a micro and macro sense, one elder said,

I suppose I'd call the classroom a sanctuary, and I don't mean that in a religious sense, I mean that in a unique special sense. That the microcosm of the classroom to me is how we would like our world to be, how we would like everyone to be able to work together, and to realize that yes some . . . have strengths, and others, you know have other strengths . . . because that's what happens in a [Montessori] classroom.

Another coresearcher said,

²⁸ For infant/toddler and secondary level Montessori classrooms, there are few prescribed Montessori learning materials in large part because Maria Montessori did not write in detail about those student age groupings. Teachers at those levels have more preparation of curriculum.

And in addition to that I think that the teachers that really want to . . . create the best environment for each child, and that take the time to think about it and really chart out well if I do this what will happen, I think this is the best path, that really take the time to be mindful about what is the right thing for each child right now.

The notion of a teacher's need to be present surfaced often. Presence seemed to indicate the teacher exhibits an attentiveness—an emotional, genuine, and caring presence—to the students. The contributor indicated that the success of the Montessori student–environment–teacher concept is contingent upon the ability of a teacher to bring this kind of presence to the children/adolescents:

And yet the secret to the success of the process is to let all that go and be present to the child in that moment and let that bonding, observing, begin. And then slowly the treasure of the environment is there for the picking, but it's the picking of the child. It's an interesting process.

Commenting on how an effective teacher creates a well-functioning classroom, one in which children are happy and working well, another contributor noted the need for a teacher to exhibit a presence: “And I really think how that happens is that the teacher when she's with the children is always present with them. Not on a computer . . . Not trying to do something else.”

One elder included the need to be present, trust the children, and exercise restraint in creating the proper environment. This coresearcher noted, “Being present and waiting for the children to ask for help is an exercise in restraint for the adult. Trusting the children to work out their issues is a matter of knowledge.” Another referenced a teacher's need for restraint and staying fluid in order to establish the right classroom conditions:

It is a dance, it's a dance [between the teacher and the children/adolescents]. When to step back, when to step forward with them. It takes, it's a process, you know, and you have to let it, you can't

force it. The [students] will turn you off, they'll just shut you off because you're doing too much for them. But when they know you'll give them the space . . . they [become engaged].

A contributor who had worked with very young children offered a specific example of how the children had been taught a particular skill and how it is up to the teacher to let the children practice that skill accordingly:

We teach the children the ASL [American Sign Language] sign for the word 'help.' We see it constantly. If a child gets too close to another child's eye and the poked child cries, the child who poked will turn to the adult and sign, 'Help!' If a child's pats are too hard and the other child cries, the child patting will look to the adult with a puzzled expression asking for 'help.' And when that older child is unsuccessful in picking up the distressed younger child, she will turn to the adult and sign 'help' and point to the younger child. I have seen these and many more examples numerous times in my work with infants.

Physical preparation. The physical environment in a Montessori classroom, it was explained, should be aesthetically pleasing, orderly, tidy, and developmentally appropriate. Developmentally appropriate involves having suitable Montessori learning materials arranged on the shelves according to a specific pattern and furniture that matches the size, mobility, and agility of the students. Just as the psychological environment is the responsibility of the teacher, however, so too is the physical preparation. Some of those physical features were discussed during the dialogues.

One coresearcher clarified what physical preparation entails, indicating why each feature is important:

So that could be low furniture for independence, or it can be [students being] able to find things on the shelf, or know how many people can sit at a table by the number of chairs. You know. Having a

rug so people know to walk around and respect your work. So all of this, I think all that preparation is what allows what we want to happen.

While considering effective teachers, ones who are able to implement the Montessori concept, a contributor in one dialogue said,

What you were describing brings up for me there's a sense of energy that I experience when I'm working with a person who's really got it . . . there are some teachers that talk about negative things all the time about the kids, but the ones that are really thinking about it [the environment] are talking about how can we fix that and what am I going to do tomorrow to really get there with that child . . . And I think that a person who can also turn out the appropriate, developmentally appropriate classroom materials is definitely an indicator.

A coresearcher in a different dialogue talked about effective teachers who prepare the desired physical environment:

They're the people that I'm most impressed with . . . when I see a child walk up to maybe a dishwashing or a hand washing [work], this teacher has thought of everything. So when the child meets the lesson and meets the soap or the certain size of the drying rack, or the apron can fit on the hook or . . . stay on the hook . . . is it a slippery hook . . . did [the teacher] sew in a hoop that holds it on the hook? She thought of everything and she almost went through the processes as if a 3-year-old. She got on her knees and walked around and looked, what do I see as a 3-year-old . . . You know, it's something beyond, like she prepared herself for being there . . . It's not just physical, it's emotional, it's social, and she really prepared herself.

Two different coresearchers brought up what Maria Montessori considered was the test for whether the learning environment has been adequately prepared, both psychologically and physically. One explained, "Montessori in essence said that the great, you know, the greatest thing a teacher can say is that they did it, you know [the children] kept working as if I were not

here.” Another contributor spoke about the properly prepared learning environment: “If I can leave the classroom and [the work of the children is] still going on, [that is] success.”

One elder talked about why the psychological and physical preparation are equally important. Noting that psychological includes establishing clear routines and that routine exceeds in a sense even the demeanor of the teacher, the coresearcher said,

I think that flows right into how a child develops trust of the order that I’ve always conveyed to the new parents that the child has to develop trust, not necessarily in the new adult that’s going to be in that environment, but the trust of the routine . . . and the patterns that are developed . . . so they can relax and not worry about [the] unexpected. And that . . . helps them to then feel free to explore the materials and environment and to be themselves.

Another added,

I think all of those things that I hear said is the prepared environment, both psychologically and physically. I think it comes up because what [a teacher is] doing is setting a foundation for the kids to have that freedom to express who they are, and if the environment wasn’t prepared psychologically or physically then none of that can occur. So I think that’s a preparation that makes it possible to see what we want to see.

Just as coresearchers noted the critical importance of a carefully prepared learning environment for the children, elders delved into details of how to create that environment both psychologically and physically. Attention was paid to what a teacher must do to plan ahead, be present with the children each day, make sure the physical environment accommodates the students’ needs, and assure students feel safe and welcomed.

Flow with imperfection. In capturing what elders included about teachers who can apply the concept, I feel it is necessary to highlight what was said about perfection. Coresearchers

attended to the topic of perfection by reminding of the need for teachers to be patient with themselves as they learn what implementation entails. Teachers have to prioritize the most important aspects of the concept to implement. Coresearchers discussed how perfection can sabotage implementation and included how it looks when a teacher is able to demonstrate the ability to flow with imperfection rather than be ensnared striving to do everything and perfectly.

It was noted as a collective that coresearchers had witnessed many highly capable teachers grapple with the need for perfection. Seeking perfection means wanting to do and be everything that the Montessori theory covers. Many of the teachers about whom contributors spoke were considered those who are “confident and not afraid to make mistakes” and see “possibilities in everyone.” While teachers about whom elders spoke in relation to perfectionism exhibit many of the abilities that have been discussed above, some teachers struggle with feeling imperfect in terms of implementation. Several declared that Montessori seems to attract people considered perfectionists and reflected, as this one elder did:

Probably the teachers that I see that are the most successful and stay the longest . . . have an intrinsic motivation to perfect themselves, and they understand that the interrelatedness, all of it is very, very important. You can't just prepare your environment and then expect it to go magically well. [These teachers] continually try things and observe, and then if it's not working you know they try something else. They ask good questions and they encourage the students. . . . They want to learn from others as well, so they bloom where they're planted. And they've got roots. They're not floating around. . . . Yet there's a tremendous desire to do it perfectly from day one and to beat up [on themselves] in a big way when they notice these things we've talked about, the way we are obstacles.

One coresearcher invoked Maria Montessori's thoughts and the need for teachers to recognize that fully implementing the concept took time:

Maria Montessori says we move toward perfection but I don't recall her saying you have to be perfect before you start. So one of the things that came to me as you were talking too is the need for patience in all this process, because as we said at the very beginning it doesn't happen even in a summer's program . . . I mean it's a lifelong process. And I think really how important it is to help the new adult learners to be patient with themselves too, to know that it, yeah, we just keep moving on and learning from it and perfection is not necessary.

Coresearchers offered descriptions of teachers who demonstrate being able to flow with imperfection. The reader can see how terms and phrases like trust and being open emerged. Two comments referenced flexibility. The passages below reveal how elders continued to dig deeper to understand what defines effective teachers. The space between passages separates the comments made by different contributors.

They handle things peacefully, there's no rush, there's no right answer, there's no only one way to do something. They're so open about how things can flow, just taking things as they come, not being flustered by something changing their idea or plan. Flexibility is big.

Another thing, you know, and I think we touched on it but related to the effectiveness of the teacher I think is the ability to tolerate ambiguity, and I think you kind of touched on that too. It's not exactly the same I don't think as flexibility but it's being able to not be quite sure, give it a moment or give it a day or give it a week to look at it again, to see, and especially for the younger years . . . and even with the older child, you know, you have to be able to tolerate not exactly knowing at every given moment what's going on. And then I think you also have to . . . cultivate, I don't think everybody has all of this . . . a certain sense of trust that there is something going on there.

One coresearcher brought up a kind of spirit and attitude found in teachers who could be comfortable with imperfection.

I find that also the coming out of training and beginning their work you see a lot of joy in them, and I think that that's not how everyone feels when they start working with children. Some of them have a lot of trepidation. But they seem really happy people to me, I mean people who, and you know maybe it goes along with this love that we're talking about but I think they tend to be optimistic and happy rather than you know sometimes you hear just the bad stories, you know, from teachers. And [teachers comfortable with imperfection] don't look at [the teaching experience] that way I don't think.

A few coresearchers cautioned about teachers who seem to have difficulty with letting go of perfection. Sometimes teachers, elders noted, become obsessed with making sure everything is done just right. One postured, "The rigid teacher has a harder time, because that is a person who has to loosen up and not feel like he or she is in control every second of every day."

Another contributor, talking about establishing the proper priorities between the classroom atmosphere and making sure to cover the prescribed curriculum, remarked,

Curriculum's you know set but so open that, you know, every level leads to the next level just perfectly. There's a perfect flow between each of the levels and what's taught . . . I also found, I mean lately, especially in elementary when teachers have to really weigh what is more important now. Is this academic or is this, it's a very fine line sometimes. So fine that many don't, cannot deal with this. But you know putting [a material] away and what is more important? You know this academic thing and how you get to the end of this, or how to balance these two together. And for me a teacher who strongly decides well this is very important, and I don't, I will go for it. Or for me this is important, but it's just that thing about why the person does it, why does that teacher do any act or any, you know, keep going on this path. It's crucial because sometimes it can lead to obsessions, to be obsessed with one thing or the other. It has to be balanced, it's very difficult, even for strong Montessorians.

The examples elders offered of how a teacher indicates a flow with imperfection included the ability to try out different approaches in the classroom, ask for help, and accept feedback received that is intended to aid in a situation. One coresearcher described a simple example that involved a teacher's openness and straightforwardness: "It's the ability to say alright let me try it this way . . . while training does help you stay stable through those stressors you have to be willing to go to others and say I need some help here." Another described the ability to accept input given in a performance review, finding tips for improvement when feedback is offered instead of becoming defensive. The contributor declared, "They need to be willing to accept feedback. And I think that's critical. I really think that's at the heart of a really robust teaching situation where [the teacher's] always looking for something that's going to help." One elder relayed how a teacher might handle a situation with students when s/he realizes a misjudgment has occurred:

I know for myself there have been times when I have miscued so to speak, and I go over and I think these kids are goofing off, and they weren't goofing off. I interrupted, I interrupted their work. And I apologize, I apologize for that because I made a mistake.

Communicate and keep records well. The emphasis elders placed on a teacher's communication abilities concludes the list created to inform prospective and new teachers on what seems to foster a teacher's effectiveness. Coresearchers considered that good communication and record-keeping skills are critical for effective Montessori teachers. By design, they explained, assigning students' grades is not done in a fully authentic Montessori program; learning for students is based on mastery as opposed to performance-based learning (where grades are issued). This fact in large part is why effective Montessori teachers need to have strong written communication skills. Student progress charts are meticulously kept so the

need for careful record keeping becomes imperative. Student evaluations include written observations made by the teacher. Teachers must also be able to verbally articulate to parents about their child's progress; parent involvement in a child's education is considered vital in Montessori programs. The ways teachers give feedback to children/adolescents remains essential in applying the Montessori concept effectively, coresearchers maintained; comments teachers make to students should focus on abilities over which the student has control.

Referencing effective teachers, one elder stated, "Usually they're really good communicators." Another explained, "They have to be able to handle a certain amount of administrative work in just keeping records for their own classroom." One elaborated,

[Teachers] need to be able to keep up with the details of paperwork or documentation that is required to a certain level. And then of course being able to communicate with the parents and with their coworkers [about a child's progress].

A teacher, one contributor proclaimed, "has to know and be aware of what every child is doing, and has all the written documentation to back it up, right? And I think that can be just as . . . [demanding as everything else they must do]." Another coresearcher said, "And one additional element of the finest teachers: the ability to communicate, in a straightforward, pinpointed and encouraging way, the strengths and needs of individual children to parents in a parent conference."

One elder who had been an administrator for many years described the need for good communication skills this way:

Well I don't know why it took me so long to learn this, but a teacher in our Montessori classrooms really has to be able to handle a certain amount of literacy. They have to be at a certain level of literacy, not just in written but also spoken because they're going to be communicating with their

parents that way . . . and there are people who are wonderful teachers and not wonderful communicators and really need help with that.

In closing this section, I believe it important to include that one coresearcher turned the perspective on the topic of communication toward *how* effective teachers communicate with students. The elder bemoaned the fact that too many teachers are inclined to offer students feedback that does not seem to foster the kind of development desired in Montessori education or most educational models. Teachers who give praise to a student simply for being intelligent, for instance, offer the student little substance upon which that student can draw down the road. Acknowledging *habits* that students display instead of using superficial clichés, one coresearcher said, could nurture a student's potential more substantially (see also Costa & Kallick, 2008). The coresearcher elaborated:

But I guess also, I mean and this is the knowledge and the philosophy of Montessori and all basic pedagogical philosophies, that children or people are not blank slates and it's experience what makes us, you know, experience in doing things, experiences with communications, experiences with ourselves in self-assessment . . . the trying again, the honesty in doing [work] in the humbleness, trying again and always, always encourage this instead of [saying] 'You're brilliant doing this' . . . [you say] 'You took this test and you worked a lot I know, you were hard working for months, you were determined' instead of 'Oh you were very brilliant, you're very smart because you got this grade' . . . [That kind of remark to students] is what we need to eliminate in all education.

Communication and record keeping were mentioned in several dialogues and discussed briefly, though it was apparent both abilities should be addressed in order to provide a complete picture of teacher effectiveness. Adept communication involves verbal skills needed for "conferences, parent education sessions, informal meetings with parents, and to contribute to the

school community through regular, positive interaction with other staff members.” Written communication consists of “written reports and other written exchanges with parents, and [sometimes] the public at large.” In this short section, coresearchers spoke to what it means to communicate and keep records well, how communication extends to the way a teacher interacts with students, and why communication and record-keeping abilities are important.

Final thoughts from coresearchers. Coresearchers seemed to determine that effective Montessori teachers are those who have trust in children, the Montessori process, and self. Effective teachers seem to cultivate observation skills that require mindfulness and enhanced self-awareness so they can take those abilities and create a caring and safe psychological place to learn and a physical environment that is safe and provides all the materials for learning that is developmentally appropriate for the children/adolescents. Contributors seemed to believe that teachers need to balance their drive for perfection with the ability to discern the less important aspects of the work, letting lesser things go while at the same time being diligent in developing verbal and written communication skills, including good record-keeping practices.

Coresearchers also considered that the commitment effective teachers should make is to continuous improvement. One contributor explained,

You know we’re all engaged in a lifelong process of . . . getting to know ourselves . . . And I think the moment that we stop asking who am I? Why am I doing this? Then we become stagnant . . . So it’s constantly going through that observation, assessment, removing obstacles and connecting the child and ourselves to the environment.

Another expressed,

A teacher should get better with experience, and must make a conscious, continuous, serious effort to understand children at a deeper level, to communicate with parents more effectively, and to expand the repertoire of materials and presentations in their environment and at their command.

One elder mused upon the discussion around insights that could be offered to prospective and new teachers:

It would be so interesting to get their [effective teachers'] perspective on the different developmental stages of a teacher/guide, you know? What was it like the first three years? The first seven years? And for some of them, 30 years?

While it is not an ability, elders suggested having the desire to teach seems essential. The thoughts from contributors on desire are offered below.

We can throw out a lot of things that help make an effective teacher, but . . . maybe the most important thing is a desire to do it. A wanting to feel some call to do this work . . . who feel called in some way to serve the world in working with the younger beings.

Those teachers that I think are the most successful seem to have something within themselves that they go back on how they were trained, and they start to implement immediately.

If they don't feel it, they don't desire it, they don't want it, it's not gonna happen, and it really goes back to you can lead a horse to water but you can't make him drink . . . you can't cause somebody to be transformed.

The final word on desire, however, is left to a coresearcher, who expressed,

Not everybody is a teacher, but more are than think they are. More can be than think they can be.

And I think one of the things you learn or can learn . . . is that you can learn to do things in different ways than you knew how to do before. And if you aren't, have not been particularly good

in the aesthetics of an environment for instance you can learn how to do that if you want to. But there has to be a strong motivation.

Applying the Concept

Having reviewed the abilities elders believed effective teachers exhibit, this final section created for prospective and new teachers provides examples of what applying the concept might look like and offers pearls of encouragement and wisdom. Then there is a brief look at why elders said effectively applying the concept matters. Throughout the dialogues, several classroom scenarios were offered by participants to this end. Some coresearchers described the classroom stories as nuggets from which they continue to learn many years after the incident has occurred. Embedded in each tale, elders appeared to believe, are numerous lessons from which a teacher might draw.

Several stories were shared that spoke to the demeanor and wisdom a teacher exhibits when handling behavior incidences. One veteran educator explained the need for a teacher to be directive at times:

And Montessori, I think it's in the first volume of *Spontaneous Activity* but . . . maybe it's *Discovery of the Child*, anyway she says pretty much you can do anything when there's disorder and chaos. You can jump on the tables, you have to get the child's attention. And I think more teachers make error on [not getting the students' attention] these days than on the other side. I think [they believe] . . . this cosmic view, this wonderful loving whatever, but they forget that if they don't have the child's attention, if the child is disordered, [the child] needs something else to attach to and that something else is going to be me [the teacher] until I find that thing, or the child finds that thing that gives that child some sense internally that [s/he] can act differently, that this behavior isn't fun anymore and [the student can say], I'm gonna stop being so crazy in the class or

whatever, and . . . begin that development of concentration. And then [the child is] gonna pay more attention.

Another coresearcher spoke about two incidences that occurred in a class with 3- to 6-year-olds. The contributor who relayed these tales considered the occurrences as treasured examples of what Montessori education means. Referencing the stories, the coresearcher concluded by saying, “I learned that when you focus on certain things a lot of other things take care of itself, you know?” One story involved a student who threw his pencil across the room:

I had one mentor . . . she was an older lady from Ukraine I think, and a little boy got very angry. I was an intern. And he threw a pencil across the room. And I was scared, what would she do? And she looked at him, and she walked over to the pencil. She very delicately picked it up and she just touched it and made sure it was not broken, she stroked it, and she adored the pencil in that moment and she brought it to her heart as though it was a jewel. And she took a big sigh . . . and then she just slowly walked and put it back where it belonged. And she smiled. And this boy just stood there dumbfounded. And by then a lot of the class had watched and they saw him throw it. She had the attention of everyone in the class including me. And she just went on her way after she replaced the pencil. She was happy that it made it, that it survived, and that was a lesson. I was 25 and I remember like yesterday, and it taught me how to handle everything, it really did, when she took care of the pencil.

Another story involved a young child who had lied about an incident in which he was involved and how the teacher responded:

Something else happened when I was first becoming a teacher and a little boy did something, and we both happened to be nearby and I was just the intern, and he came, the teacher asked him about how did this happen, and he just told a lie. Blatant, blatant, he just told something that didn't really happen. And she looked and she said okay, and he walked away. And later I said why did you do

that? And she said well that's his business. He has to know what it felt like to get away with a lie. Now the lie sits with him, and he gets to feel do I want to carry that and do I want to be the liar? I found it worked and I didn't get in trouble, but it didn't really work in the end because it will come out in a day or so that he has to tell the truth to feel better. And she [the teacher] didn't press it, she just let it go. And I have always let the children fib to me now, and teachers have asked me why and I have the same answer.

Several examples were offered about how the academic learning looks in a Montessori classroom. In the words of one elder,

[A student can] get so close to the answer [in math], their thought process is so much going in the right direction . . . and at the end they get the wrong answer. And instead of [focusing on what is wrong], [you say] okay so you got this far and right here you went this way instead of this way. So let's look at how many steps you were going in the right direction . . . Once we go over it together we realize it was only one last step and look at that, that's the answer we were looking for. And that's the answer that's more logical, or you miscounted by one, or you carried over by the one wrong way. And it was like celebrating what they did do and forgetting it was wrong.

In another dialogue, a contributor discussed the issue of grades:

We had to take grades, at one of the schools I was at we had to record a grade, [so I would say to the children] you tell me when you're ready to take a quiz or assessment on that. When you're ready that's when we'll do it. And that was it, and they all did it. It wasn't because I forced it, it came from them.

On the topic of assessments, coresearchers spoke to how the process of assessing could work well for the teacher and the student. One elder recalled a lesson from a mentor:

She used to say about children and conferences, she said I don't use a benchmark. I just, my question is the child making progress . . . [She believed] I'm privileged to participate in this

unfolding in front of me, this life unfolding in front of me, the respect and reverence in a way for the life that is in front of me.

A section of a dialogue that had three participants is shown below that reveals a Montessori perspective concerning test taking and illustrates the kind of back and forth exchanges that were common among dialogue participants on many topics (speakers are separated by spacing).

[A student] just kept taking [the test] until you passed it. And so everyone felt like a success in class . . . [the student would] get through it, and that's the goal isn't it? To learn the words, not to just get them marked off and never look at them again. And [the teacher] just stayed with [the students] until they eventually got them all . . . But that was more in line with how life should go. Why can't every time you climb a tree you get a little higher?

Because in the end it's not the grade that matters, it's that they learned whatever the goal was for learning.

And [the students] wanted to keep going.

And they wanted to keep going and they never looked at it as a negative thing.

There was no reason to give up because you were going to succeed no matter what. It was how, if it took you a couple days, a week, it didn't matter. And that is a whole different perspective to assessing children.

Often coresearchers acknowledged the struggles teachers/guides can have in knowing what to do, how to handle expectations versus what is best for the child/adolescent. One elder expressed the dilemma:

We have to take the child where they are and follow them through because we don't know what their potential is or when they're going to blossom or when the light's going to come on or when mastery occurs. And it's really difficult because we take the training and we think well this is the

way it's supposed to be. This is my checklist and so they're supposed to be here, and when you're truly following the child it doesn't always turn out that way.

More examples of what applying the concept might look like during classroom challenges surfaced when the issue of flexibility was mentioned among coresearchers. Pondering flexibility as a specific trait, one elder spoke, "I really think that that freedom to be flexible within kind of a construct makes the best guides." The descriptions in which flexibility was discussed offered examples of how being flexible within the philosophical structure might present itself. Two different coresearchers in two different dialogues spoke about the flexibility required at times to be directive during certain situations. One contributor said,

You know the child who . . . says I wanna do this, well they don't really, you know, they may not really . . . and they don't do it, they just get it [the work] out so they look busy and then you walk away and then they put it away or they're rolling it around, and you know those kids need to be told what to do, or they need to be brought into a group and sing songs and do little dramas or whatever is going to, you know, if you have a passion and you love plants then take them outside and explore plants. But you have to be very directive I feel in those settings. And then of course flexible enough and not attached as you said to the ego thing, where oh now I'm the great teacher because I'm standing in front of everybody and I've got everybody's attention, but to keep in mind the purpose of doing that is to help [the child] attach to something other than their own deviations, and to bring them further along so that they no longer need you to be that person . . . it's rare in a class that there's [not] somebody who needs you to be directive. Even in a normalized class there's always a couple who need the adult.

A coresearcher in another dialogue spoke similarly:

And you used a word that I think is critical for an effective teacher, and that is flexibility. And the ability to understand that at one moment you might be a dictator in the class so to speak. You might

have to be very directive. And two weeks later with individual children, and eventually with the class, you have to be able to withdraw.

Two contributors, speaking about flexibility, addressed the need for individualization within the Montessori concept. One reminded,

And so your job is not one job in a way in the class. That's why I say flexibility, because with this child I might have to be this way, with these three that way, with this one I don't even need to pay attention. And of course you have to be careful that you don't ignore the children who are cooperative and peaceful and working well.

Another shared an example remembering the need for flexibility involves what one elder had learned from Maria Montessori's youngest grandchild, Renilde, and an illustration of how a teacher might respond to a child's development progressing at varying rates:

I remember Renilde Montessori saying, they edited the albums for 3 to 6, she did the language. And every age said, 'To be determined.' You know, we do give ages but to get, but I thought that was so right, you know? I mean I had a little 3-year-old who was a giant because his parents were both almost seven feet, well his dad was and his mom was tall, and he was so clumsy . . . [but] he would wanna do everything in math because that was where his comfort zone was. And you know people would say he shouldn't be doing that. You know what he needed, and what was hard to do, was carry a tray. So . . . we'd take out the decimal beads and I would make sure the mat was way over at the other end of the room, and then had him go get his beads and he had to carry a tray. So . . . I guess it's being able to be really flexible. That's another word that comes to mind.

The discussion about applying the concept concludes with how coresearchers believed the Montessori perspective of educating evolves over time for teachers; for some teachers, the transformation proves a greater challenge than others.

I think that [comfort with the concept] is a transformation that happens as the teacher, you know, develops a little more finesse with using the materials and working with kids. And it also depends on if they're brand new to teaching or not, although sometimes teachers that have been trained traditionally that is even harder for them.

Another elder added,

With adults you know . . . I think you evolve as your own traditions and your own values change that you understand Montessori in many different ways, and I think this understanding to me has come much later . . . as you were saying that every piece becomes very important, but it's not just one part of curriculum. It's everything that's rolling in and how do we find that goodness in each child so the peace can be brought?

Why effectiveness matters to coresearchers. Coresearchers seemed to value the fundamental Montessori beliefs that each child has gifts for the world, and that it is incumbent to provide each child with an education that brings out that potential as fully as possible. One contributor proclaimed, "The child is the source of love." Another echoed a sentiment heard throughout the dialogues:

I'm doing this because I know this is the only way to transform humanity. You know, like Maria Montessori said in *The Absorbent Mind* . . . the child is not just learning how to walk and talk and do this, the child is refashioning humanity through that process of self-creation. So when [teachers] see their work as that wow, you know, this is important work. We don't receive the kind of salary that important work should receive, but it is important and then the passion is there to know the difference that you could make not just for that one child and that one family but for humanity.

The elder concluded those remarks by adding the sentiment that also seemed like every participant voiced in some manner: "You know if we could get every child to grow up feeling

valued, respected, you know a contributing member of society, this would be a totally different world.”

The devotion to the Montessori concept that elders hold seemed to spring from the impact on students that they had witnessed for many years. It is with this sense of reverence for their work that coresearchers had considered beliefs and abilities they deem important for a Montessori teacher to continuously cultivate. One spoke about what students had revealed many times, from toddler age through adolescence, with an eye to what the future might promise:

A word that comes to mind . . . is civility . . . what stands out with many of these Montessori children is how gracious they are. And you know how they can collaborate and share. And they care about, even the toddlers, you know story after story where a little one’s crying and a slightly older one comes over, you know toddles over and starts patting them on the back. I mean that whole altruism that we see spontaneously in these children I think really stands out. . . . [Just like how] the older students were so different in their demeanor and everything when they were around the little ones. And I’ve seen that just having our toddler and children’s house be in the same area as the junior high [adolescent] students. They’re so nurturing . . . they love those little kids. And . . . yeah, who they are becoming is just amazing. You know you watch them, junior high students. They’re becoming the Montessori teachers of the future.

Another coresearcher considered what transformation from the perspective of a Montessori student might look like after having been in a Montessori program for years:

So fast forward many years, my son moved here with me as a junior and he did online classes and he was very, very nervous. And they [his teachers] would ask questions . . . [and he would say] I don’t know, I’m not sure, and finally I think the experience from [his Montessori upbringing] just clicked in and I heard him say, ‘Can I just tell you what I do know?’ And they always said yes, and he got his best grades of his entire high school of that year because he had this dialogue with the

teachers . . . So it's [the way Montessori educates] more of like a life skill or something. You [a teacher] don't always know you're even participating in giving it [a life skill] but you know [this transforming way of educating] is the right thing to do.

It is fair to say that coresearchers view their work in Montessori with love and full of meaning and purpose. The interest they voiced in providing more clarification for prospective and new teachers about what Montessori teaching entails seemed to resound with each one. Contributors' thoughts about how teacher educators and school administrators might support effective teachers appeared equally important. The next section covers ideas coresearchers shared for teacher educators. The chapter concludes with a section about the role school administrators might play in fostering Montessori teachers who can effectively implement the concept.

Insights for Montessori Teacher Educators

Montessori teacher educators are teachers who serve as instructors in the teacher preparation courses. Seventeen of the 20 coresearchers were teacher educators who had taught prospective teachers and conducted field evaluations for new teachers for many years. Scattered throughout the comments made during the dialogues, thoughts about teacher development and preparation surfaced. The dialogue provoked several to comment directly about how the dialogue itself triggered them to think anew with regard to the process of teacher preparation; one coresearcher shared, "It [the dialogue] has made me think that this is yet another reason why I feel the need to review the way we train teachers."

Figure 5.4 shows five practices coresearchers believed would foster the development of effective Montessori teachers during teacher preparation.

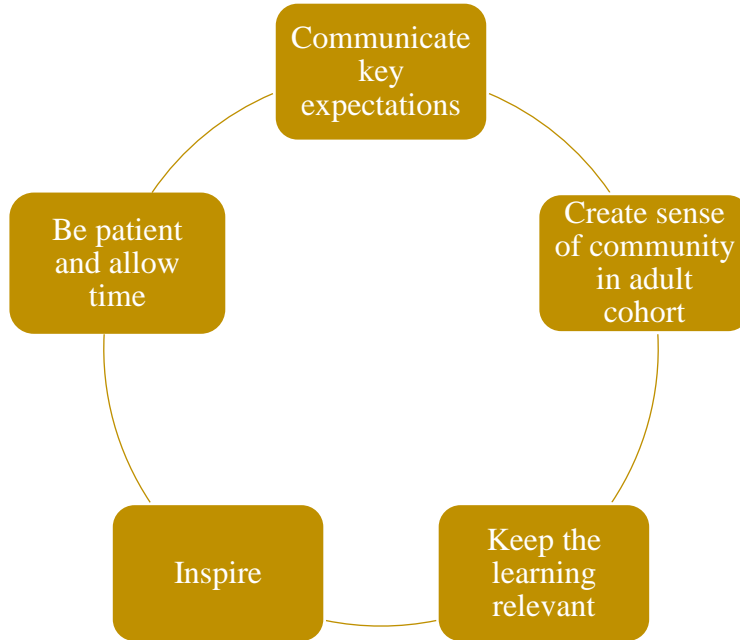


Figure 5.4. Coresearchers in the Montessori perspectives study considered five ways that teacher educators might support the development of effective teachers during the teacher preparation course.

Communicate key expectations. Coresearchers acknowledged that Montessori teacher preparation is a complex process that takes time, yet they appeared to recognize the importance of conveying certain key expectations during the teacher preparation course. The expectations elders considered valuable for teacher educators to emphasize to adult learners included (a) discerning salient aspects of the philosophy and methods, (b) being able to keep clear student records and express oneself professionally in written and oral form, and (c) knowing that the first few years are challenging.

Discernment of the philosophy and methods. Discernment of the philosophy and methods translated as the need for teacher educators to communicate the main philosophical goal of fostering the whole child to realize her/his full potential. Coresearchers expressed that the primary aim of a teacher involves a teacher's ability to individualize. Montessori educational theory, contributors acknowledged, is rooted in a clear philosophical and methodological base,

yet several wondered if distinctions between following the philosophy and applying the methods are made clear enough to adult learners. Some coresearchers raised the issue of distinguishing the ideal theory from realities a teacher likely would experience in the classroom. One elder thought it would be helpful for adults taking the teacher preparation course to be cognizant early on of how much Montessori methods align with most state educational requirements.

Conveying the need to adult learners for having a solid basic philosophical understanding of Montessori theory seemed imperative; one elder noted, “It’s something that I feel we don’t get enough of in training.” In a different dialogue, another contributor pondered the responsibilities for which teacher educators are accountable paralleled with how overwhelming the requirements can feel to the adult learner:

I have wondered if maybe the training, it seems to me like the demands and the way trainers present the expectations for the teachers for the work for the children, for [the teachers’] own development, sometimes [the demands] feel daunting . . . it seems to come across that way, and you were talking about a balance between yes doing your job and having compassion, you know, for yourself and for the children. Do you feel that this is something that can be addressed more directly in training rather than after people complete their training?

Some coresearchers noted the challenges adult learners could face upon beginning the teacher preparation course and explained that many adult learners who come to the training “are people . . . for whom the definition of teacher is open head, pour in knowledge. They are the products of our traditional system, whether it’s public or private, where it’s very teacher centered, teacher directed.” One contributor who had been a teacher in a conventional school prior to entering a Montessori teacher preparation course explained,

I remember as a trainee having those same feelings of how do you do this? How does this work? You know, I couldn't see it. I liked the philosophy but I couldn't see what was actually happening in the classroom as being something that was systematic or had results that you took care of assessing and all these kinda things that you're so used to, and do it in a totally different way for each child.

Another elder added the need to convey to the adult learners that "Montessori is very individualized . . . if you're uncomfortable with this, you [might not] want to do this training."

Several elders reflected on the need to distinguish the ideal from the realities when covering the philosophy and methods; as one said,

In the training you're getting a classic picture, right? This is an ideal . . . when I'm talking about this approach to the child I'm really talking about, you know, let's look at the ideal. But [adult learners/teachers] are not getting enough information about what it feels like and it's really like on a daily basis in the class. They're not getting the lectures tempered.

Another explained that teachers ultimately must "take from your training whatever needs to be taken from it to offer the children the best possible experience given [the] resources [they have]." The coresearcher elaborated,

There are no silver bullets [answers]. That's where training comes in, that's where understanding the development of the child as childhood, and then the development of this one child that I have in front of me, you know, today in this moment. And then you have to modify, modify, modify. You know it's just to provide the experience that the child needs. And again it's something that I feel we don't get enough of in training, you know, [the training can be] just very structured.

Another pondered on how to convey the philosophical role of the Montessori teacher:

Our work [as teachers] is really at the periphery. And how do we feed that? Preferably in the best way that respects each child's own natural development and their own timeline which varies so much from child to child. So [the philosophy] really respects that core, that central part that we really can't touch. [Maria] Montessori talks about we really can't touch that part, we only can support it through as you say environments and the way we are with the children.

Moving away from the philosophical understanding, some coresearchers felt it was important to communicate how much the Montessori methods and practices align with expectations often required from state educational agencies. One coresearcher offered,

I think that it would be such a value to the adult learners to get a big old minimum standards book handed to them, at least the components that would relate to their experience in the classroom. Because many times the things that we do already meet and exceed— those are minimum, we do maximum if you will. I think that understanding of your own state's requirements of you as the teacher, the responsible party, I think that would benefit them.

Able to express oneself. The elders emphasized basic skills a teacher must have to implement the Montessori concept. These skills included clear and careful record keeping of lessons children had mastered and the importance of being able to express oneself clearly in writing and when speaking with parents and other professionals. Coresearchers recognized that while some Montessori programs are required to assign grades to students, grades alone do not suffice in implementing a Montessori approach. A teacher's ability to record observations, write descriptions of behaviors, and note work a child/adolescent is completing or is attracted to all factor into requisites for the Montessori teacher to communicate. Montessori education openly partners with parents, and the ability to accurately record and thoughtfully articulate a child's tendencies and progress becomes imperative. One contributor gratefully acknowledged that attention to these skills seems to occur in most teacher development programs nowadays:

One of the things that has also helped is the criteria that the teachers have to follow in their own writing. You know, it has to be professional . . . no slang . . . your work will be returned if it is not in this format because expectations have been set from day one . . . this helps prospective teachers know this is real.

First few years are challenging. A final thought elders shared in terms of transmitting key expectations during teacher development programs involved letting adult learners know upfront that the work is demanding. One coresearcher explained, “We are unfolding as Montessorians, and yeah we do have to struggle. And maybe just saying that to new adult learners that, you know, this is not easy.” Another contributor added that adult learners likely would benefit from being told directly that they would need to do more in the first few years: “They will be doing more than just within the confines of their teaching day. [They should be told] otherwise it comes as a surprise to them and they can feel resentful.”

Coresearchers seemed to acknowledge the importance of understanding the philosophy well enough for adult learners to recognize how and when methods should be adapted to meet individual student needs as well as understand how much the Montessori curriculum satisfies state requirements that initially might appear at odds with the Montessori approach. The importance of individualization in the Montessori concept factors into being able to develop the written and verbal abilities required in student evaluations and implicates challenges most teachers would face in the first few years spent in the classroom. The elders seemed to believe that having a clear sense of these expectations during the teacher preparation course could foster a teacher’s ability to implement the concept once the teacher is in a classroom full time.

Create sense of community in adult cohort. A sense of community involves each adult learner feeling respected and safe to learn and make mistakes within the group of other learners. Having a sense of community is a vital part of the requisite psychological environment in the

classroom with children. The need to create a sense of community among adult learner cohorts was important to coresearchers, who believed that adult learners learn best when they experience that which they are expected to create. One contributor voiced,

I think it's very important to make sure when we do talk about the environment, I think [the] tendency is again well these are the materials for the environment. Equally as important and maybe even more so is that psychological environment, that energy that children feel when they are there. And they feel like they are part of there, that's that community aspect.

Another coresearcher inserted, "They have to be able to experience [what they will be doing in their classroom] for themselves so they can take it into their classrooms."

One elder, speaking about how critical the sense of community is in all instructional levels added, "Well in the infant/toddler and secondary [programs] there aren't materials, so the prepared environment is almost totally psychological preparation." Building upon that sentiment, another coresearcher reflected,

When they're in the training situation you know that that sense of community is focused on and helping them understand, well, what makes a classroom a community, you know? What are those elements of community? And as we've come to talk about it we see it as first of all setting a climate you know . . . it's the climate of being loved, of being accepted, of the teachers in the training programs that they each feel accepted as part of the group. That no one's outside and that there's this feeling of I'm a part.

Contributors seemed to recognize that the experiential learning so key in Montessori philosophy is also important to provide in the teacher education course. Cultivating a sense of community during teacher preparation conveys a vital component of the Montessori classroom.

Experiencing a respectful and encouraging learning environment is one example that elders realized all levels of instruction could offer during teacher development.

Keep the learning relevant. Coresearchers acknowledged that the Montessori concept is specifically designed to entice and engage students in the learning process by meeting children's developmental needs. Teacher educators, contributors noted, need to be responsive in meeting the needs of their adult learners. Coresearchers shared thoughts about making the learning relevant that included (a) meeting the needs of a changing age demographic of adult learners, (b) the importance of teacher educators staying fresh, having recent experiences in a classroom, and (c) utilizing the experiences of fellow teacher educators.

Changing demographics. Several coresearchers noted they were beginning to see a change in many adult learners from what they as teacher educators had seen in the past, noting the number of adult learners who are part of the generation often referred to as millennials. One contributor reminded,

And I think if we look at the adults and we follow the child within the adult, just as you said earlier the way we need to step back and do intuitive attention and try and feel the way in which that adult learner wants us to deliver it, I think that's when we're most successful and then that teacher is the most successful teacher. I think we have to, we have to adapt our teaching to the millennials.

This participant had done research for a workshop on recruiting teachers and shared that "by 2025, [millennials] are going to be 75% of our workforce." That coresearcher added, "They are so far better equipped to navigate this 21st century world than we could ever begin to believe that we are . . . and we must adapt to their needs."

Need to have current experience. Keeping the learning relevant, some coresearchers stated, included teacher educators recently having taught in a classroom with the children. Some

remarked that, as teacher educators, it felt incumbent to stay current and maintain some hours in a classroom. Several contributors, however, cautioned that too many teacher educators have not taught children for a long time. To become a teacher educator, most teacher preparation centers require a minimum of five years in the classroom. One elder exclaimed,

And my opinion is that there are not enough trainers who have had recent experience in the classroom and that creates a situation . . . you have to have at least five years of teaching. That's not enough. It's just not enough. And so you end up you're 55, 60 years old and you had five years of teaching many years ago, and you're doing a lot of assessment of classes and criticizing but you've forgotten what it's like to . . . do this day by day.

Coresearchers noted that adult learners seem eager to hear real examples, anecdotes of real experiences. While stories could be timeless in terms of lessons they teach, contributors acknowledged that having more current examples adds meaning and credibility during instruction. One elder reflected, "I have to say even though I completely agree that children have universal principles of development . . . the behavior in the times of Maria Montessori and children are different. And . . . the challenge for the teacher today is a little different."

Learning from fellows. Numerous examples were provided throughout the dialogues for ways of teaching adults effectively. The elders reiterated that training needs to emphasize more understanding of the development of the child because most teachers are not going to be in a perfect setting. One participant who had recently attended a Montessori conference in South Asia shared,

I got to meet a lot of men and women that work with children in dire circumstances. You know they don't have the perfect prepared environment, they don't have the support you know that we [often] have [here], you know even in the public school system, and they have to work with what is available to them. And you cannot just say well, no, sorry, I can't work like this.

Coresearchers believed that adult learners could benefit from practice in what to do in those circumstances. One contributor said, “I think . . . the theory of the areas of work is so important. And we maybe don’t either devote enough time to that or we don’t weave it into the materials as we’re doing it.” When that elder recalled what one of her mentors had said, she evoked a creative idea that might be incorporated into a teacher development program. The suggestion involved adult learners creating a lesson from materials not made specifically for Montessori:

She [a mentor] said you can do Montessori without a stick of [human made] material, but you can’t do it without material. But you have sticks, you have stones, because the children have to manipulate something. But you can be inventive . . . if you understand the structure of what is the point of this. . . . my most comfortable arena is the 3 to 6 stage . . . I could take those areas of work and [cover the elements] and you could talk about what is essential for the older child and you could for the younger child, that the child gets from that. And then if you didn’t have Montessori materials, you know you could look for things that you could use, that the child could use.

One coresearcher revealed what had been effective when working with adult learners in a classroom in a West African country:

The first time I went and I talked. I did workshops with the teachers after school. Not this time. This time I presented to a small group and then I sat in a classroom and I watched the teacher present to another small group and another, and gave feedback right away. Much better, because they got to see how I did it [in their setting] and then practice it themselves.

Several noted that some adult learners seek ready solutions and expect the teacher educators to provide answers to every circumstance. One elder explained that when an adult learner seems to seek prescribed solutions to a situation, she would say, “It is more intuitive,

there is not one solution that applies to all children.” This contributor added that she sometimes recommends to the adult learner an exercise that has proved effective:

You can do this, you can read an article by Rudolph Dreikurs and one by Alfie Kohn because they’re almost opposite, and find your way with children. It is intuitive. You have to take it all in and you mold it with your personality, and each teacher is different how they will see it.

Another elder shared,

What I tell people is that you have to construct the knowledge yourself. I can’t tell you. I can prepare the environment for you but you have to construct your own perspectives and point of view based on the variety of resources that are here right now.

When the issue of computer and electronic usage during teacher preparation courses arose, one coresearcher shared what she did to model keeping the learning relevant, effective, and meaningful:

I just am remembering this one class a couple years ago and the [adult learners/teachers] were all on their computers taking notes they said, as I was teaching they were taking notes. But I felt like for the first time in a long time I wasn’t reaching anybody. And it was an interesting thing because I had them the next week, and I had watched this YouTube of a wonderful composer who said I must see the eyes of my students. And so the next week I said okay you can have your computers on and take notes *after* my lesson but right now I have to see your eyes . . . And they did [and it worked].

Coresearchers discussed how teacher educators might keep the learning relevant by meeting the needs of today’s prospective teachers, maintaining current experiences with children in the classroom and continuing to learn from other teacher educators. In addition to considering effective practices and strategies for teacher educators, elders issued a united refrain about the

need to inspire adult learners and to be patient and give them time to learn. These aspects are the last two to be addressed in this section, which contains insights disclosed for teacher educators.

Inspire. The topic of inspiring teachers arose in most every dialogue. Inspiring adult learners and cultivating awe and wonder were viewed as one and the same. Coresearchers explained that a sense of awe and wonder is what teacher educators wish for teachers to carry into the classroom of children. One elder remarked, “The best gift we can give a child is just to inspire them with awe and wonder, give them the time, the tools to observe, you know, learning how to learn . . . [Adults] need that too.” Piggybacking off that sentiment, one coresearcher illuminated the need to inspire:

I had a big argument with trainers a year ago who said our purpose is to transform adults in the training course. And I said I don’t think it is. And another trainer said if you had told me I was going someplace to be transformed I would have run quickly in the other direction. I don’t think the transformation is our job. I think our job is to be as inspiring as we can.

One elder considered the dilemma of inspiring adult learners: “But with adults . . . how is it possible and how to . . . light that light in them? [Montessori] is, you know, this is a different way of thinking.” Another echoed a similar concern:

How do we keep them inspired? How do we keep teachers, you know, excited and wanting to come back to the classroom? How do you do it? We cannot just be expecting them to be this perfect ever-evolving wise beings, you know.

A contributor in another dialogue expressed these thoughts: “Sometimes I think we have to ask, be very direct and ask them [the adult learners] okay what is it that does excite you? Where do you feel inspired?” Another elder commented, discussing the benefits of journaling and fostering connections with nature:

It is important for the students to reflect on their own experiences which can be done through writing which encourages them to see themselves as authors and to learn more about who am I and what is important. I remember Richard Louv, author of *The Last Child in the Woods*, who spoke at a Montessori conference discussing the serious issue of nature deficit disorder which must be an essential awareness of each teacher and needs to be stressed with the adult learners. Mr. Louv was asked to address a small Congressional committee. He noticed that the group who appeared quite bored when he was discussing his research came alive when he started talking about finding frogs when he was young. It is finding something that can touch the person and it is always nature . . . I think that being connected to nature is one sure way to touch the spirit of the children and ‘enthuse them to their inmost core’ as Maria Montessori said. I love Rachel Carson and her whole message about keeping alive the sense of wonder.

Be patient and allow time. According to the elders, the need to inspire adult learners during their teacher preparation work is coupled with the need to be patient with the adults and give them time. As noted,

Teachers are as different as children are and have more burdens that they bring to the table. I think a lot of it is letting go, the teachers learning to let go of patterns. You know, children come pretty open, but [teachers must] learn to let go and see it in a different way.

Elders explained that the length of time for Montessori adult teacher preparation classroom instruction varies. Some programs concentrate classroom instruction over extended periods of time for two summers; other courses are spread out over the course of a school year, usually five days a week for half days. A few programs meet adult learner needs by offering classroom hours on extended weekends over the course of two to four years.

Coresearchers seemed to believe that the longer adult learners have supervised student classroom time, the better. Teacher preparation courses vary in the required amount of time

adults spend in a classroom with children. Some adult learners have mentors while they are in the classroom for four weeks, eight weeks, or nine months. Regardless of the time configurations, one contributor justified the overall time required by Montessori teacher development programs:

If we're going to get . . . people that are aware and mindful of their profession I think [time with children in the classroom] is one of the best ways that I can think of. It's very labor intensive of course but as humans I don't know how else we can do it.

Elders recognized that being patient with adult learners as they traverse understanding of what often is a new way of educating involves giving adults plenty of time, and for that reason believed the time intensive preparation requirements serve that purpose. As one noted when discussing teacher development,

And I think that there is really a need in our training programs to have the, what do I wanna say, opportunity for those new teachers to really understand what it means to go through that transformation. You just don't all of a sudden change how you've thought all your life. And you know it's not just learning about Montessori and the materials but it's learning about how do you learn to respect yourself? How do you learn to see yourself and watch yourself and make changes that need to be made? . . . I don't know that [adults] always have that opportunity to learn how to go inside and learn to observe self as well as to observe out beyond, and that we really need to be able to bring that to them as part of what they're going through, because we continue to go through it all the way to the end I think.

Several contributors reflected on the fact that the Montessori concept expects teachers to be patient with their students and allow their students time to complete work, so adult learners should be given the same if these budding teachers are to be able to implement the concept fully. One coresearcher elaborated,

I think they have to be willing to be patient not only with the children . . . they have to be patient with themselves because they can't learn it all at once. They're gonna be learning right along with the children, and Montessori's just that way.

Another participant reflected on the need for patience by teacher educators during the adult preparation: “[It] requires a lot of patience to watch everybody unfold and support them through that long journey . . . and we just need to go into it with an open heart and help as we can.”

One elder acknowledged that patience and time are not always enough:

We can train them how to teach Montessori but we can't train that essence . . . They can develop it. Some of them have it, some have . . . the little flame burning. That little flame is burning and you stoke the flame, and as you stoke the flame sometimes you miss it and after half a year, one year of teaching, you say the flame was there, I've been stoking it like crazy, but nothing's happening. So this is not a match. That doesn't make [the adult learner] wrong, that doesn't make me wrong, let's part ways because you'd be happier doing something else. And that has happened to me certainly.

Coresearchers believed, however, that most of the time, being patient with adult learners and allowing them time to absorb the concept proves successful. Some equated trust in adult learners as tantamount to the trust expected of teachers to be patient with and trust their students' desire to learn and grow. One contributor submitted,

But I think trusting and letting, not opening up and pouring in but trusting the kids to construct themselves, and I would say the same with teachers to construct themselves. You know, all summer I've been watching these people . . . evolve who would say no way would I do that, [allow a student to] take a test again. You know, '[The students] get a grade the first time.' To now saying, oh well our purpose is for them to know the information. So now I can name three people who've made that shift, you know, and I haven't told them how they should believe. We've just provided enough dialogue and enough examples for them to evolve into that finding on their own.

That elder explained further,

And it [doesn't always] happen in one summer either. I mean there are certain things that are, but . . . the biggest difference [is usually after the adults have been in the classroom with the children] you know, it's like oh yeah . . . now I hold a different perspective on that.

Two more examples were shared during a dialogue, which illustrate the importance of being patient and allowing time for adults to interact with their peers (spacing separates speakers):

I was noticing today you know we only did one book today with [the adult learners], but there was lots of time for them to dialogue in small groups over their chapter and figure out how they were gonna present it and to talk to each other in that networking. And I did mention you know as they learn as much on the off times as they do when we're all together in their little pockets of asking questions and developing friendships and whatever, and the same with the [other level of adult learners]. They have all day to process information and they get it again and again.

So that gift of time that's not so crammed full of things, and I know it's a thing that people don't like about coming long days but I think it's the gift we give them that they have that time for all that processing and asking questions and coming back the next day and you know trying it out a little differently. And you know they did, [the adult learners] did lessons on Saturday, and they did each the same lesson three times. You know they did it with one small group and got feedback, cut half their talking which all of them had to do. Did it again. But you have to take time for all of that and we give children time to have a pace, and I think adults need that same sense of time even though we're in a hurry and we wanna do it quickly and get all the information in a short period of time.

The insights coresearchers offered for Montessori teacher educators addressed the importance of patiently giving adult learners time to process and unfold as learners themselves

and the role inspiration plays in support of a teacher's development. Making the learning relevant to adults included being responsive to changing demographics of adult learners, maintaining current experience with children in the classroom, and openly seeking discussions with fellow educators to foster continual learning of effective instruction strategies.

Coresearchers seemed to believe in the importance of creating a sense of community among the cohorts to replicate the sense of community they want teachers to create in their classrooms. The importance of providing adult learners with clear and realistic expectations involves making acute judgments about which core philosophical basics to emphasize, raising the need to express oneself effectively in written and oral communications, and recognizing the demands of the job are challenging, especially in the first few years in the classroom.

Overall, coresearchers acknowledged that creating the psychological environment during the teacher preparation course that mirrors the student classroom psychological environment that teachers are tasked to create is optimal. The insights elders offered to school administrators proved similar in the need to create a school culture that reflects the desired culture created in each classroom. Because the relationship between teachers and administrators usually becomes more established than the relationship between teachers and teacher educators, however, the insights offered to administrators considered ways to sustain longer relationships.

Insights for Montessori School Administrators

School administrators are the people considered directors, principals, or heads of school who do the hiring and oversee the entire faculty for a school or the Montessori program that might be embedded within a larger school. Sixteen of the coresearchers had been or were school administrators.

School administrators often hire a prospective teacher, perhaps contingent upon the new hire enrolling in a Montessori teacher education course. As Montessori programs grow, especially in the public sector, school administrators are not always aware of the Montessori educational principles and concept. Whether hiring a prospective, new, or experienced teacher, school administrators have a vested interest in the success of each teacher. The success of a Montessori program, elders recognized, as in any educational program, is most often determined by the number of effective teachers.

Contributors acknowledged the importance for administrators to understand differences between the Montessori and conventional educational approaches. Several Montessori training centers have added courses for administrators because not all administrators for a Montessori school have a Montessori background. There could be a disconnect with the Montessori concept, coresearchers acknowledged, when an administrator does not understand the philosophy, and that disconnect could have long-term negative impacts. One elder explained,

I mean that's the whole reason we got the administrator's courses. We felt that we were doing a great job with working with the teachers, but they were going back to environments that the administration wouldn't let them do that . . . wouldn't nourish them.

Coresearchers explained there exist obstacles beyond the control of a teacher and an administrator. State requirements, for instance, often must be met in public Montessori schools. If administrators do not recognize the challenge of navigating state requirements with Montessori principles, teachers could feel lost and unable to discern what they must do and how they need to function in the classroom. One contributor shared the importance of teachers “not being punished [by an administrator] for doing it a different way.”

An example of a challenge one group of elders offered recalled a practice known as QRIS (quality rating and improvement system) that many conventional education programs support in the United States for early-school-age students and is in direct opposition to nonverbal practices and respect for not interrupting a child's work that a Montessori teacher is expected to employ and honor. QRIS, for instance, an elder said, requires teachers to

put a thing around [their] neck [that] counts how many words [the teacher says]. Doesn't matter what the words are, but they count. And if you don't have enough words, you don't get checked off on that category . . . Another one about interruption is that this [Montessori] teacher got marked off because she . . . didn't announce, disrupt the whole class to tell them she was leaving the room to cut the paper. So she was supposed to say, 'I'm leaving the room now.'

The examples indicate tensions and misunderstandings that could arise between a teacher and an administrator. Elders noted that an administrator unfamiliar with the philosophy behind Montessori practices might find it challenging to be supportive of their faculty just as the teachers might find the relationship with the administrator challenging, both of which could impact the quality and effectiveness of a school program.

The comments shared in this section for administrators were mixed in with other thoughts participants shared in the two research questions they had been asked. The findings presented in this section are insights coresearchers offered during the dialogues that might assist administrators in nourishing effective teachers and include how to (a) select the best teacher candidates, (b) support new and experienced faculty to be effective Montessori teachers, and (c) prepare themselves as administrators to be effective role models for their teachers. Figure 5.5 illustrates the areas that coresearchers revealed throughout the dialogues that pertain to the role administrators can play in cultivating effective Montessori teachers.



Figure 5.5. Coresearchers in the study on Montessori perspectives provided administrators with insights about (a) selecting effective teachers, (b) the importance of supporting teachers continuously, and (c) ways to prepare themselves as administrators in creating a culture that fosters Montessori teacher effectiveness.

The collective thoughts about administrators surfaced during the dialogues and reflected what coresearchers had learned over a period of many years in Montessori education. Their thoughts are shared for the purpose of providing insights that might prove helpful. Passages cited directly from the transcripts are placed in quotation marks and are not ascribed to a particular participant.

Selecting teachers. Of the numerous challenges school administrators face, coresearchers considered that perhaps the greatest challenge arises when hiring teachers. Many times an administrator is hiring someone who already holds a Montessori diploma or credential. However, as one reminded, “You can go through Montessori training, you can be a certified Montessori teacher, but it doesn’t make you a great Montessori teacher.” One coresearcher, a head of school for many years, talked about the anxiety hiring can bring about:

Even the prepared environment, the [physical] prepared environment cannot overcome the adult’s weaknesses . . . It’s really a deficit that I think I have. I never am really sure when I am

interviewing . . . if I've been able to ascertain whether this person's really going to be the right person for the classroom . . . which just scares me every time I do it. So there's a lot of exploration that I have to do.

Elders understood that many times, administrators must hire teachers who have not taken the requisite Montessori teacher preparation course. In those cases, the hiring school might pay for the teacher education program (or a portion of the tuition) and might ask for a three- to four-year commitment after the teacher has earned a credential or diploma. Coresearchers noted that when a school invests that kind of commitment in hiring a prospective teacher, the risks intensify beyond the normal angst of hiring someone who would be effective.

Coresearchers revealed insights about interviews they had held with prospective teachers who had become highly effective teachers. The perspectives came from disparate experiences, yet each situation disclosed practices that generally might prove beneficial for administrators to follow. The suggestions involved spending more time conducting interviews, how to elicit indicators that applicants might be a good fit as a Montessori educator, what they look for in a candidate, and the role administrators need to take in explaining Montessori expectations.

Spending more time conducting interviews was explained as holding several sessions with each applicant. Some coresearchers acknowledged that while the tasks with which administrators are responsible are wide and numerous, the time taken to hold several interviews with a prospective teacher is warranted. One elder shared interactions that occurred with a person seeking an internship and the realization that the advantages gained from the multiple meetings with this intern also would be effective in the teacher selection process:

So we did spend more time, several sessions actually, and that was different. So I might want to take that away as a thought . . . We had a volume of criteria to cover . . . that was my first interview. There [were] certain documents that I had to interact with . . . Then we met with . . . [the

lead classroom] teacher, then we met a couple more times . . . and [the applicant] was living out of town so it was more formal than usual. . . . And in this case [the applicant] had somebody else saying they had expectations of [this intern] and of this school in terms of helping with [the intern's] growth. And in the course of that . . . [I learned] more detail about [the applicant's] experience . . . we had more time for you know conversation.

Allowing for several interview sessions could provide more opportunities to ask questions that reveal an applicant's outlook on life in general. One coresearcher found it revealing to ask a candidate to "talk about someone who has struck a spark in you." Another elder shared,

I always ask potential employees about their early school life, fondest memories, best memory of a family vacation or time together, a favorite grandmother story, and of course, what they like doing best and . . . what was the funniest things that might ever have happened to them. [I want to know if they] still enjoy playing the games they played as a child and having fun in some of the same ways they did many years before. Those descriptions of that joy for life fit how children move through their lives. I want my staff in sync with the children and their joy . . . and the joyful mentoring in our program has helped develop many fine, empowered, actualized teachers which allows them to stay happy in their work, myself included.

This coresearcher explained an example of one applicant who "shined as she talked about her life encounters. Her face was animated . . . she was able to well articulate her story." The elder continued, "She walked in the door gifted, whole, humble, able to make good choices and evolved into an amazing inspiring teacher and Montessorian." Another described characteristics that seem to signal a candidate is not a good fit as a Montessori teacher: "They don't trust the children or they can't, you know, and they cannot communicate with the adults." One contributor spoke, as did several others, by cautioning,

If [the teacher applicants] have to have the answers, if it's A plus B equals C for them and they cannot be comfortable with anything other than, in other words they can't be comfortable in the gray. I think the best Montessori teachers live in the gray.

A few coresearchers reflected on how important they believe it is for administrators to meet certain responsibilities in the interviewing process. One elder explained, "We need to tell them what we expect." Expectations included "simple things like don't ever leave the children alone in the room, even to step out and get something and go back in . . . you are in loco parentis and you have to always have the children in your sight." Another added the importance of conveying "the patterns and the routines and always knowing what is supposed to happen at school with the administration and the schedules . . . the parents, all of the above." The elder continued,

I think knowing how to do the proper sharing of your organization and your philosophy and your outlook on what a team looks like and what the expectations are . . . if adults . . . don't know what's expected of them then I guess I would have to say I've had many lessons on gee I guess I should have told you that. So . . . it really depends on the preparation of the administration how well they can support you in your pathway to success.

For administrators, the coresearchers believed, the interview process is critical in distinguishing adults who are (or could become) able to implement the Montessori paradigm for educating students. During the hiring process, conveying the individual school's expectations as well as the adherence to the Montessori philosophy that is expected remains incumbent upon the administrator.

Supporting teachers. The insights elders offered to administrators included what to consider for teachers who are in the process of taking the teacher preparation course, teachers

who have just completed the preparation course, and tips for sustaining an entire faculty. The thoughts coresearchers offered included ways of bridging relationships with parents and growing the well-being of the whole school community.

Supporting new teachers. A teacher is considered new when the teacher is undertaking the training or has been in the classroom for less than five years after completing the teacher preparation course. One contributor clarified that being considered new in Montessori meant “not just for one year but you know multiple years to grow in their craft . . . it usually takes five years, the sixth year [is when a new teacher] has arrived.”

Speaking about the responsibilities new teachers face, one reminded,

Not only do you have to be, do your Montessori practices and parent communication and all of those things, you often have to follow all of these rules that are set forth by the state. And so it’s really, it’s so, it’s a big interconnected web. It’s a scaffolding and a spiral, and it goes up and down and back and forth.

That contributor concluded, “So it’s a lot to assimilate at one given time . . . I feel very lucky that I had a lot of people to surround me that truly had the essence, that kept that ember alive and helped it to grow [when I first started teaching].”

One elder considered the difficulties in expecting an administrator to provide support for new teachers:

What listening to you is bringing up for me is that to help teachers get it they really need to have the support of the administration, an active administration, and involvement. Which it’s really hard to do that because the, all of the other things that are on your plate as an administrator.

Those comments were followed by another contributor who offered cautionary advice:

However, the weak link is still I think from the administration to that new teacher or that adult learner entering, because [the new teachers] don't know what they don't know, they don't know the questions to ask until they get into a crisis. And then once you're in a crisis there's emotions.

In another dialogue, one of several participants who had been both teacher educator and school administrator reflected,

[Administrators can] assume . . . that because [the teachers] were trained after all . . . they know what to do now, [yet new teachers] have the hardest time. And they need the kind of the most support in setting themselves free to be able to make mistakes and be open to somebody who can support them. So I think that first, that kind of embryonic year is really key in my experience. Because if they don't trust the process and trust themselves some of them just leave and they don't really give a time for the method. Or they right away will go astray and start doing things that they fall back on. Worksheets, you know, things like that. So I think that there is even the most inspired, transformed adult there's a very fragile period I think, a vulnerable period, at least one to three years and that's when I think that when they have, you know . . . really experienced people with great insights they can get the kind of support that they need.

Understanding the demands administrators face and realizing the vested interest administration has in developing new teachers, coresearchers offered suggestions for how administrators might cultivate a new teacher's desired performance. The elders believed it is important for administrators to understand what the training involves, bridge communications among those working with a teacher in training, recognize the fragility of teachers in the first few years, let new teachers make mistakes, and remain as supportive and encouraging as possible.

Coresearchers emphasized that adults taking the teacher education course need support from a school's administration. The administrator-teacher relationship benefits when the administrator understands what the teacher education course requires and when there is open

communication between “the field consultant, the school administrator, and [even] the classroom lead teacher.” One elder who teaches adult learners/teachers disclosed,

And it was the feedback that I got . . . from . . . all three administrators [who] emailed and said I had no idea that [the teacher training] was so detailed, so intensive . . . every part of the adult learner’s experience is guided and protected and nurtured, but also they’re held accountable. So [the new teacher’s] feet are put to the fire to do the things that are on their assignments and to put it into practice in their classroom. So if they’re being thwarted in any way then the field consultant [can work with] the administrator [to] help softly get everyone onto the same track.

As elders reiterated the vital role administrators play in supporting new teachers, one bemoaned the fact that some new teachers “go to these one-classroom schools, they don’t really have a head of school, and it can be really isolating.”

Contributors elaborated upon the need for administrators to honor the fundamentals in the Montessori concept and allow new teachers to make mistakes.

I think the development of a teacher is pretty much like a development of the children. Just like in the classroom you’re not gonna go and correct them before they make the mistake . . . It’s the same with a teacher, you know the way we learn and I speak from experience is I have to make some choices and . . . to live with the consequences of those choices and say oh that worked great, or yeah no I might want to make a different choice because this is really not working for everybody . . . I think there’s a lot more value in your experience as a teacher when you make changes because you know you need to make them, and not because somebody came to your classroom and told you that.

Another coresearcher commented,

[Administrators need to] give people a couple of years to fall on their face and pick themselves up without too much intervention . . . I don’t ever wanna eliminate the idea of help, but . . . when

you're a brand new teacher you're loaded with stuff, you understand that . . . twenty percent of what you learn in training you remember. So you don't know it all but you know there's a lot, and you've just gotta be given a little time to work out how you're gonna do this work without too many other personalities coming in and shepherding you this way or counseling you that way. Unless you're disastrous, and then obviously you need help or you're falling apart and whatever. But I think there's some wisdom in that for the after part of training . . . I certainly think we need a more vigorous support system for after training.

Coresearchers described ways that administrators could effectively encourage new teachers. One contributor shared an exchange she had had with one new teacher, reminding the teacher of the larger context of the teacher's work:

What I told her is that you know first of all you have to be kind to yourself. You're comparing yourself to teachers who have been teaching for seven, 10 years, who have classrooms who have already . . . that Montessori culture that we talked about established, and it's not fair, you know, for you to compare yourself to them.

The elder continued by sharing a way of redirecting the new teacher to consider her own strengths:

So I told her, I want you to think about what is your gift? Nobody, I don't know of any one teacher that can do it all . . . each of us has a gift as a person and as teachers, and you need to learn to identify that gift. And that's the one you nurture. I'm not saying you should exclude growth . . . but this is the one thing that you have that nobody else can give to the children. So it is . . . your responsibility, it is your duty to the children to share that gift with them because that is the one thing that you can be passionate about . . . It just comes natural to you, and children pick up on that. So maybe down the road they'll have another teacher that has another gift, and that will bring balance to their lives. But to you this is it, and especially as a new teacher, you know maybe once

you become seasoned you'll find that oh I have this other gift too . . . So you know I think for new teachers . . . it's, I think it would have been helpful to me when I was a new teacher for somebody to ask me to reflect on what is your gift, rather than you know trying to do everything.

Other contributors reflected that as an administrator, it is important to guide teachers in understanding the reason (and research) behind each interaction with students and the work given to students. Administrators could encourage new teachers to step back and observe the classroom when children are not performing as intended, supporting a teacher to determine what the classroom needs. One contributor recalled a conversation held with a new teacher:

Know why you're doing it. You know, so that if anybody has a question about why you're sitting there not doing anything about this thing, you tell them, I am not sure what is driving this child to do this. I don't wanna react to it. I wanna be helpful. And before I can be that I need to know what it is. So . . . I'm gonna sit here and observe until I feel satisfied or something else calls me off my seat.

Another, speaking about the crucial role of an administrator, concluded,

Having a supervisor that can tell you it's okay to make mistakes. It's okay not to know what to do, you know. It's okay to be wherever you are at that moment . . . and that's how you keep people inspired . . . so I think that's [the] support we're talking . . . what practices keep people, keep teachers inspired and . . . feeling safe, feeling like they can work, you can develop just like the children. And I think it's that type of support.

Supporting all teachers. Coresearchers reminded of the need for administrators to be supportive of all teachers, new and experienced ones, for the health of the entire school because, as one elder said, “an effective school is a school that has sustained its faculty over a longer period of time . . . You know the schools that have teachers that come and go every year, they

never quite gel.” Another coresearcher exclaimed, “The most impactful way to establish a strong Montessori program involves supporting those at the core of implementing the concept—the teacher.” Another referenced the importance of administrators supporting all teachers:

One of my takeaways is the idea that our teachers in the field have such a burden when you think of the responsibilities that they have to their classroom community, not just the children but the whole community. And the support that is available to them is vital to their thriving, because we want them to flourish and thrive and grow. And when they feel like they are supported and they are thriving then it comes right back to . . . their director, their support.

Elders believed the best way for administrators to support their faculty is to consider the faculty as they (administrators) want teachers to consider the students. They suggested that administrators need to create opportunities for faculty collaboration, hold meaningful faculty meetings, establish regular team level meetings, use creative exercises in teacher evaluations, encourage teachers, and utilize strategies that keep teachers inspired.

Some suggestions elders made for practices administrators might implement included administrators cultivating the faculty’s desire for lifelong learning and creating opportunities for faculty collaboration. Collaborating with faculty on issues could be supportive for the entire school’s well-being:

[Administrators want to give] time for people to collaborate in their own schools, because there’s so much talent and you know just being together and looking together and using different points of view is an important piece . . . just to keep learning.

Several coresearchers addressed the importance of working together with the faculty to build relationships with parents. They stated that often, teachers find dealing with parents the most difficult part of the job. One remarked,

Probably though one of the fears that new teachers have in Montessori or any teachers is talking with the parents. You know, because as a Montessori teacher you're learning all of these different subject areas, you're learning you know how to manage a classroom, how children can communicate, and then you know parents, that's like a whole other thing.

For those teachers, administrators might be proactive in talking about parents with their faculty and in recognizing the critical role parents play in the education of the child and the dilemma in how to nurture relationships with the parents:

Involving [parents] in different ways is critical. So many teachers have even said I love teaching, if it only weren't for the parents, forgetting what you said earlier that if it weren't for the parents we wouldn't be teaching . . . we oftentimes forget how important it is for the parents to truly understand what we're doing.

Another coresearcher continued,

[Parents are] such a vital part of [the child's education] and how to bring them in in a way that they don't feel like it's just another meeting that they have to go to, but how can we really engage them so they can be inspired to be able to have that same feeling at home and bring in those kinds of attitudes. And how to be able to create their own community in the home and help the child have that same sense of I can do it . . . The hardest part of our task is . . . educating the parent . . . parents are also under so much stress these days, so there's the parent that wants to do too much, and the parent that is so busy that they can't do much of anything. but . . . I think we succeed because of the overall abiding truth of the love of the child and our process of eventually getting that across. And once that mountain is climbed then the parent is doing an aha.

One elder offered a practice that has proven to be most beneficial for parents, students, and teachers, though coresearchers qualified that the practice works when a faculty consists of more experienced teachers:

In order for parents to really be part of the movement to change education and to demand that better education, first they need to see what a good education looks like, right? So how do we do that? Come in the classroom. This is not something you do in parent education night or you know in the Saturday picnic . . . [parents need to] see the children work and see when things fall apart and how they get put back together. What do you do . . . when a child is disrespectful, when they don't wanna work, because we can't sit here and tell the world that in a Montessori classroom everything goes perfect all the time . . . it doesn't, so what do you do when it doesn't? I had an open-door policy. Not only that every time we had the Great Lessons, you know, in lower elementary, parents were invited. I wanted them there for the lesson, I wanted them there for the discussion after the lesson, you know.

The elder continued by describing other ways of bringing parents into the classroom effectively and the benefits it might bring for the students, with the same caveat that a teacher has to be experienced enough to feel comfortable following the suggestion:

I had a bunch of helicopter moms that they just wanted to know, [so I thought] if you're going to be in the classroom just like the children you need some meaningful work. And this is the kind of work I need you to do, and this is how you do it . . . they were coaching children with multiplication tables, or helping people that needed one-on-one reading or whatever, but there was a structure for how to do it . . . They could come in and out, [but] they had got enough training, you know a crash course on this is the way you come in, this is where you leave your things, this is your spot. This is where you sit. You don't move, the children come to you. And the children . . . respond to that . . . When they see their parents in their classroom working side by side with the teachers, not just you know I'm here to see what you're doing . . . I'm here to do, just like you do.

The same contributor concluded with these remarks that revealed how parents are part of the prepared environment and should be included in school practices as much as possible:

Parents are an essential part of classroom culture, an essential part of the prepared environment . . . The teacher's work [can be] a lot easier [when parents are there to support some of the children] and then there's that continuity in the learning experience for the child because parents pick up, they pick up the language that they hear in the classroom. How to redirect, how to encourage, how to . . . point out things, and then that goes home. So it's so much better for the child to hear that all the adults are, you know, on the same page. So . . . that's one strategy that worked in terms of creating a successful environment.

One elder offered an anecdote that administrators and teachers might find helpful in terms of recognizing the value of building relationships among students, parents, and teachers to the benefit of all, improving the entire school community:

I think often it's the child who teaches the parent . . . But [the parents] have to be open. I remember this one woman, always screaming at her little guy, and one day she came over and she said you know I notice that every time you talk to him you go over to him and you get down, and he seems to listen to you better. I think I should try that. And she did. And then this same child, we were doing that . . . Christmas gifts for families that couldn't afford many things, and he came home and said mom we've got to clean this place up just like it is at school before they come over. So [Maria] Montessori talks about that too in that first children's house . . . [parents] learn a lot from their children.

In two different dialogues, coresearchers discussed the value of an administrator establishing meaningful faculty meetings. The elders shared that they typically hold faculty meetings (or staff meetings, as some referred to meetings with teachers) every week or biweekly.

We were talking about staff meetings and how in many schools you know staff meetings are just to announce new administration practices or whatever. I made it a point when I had the opportunity to be head of school, I don't wanna have that kind of staff meeting. It's a very small school, it's

isolated from the rest of the organization, so these teachers don't have the opportunity to hang out with other teachers. So we use at least three quarters of the staff meeting to talk about Montessori philosophy and how it . . . applies to your classroom in primary, to your classroom in toddler, to [interactions] with the parents.

Another participant/administrator spoke about the importance of fostering the relationship between lead teachers (those who are responsible for creating the prepared environment) and assistants (those who assist the lead teacher) and holding regular instructional level meetings:

We've been implementing required team meetings and then lead teacher team meetings, and . . . I'm at every one of those. Because I learned that from one of my heads of school . . . And this year we started also having a meeting with the support staff. They would meet together and they would have their 15, 20 minutes, and then I would join them, and then we have an agenda because if it's not on the agenda you don't talk about it because you want to be prepared. And it's been very fruitful and it's very empowering. One of my lead teachers has said this is like the best system because I don't feel like I've dropped the ball. I get feedback from who's helping me and who's leading . . . you can sort of gauge the barometer of peacefulness and successfulness in the classroom from the person who is the support staff . . . And so that's been very revealing I think as far as the empowerment of the lead teacher.

As coresearchers discussed the effectiveness of teachers, the issue of teacher evaluations arose. One shared a practice that has proven to be inspiring for both the teachers and the administrator. Teachers were given a one-page adapted version of the Teacher Self-Efficacy Self-Observation survey, "in the manner of Albert Bandura," to complete. The survey covered instructional self-efficacy, behavior management self-efficacy, communication self-efficacy, efficacy to create a positive school climate, and efficacy to enlist parental involvement. On the survey it was written, "Your ratings are for you only." On the backside of the survey was a form

for the teacher to decide on one strategy to use that would “improve your student/students’ learning.” During one week, the teacher recorded what s/he observed and what surprised her/him. The second week, the teacher was directed to continue the same strategy and record what was observed, then compare the observations made in week one and week two. After week two, the teacher sat down with this administrator to share the report. The elder explained,

[The teacher] can choose anything that they want to look at while working—focus is on a single idea . . . a very short time period, made it a very short time period on purpose because it’s really hard to do anything longer than two weeks. So the first week . . . they came up with their own idea, their own thing they want to think about, and this [exercise] . . . has been very moving for me just to listen to them. And you know there’s no assessment or anything. I’m not doing any assessing of it. It’s just the requirement is you think about your practice . . . It’s really all about practice in the classroom, not about personal goals or you know I need to go to the gym three times a week. It’s really what do you want to do in your classroom . . . it’s classroom oriented. And . . . not any of them over the last three years has not been inspiring. I mean . . . they’re excited because they get to choose it . . . it has been powerful for individuals.

Another contributor echoed the importance and need for administrators to foster teachers’ passion about Montessori:

How difficult it is to be able to say to the teachers all of those other pressure things, try to just do them without realizing that’s not who you are or what you wanna do. And encourage them, let’s say once they go in that door it’s another universe we [administrators] don’t have. I’m so sorry that all of these papers and these tests and this obsession has happened because if [teachers] can keep the spirit alive of what they’re trying to do . . . it is difficult, and thank goodness there are those who can do it, who can continue with the spirit. So I think knowing that and just supporting [the teachers] inspirationally is very, very helpful.

Examples of how administrators could be supportive and inspirational were addressed and included ways of approaching problem-solving with teachers. As elders noted, “Sometimes if you can fix it on a daily basis it doesn’t get to be a big thing.” Another coresearcher shared,

I think teachers have the inspiration when there’s something that’s not working, they feel that they have the energy to try to fix it. And in a prepared environment . . . sometimes the fix is the environment . . . And if [the teachers] get to be able to reach out to colleagues or the administration to have someone outside if you are stuck to kind of help you take the next step, whichever direction that may be . . . They have to make the final decision, but if they don’t have enough material or observations or perspective, the multiple perspectives is what I think helps them go oh yeah I forgot.

One elder continued by offering insight and coaching strategies that have proved useful in supporting teachers who have problem situations in the classroom that need to be addressed:

There’s [use of] the open-ended questions . . . Do you have any ideas? What do you see? How do you deal with this? Those kind of collaborative dialogues where when they’re asking for help that’s not can you just give me a solution . . . it really isn’t helpful if you just give them a solution. . . . It is easy [to just want to give them a solution] . . . But then it falls back on you if it doesn’t work. So you know . . . one of the many things I learned was [asking] what would you think about trying this? . . . What do you think would happen? So always giving it back to them . . . maybe giving them some pathways to choose so it’s their decision and then having them come back to give you feedback about the outcome so that it is very open-ended, and the result is truly just in their observation of how successful it was in resolving whatever the issue is, whether it’s with a child or a parent or just the environment. Like you said, just turning a shelf or adding new plants or whatever it may be that turns wherever the trajectory of the situation is that’s causing the difficulty.

It just, it changes it. And you don't know if it's going to be the best one until it gets an action, and then you can change directions again if needed.

Supporting teachers seemed to mean that administrators should follow a variety of strategies that would signal support for their teachers and staff. The strategies coresearchers offered involved being sensitive to individual teacher needs, building a school culture where teachers feel empowered and respected to grow as learners and implementers themselves.

Preparing self as administrator. Elders discussed the demands of an administrator's job and the need for administrators to take care of themselves just as teachers need to do the same. Administrators have responsibilities that include the welfare of the children, the well-being and effectiveness of each teacher, smooth facility operations, financial integrity, and maintaining trust, rapport, and positive relationships with the parents.

Being prepared included taking care of self by finding joy in their work and establishing clear boundaries as a professional. Coresearchers implied that being a role model for teachers, tantamount to being the kind of role model administrators want teachers to be for the students, is one reason why administrators should actively strive to prepare themselves. One elder who teaches administrators shared some thoughts:

If I could give one gift to these administrators what would it be? And I thought just find at least one or two things every week to enjoy. And just enjoy it and let everybody see you enjoying it. Because, you know, that's the outcome [you want to show your teachers and staff].

In another dialogue, contributors spoke to the demands on an administrator and how administrators might be counseled (the separation of comments reveals different speakers):

We haven't mentioned mindfulness but that's truly what we're talking about here is being present, putting down the cell phone you know and thinking about this and just being. And maybe it's just

being and watching, maybe that's all you need to do, but that's the observation. You know that's where the seeds grow and go to the next place or to celebrate what's happening. Because if we're always like this then we don't get that joy, and I think our whole life right now is so sped up and so many expectations that it's a real art to learn how to be present, and I think that's a part of what we need to help teachers learn how to do.

Being in a frenzy is a choice. I mean we don't have to be crazy busy unless we choose to be crazy busy, and I think people think they have to be overwhelmed or have to do that. I mean this whole thing about you know people are addicted to checking their cell phones. Not necessarily even reading them but the constant need to check them. Well who's telling you you have to check every five minutes? Yourself.

You used to go away and go home and check your messages maybe.

And the administrators, we were talking about that and some of them made some really clear distinctions, but the fact that there was like three ahas the other day because oh I don't need to check my phone at night, you know, because I kept saying if you answer it you'll get another one at night. If you don't answer and doing it in the morning then you'll get one in the morning but you won't get another one at night. You know, so you can choose to answer, you can answer and not send it too. But you know if you feed that then you know then you're gonna get another one back.

Coresearchers suggested it is imperative that Montessori school administrators either have a Montessori credential and experience as a Montessori teacher or take a Montessori administrator course to familiarize themselves with the Montessori concept. A significant obstacle for newly credentialed teachers and even seasoned teachers could reside within the school culture and expectations. It is crucial for administrators to understand and support the Montessori concept if the school is to have a successful Montessori program. Elders believed that being a strong advocate for and protector of the Montessori concept defines much of what

being prepared as an administrator entails. Demonstrating the resolve to support the Montessori concept might inspire not only the administrator, but the teachers, staff, and parents. One elder provided an example that involved initial discussions with prospective parents:

I say to the parents, if you're uncomfortable with the fact that we're really looking at the child as a spiritual being maybe this isn't where you belong . . . this is who we are, this is Montessori. If you're not comfortable with that you need to make that decision now before you get involved in this.

One coresearcher shared an incident that arose for the administrator and teachers in a public Montessori school:

One time . . . the superintendent said you have to do this and this and this, and we called him in and we said you're making us schizophrenic. We can't do that. We're not a charter, an alternative, so we still had to follow the guidelines. And we said you have to either let us do it, it was a particular math program, or we'll have to take that sign down. We had to be able to stay true to what that sign said, we're a Montessori school.

Another contributor raised the challenge some administrators face in maintaining classes grouped developmentally. Several schools, it was noted, felt pressure to include sixth graders in the adolescent program, for instance, or place 5-year-olds in a separate class. Understanding the planes of development and how those planes impact the learning environment is crucial. One elder elaborated,

And I think having the multiage groupings really helps with all of that. I mean I can't imagine even being able to have a learning community without having the different ages. You know, for children, adults, teachers, any of us. So that's what, you know once the traditions and the community is set, that's what keeps it going. And when you were talking about the Bead frame, I remember a little boy watching another little boy doing the Bead frame, and he said I can see myself doing that in

another year or two . . . [the children] look forward to it . . . So taking those sixth graders out does them a great, great disservice . . . Or taking the kindergarteners out. You just lost your leaders . . . and their opportunity to help and learn how to be helpful. They teach it, teach it, give back . . . and Covey says the only way to know if you know something is being able to teach it.

One contributor shared a frustration faced as a teacher educator that pertains to a particular school, the school's administrator, and the administrator's superiors. This elder (a teacher educator and a longtime school administrator) was highlighting the role of administrators and need for resolve and commitment to children. The elder began:

I have such a frustration, as we all do I'm sure, that people just don't understand how children learn. And how do we make that clear? Whether it's Montessori or anything else you wanna name it, what is the process of really reaching the child?

The contributor continued by explaining an incident that occurred with one prospective teacher's practicum situation, which ultimately involved administrators at high levels in this particular public school district:

An example is that we had [a] practicum site here in inner city where these kids have parents in jail, need to sit on somebody's lap, somebody to read with them, somebody to be with them, and they weren't doing well on the standardized tests in December. So in January they mix up in the middle of the year, the Montessori program and the non-Montessori program, and each child got a math teacher for half a day and a language teacher half a day. Perhaps not even the Montessori teacher they were with. And they drilled them, a half a day in language, a half a day in math. So I took away the practicum site of the teachers and the administrator, which of course then I got called in. And here I mean I got the top two people right underneath the superintendent, and I said to them . . . first of all it doesn't meet the practicum agreement at all. It's not multiage, it's not materials, there's nothing. But beyond that . . . it's not good for any child whatever you call it. And in the end

they agreed with me but it was their directive, and I finally said to them, you mean somebody in your position can't do what's best for children? And that's how I left them . . . they acknowledged it wasn't a good practice but they couldn't, that was their directive . . . I mean these are educators, they're supposed to be doing what's best for children.

In response to the discussion about administrators understanding the Montessori concept and having the resolve to create a sound, integral program, one elder shared a testimonial from a former student who contacted this coresearcher years after he had graduated from the Montessori program. The former student, who had become a parent, wanted to enroll his children in a fully authentic Montessori program:

[This parent] said, 'Middle school is where I learned how to learn, learned how to work with people, and how I wanted to live my life.' And [he] came back two weeks ago, he lives in [another city], has two children in a Montessori school in [that city]. And . . . he was distressed that at the Montessori school they keep putting layer and layer on top of the Montessori, and calling it STEM [science, technology, engineering, mathematics] or calling it whatever the newest trend is. And he just wants pure Montessori for his children and [he asked], why are we having to do that? . . . I think what he saw and what he wanted for his own children, not all these buzz things that people are sometimes looking for to enhance Montessori [speaks to this issue we've been discussing].

Coresearchers believed "the faculty is [the administrator's] classroom." In describing what that means for administrators, elders discussed ways administrators might foster teacher effectiveness. Suggestions included taking time to get to know an applicant, looking for characteristics that signal a joy in learning, and articulating clear expectations to a candidate before hiring becomes finalized. In terms of support for teachers who already are part of the faculty, the importance of continually providing support and inspiration to new and experienced

teachers was emphasized, viewed as imperative to establish a strong school program.

Considering the demands and frustrations of an administrator's position, elders expressed the value of an administrator's continuous self-care to be prepared emotionally and in tune with the Montessori concept philosophically.

In closing this chapter's presentation of the findings, I share one coresearcher's thoughts that seemed to offer sage insights to all three groups— prospective and new teachers, teacher educators, and school administrators:

Montessori described to us an educational philosophy and, in great detail, an educational practice. But describing Montessori as an educational approach only, which we almost always do, gives her short shrift. She described a path of human development from birth to maturity with the goal of living in an interdependent, peaceful world. This is the vision that excites our teachers, but also sets impossibly high standards for performance. Teachers I have worked with who achieved the highest realization of Montessori teaching combined great technical proficiency *always* [emphasized by speaker] undergirded by a strong understanding of the needs and tendencies and the psychological characteristics, all wrapped in a steely pragmatism toward the *needs* [emphasized by speaker] of the children before them. The finest teachers never fully implement Dr. Montessori's philosophy. This is not a pessimistic statement or disparaging in any way of the extraordinary efforts our teachers make every day. But we tend to cling to abstractions and miss the wonder of the grainy, messy delightful complexity always present right in front of us. The best teachers stay clear-eyed, in the moment, and deeply rooted in universal principles of human development.

Summary of Findings on Effective Montessori Teachers

The findings reveal what 20 experienced Montessori educators (considered as elders and coresearchers) said about the essence of Montessori and how they described teachers who are able to apply the Montessori concept effectively. Coresearchers' insights deepen an

understanding of what is entailed in a Montessori teacher's ability to implement the concept and indicate that those abilities can be cultivated by teachers and by Montessori teacher educators and administrators of Montessori schools.

These abilities include a teacher's need to trust the children/adolescents, the Montessori process, and self. Effective Montessori teachers exercise keen observation skills, cultivate mindfulness and self-awareness, create psychologically and physically prepared learning environments, flow with imperfection, and communicate and keep records well.

The essence of Montessori, coresearchers determined, included the principles of the Montessori educational concept becoming a way of life. Effective Montessori teachers appear to come to embody the Montessori philosophy through cultivating these abilities coresearchers described a teacher needed. Becoming effective is a process that appears lifelong.

The findings indicate an alignment between Montessori theory and praxis, the complex nature of the Montessori educational concept, and a relationship between Montessori education and education as sustainability. These larger contexts broaden perspectives on Montessori. The following discussion reviews the findings and situates them in the literature within the broader contexts.

CHAPTER 6: DISCUSSION

In this final chapter discussion, findings about the essence of Montessori and effective Montessori teachers become contextualized—situated within the literature, examined in contexts that might deepen and broaden their meaning, evaluated for their limitations, explored for how they might inform future research, and considered for their immediate application. A review of what coresearchers said about their experiences participating in this study and their affirmation of the findings is found in Appendix I.

Research Overview

This research included gathering insights from experienced Montessori educators about the Montessori concept of education that focused specifically on the essence of Montessori and about teachers who are effective in implementing the concept. The research was exploratory and descriptive. The research topic examined a relationship found within the Montessori educational concept between its essence and the role of teachers/guides. To capture this relationship, the research design incorporated an Indigenous research paradigm because it mirrors a congruency similar to that found in the Montessori concept.

Elders in Indigenous communities are valued for their wisdom, experience, contributions to the community, and as knowledge holders who help preserve what has been learned in the past so it can be carried forth in new generations. The educators in this study were selected for being elders in Montessori education and consulted to gather their insights about Montessori teachers, reflecting the spirit of how Elders are regarded in Indigenous communities.

These 20 Montessori elders served as coresearchers and together represented over 750 years of experience in Montessori education. Their insights were gathered using Bohm's (2000) dialogue methods in six different small groupings that took place over a period of five months in

six different locations, five of which were in the continental United States and one in the Czech Republic. The study addressed an issue that has been important to explore more intensely in the Montessori community for years— deepening understanding about effective Montessori teachers (Chattin-McNichols, 1992; Gordon, 2007; Whitescarver & Cossentino, 2007). The elders indicated that the development of effective Montessori teachers does not happen in a vacuum; the development of effective teachers seems to occur with the support of teacher educators and school administrators. The findings examine concepts that might be beneficial for prospective and current Montessori teachers, teacher educators, and school administrators, including how each group might view their work in Montessori in broader contexts.

Primary Findings

The congruency between Indigenous research principles and Montessori principles is revealed in the way this study was conducted. It was an aim of this research to collect the data commensurate with practices common in Montessori education, which includes demonstrating respect, humility, joy, love, gratitude, a holistic view of the world, and the value of shared relationships (Chattin-McNichols, 1992; Loeffler, 2000, 2002; Montessori, 1948b, 1948c). This discussion of the findings begins with a look at the research design in how it informed the research process and how the research process reflected complementary principles found in Indigenous research and Montessori philosophy.

The study was guided by an Indigenous paradigm. I selected Wilson's (2008) research paradigm because it used the elements of epistemology, ontology, methodology, and axiology and viewed them as one unity, describing the relationships among those elements I believed this study expressed. Many Indigenous scholars consider the entire process of research as relational (Ermine et al., 2004; Hart, 1999; Peters, 2013; Weber-Pillwax, 1999; Wilson, 2008). Several

describe Indigenous research frameworks and processes as ways of knowing, being, and doing (Martin & Mirraoopa, 2003; Walter & Anderson, 2013). In Indigenous inquiry, it can be considered beneficial for a researcher to have an existing relationship with research participants. (Kovach, 2012). Echoing the words of Maria Montessori (1914, 1918, 1948b, 1948c), when coresearchers dialogued about Question 1 (the essence of Montessori), they viewed the Montessori concept as one whole, though multifaceted, concept and determined Montessori becomes a way of life—a way of thinking, being, and doing—that Montessori educators seem to recognize when they are with other Montessorians. As noted in Indigenous inquiries, it was beneficial that the contributors in this study had trusting and long-held relationships with one another, and as a fellow Montessorian, I had an established relationship with most of them.

Coconstruction of knowledge, where research participants are viewed as coresearchers, is used often in Indigenous relational-based research approaches (Weber-Pillwax, 2004). Protocols in Indigenous research reflect reciprocal and respectful relationships between the researcher and coresearchers (Castellano, 2004; Hornung, 2013; Mertens et al., 2013; Victor et al., 2016). Protocols in this study that were used with elders included demonstrating grace and courtesy in every communication and having fresh flowers, serving healthy snacks, and using cloth napkins and ceramic dinnerware during the dialogue session to mirror the respect exhibited throughout Montessori practices (Lillard, 2005; Montessori, 1948b, 1948c, 1949c) and to help acknowledge the reciprocal and respectful relationships between the elders and myself.

The research methods used in this work incorporated Indigenous research practices such as AI (Chilisa, 2012), sharing circles and dialogue (Kovach, 2012), and acceptance of intuition for gathering knowledge (Castellano, 2004; Kovach, 2012). In Montessori education, dialogue and a sense of community are cultivated (Coe & Donahoe, 2015; Montessori, 1949c, 2006), and

Montessori educators acknowledge the value of intuition (McFarland, 1993). Writing in response to a question about the research dialogue process (see Appendices H and I), elders' comments indicate an alignment with Indigenous research principles:

I enjoyed sitting with colleagues, expressing honestly, listening to others; it was nice to be with people I respect in an intimate conversation about a subject that we have a great passion for; I am grateful and humbled by the wonderful women who surround me with support and love and enjoyed continuing with the strand of thought as we reflected on our own experiences.

Coresearchers voiced appreciation for the experience with their fellow Montessori educators in their small dialogue groups and spoke several times about the importance of intuition in their Montessori work.

The discussion of the findings for the three groups of Montessori educators—prospective and new teachers, teacher educators, and school administrators— and the possible implementation of the findings revealed in Chapter 5 is reviewed further in the section “Practical Application of This Research.” In this section of “Primary Findings,” discussion moves next to the holistic and integral nature of the Montessori concept by a return to the literature, further contextualizing the findings and revealing (1) alignment between theory and praxis, (2) the complex nature of the Montessori concept, and (3) how Montessori education appears to foster a sustainability mindset.

Theory and Praxis

Exploring espoused theory and praxis involves examining ways a theory is put into practice (Argyris & Schön, 1991). Writing about the relationship between theory and practice in experiential education, Warren et al. (2008) explained there exists a creative tension between the two. The editors contended that “theory informs practice, while practice tests and refines theory”

(p. xi). The findings in this study indicate a strong alignment between Montessori theory and how the educational concept is perceived and put into practice. This discussion reveals how coresearchers in this study, Maria Montessori, and those who have written about the Montessori concept have viewed interrelatedness and the child, the Montessori prepared environment, the role of observation, and how practice and theory seem to interweave.

Interrelatedness and view of the child. Maria Montessori (1948b, 1948c, 2006) set her concept of education in a broad and lofty context. She believed everything in the universe is interconnected (1948c) and that education must foster the development of children, which would in turn foster the development of humanity as a whole (1948c, 1949a). She firmly stated that the problems of humanity are based on a lack of proper attention to the self-construction of children during their formative years and submitted education could play a key role in developing a deeper consciousness in humankind that would lead to a more harmonious world (1948c, 2006).

In the findings, the coresearchers echoed Maria Montessori's view that everything in the world is connected. They discussed the importance of respect, having "a profound regard for life in all its forms," and the promise each child brings to all humanity, or as one spoke, "The child is refashioning humanity through that process of self-creation" and "If we could get every child to grow up feeling valued, respected, a contributing member of society, this would be a totally different world." Coresearchers talked about a child's independence being developed within the community, which they believed fosters a consciousness of interdependence. Reflecting Maria Montessori's beliefs, elders explained that the teacher's goal is to assist or guide children's self-construction, rather than attempt to fill children's heads with information deemed important for them to acquire.

Prepared learning environment. While Montessori theory centers around this view of the child and the role of education in fostering a better world, fundamental to the implementation of the philosophy is the teacher/guide and the learning environment the teacher creates. It is the teacher's responsibility to establish the ordered and carefully prepared physical classroom (Chattin-McNichols, 1996; Povell, 2010) and the emotionally safe and respectful psychological environment (Lillard, 2005). Coresearchers agreed with this. They observed that the environment must be prepared psychologically and physically for the children to have a meaningful learning experience. They explained the primacy of a teacher's need to, as one coresearcher spoke, "be able to go in and recognize that before anything can really happen in the classroom that the children need to feel that they're loved and that they're safe and that they're a part of it." Love was defined by the coresearchers as willing the good of another. They recognized that the prepared learning environment is, as one said, a "three-dimensional student–environment–teacher model where the student largely interacts with an artfully prepared environment with the teacher as a guide."

Observation. Maria Montessori (1948b) believed the ability to thoughtfully observe children/adolescents is an essential requirement for teachers/guides. She elaborated that teachers "must learn how to observe, how to be calm, patient, and humble, how to restrain her own impulses" (p. 152). Maria Montessori (1948c, 1949a) maintained that the greatest obstacles guides have to overcome are the prejudices and biases within themselves. She invoked teachers' need to be reflective and keenly aware of what children are revealing during their interactions within the classroom (Lillard, 2010; Montessori, 1949b). Coresearchers acknowledged the necessity for teachers to regularly and reflexively observe students and the surroundings, understanding their own thoughts and beliefs when making these observations. Some

coresearchers described a kind of selflessness or need to remove one's ego to accurately observe and assess a student's needs by mindfully noticing the keys children provide in their work of self-construction, or as one elder commented,

Not just what children are doing but the small things that will tell you what they might be interested in, and even if they touch something or they always go over to that shelf, if you don't notice those things you might be missing your chance.

Practice and theory interweave. The elders seemed to thoroughly demonstrate how the practice of Montessori is incorporated in the theory. In the findings, coresearchers determined that the essence of Montessori (Question 1) involves the principles of the Montessori educational concept becoming a way of life, which means, as Maria Montessori wrote, subscribing to a viewpoint that values each child for their place in the universe (Montessori, 2006), believing in the importance of community (Montessori, 1948c), and having learning environments that attend to student developmental, physical, and psychological needs (Chattin-McNichols, 1996; Montessori, 1948b). The essence of Montessori was considered a way of knowing, being, and doing that is full of respect, peacefulness, and love (as in demonstrating heartfelt support for others) (Montessori, 1949b, 1949c) and recognizes the interconnectedness of everything (Montessori, 1948c). Coresearchers suggested that for Montessori to become a way of life, most people undergo a transformation that leads to a deeper level of consciousness, meaning a consciousness that embraces the interrelatedness of everything and the importance of the child in the continuous development of humanity (Montessori, 1948c, 1949b, 2006).

When determining abilities effective Montessori teachers should cultivate (Question 2), coresearchers discussed the ability to trust in themselves and trust in the Montessori process, which includes trust in children/adolescents to be actively engaged in their self-construction (Montessori, 1936). Effective teachers, elders said, hone observation skills, cultivate mindfulness

and self-awareness, and utilize those abilities to create a purposeful and caring learning environment (Montessori, 1949b). An effective teacher's desire for perfection is balanced with a keen discernment for what is most needed—an ability that involves letting go of focusing on one aspect or component of learning possibly to the detriment of others that are fundamental. For example, one elder described how a student was allowed to play with the class pet instead of being required to complete certain work first, a discernment on the part of the teacher that seemed to give the student needed comfort in the classroom (a paramount need) and ultimately resulted in the student completing lessons as well as working well with peers. Finally, coresearchers determined that the ability to refine verbal and written communication skills, including good record-keeping practices, is necessary to become an effective Montessori teacher due to the focus on individualizing work for each child and fostering a partnership with parents (Montessori, 1948b).

Coresearchers seemed to conclude that for teachers to be effective in implementing the Montessori concept, they need to cultivate these abilities and embrace the philosophy. Development of abilities such as having trust in children/adolescents, honing observation skills, and cultivating mindfulness, in turn, elders believed, puts teachers on the pathway to embodying Montessori philosophy. The essence of Montessori and the abilities teachers need to foster are intertwined and reveal how Montessori theory informs the practice. Figure 6.1 shows a braid to illustrate the relationships coresearchers discussed in the findings.



Figure 6.1. The braid illustrates how coresearchers responded to the central research question: What insights on implementing the Montessori educational concept can experienced practitioners offer to Montessori teachers? One strand (blue) represents Montessori becoming a way of life and one strand (green) the abilities effective Montessori teachers need to cultivate. The ribbon (pink) interwoven through the two strands represents the support teachers need from teacher educators and school administrators on the path to becoming effective/able to fully implement the concept.

The blue strands represent the beliefs one needs to hold for Montessori to be a way of life: a view that respects self, others, and the environment; a view that children should be a primary focus for evolving humanity, that upholds the importance of being part of a community even as attention is given to individualization, that insists on providing students with carefully prepared learning environments, that prioritizes cultivating a peaceful environment and one's inner sense of peace, that fosters love as support of others; and a view that sees the world as interrelated. The green strands are the abilities that coresearchers believed teachers need to cultivate to implement the philosophy: trust in children, the process, and self; keen observation skills; mindfulness; self-awareness; ability to create physically and psychologically prepared learning environments; flow with imperfection; and the ability to communicate well. The pink ribbon represents the role of the teacher educators and school administrators. The elders suggested that for teachers to be effective, teacher educators and school administrators play a key role in nurturing teachers in their development of these abilities and by modeling the philosophy as a way of life.

Coresearchers voiced that supporting teachers along the path to becoming effective could enhance teachers' abilities to implement the Montessori concept in the classroom. They offered suggestions to teacher educators to communicate expectations clearly to teachers in program development courses, establish a community among the prospective teachers, keep the learning

relevant, be inspiring, and give teachers time to learn and grow. For school administrators, coresearchers suggested the importance of continuously supporting new and experienced teachers. Finally, coresearchers noted benefits for teachers and the school as a whole when school administrators take care of themselves and have a firm resolve to support the philosophy.

The findings seem to reveal how coresearchers recognize that Montessori theory informs their practice and how the implementation of the Montessori concept in the classroom and the development of effective teachers incorporates, responds to, and refines the theory.

Complex Nature of the Montessori Concept

The braid in Figure 6.1 illustrates how teachers seem to come to embody the philosophy in their practice and demonstrates how the elders consistently talked about the interweave between Maria Montessori's theory and how it is practiced. The intertwined relationship of theory and praxis appears to substantiate the holistic and complex nature of the Montessori concept, which indicates that Maria Montessori used a systems approach and systems thinking in her work.

Davis et al. (2007) considered that a complicated theory is one that has many interconnected parts and reduces phenomena to basic components and root causes. In this view, a full understanding of a clock would arise from a detailed knowledge of each of the parts. A holistic view of a clock would see the clock as a functional whole, something that is more than the sum of its parts, with an appreciation of the interdependencies of its parts. A complex view, the authors maintained, embraces both complicated and holistic views. These authors submitted that a complex view recognizes that an understanding of a clock demands awareness of the fact that the clock,

has a history of conditions from the time of its invention . . . is embedded in social and natural environments . . . [plays a role] in shaping social lives . . . [recognizes] . . . the materials involved in

[the clock's] construction, the effects of its use on the natural environment, and so on. (Davis et al., 2007, p. 10)

The description offered by Davis et al. (2007), distinguishing complicated, holistic, and complex theory, is a starting point to examine the complex nature of the Montessori concept. Though Maria Montessori created her educational design over a hundred years ago, the more recently developed concepts reviewed in this section offer an arguably deeper and more accurate explanation of how Maria Montessori thought and her vision for the way children (through adolescence) should be educated. In this section, connections are explored that appear to reveal a strong alignment between what is found in the literature and the study's findings with regard to the characteristics of systems thinking, complexity theory, and Montessori theory. Topics covered include complex adaptive systems, unpredictability, need for observation, values, feedback loops, dynamic and emergent properties, holism, and a whole greater than the sum of its parts.

Complex adaptive systems. My query into whether Montessori's view of education aligns with the characteristics of systems thinking became stronger as I examined complexity theory (Davis & Sumara, 2008) and ecosystems (Folke, 2004; Goldstein et al., 2010). Ecosystems are considered complex adaptive systems that have flexibility and a capacity to respond to environmental feedback. Ecosystems are at once integrated and orderly, unstable and dynamic, and maintain the capacity to self-correct within individual components or networks by way of feedback loops (Folke, 2004; Walker & Salt, 2006). Goldstein et al. (2010) elaborated that complex adaptive systems represent "a set of subsystems embedded and nested in a community of interactions with each other and their shared environments" (p. 20). Natural ecosystems provide a prime example of adaptive complex systems (Folke, 2004). Maria Montessori (1948a,

1948b, 1949c) believed nature's ways provide a fundamental guide for living and wrote about the wisdom found by looking at nature holistically. She voiced how "there is no description, no image in any book that is capable of replacing the sight of real trees, and all the life to be found around them in a forest" (1948a, p. 35). Her educational design reflects what might be considered similar attributes of a complex adaptive system. Tantamount to the principles found in a complex adaptive system, coresearchers described Montessori education as holistic and complex and prepared learning environments that are ordered yet fluid and integrative. In the findings, elders talked about the importance of teachers allowing children to make mistakes, using materials that provide immediate feedback when students make errors, and supporting individuals within a community of learners through carefully prepared and responsive learning environments, similar to interactions that occur in complex adaptive systems.

Unpredictability. In their work with complex systems, Goldstein et al. (2010) observed that events occur and situations emerge that cannot be anticipated. Meadows (2008) recognized multiple influences impact interactions within a system, and that because relationships are involved, outcomes are unpredictable; set formula attempts to stabilize a system have little success. Speaking about education that exhibits attributes of complex systems, Smitherman (2008) explained, "In a classroom, a teacher may have established objectives and pedagogical goals, but in the act of instruction the teacher responds to the random interactions of the students" (p. 160). She continued by describing educational processes that are emergent, generative, and openly provide opportunities or "teachable moments, embracing the notion that not everything that occurs in the classroom can be predicted" (p. 161). In the findings, coresearchers' accounts of a Montessori prepared learning environment echoed Maria

Montessori's (1949b) view of ordered yet dynamic learning environments and the fluid, relational, and interactive characteristics described in the literature about complex systems.

Coresearchers invoked Maria Montessori's (1918, 1948b, 1949b) beliefs that there are few to no fixed recipes in working with children because by their nature, children are organic and complex beings. They talked about explaining to prospective teachers who seem to "have to have the answers, if it's A plus B equals C," that "There are no silver bullets [fixed answers]," and "You have to construct your own perspectives and point of view based on the variety of resources that are there right then." Coresearchers' insights acknowledge the unpredictability found within complex systems including that which exists in Montessori communities of learning.

Need for observation. The characteristics of systems thinking that Meadows (2008) featured begin with the crucial role of observation. She emphasized that before making any changes, you need to observe how a system behaves and remain open minded to other perspectives. We know from the discussion on theory and praxis that Maria Montessori (1948b, 1948c, 1949a) insisted upon a teacher's regular and consistent need to observe the children/adolescents reflectively, recognizing that the greatest obstacles most teachers must overcome reside within their own attitudes and perceptions. In describing the abilities effective Montessori teachers should hone, coresearchers considered observation skills essential. To maintain psychologically healthy and physically organized constructive learning environments, elders believed effective teachers must cultivate mindfulness and self-awareness, recognizing the observation abilities needed to maintain a well-functioning system or what Maria Montessori called a normalized class (see Table 2.1; Montessori, 1949; Rathunde, 2001). One coresearcher described observing interactions between children and the learning environment and knowing

how to respond as the teacher involves finding a “rhythm . . . it’s a dance”; the same might be said about how adaptations occur as a dance in complex systems (see Meadows, 2005, p. 193).

Values. In writing about systems, Macy and Johnstone (2012) and Meadows (2005, 2008) noted there are moral reasons for caring about what happens around the world because we are all connected, and what transpires elsewhere literally impacts us all. These authors recognized that ultimately, a part cannot survive without the whole system functioning well; Meadows (2005) submitted that supporting all aspects of complex systems involves keeping a broad and open mind and having a moral grounding. She asserted that we love as much or more than we hate, and we need to keep our perspective and not succumb to the cynicism any more than the idealism. She emphasized that if people fail to consider values like justice, love, and respect in the design of a system, the values will not exist as part of the system. Coresearchers acknowledged Maria Montessori’s (1936, 1948b, 1949b) view of children, open mindedness, and open heartedness. When determining the essence of Montessori, they incorporated the values of respect, love, and peacefulness, considering those values integral in the Montessori educational concept and representing the paramount principles that inform teachers in their interactions guiding children and in working with everything in the learning environment.

Feedback loops. Identifying and securing feedback loops in systems remains vital systems specialists believe. Capra (2002) and Meadows (2005, 2008) explained that well-functioning systems contain feedback loops and could add loops that might make a system abler to adapt, correct, or expand because a system is designed to send feedback about consequences. According to what coresearchers said, in Montessori classrooms, feedback loops involve interactions between students/peers, students and teachers, teacher assistants, learning materials, physical attributes (furniture, etc.), plants, class pets/animals, outdoor learning, and so forth.

Writing about highly effective learning environments among groups of people, Sawyer (2008) noted that “group flow increases when people feel autonomy, competence, and relatedness” (p. 49). In Montessori education, coresearchers repeated the same qualities found in their schools. They explained that demonstrating respect, grace and courtesy, cooperation, collaboration, care for self, others, and the environment, and work with real life issues is considered inherent in Montessori learning environments and spoke to the emphasis on cultivating students’ independence and interdependence (Montessori, 1914, 1948b, 1949b).

Coresearchers added that the Montessori design requires that children have opportunities to receive feedback from the learning materials so they can self-correct (Lillard, 2005; Montessori, 1948b) and have sustained periods of uninterrupted work time that allow for deep concentration (Rathunde, 2001). In the findings, elders spoke often about children needing uninterrupted periods of work for deep concentration, having choice (viewed by some as an essential), experiencing self-discovery, and using learning materials that provide opportunities to self-correct, reflecting the kinds of feedback loops considered vital in dynamic classrooms.

Dynamic and emergent properties. Meadows (2005, 2008) cautioned that if outside sources move in to rescue or seemingly make a fix in a system, there is a risk the outside solution will create more problems than it solves. Teachers/guides in Montessori are cautioned about imposing themselves to fix or rescue a child who is problem-solving (Montessori, 1949b). In the findings, coresearchers explained that should teachers seek specific/prescribed solutions to a situation, it must be clarified that in work with children, “It is more intuitive, there is not one solution that applies to all children.” Montessori elders, reflecting Montessori philosophy and characteristics of systems described by Meadows, explained that like the metaphor of the butterfly, teachers must respect the tensions that arise with learning and avoid trying to fix or

correct a student in that process. Coresearchers believed that honoring the work of the child involves using discernment to as mindfully as possible, as elders said, “know when to interrupt and when not to.”

Capra (1996) and Meadows (2005, 2008) emphasized that systems are nonlinear and there are emergent properties at play. Laszlo (1996), Meadows (2008), and Capra (2002) observed that dynamic, self-adjusting systems cannot be governed by static, rigid policy. Part of the attributes of a system is that it is self-organizing and therefore can be self-correcting. Meadows (2005) believed it is important to allow parts in the system to take responsibility before you simply blame or try to control. Like Maria Montessori (1949a, 1949b) and systems experts speaking about characteristics of complex systems, coresearchers talked about teachers’ need to exercise restraint, discernment, and flexibility (Whitescarver & Cossentino, 2007), being directive when needed, and pulling back when children are working independently. They acknowledged that learning for teachers and for children is a lifelong process, that students are nurtured to take responsibility for their learning, and that deep learning is dynamic and emergent. Coresearchers reflected Sawyer (2008), who described the experience of a dynamic and emergent system as one that represents “a paradox because participants must feel in control, yet at the same time . . . remain flexible . . . and . . . willing to defer to the emergent flow of the group” (p. 49). Elders added to this dynamic of the classroom Maria Montessori’s (1949b) oft-invoked passage, “What is the greatest sign of success for a teacher thus transformed? It is to be able to say, ‘The children are now working as if I did not exist’” (p. 283).

Holism. Macy and Johnstone (2012) and Walker and Salt (2012) encouraged the practice of stepping back to look at the whole system before addressing or changing any part(s) and to aim for enhancing a system’s properties such as creativity, stability, diversity, and resilience.

Aligned with Maria Montessori's view that everything is interconnected, Montessori theory considers that keen attention to the whole child—the developmental, physical, and psychological needs of children— must be met in the learning environment (Grazzini, 2004; Montessori, 1948b, 1949b; Lillard, 2010; Whitescarver & Cossentino, 2007).

Maria Montessori spoke often about the need to foster community and respect (1949a, 2006) and believed the learning environment must nurture the powers, sensitivities, and self-construction instincts she believed were inherent in every child (1949a, 1949c). Coresearchers discussed the key Montessori principles of focus on the child, preparing thoughtful and complete learning environments, and observation practices to guide teachers in meeting children's needs and in cultivating the full potential of the whole child, considered by elders to be the ultimate aim of Montessori education. A holistic view in Montessori education seems to be expressed in the approach taken with children, the preparation of the learning environment, and ultimately the essence of Montessori to which coresearchers spoke in the findings.

Finally, discussion moves to a complement of holism, recognizing that a whole system becomes greater than the sum of its parts.

A whole greater than the sum of its parts. After spending time in the United States upon invitation in the first quarter of the 1900s, Maria Montessori returned to Europe when she realized people wished to use some of her ideas and not all of them; she knew her theory was based on a whole and could not be separated into parts (Kramer, 1988). Similar to Maria Montessori's (1948b) beliefs, Davis and Sumara (2008), setting a larger context for their review of properties manifest in complex educational systems, noted that the "evolution of a species and the learning of an individual are dynamically self-similar . . . both obey the same complex dynamics, although on different scales and in different temporal frames" (p. 45). Mirroring this

dynamic of complex systems, Maria Montessori (1948b, 1948c) created her educational design to reflect the interrelatedness and evolutionary patterns of the world. She described an educational concept that is holistic (Coe, 1988), complex, and systems oriented (Montessori, 1948c, 1949c) and noted in the literature on Montessori as representing a whole greater than the sum of its parts (Chattin-McNichols, 1992; Loeffler, 1992). Coresearchers spoke often about this aspect of Montessori education, echoing Davis et al. (2007) who maintained that elements in complex systems cannot be dissected because they are dependent upon every other aspect and Capra (1996) and Meadows (2008), who specifically recognized that complex systems represent a whole that is more than the sum of its parts, a system's integrity dependent upon interactions and relationships among the parts that are inseparable.

When I sent coresearchers a copy of Chapter 5 on findings to verify the analysis and representation, one responded,

I wanted to add that, in understanding the essence of Montessori it is not the parts—they are all important, but it is the subtotal that makes the whole, and that is the essence. Only one does not describe it . . . description does not tell the whole story, but those who know it will know as soon as they enter a Montessori class to know if it is following true Montessori and the teacher knows Montessori philosophy. I come back to that intuitive knowing, which is the integration and more of all that we know, but hard to pinpoint.

I replied to the elder that in the discussion section of the study, I talk about how Montessori represents a whole greater than the sum of parts and received the response, “Yes. You said it right!”

Complex concepts have many different and connected aspects that require a systems thinking approach. The complex nature of Montessori appears to reflect the characteristics of a

complex adaptive system and invites systems thinking, appearing to indicate that Montessori education cultivates sustainability mindsets in children (and teachers).

Sustainability and a relationship found in the philosophical underpinnings of this research are discussed in the final two sections under “Primary Findings.”

Cultivating A Sustainability Mindset

Meadows et al. (1992) considered that sustainability involves demonstrating foresight, flexibility, and mindfulness to ensure vibrant and dynamic attributes remain to support physical and social systems. Perhaps bringing this perspective, which embraces complexity and systems thinking, to education can include educators in cultivating sustainability mindsets. Children spend more time in school during their formative years second only to the time they spend at home. With the concerns and issues facing humans today, Sterling (2001) believed a sustainability mindset can likely help in determining future directions. He submitted that whole systems thinking suggests a relationship between education and sustainability. Education of children, especially during their formative years, appears a proper avenue for cultivating sustainability mindsets.

This section continues by looking at complexity and systems thinking, worldview, transformation, skills, and wonder, discussing how these relate to cultivating a sustainability mindset.

Complexity and systems thinking. We have seen a correlation between systems thinking and complexity and the design of the Montessori concept (see sections “Theory and Praxis” and “Complex Nature of the Montessori Concept”). Coresearchers summoned the characteristics of complex adaptive systems described by Folke (2004), Goldstein et al. (2010), and Smitherman (2008) by encouraging teachers to remain responsive, mindful, and adaptive in their work with

children. Like Maria Montessori (1948a, 1948b, 1948c, 1949a), coresearchers echoed the holism and interrelatedness of the essence of Montessori (Question 1) and the need for philosophically principled consistency, not rigidity, in dynamic learning environments.

Worldview. Hedlund-de Witt et al. (2014) discovered in their research that people who believe in the interconnectedness of all things are more likely to embrace sustainable lifestyles. Sterling (2001) acknowledged worldview plays a role in facilitating sustainability, and Laszlo (1996) saw a relationship between systems thinking and worldviews. Writing about sustainability, Stibbe (2012) discussed the importance of recognizing we are all connected, not separate. Contemplating what it takes to maintain a sustainable planet, Senge (2006) postured that the ability to see the world as connected and whole is needed, and that seeing the world as whole indicates positive psychological well-being. We know that Maria Montessori subscribed to this worldview. She invoked teachers to educate the whole child (Montessori, 1947, 1948c) and designed a holistic spiral curriculum (Whitescarver & Cossentino, 2007). Montessori elders considered interrelatedness a descriptor for the essence of Montessori (Question 1), spoke about the connections and comprehensive nature of the curriculum throughout the instructional levels, the importance of children feeling supported, and teachers cultivating mindfulness and self-awareness, revealing an educational concept derived from a worldview that holds everything in the world is connected.

Transformation. In the section of his book called “The Learning Response of Educational Systems to Sustainability,” Sterling (2001) maintained that supporting sustainability mindsets in education likely requires “a paradigmatic rather than piecemeal response” (p. 57). He discussed how we need to be able to see things differently and have a shift of consciousness so we can experience a “transformation level of learning, both at individual and whole society levels” (p.

15). Maria Montessori (1948c, 2006) concurred. She expounded upon the need to deepen human consciousness, which she believed usually benefits from a transformation to a consciousness that understands interconnectedness. She was a fierce advocate for children and the need to offer them broader opportunities in their education; she pondered, “Might not this goal be reached by changing the entire structure of education?” (1949a, p. 31). In the findings, elders repeated Maria Montessori’s beliefs.

Coresearchers described that understanding Montessori education often requires a transformation, a shift in thinking and seeing “everything from a whole different paradigm or a perspective . . . [which] is part of that transformation and that shift happens.” One elder explained, “I think some people are already transformed by the time they come to take training,” then continued, “but I also think that the process of transformation is lifelong and I think this work [is] lifelong work.” Speaking about levels of consciousness and transformation, coresearchers acknowledged that transformation is intended for the teachers, children, adolescents, and parents: “It’s a two-way street and it’s not just us helping children and parents transform their lives. We get transformed by those interactions with them too, and it’s a lovely little loop.” Coresearchers echoed the same sentiments in the findings as Maria Montessori had about effecting consciousness, undergoing a transformation, focusing on the child, and establishing a different structure for education, and in doing so, coresearchers reflected Sterling’s (2001) similar thoughts when he discussed that a transformational level of learning seems needed to foster sustainability mindsets.

Skills. When Stibbe (2012) spoke about cultivating a sustainability mindset, he talked about the need to cultivate intuition, emotional well-being, self-awareness, and reflective thinking. He asked, similar to Maria Montessori, “How can the educational system and

educational institutions be transformed to enable learners to gain those skills?” (p. 15). In the findings, elders recognized that work with children is dynamic and evolving and requires what coresearchers referenced as “intuitive attention” (see also the discussion in the section “Complex Nature of the Montessori Concept”).

Coresearchers spoke often about the need for teachers to be reflexive, especially when observing the classroom, and how reflective thinking is cultivated in secondary Montessori programs. They listed mindfulness and self-awareness as abilities effective teachers demonstrate and need to continuously cultivate, and their voices reflected research in Montessori that substantiates the same (Lillard, 2010). The elders talked about the importance of children feeling safe, loved, and supported in their school environments because an emotional sense of well-being, elders stated, is imperative “for everything else [as in learning and working with peers] to happen.” Research outside of Montessori maintains that children’s emotional well-being is supported in Montessori environments (Hughes, 2012). Purposefully attending to the development of each child and nurturance of each child’s independence (see Montessori, 1948b, 1949b), coresearchers said, intends to help children develop their best selves to live interdependently with others.

With the attention Montessori teachers give to the skills that Stibbe (2012) references in cultivating sustainability mindsets, whether as expectations for students in the prepared environment or as qualities teachers must continuously model, it seems a Montessori learning environment is particularly suited to influence and inform children who experience this way of learning, watching, and being in an environment, day in and day out, often for many years during their formative years of development.

Wonder. In her call to action, Rachel Carson (1962) implored educators to cultivate wonder in children as an antidote to halting environmental destruction caused by humans. Maria Montessori (1948c, 2006) implored teachers to be filled with wonder so they could in turn inspire wonder in children (Standing, 1998). Maria Montessori created enticing and purposeful learning materials for hands-on experiential learning and included features such as silence games for children to cultivate their sense of inner peacefulness (1948b, 1949b, 2006). In the findings, just as Carson (1962) and Montessori (1948c) wrote, coresearchers included the imperative for teachers to remain full of awe and wonder; they acknowledged the need for teacher educators and school administrators to continuously inspire teachers while giving them time to evolve. Peacefulness (including stillness), the Montessori elders indicated, supports a sense of wonder; they invoked teachers to cultivate peace within themselves, help children nurture inner peace, and create peaceful, psychologically safe, and nurturing environments just as Montessori (1948c, 1949a) did. Elders described how welcoming it was to a group of adolescents to have time set aside for quiet and reflection and how having adolescent students spend time with younger children nurtured not only caring, compassion, and humility, but also ignited a shared sense of wonder with the younger students. One coresearcher spoke about how being in nature particularly nurtured a sense of wonder.

The Montessori concept described in the findings seems well suited to establishing the essentials for an educational system that could cultivate sustainability mindsets— mindsets, as Meadows et al. (1992) described, that demonstrate vision, preparedness, adaptability, and mindfulness to ensure the physical and social systems of support remain alive and dynamic.

Philosophical Underpinnings and Larger Context

To complete this last section under “Primary Findings,” I conclude with a look at the concept of sustainability in its relationship with the two other grounding theories. I consider sustainability as the concept under or in which Montessori education and Indigenous inquiry can be represented, and in so doing, recognize the place Montessori education might have in its support of a sustainability mindset. Montessori is a type of education that can foster a holistic and interconnected way of thinking, being, and doing. Indigenous inquiry approaches view the world as interconnected, nonfragmented, dynamic, and whole, which seem to make Indigenous research approaches suitable guides for queries within sustainability and other complex systems, such as the Montessori concept.

The philosophical underpinnings in this work, Montessori education, Indigenous inquiry, and sustainability theory, each embraces a complex perspective. In an effort to provide a visual representation to capture the relationship among the grounding theories, I turned to images for rhizomatic structures. A rhizome is a continuously growing, mostly horizontal, underground stem that puts out lateral shoots and roots at intervals. Gilles Deleuze and Félix Guattari (1987) first used the botanical rhizome to illustrate a philosophical concept. The image of a rhizome can capture diversities of dimensions that change whenever anything is added, akin to a complex system (see Lima, 2015).

The image in Figure 6.2 is a piece of art created by Sharon Molloy entitled *Infinite Connections* (see also Lima, 2015, on networkism). Molloy’s work was chosen to illustrate the relationship among the grounding theories. Having a mindfulness for moving toward the planet’s sustainability involves concepts that recognize the world as whole and interconnected.

In Figure 6.2, the Montessori educational concept would be one (of the many) bright vertices. Some of the connecting lines, radiating out from the numerous and varied bright vertices, indicate how connections made throughout the network or web might occur from use of Indigenous research frameworks.



Figure 6.2. This art piece illustrates the relationship of the philosophical underpinnings in this research. The whole image symbolizes the expansive concepts applicable to striving for a sustainable world. *Infinite Connections*, oil on canvas, by S. Molloy, copyright 2010. Reprinted with permission.

Writing about how the concept of rhizomatic logic applies to examining research that addresses neuroscience discoveries in young children and why early childhood educators need to be aware of this logic approach, MacNaughton (2004) explained that “the rhizome—a metaphor of ‘lateral’ logic—implies a world that is dynamic, ever-changing, and always ‘becoming’ in a never-ending process” (p. 93). She continued, discussing how cause-and-effect logic, often

hailed in educational concepts, fails to account for numerous variables at play in the development of each child.

The image in Figure 6.2 captures a relationship among Montessori theory, sustainability theory, and use of Indigenous research frameworks: a relationship among complex concepts, a relationship that represents a whole greater than the sum of its parts. The image suggests the inadequacy of viewing the world in a linear and limited cause-and-effect sense and might provide a reminder and a vision of how beautiful and vibrant the complexity of the world truly is.

As I arrive at this final point in the discussion, I find myself musing how central perspective is in this study. Laszlo (1996) discussed worldview and a systems perspective, submitting, “We are natural systems first, living things second, human beings third, members of a society and culture fourth, and particular individuals fifth” (p. 21).

From Maria Montessori’s view that all things are connected, to an Indigenous worldview of interconnectedness, to a worldview of interrelatedness that fosters sustainability, I am struck with the thought—were this perspective or worldview dominant in the educational world, this study would be different. It also occurs to me that were this worldview dominant among educators, the difficulties many Montessori teachers face in implementing the Montessori concept might be significantly fewer. Taking a step back, it seems the challenges coresearchers described that teachers face in the implementation of the concept involve embracing and demonstrating a requisite alignment between Montessori theory and practice and being able to comfortably work within a complex adaptive system. I am reminded of a passage from one of the elders who seemed to celebrate “the wonder of the grainy, messy delightful complexity always present right in front of us” and feel excitement for the opportunities before us in responding substantively and meaningfully to the educational needs of our children.

Limitations

This research intended to deepen understanding on effective teachers and does not profess to cover all aspects that might define and support effective Montessori teachers nor cover completely what the essence of Montessori involves. For instance, Montessori teacher education programs (TEPs) working with prospective teachers might find it helpful to have more information about how to support their adult learners/teachers than this research provided. More data might offer a closer look at how the essence of Montessori and teacher effectiveness manifest specifically in the different planes of development.

Another example noticed is that references to the natural world and the importance of having classroom environments that offer indoor and outdoor space were covered only slightly in the dialogues. Maria Montessori's (1948a, 1948c, 1949c) works are full of references to being with all nature and adhering to the laws of nature. One elder spoke about how, on a personal level, a "connection with nature . . . really feeds me." Another coresearcher said when speaking about how to inspire teachers and "touch their soul, it is always nature." Implicitly, one might say that the references coresearchers made to cosmic education allude to this key aspect in Montessori education. I speculate that the role of nature is so ingrained and interconnected with the classroom in the coresearchers' hearts and minds that they did not think of elaborating on nature separately; I believe that for them, the prepared environment is not separated as indoor and outdoor, nor is the interwoven integration of the natural world separate from the content curriculum. Had the dialogues lasted longer, more might have been spoken about the importance of children feeling connected to the land, experiencing relationship with the natural world, and being inspired by all aspects of the natural world throughout their years in Montessori education.

Because nature is prominent in Montessori and did not emerge much during the dialogues may emphasize that each dialogue captured one moment in time.

Data Saturation

Would more data have changed the findings? I believe more participants could have added breadth and depth through more stories told and experiences shared, while the essential messages may have remained the same. For instance, as mentioned, there might have been greater representation on the importance of being in the outdoors and in closer touch with all living things. The findings seem to affirm the congruency and cohesiveness of the Montessori concept with room for more illuminating though complementary insights.

Number of Participants

As a member of the Montessori community, I feel it important to acknowledge that the 20 elders were a sampling among many who are considered in equally high esteem within the Montessori community. It was not possible to invite every Montessori educator elder whose contribution would be valued chiefly for reasons of location, proximity, and time/travel constraints. Highly revered individuals, several of whom have served as mentors to those who participated, could not be included because of my resource limitations.

Each small dialogue group had a limited number of participants. One elder who ended up in a two-person dialogue made this observation: “Missed third person, unable to attend at last minute, but still felt experience complete.” I would agree that the dialogues with only two people were fruitful, and would add that the dialogue groups with three people seemed to flow the smoothest, giving each participant plenty of time to speak and listen to others.

Time Constraints

The dialogue sessions lasted two hours. The sessions included time for the coresearchers to reconnect with each other, get a cup of coffee or tea, participate in the brief Capacitar moves to help everyone center themselves, review the consent form and dialogue guidelines, and ask questions before dialoguing about Question 1. Between Question 1 and 2, coresearchers had a break time with snacks included. Most of the dialogues for each question lasted around 30 minutes. Bohm (2000) talked about dialogues that could last from one to two hours in length. I believe some participants were left wanting more conversation. One specifically noted the wish for a longer dialogue. I would agree; the dialogues in that session were too short. This elder, in fact, was in the group whose dialogue time was the shortest. There were legitimate reasons that dialogue was shorter— arrival of coresearchers and amount of time spent between Question 1 and Question 2 for snacks and socialization. This time spent conversing together was equally important to the experience. My desire to end the session in two hours as had been established superseded my willingness to extend the time.

Future Research

It is estimated there are at least 4,000 certified Montessori schools in the United States and about 20,000 worldwide (see <http://www.montessori-namta.org>). The primary international teacher education accrediting agency, Montessori Accreditation Council for Teacher Education (MACTE), lists over one hundred Montessori teacher education programs (TEPs) affiliated with seven Montessori organizations. These TEPs exist in 16 countries around the world,²⁹ and there are Montessori organizations and teacher education programs beyond those associated with

²⁹ Brazil, Canada, China, Czech Republic, England, Korea, Mexico, Nigeria, Oman, Poland, Puerto Rico, Saudi Arabia, South Africa, Taiwan, United States, Vietnam (see <http://www.macte.org/accredited-programs/>)

MACTE. There appears to be a substantial need for reviewing teacher effectiveness in developing Montessori teacher education programs.

Learning more about Montessori teachers was a primary aim of the research and the findings could be used in research that explores teacher experiences: Are the findings helpful, and if so, in what ways? What can teachers add? How might teachers agree or disagree with the findings? These questions and others could be useful to pursue as a follow up to this study. I plan to share the findings for prospective and new teachers with adult learners/teachers with whom I work in the teacher development program and listen to their thoughts and input.

This research looked at the Montessori concept as a whole, with no differentiation regarding developmental differences in each plane of development. For Montessori educators, there is an opportunity to take these findings and see how they manifest within the different classroom levels or planes of development. It might prove useful to identify, with examples specific to the different stages of development, how the essence of Montessori and abilities of effective teachers can be expressed in the classroom on a daily basis.

Indigenous scholars might be encouraged to review the use of Indigenous inquiry in this study, conducted by a non-Indigenous researcher for a topic that is not Indigenous, and consider how this work might forward or inform future studies that elect to use Indigenous research frameworks.

It is hoped this work might stimulate interest in research about how to cultivate sustainability mindsets in educational settings. The findings show Montessori to be a way of life that teachers come to embrace. The belief among the coresearchers is that a way of thinking, being, and doing (which can be considered as cultivating a sustainability mindset) is nurtured in children who are educated in Montessori classrooms. Perhaps there are aspects of Montessori

education that might inform other efforts for education as sustainability, just as Montessori teachers might continue to examine their own school programs for how they are implementing the Montessori concept.

There are people known to the public today who credit some of their ideas, values, and ways of doing to having been educated in Montessori schools. Will Wright, inventor of The Sims videogame series, said, “Montessori taught me the joy of discovery.” Google founders Larry Page and Sergei Brin credited their success to having both had early Montessori education, stating, “It was part of that training of not following rules and orders, and being self-motivated, questioning what’s going on in the world, doing things a little bit differently” (see Sims, 2011, p. 1). To that end, a natural extension of this work would be to conduct dialogues with adults who experienced Montessori education during their formative years to see whether these adults believe their way of living and thinking has been influenced by their education. Such a study might indicate how effective, or not, Montessori education is as a holistic, complex approach that fosters a worldview, systems thinking, and daily living in a way that cultivates and is commensurate with a sustainability mindset. Research might be conducted similarly among Montessori teachers to determine whether they believe their way of thinking, being, and doing has been impacted in like manner.

Practical Application of This Research

Indicators and examples of ways this research might be or already has been applied are addressed in this section.

Impacting the Work of Researcher

Many of the words and wisdom of the Montessori elders in this study have reverberated in my thoughts for the last year. I have found coresearchers’ reflections running through my mind

on many occasions while working with my Montessori adult learners/teachers. Coresearchers' insights have influenced me to take certain actions in an effort to offer the adult learners/teachers more meaningful support, such as being sure expectations are conveyed to them clearly, being more patient and supportive when they are struggling, and being sure to help keep them inspired. What is true for me may happen for others once they are aware of the findings put forth in this study. For others to benefit, however, the findings need to be distributed.

Disseminating the Findings

The fundamental purpose for conducting dialogues with respected and experienced Montessori educators about effective Montessori teachers was to gather insights from these elders that ultimately would be shared with the Montessori community. Having more data about effective Montessori teachers was considered as meeting a need within the Montessori community. The findings expanded to include insights that also might serve teacher educators and school administrators. Findings are discussed that might be disseminated to the Montessori community and the Indigenous research community.

To the Montessori community. Indigenous scholars discussed the importance of doing research that would be helpful to the community; they believed research must be useful (Chilisa, 2012; Kovach, 2012). The credibility of the findings is established when research participants recognize their input as accurate (Chilisa, 2012). Indigenous researchers have stated that ultimately, the community is the subject of the study who owns the research (Lavallée, 2009; Menzies, 2001), and that it is up to the community to take what it needs from the findings (Kovach, 2012).

Coresearchers in this study seemed eager to have the results shared within the Montessori community so the findings could be implemented. These two passages reflect thoughts elders shared after they read Chapter 5, “Analysis and Findings” (for more, see Appendix I):

All the passages where you quote me are true to the actual conversation we had.

You’ve put together a wonderful project that will be a great help to others in the Montessori arena, teachers, trainers and administrators. You synthesized each area well and presented a well-organized and well-thought-out analysis.

What you have put together is what we in Montessori have not been able to quantify. It is helpful, it is real, it is informative and it is affirming! Also, the basis is pertinent to teachers inside and outside of Montessori.

My intent is to create a way to distribute abridged findings described in Chapter 5 for each of the groups targeted in the findings—prospective and new teachers, teacher educators, and school administrators—and make them available to the Montessori community electronically, free of charge. The study began with the intent to provide clarification about the role and expectations of the Montessori teacher for prospective teachers before they undertook the timely and expensive teacher development program. Teacher educators might offer the findings to teachers who consider enrolling in their program as well as take note of the suggestions the elders offered specifically to them. Perhaps a Montessori school administrator might offer the findings to a teacher candidate to read after an initial interview, and then have the applicant return to discuss the reading. A school administrator might consider sharing some of the findings with their faculty to initiate discussion, inspire, and gain further input. School administrators on a retreat or those seeking a Montessori administrator credential might review the findings designated for them. I believe that for the findings to have the benefit sought, the information

must be interacted with, whether in dialogue groups, other discussions, or choice projects that illustrate a reader's takeaways.

Maria Montessori highlighted the use of story (Lillard, 2005; Montessori, 1918), and coresearchers attested to the use of story throughout all levels of Montessori education and in Montessori teacher preparation courses. Indigenous scholars emphasized the importance of using stories in research (Mercurieff & Roderick, 2013; Paris & Wood, 2002; Tachine, Yellow Bird, & Cabrera, 2016). Listening to all the dialogue audiorecordings, I discovered that hearing the voices of participants, with the intonations and nuances found in conversational speech, might augment the meaning of what is being spoken. One plan to disseminate the findings might include creating a series of audiorecordings, in shortened segments, that feature stories told in the dialogues. Due to the interrelatedness of topics covered in many passages spoken by a contributor, however, the recordings would not be separated for new teachers, teacher educators, or school administrators. The audio series could feature stories elders shared that might be inspiring in a broad sense.

To the Indigenous research community. Having forged associations with Indigenous scholars in this quest (see “Prologue” and Figure 3.2, “Conceptual framework”) and then included in the Indigenous Inquiry Circle (see “Decolonizing Research” in Chapter 2), it is likewise important to me to share aspects of this research with Indigenous scholars. It appears meaningful to highlight ways Indigenous research methods might be used by Euro-Western researchers and why those methods might prove a good fit. Lewis (2016) wrote, “I frame my work with First Nations, Inuit, and Métis scholars, teachers, and students by always asking myself: What does it mean to be an ally?” (p. 192). Lewis listed 10 ways of answering his question that include “advocating for and with Indigenous scholars, teachers, and students to

advance the work of Indigenizing the academy, the K–12 curriculum, and the teaching practice” (p. 193) and being mindful that “Wilson’s (2008) relational accountability [is] embedded in care and kindness to community and individuals” (p. 193). My intent has been to be an ally in my use of Indigenous inquiry methods, and that this work might be considered in that light.

Conclusion

In concluding his book, *Research is Ceremony: Indigenous Research Methods*, Wilson (2008), explained that for him, his obligation as the researcher was not to draw conclusions nor argue his points for others; he believed his responsibility was to make as many connections as possible in the research and to respect the reader’s ability to take what they are ready to receive. He believed it was necessary for the reader to internalize the information, recognizing that ideas grow and develop connections and relationships over time. He beckoned readers to develop their own context and form their own conclusions from the research, which for him honored the listener and demonstrated respect for the relationality and relational accountability at the heart of his Indigenous research paradigm.

As has been noted throughout this study, Wilson’s (2008) work guided this query. His sentiments about research conclusions are echoed, not because of the influence his Indigenous inquiry has had on this study, but rather because his perspective on the purpose of research resonates resoundingly within me. These principles reflected in Wilson’s concluding thoughts embody Montessori principles, manifest throughout the entire Montessori concept—to honor and respect each person’s self-construction, fostering self-discovery and a love of learning to the extent possible. As a longtime educator, the work always has been to help provide rich, accurate, and stimulating content to students, celebrating what they take and make their own.

The main aim of this study was to accommodate a collection of pearls of wisdom from Montessori elders to address the main question, “What insights on implementing the Montessori educational concept can experienced educators offer to teachers?” and ultimately share the findings with the Montessori community. In the process, there arose opportunities to see how the findings might support understanding Montessori education in a larger context, possibly inspiring teachers with a greater understanding and purpose of their work.

In this research, the analysis and connections discovered in the findings have been conveyed to the best of my present abilities. Wilson (2008) said, “I am not a perfect human being or perfect researcher” (p. 134); I wish to say the same. Regarding this conclusion, I respectfully finish with the thoughts Wilson (2008) eloquently expressed in concluding his book:

It becomes unethical to reiterate or restate previous messages. To do so would require me to judge certain ideas as more important than others. Different listeners will get different lessons out of what I have to say . . . to restate previous messages is to tell them what lessons they were supposed to pick up and this would be inappropriate. (p. 133)

Wilson continued, elaborating on principles mentioned that align with Montessori principles and by which I abide:

For [me] to explain too much is not honoring you as the listener. It is removing all responsibility from you to do any learning. The main point of Indigenous discourse is to provide a foundation or platform from which to grow . . . Be patient and wait until you have all of the information you are ready to accept before making conclusions. And be willing to change those conclusions as new relationships develop that allow you a different point of view. (p. 135)

Wilson (2008) finished his work by sharing some reflections on his own personal experience and growth in the research journey. Some of my reflections are found in the

“Epilogue.” To conclude, the message I feel obliged to add is this: Berkes (2012) discussed how holistic thinking meant that attempting to organize ideas into categories and general headings should be avoided. He explained, “If all the concepts and relationships embedded in a holistic term were to be specified, the whole idea would become unmanageably complex” (p. 211). The greatest challenge in this work has been organizing and discussing the findings, much of which involved representing holistic thinking and complex concepts. I wish to express to readers that there are other ways the findings and discussion might have been arranged. I share Berkes’ and Wilson’s thoughts and invite readers to take what information is meaningful to them, including recognizing there are many ways these complex theories can be absorbed and understood. Thank you for your time and interest.

EPILOGUE

I find myself feeling overwhelmed with gratitude for this experience, hopeful some of that gratitude is expressed in the “Acknowledgments.” What strikes me most at the end of this quest is a heightened awareness of how much I do not know, though I remain inspired by what I have learned to keep moving forward with the new knowledge and understandings acquired, eager to see where that leads.

The coresearchers indicated to me from the beginning that this work could be important, and that they were honored to be a part of it. At the end of the project, they believed the work holds promise for deepening an understanding of Montessori education for Montessori teachers as well as possibly those outside of Montessori. I am eager to distribute the findings to the Montessori community at large because I believe in the value of their insights. From my view, I am the one humbly honored to be a part of working with them.

Final thoughts include hope that this study provides information to help inform how educators, from a variety of backgrounds and philosophical foundations in addition to Montessori, might cultivate sustainability mindsets. When Ray Anderson (1998) was working on making his company fully sustainable, he recognized what others working toward sustainability believed, that the most important, and also the most difficult, measure to forwarding sustainability is effecting a new mindset. Reading about his recognition of the primary importance of mindset is what first inspired my quest that led to this study. My passion for education remains strong, believing that the way we educate children in their formative years can have a profound impact on how they view and come to interact with the world as they age.

When I first began examining the concept of sustainability, it was in the early 1990s. The planet was in better shape then than it is now, and in the 1990s, things seemed grim. Already

documented was an abundance of wastefulness in the way we make things, poor air and water quality, unhealthy ways of managing food systems, depletion of natural resources, extinctions rising among species, growing levels of poverty, and increasing inequalities around the world. There was promise, however, that we could turn that train to move in a different direction, before we crossed critical thresholds.

Today, as I write, those same concerns have increased and thresholds have been passed. 350.org was founded in 2008; the name comes from the amount of safe concentration of carbon dioxide in the atmosphere that needs to be maintained for the planet to avoid negative consequences that could/would last for many years, or worse, result in conditions of life on the planet that would be irreversible. In 2008, we were below 350 ppm (parts per million); today, we are at 400 ppm. Yet millions of positive actions are being taken, and increasing numbers of people around the globe are working to mitigate the issues that threaten our planet. Individuals and groups of people are working in disparate fields to help create a more just world socially, economically, and politically. The human spirit seems to demonstrate strength and resilience; history seems to demonstrate evolution.

Throughout this research journey, I have thought often about the wisdom, perseverance, and resiliency of many Indigenous peoples who have managed, in spite of a history of settler and colonizing oppression, to retain a worldview that encompasses all of life, human and more than human, holding a continued view that life is a web of interconnectedness. That has been both a humbling and inspiring reflection. May all learners and scholars be open to broadening research perspectives from Indigenous scholars who have not forgotten fundamental truths of life's interdependence and interconnectedness. Indigenous research approaches surely can inform how we might guide many of our quests for more knowledge.

This research was undertaken to contribute to the Montessori community regarding teachers, and in so doing, might deepen the perspectives from which Montessori education could be viewed. Making connections among Montessori theory, Indigenous theory, and sustainability might broaden the perspectives on Montessori and possibly inspire building relationships within these theoretical concepts. How we conduct research on issues that involve the complexities of our world matters. How we educate our children during their formative years matters. Viewing issues in a broader context and gaining more information about an educational system that can foster a sustainability mindset might help broaden and deepen our perspectives in our search to become a more sustainable world.

William H. Dickinson, Jr. (my father) raised me on a few core axioms. One was, “It doesn’t matter whether it’s good or bad, or right or wrong, it’s what IS.” Somehow, that message always came with a sense of optimism, hope, and empowerment. Our “is” today as a world consists of real challenges *and* real examples of fortitude, faith, and foresight. It seems we should remain vigilant in attempts to make our world better; perhaps one way we might continue to move forward is by deepening and broadening our perspectives whenever and wherever we can.

References

- Ahenakew, C. (2016). Grafting Indigenous ways of knowing onto non-Indigenous ways of being: The (underestimated) challenges of a decolonial imagination. *International Review of Qualitative Research*, 9(3), 323–340.
- Alvesson, M., & Sköldböck, K. (2009). *Reflexive methodology: New vistas for qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Anderson, R. C. (1998). *Mid-course correction: Toward a sustainable enterprise: The Interface model*. Atlanta, GA: The Peregrinilla Press.
- Argyris, C., & Schön, D. A. (1991). *Theory in practice: Increasing professional effectiveness*. San Francisco, CA: Jossey-Bass.
- Ausubel, K. (2007, October 19). *Honey, we shrunk the planet*. Speech presented at the Bioneers conference, San Rafael, CA.
- Ball, J., & Simpkins, M. (2004). The community within the child: Integration of Indigenous knowledge into First Nations childcare process and practice. *American Indian Quarterly*, 28(3/4), 480–498. Retrieved from <http://fnpp.org/comminchild.pdf>
- BanffEvents. (2015, January 14). *Indigenous knowledge and Western science: Contrasts and similarities* [YouTube channel]. Retrieved from <https://www.youtube.com/watch?v=JeNnOZTk440>
- Barnhardt, R., & Kawagley, A. O. (2005). Indigenous knowledge systems and Alaska native ways of knowing. *Anthropology and Education Quarterly*, 36(1), 8–23.
- Battiste, M. (2012). Different knowings and the Indigenous humanities. *English Studies in Canada*, 38(1), 141–159. doi:10.1353/esc.2012.0009
- Bentz, V. M., & Shapiro, J. J. (1998). *Mindful inquiry in social research*. Thousand Oaks, CA: Sage.
- Benyus, J. M. (2002). *Biomimicry: Innovation inspired by nature*. New York, NY: Perennial.
- Berkes, F. (2012). *Sacred ecology* (3rd ed.). New York, NY: Routledge.
- Blessington, J. P. (2004). Deconstructing Montessori: A growing problem. *Montessori Life*, 16(4), 36–37.
- Boeije, H. (2002). A purposeful approach to the constant comparison method in the analysis of qualitative interviews. *Quality & Quantity*, 36, 391–409. doi:10.1023/A:1020909529486
- Bohm, D. (2000). *On dialogue*. New York, NY: Routledge.

- Brown, B. (2010). *The gifts of imperfection: Let go of who you think you're supposed to be and embrace who you are*. Center City, MN: Hazelden.
- Brundtland Commission. (1987). *Our common future: The world commission on environment and development*. Oxford, England: Oxford University Press.
- Cajete, G. (Ed.). (1999). *A people's ecology: Explorations in sustainable living*. Santa Fe, New Mexico: Clear Light.
- Capra, F. (1996). *A new scientific understanding of living systems: The web of life*. New York, NY: Anchor Books.
- Capra, F. (2002). *The hidden connections: A science for sustainable living*. New York, NY: Anchor Books.
- Carson, R. (1962). *Silent spring*. New York, NY: Houghton Mifflin.
- Castellano, M. B. (2004). Ethics of aboriginal research. *Journal of Aboriginal Health*, 1(1), 98–114.
- Chattin-McNichols, J. (1992). *The Montessori controversy*. Albany, NY: Delmar.
- Chilisa, B. (2012). *Indigenous research methodologies*. Los Angeles, CA: Sage.
- Chinn, P. W. U. (2011). Mālama I Ka 'Āina, sustainability: Learning from Hawai'i's displaced place and culture-based science standard. *Cultural Studies of Science Education*, 6, 223–233. doi:10.1007/s11422-011-9312-z
- Coe, E. J. (1988). *Creating an holistic, developmentally responsive learning environment that empowers the early adolescent*. Ann Arbor, MI: UMI.
- Coe, B., & Sutton, A. (2016, March 21). Cosmic education as a continuum across all levels [Webcast]. Retrieved from <https://deptimejourney.org/professional-development-programs/>
- Coe, E. J., & Donahoe, M. (2015). *Characteristics of an American Montessori Society secondary program*. Unpublished manuscript.
- Coe, E. J., & Morgan, J. (2014). *Montessori cosmic education*. Retrieved from www.deptimejourney.org
- Coleman, D., Battiste, M., Henderson, S., Findlay, I. M., & Findlay, L. (2012). Different knowings and the Indigenous humanities. *English Studies in Canada (ESC)*, 38(1), 141–159.
- Costa, A. L., & Kallick, B. (Eds.). (2008). *Learning and leading with habits of mind: 16 essential characteristics for success*. Alexandria, VA: ASCD.

- Coulter, C., Michael, C., & Poynor, L. (2007). Storytelling as pedagogy: An unexpected outcome of narrative inquiry. *The Ontario Institute for Studies in Education of the University of Toronto Curriculum Inquiry* 37(2), 103–122. doi:10.1353/esc.2012.0009
- Crain, W. (1992). Unity of thought and emotion in Montessori's theory. In M. H. Loeffler (Ed.) *Montessori in contemporary American culture* (pp. 165–182). Portsmouth, NH: Heinemann Educational Books.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Crompton, T., & Kasser, T. (2009). *Meeting environmental challenges: The role of human identity*. Godalming, England: WWF-UK.
- Csikszentmihalyi, M. (2008). *Flow: The psychology of optimal experience*. New York, NY: Harper Perennial Modern Classics.
- Davis, B., & Sumara, D. (2008). Complexity and education: Inquiries into learning, teaching, and research. New York, NY: Routledge.
- Davis, B., Sumara, D., & Luce-Kapler, R. (2007). *Engaging minds: Changing teaching in complex times* (2nd ed.). New York, NY: Routledge.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. London, England: Athlone Press.
- Deloria, V., Jr., & Wildcat, D. R. (2001). *Power and place: Indian education in America*. Golden, CO: Fulcrum.
- Denning, S. (2011, September 1). The single best idea for reforming K–12 education. *Forbes*. Retrieved from <https://www.forbes.com/sites/stevedenning/2011/09/01/the-single-best-idea-for-reforming-k-12-education/#295df276b404>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research*. Los Angeles, CA: Sage.
- Diamond, A. (2013, August 1). *Neuroscience and psychology research and Montessori*. Lecture presented for the 2013 International Montessori Congress, Portland, Oregon.
- Doll, W. (1993). *A post-modern perspective on curriculum*. New York, NY: Teachers College.
- Duffy, M., & Duffy, D. (2002). *Children of the universe: Cosmic education in the Montessori elementary classroom*. Hollidaysburg, PA: Parent Child.
- Eisenhart, M., & Jurow, A. S. (2011). Teaching qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (4th ed., pp. 699–714). Thousand Oaks, CA: Sage.

- Ermine, W., Sinclair, R., & Jeffery, B. (2004). *The ethics of research involving Indigenous peoples: Report of the Indigenous Peoples' Health Research Centre to the Interagency Advisory Panel on Research Ethics*. Retrieved from https://www.researchgate.net/profile/Raven_Sinclair/publication/317055157_The_Ethics_of_Research_Involving_Indigenous_Peoples/links/59233be1a6fdcc4443f7fcde/The-Ethics-of-Research-Involving-Indigenous-Peoples.pdf
- Ewert, A., Mitten, D., Overholt, J. (2014). *Natural environments and human health*. UK: CABI.
- Ferguson, M. (1980). *The Aquarian conspiracy: Personal and social transformation in the 1980s*. Los Angeles, CA: J. P. Tarcher, Inc.
- Folke, C. (2004). Traditional knowledge in social-economic systems. *Ecology and Society* 9(3): 7. Retrieved from <http://www.ecologyandsociety.org/vol9/iss3/art7/>
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockstrom, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability. *Ecology and Society*, 15(4). Retrieved from <http://www.ecologyandsociety.org/vol15/iss4/art20/>
- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of social-economic systems. *Annual Review of Environment and Resources*, 30, 441–462.
- Four Arrows. (2008). *The authentic dissertation: Alternative ways of knowing, research, and representation*. New York, NY: Routledge.
- Four Arrows, & Miller, J. (2012) Holistic and indigenous education: A dialogue. *Encounter: Education for Meaning and Social Justice*, 25(3), 44–54.
- Four Arrows, & Narvaez, D. (2015). Reclaiming our Indigenous worldview: A more authentic baseline for social/ecological justice work in education. In N. McCrary & W. Ross (Eds.), *Working for social justice inside and outside the classroom: A community of teachers, researchers, and activists* (pp. 93–112). New York, NY: Peter Lang.
- Goldstein, J., Hazy, J. K., & Lichtenstein, B. B. (2010). *Complexity and the nexus of leadership: Leveraging nonlinear science to create ecologies of innovation*. New York, NY: Palgrave Macmillan.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York, NY: Bantam.
- Gordon, C. (2007). *Together with Montessori: The guide to help Montessori teachers, assistant teachers, resource teachers, administrators & parents work in harmony to create great schools* (3rd ed.). Minneapolis, MN: Jola.
- Grazzini, C. (2004). The four planes of development. *The NAMTA Journal*, 29(1), 27–60.

- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks, CA: Sage.
- Hart, M. A. (1999). Seeking mino-pimatasiwin (the good life): An aboriginal approach to social work practice. *Native Social Work Journal*, 2(1), 91–112.
- Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability*. New York, NY: HarperCollins.
- Hawken, P. (2007). *Blessed unrest: How the largest social movement in history is restoring grace, justice, and beauty to the world*. New York, NY: Penguin Group.
- Hawken, P., Lovins, A., & Lovins, L. H. (1999). *Natural capitalism: Creating the next industrial revolution*. Boston, MA: Little, Brown, & Co.
- Hedlund-de Witt, A., Boersema, J. J., & deBoer, J. (2014). Exploring inner and outer worlds: A quantitative study of worldviews, environmental attitudes, and sustainable lifestyles. *Journal of Environmental Psychology*, 37(1), 40–54. doi:10.1016/j.jenvp.2013.11.005
- Hill, R., Grant, C., George, M., Robinson, C., Jackson, S., & Abel, N. (2012). A typology of Indigenous engagement in Australian environmental management: Implications for knowledge integration and social-ecological system sustainability. *Ecology and Society* 17(1): 23. doi:10.5751/ES-04587-170123
- Hodgkinson, T. (2013). Translating sustainability: The design of a secondary charter school. *Curriculum and Teaching Dialogue*, 15(1 & 2), 63–82.
- Holstein, J. A., & Gubrium, J. F. (2011). The constructive analytics of interpretive practice. In N. K. Denzin, & Y. S. Lincoln (Eds.). *The Sage handbook of qualitative research* (pp. 341–357). Thousand Oaks, CA: Sage.
- Hornung, F. (2013). Indigenous research with a cultural context. In D. Mertens, F. Cram, & B. Chilisa (Eds.), *Indigenous pathways into social research: Voices of a new generation* (pp. 133–151). Walnut Creek, CA: Left Coast.
- Hughes, S. (2012). *Education for life: How Montessori forms the neurological capabilities necessary for survival of human beings from all backgrounds and can aid the survival of life on planet earth*. [Video]. <https://vimeo.com/ondemand/drstevehughes/>
- Huxel, A. C. (2013). Authentic Montessori: The teacher makes the difference. *Montessori Life*, 25 (2), 32–34.
- Institute of Professional Editors. (2010). *Guidelines for editing research theses*. Retrieved from http://iped-editors.org/About_editing/Editing_theses.aspx

- Jacobs, D. T., England-Aytes, K., Cajete, G., Fisher, R. M., Mann, B. A., McGaa, E., & Sorensen, M. (2013). *Teaching truly: A curriculum to indigenize mainstream education*. New York, NY: Peter Lang Publishing.
- Jaworski, J. (2011). *Synchronicity: The inner path of leadership* (2nd ed.). San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Jones, P., Selby, D., & Sterling, S. (Eds.). (2010). *Sustainability education: Perspectives and practices across higher education*. London, England: Earthscan.
- Koitsiwe, M. (2013). Prospects and challenges of becoming an Indigenous researcher. In D. Mertens, F. Cram, & B. Chilisa (Eds.), *Indigenous pathways into social research: Voices of a new generation* (pp. 261–275). Walnut Creek, CA: Left Coast.
- Kovach, M. (2010). Conversational method in indigenous research. *First People's Child & Family Review*, 5(1), 40–48.
- Kovach, M. (2012). *Indigenous methodologies: Characteristics, conversations, and contexts*. Buffalo, NY: University of Toronto.
- Kramer, R. (1988). *Maria Montessori: A biography*. Reading, MA: Addison-Wesley.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago, IL: University of Chicago.
- Lambert, L. (2014). *Research for indigenous survival: Indigenous research methodologies in the behavioral sciences*. Pablo, MT: Salish Kootenai College.
- Lane, P., Jr., Brown, L., Bopp, J., & Bopp, M. (2012). *The sacred tree* (4th ed.). Twin Lakes, WI: Lotus Light.
- Lavallée, L. F. (2009). Practical application of an Indigenous research framework and two qualitative Indigenous research methods: Sharing circles and Anishnaabe symbol-based reflection. *International Institute for Qualitative Methodology*, 8(1), 21–40.
doi:10.1177/160940690900800103
- Laszlo, E. (1996). *The systems view of the world: A holistic vision for our time*. Cresskill, N.J.: Hampton Press, Inc.
- Lewis, E. (2012). Education for sustainability at a Montessori primary school: From silos to systems thinking. *Australian Journal of Environmental Education*, 28(2), 162–164.
- Lewis, J. P. (2011). Successful aging through the eyes of Alaska Native Elders. What it means to be an elder in Bristol Bay, AK. *The Gerontologist*, 51(4), 540–549.
doi:10.1093/geront/gnr006
- Lewis, P. (2016). Indigenous methodologies as a way of social transformation: What does it mean to be an ally? *International Review of Qualitative Research*, 9(2), 192–194.

- Li, P. P. (2011, April 8). Toward an integrative framework of indigenous research: The geocentric implications of yin-yang balance. *Asia Pacific Journal of Management*. doi:10.1007/s10490-011-9250-z
- Lillard, A. S. (2005). *Montessori: The science behind the genius*. New York, NY: Oxford University Press.
- Lillard, A. S. (2010, June). *Mindfulness practices in education: Montessori's approach*. Paper presented at the Mind and Life Summer Research Institute, Garrison, New York, 78–85. [Transcript]. doi:10.1007/s12671-011-0045-6
- Lima, M. (2015, March). *A visual history of human knowledge* [Video file]. Retrieved from https://www.ted.com/talks/manuel_lima_a_visual_history_of_human_knowledge
- Lin, L., Yang, M., Kao, C., Wu, S., Tang, S., & Lin, J. (2009). Using acupuncture and Montessori-based activities to decrease agitation for residents with dementia: A cross-over trial. *The American Geriatrics Society* 57, 1022–1029.
- Lincoln, Y. S., & Guba, E. G. (2000). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed.), (pp. 163–188). Thousand Oaks, CA: Sage.
- Little Bear, L. (2000). Jagged worldviews colliding. In M. Battiste (Ed.), *Reclaiming indigenous voice and vision* (pp. 77–85). Vancouver, Canada: University of British Columbia Press.
- Loeffler, M. H. (Ed.). (1992). *Montessori in contemporary American culture*. Portsmouth, NH: Heinemann Educational Books.
- Loeffler, M. H. (2000). A framework for Montessori research. *Montessori Life*, 12(3), 6–7.
- Loeffler, M. H. (2002). The essence of Montessori. *Montessori Life*, 14(1), 34–36.
- MacNaughton, G. (2004). The politics of logic in early childhood research: A case of the brain, hard facts, trees and rhizomes. *The Australian Educational Researcher*, 31(3), 87–104.
- Macy, J. R., & Johnstone, C. (2012). *Active hope: How to face the mess we're in without going crazy*. Novato, CA: New World Library.
- Marks-Tarlow, T. (2014). *Awakening clinical intuition: An experiential workbook for psychotherapists*. New York, NY: W. W. Norton & Co.
- Marten, G. G. (2001). *Human ecology: Basic concepts for sustainable development*. New York, NY: Earthscan.
- Martin, K., & Mirraoopa, B. (2003). Ways of knowing, being and doing: A theoretical framework and methods for Indigenous research and Indigenist research. *Journal of Australian Studies* 27(76), 203–214. doi:10.1080/14443050309387838

- Mason, M. (Ed.). (2008). *Complexity theory and the philosophy of education*. Chichester, England: Wiley-Blackwell.
- McDonough, W., & Braungart, M. (2002). *Cradle to cradle: Remaking the way we make things*. New York, NY: North Point Press.
- McFarland, S. (1993). *Shining through: A teacher's handbook on transformation*. Buena Vista, CO: Shining Mountains.
- McFarland, S. (2004). *Honoring the light of the child: Activities to nurture peaceful living skills in young children*. Buena Vista, CO: Shining Mountains.
- McGee-Cooper, A., Looper, G., & Trammell, D. (2007). *Being the change: Profiles from our servant leadership learning community*. Dallas, TX: AMCA.
- McIntyre, P. (2001). Some reflections on the role of elders in decision making in indigenous communities. *ADR Bulletin*, 3(9), 108–110. Retrieved from <http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1120&context=adr>
- McLaughlin, D. (2007). Passing on our culture: How older Australians from diverse cultural background contribute to civil society. *Journal of Cross-Cultural Gerontology*, 22, 47–60. doi:10.1007/s10823-006-9012-4
- Meadows, D. H. (2005). Dancing with systems. In M. K. Stone and Z. Barlow (Eds.), *Ecological literacy: Educating our children for a sustainable world* (pp. 193–205). San Francisco, CA: Sierra Club Books.
- Meadows, D. H. (2008). *Thinking in systems: A primer*. (Edited by Diana Wright). River Junction, VT: Chelsea Green.
- Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits: Global collapse or a sustainable future*. White River Junction, VT: Chelsea Green.
- Menzies, C. R. (2001). Reflections on research with, for, and among Indigenous peoples. *Canadian Journal of Native Education* 25(1), 19–36.
- Merculieff, I., & Roderick, L. (2013). *Stop talking: Indigenous ways of teaching and learning and difficult dialogues in higher education*. Anchorage, AK: University of Alaska.
- Mertens, D. M., Cram, F., & Chilisa, B. (Eds.). (2013). *Indigenous pathways into social research: Voices of a new generation*. Walnut Creek, CA: Left Coast.
- Meyer, M. A. (1998). *Native Hawaiian epistemology: Contemporary narratives*. (Doctoral dissertation). Harvard University, MA.
- Miles, M., & Huberman, A. (1984). *Qualitative data analysis: A sourcebook of new methods*. Thousand Oaks, CA: Sage.

- Mitchell, E. (2009). Epiphany in space and on earth: Reflections on the Akashic experience. In E. Laszlo (Ed.), *The Akashic experience: Science and the cosmic memory field* (pp. 224–241). Rochester, VT: Inner Traditions.
- Mkabela, Q. (2005). Using the Afrocentric method in researching Indigenous African culture. *The Qualitative Report*, 10(1), 178–189.
- Montessori, M. (1914/1965). *Dr. Montessori's own handbook*. (n.a., Trans.). New York, NY: Schocken.
- Montessori, M. (1918/1991). *The advanced Montessori method* (F. Simmonds & L. Hutchinson, Trans.). Oxford, England: Clío.
- Montessori, M. (1936/2014). *The secret of childhood*. (Barbara Barclay Carter, Trans.). Himayatnagar, Hyderabad, India: Orient Blackswan Private Limited.
- Montessori, M. (1947/2007). The forgotten citizen, letter Maria Montessori sent to all governments in 1947. *Montessori Life*, 19(1), 20.
- Montessori, M. (1948a/1976). *From childhood to adolescence*. (2nd ed.) (A. M. Joosten, Trans.). New York, NY: Schocken.
- Montessori, M. (1948b/1995). *The discovery of the child*. (n.a., Trans.). Oxford, England: Clío Press, Ltd.
- Montessori, M. (1948c/2007). *To educate the human potential*. (n.a., Trans.). Amsterdam, The Netherlands: Montessori -Pierson.
- Montessori, M. (1949a/1972). *Education and peace*. (H. R. Lane, Trans.). Chicago, IL: Henry Regnery Company.
- Montessori, M. (1949b/1995). *The absorbent mind*. (C. A. Claremont, Trans.). New York, NY: Henry Holt.
- Montessori, M. (1949c/2007). *The formation of man*. (n.a., Trans.). Amsterdam, The Netherlands: Montessori -Pierson.
- Montessori, M. (2006). *The child, society and the world: Unpublished speeches and writing*. (C. Juler & H. Yesson, Trans.). Oxford, England: Clío Press.
- Nardi, P.M. (2006). *Doing survey research: A guide to quantitative methods* (2nd ed.). Boston, MA: Pearson.
- Ness, R. B. (2013). *Genius unmasked*. New York, NY: Oxford University Press.
- Oblinger, D. G, & Verville, A. L. (1998). *What business wants from higher education*. American Council on Education, Series on Higher Education. Phoenix, AZ: Oryz.

- Okalik, L. (2013). Inuujuunga: The intricacy of Indigenous and Western epistemologies in the Arctic. In D. Mertens, F. Cram, & B. Chilisa (Eds.), *Indigenous pathways into social research: Voices of a new generation* (pp. 239–248). Walnut Creek, CA: Left Coast.
- Parajuli, P. & Logan, R. (2011). How our teaching changes our thinking, how our thinking changes the world: A conversation with Jamie Cloud. *Journal of Sustainable Education*. Retrieved from http://www.jsedimensions.org/wordpress/content/how-our-teaching-changes-our-thinking-and-how-our-thinking-changes-the-world-a-conversation-with-jaimie-cloud_2011_05/
- Paris, D. G., & Wood, S. K. (Eds.). (2002). *Step into the circle: The heartbeat of American Indian, Alaska Native, and First Nations deaf communities*. Salem, OR: AGO Publications and Damara Goff Paris.
- Parry, G. A. (2015). *Original thinking: A radical revisioning of time, humanity, and nature*. Berkeley, CA: North Atlantic Books.
- Patel, L. (2016). *Decolonizing educational research: From ownership to answerability*. New York, NY: Routledge.
- Patterson, M., Jackson, R., & Edwards, N. (2006). Ethics in aboriginal research: Comments on paradigms, process and two worlds. *Canadian Journal of Aboriginal Community-Based HIV/AIDS Research* 1(1), 47–62.
- Perkins, U. (2007). Pono and the Koru: Toward Indigenous theory Pacific Island literature. *Hūlili: Multidisciplinary Research on Hawaii Well-Being*, 4(1), 59–89.
- Peters, W. (2013). Use of Indigenous/Indigenist research methodologies. *Seven Generations Center of Excellence in Native Behavioral Health*, 1–27. Retrieved from <https://ruralhealth.und.edu/projects/coe-in-native-behavioral-health/publications>
- Povell, P. (2010). *Montessori comes to America: The leadership of Maria Montessori and Nancy McCormick Rambusch*. Lanham, MD: University Press of America.
- Rathunde, K. (2001). Montessori education and optimal experience: A framework for new research. *The NAMTA Journal*, 26(1), 11–43.
- Ravitch, S. M., & Riggan, M. (2012). *Reason & rigor: How conceptual frameworks guide research*. Thousand Oaks, CA: Sage.
- Ray, P. H., & Anderson, H. R. (2000). *The cultural creatives: How 50 million people are changing the world*. New York, NY: Three Rivers Press.
- Reed, J. (2007). *Appreciative inquiry: Research for change*. Thousand Oaks, CA: Sage.
- Reed, C., Singleton, C., Dillon, A., & Boulden, K. (2013, August 1). *Montessori: Making a difference in Australia's aboriginal communities*. Workshop presentation at the International Montessori Congress, Portland, Oregon.

- Rist, S., & Farid, D. (2006). Ethnoscience—a step towards the integration of scientific and indigenous forms of knowledge in the management of nature resources for the future. *Environmental, Development and Sustainability* 8, 467–493. doi:10.1007/s10668-006-9050-7
- Rothe, J. P., Ozegovic, D., & Carroll, L. J. (2009). Innovation in qualitative interviews: “Sharing Circles” in a first nation community. *Injury Prevention* 15, 334–340. doi:10.1136/ip.2008.021261
- Royal, T. A. C. (2002). *Indigenous worldviews: A comparative study. A report for Ngāti Kikopiri Te Wānanga-o-Raukawa Te Puni Kōkiri Ministry for Māori Development*. Retrieved from <https://charles-royal.squarespace.com/s/Indigenous-Worldviews>
- Ryan, T. (2005). When you reflect are you also being reflexive? *Ontario Action Researcher*, 8(1), 1–5.
- Santone, S. (2010). Sustainability and economics 101: A primer for elementary educators. *Journal of Sustainability Education*. Retrieved from http://www.journalofsustainabilityeducation.org/wordpress/content/sustainability-and-economics-101-a-primer-for-elementary-educators_2010_05/
- Sawyer, K. (2008). *Group genius: The creative power of collaboration*. New York, NY: Basic Books.
- Schonleber, N. S. (2008). Ancient ways and lessons learned: What Montessorians can understand from native educators. *Montessori Life*, 20(3), 32–38.
- Schonleber, N. S. (2011). Hawaiian culture-based education and the Montessori approach: Overlapping teaching practices, values, and worldview. *Journal of American Indian Education*, 50(3), 5–25.
- Senge, P. (2006). *The fifth discipline*. New York, NY: Random House.
- Shiva, V. (2008). *Soil not oil: Environmental justice in an age of climate crisis*. Cambridge, MA: South End Press.
- Siegel, D. J. (2013). *Brainstorm: The power and purpose of the teenage brain*. New York, NY: Penguin Group.
- Sims, P. (2011, April 5). The Montessori mafia. *Wall Street Journal*, Retrieved from <http://blogs.wsj.com/ideas-market/2011/04/05/the-montessori-mafia/#>
- Smith, L. T. (2012). *Decolonizing methodologies: Research and indigenous peoples* (2nd ed.). New York, NY: Zed Books Ltd.
- Smitherman, S. (2008). Chaos and complexity theories: Wholes and holes in curriculum. In W. F. Pinar (Series Ed.), W. C. Doll, Jr., M. J. Fleener, D. Trueit, & M. St. Julien (Vol. Eds.).

- Complicated conversation: Vol. 6. Chaos, complexity, curriculum, and culture: A conversation.* (pp. 153–180). New York, NY: Peter Lang.
- Smylie, J., Martin, C. M., Kaplan-Myrth, N., Steele, L., Tait, C., & Hogg, W. (2003). Knowledge translation and indigenous knowledge. *Circumpolar Health*, 139–143.
- Standing, E. M. (1998). *Maria Montessori: Her life and work*. New York, NY: Plume.
- Sterling, S. (2011). *Sustainable education: Re-visioning learning and change*. Cambridge, England: Green Books.
- Stibbe, A. (Ed.). (2012). *The handbook of sustainable literacy: Skills for a changing world*. Cambridge, England: Green Books.
- Sutton, A. (2009). Educating for ecological sustainability: Montessori education leads the way. *Montessori Life*, 21(4), 18–25.
- Swiderski, M. J. (2011). Maria Montessori: founding mother of experiential education? In E. Smith & C. E. Knapp, *Sourcebook of experiential education: Key thinkers and their contributions* (pp. 197–207). New York, NY: Routledge.
- Swimme, B.T. (2012, March 18). *The cosmic force of feeling*. Keynote presentation at the American Montessori Society 2012 Annual Conference, San Francisco, CA.
- Tachine, A. R., Yellow Bird, E., & Cabrera, N. L. (2016). Sharing circles: An Indigenous methodological approach for researching with groups of Indigenous peoples. *International Review of Qualitative Research*, 9(3), 277–295.
- Taggart, G. (2001). Nurturing spirituality: A rationale for holistic education. *International Journal of Children's Spirituality*, 6(3), 325–339.
- Traore, I. H. (2013). Indigenous researcher's thoughts: An experience from research with communities in Burkino Faso using participatory methods. In D. Mertens, F. Cram, & B. Chilisa (Eds.), *Indigenous pathways into social research: Voices of a new generation* (pp. 171–188). Walnut Creek, CA: Left Coast.
- Tuck, E., & McKenzie, M. (2015). *Place in research: Theory, methodology, and methods*. New York, NY: Routledge.
- United Nations Permanent Forum on Indigenous Issues. (n.d.). *Indigenous peoples, indigenous voices*. Retrieved from http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf
- Victor, J. M., Goulet, L. M., Schmidt, K., Linds, W., Episkenew, J., & Goulet, K. (2016). Like braiding sweetgrass: Nurturing relationships and alliances in Indigenous community-based research. *International Review of Qualitative Research*, 9(4), 423–443.

- von Faber, M., Bootsma-van der Wiel, A., van Exel, E., Gussekloo, J., Lagaay, A. M., Dongan, E., . . . Westendorp, R. G. (2001). Successful aging in the oldest old. Who can be characterized as successfully aged? *Archives of Internal Medicine* 2001, 161, 2694–2700.
- Walker, B., & Salt, D. (2006). *Resilience thinking: Sustaining ecosystems and people in a changing world*. Washington, DC: Island Press.
- Walker, B., & Salt, D. (2012). *Resilience practice: Building capacity to absorb disturbance and maintain function*. Washington, DC: Island Press.
- Walker, P. (2013). Research in relationship with humans, the spirit world, and the natural world. In D. Mertens, F. Cram, & B. Chilisa (Eds.), *Indigenous pathways into social research: Voices of a new generation* (pp. 299–315). Walnut Creek, CA: Left Coast.
- Walter, M., & Andersen, C. (2013). *Indigenous statistics: A quantitative research methodology*. Walnut Creek, CA: Left Coast.
- Warren, K., Mitten, D., & Loeffler, TA. (2008). *Theory and practice of experiential education*. Boulder, CO: Association for Experiential Education.
- Wasserman, J. (2015, December 16). Corporate kindergarten: How a Montessori mindset can transform your business. *Forbes*. Retrieved from <http://www.forbes.com/sites/johnkotter/2015/12/16/corporate-kindergarten-how-a-montessori-mindset-can-transform-your-business/2/#12e0e3d03b53>
- Weber-Pillwax, C. (2001). What is Indigenous research? *Canadian Journal of Native Education*, 25(2), 166–174.
- Weber-Pillwax, C. (2004). Indigenous researchers and indigenous research methods: Cultural influences or cultural determinants of research methods. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health* 2(1), 77–90.
- Wheatley, M. J. (2007). *Finding our way: Leadership for an uncertain time*. San Francisco, CA: Berrett-Koehler Publishers.
- Whitescarver, K., & Cossentino, J. (2007). Lessons from the periphery: The role of dispositions in Montessori teacher education. *Journal of Educational Controversy*, 2(2), 11. Retrieved from <http://cedar.wvu.edu/jec/vol2/iss2/11>
- Whitney, D., & Trosten-Bloom, A. (2003). *The power of appreciative inquiry: A practical guide to positive change*. San Francisco, CA: Berrett-Koehler Publishers.
- Wilshire, B. (2006). On the very idea of ‘worldview.’ In Four Arrows (Ed.), *Unlearning the language of conquest: Scholars expose anti-Indianism in America*, (n. p.). Austin, TX: University of Texas.
- Wilson, S. (2001). What is an Indigenous research methodology? *Canadian Journal of Native Education*, 25(2), 175–179.

Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Black Point, Nova Scotia, Canada: Fernwood.

Wolf, A. D. (1996). *Nurturing the spirit in non-sectarian classrooms*. Hollidaysburg, PA: Parent Child.

Appendices

Appendix A:

Overview of Maria Montessori's Life

Maria Montessori lived from 1870 to 1952. Ironically, as an early adolescent, she was adamant about not becoming a teacher. During her later adolescent years, she pursued her love of mathematics and science, considering first engineering, then switching to medicine. She became one of the first women physicians to graduate from the University of Rome. In the early 1900s, she became involved with education as a physician working with children labeled as retarded and uneducable. Charged initially with the physical health of these children, she began to implement strategies that addressed their cognitive and psychological development. When the children tested out almost level with children in the regular schools within one year of her guidance, professionals lauded her work. Montessori wondered why the children considered fully developed were performing at such a low level (Kramer, 1988; Standing, 1998).

Her next venture into education occurred in a slum area of Rome where she was asked to provide care for the young children left unattended during the day while both parents went to work. Those who witnessed the children at work in this setting again delivered her accolades; some referred to her as a miracle worker. She based her methods in working with children on her scientific observations of children's behavior. She absorbed information from the literature on education, healthcare, and in the developing discipline of psychology (Kramer, 1988; Chattin-McNichols, 1992).

Montessori set sail for the United States in 1913, invited by mothers and educators who had read about her work. Within a few years of her presence in the United States, the leading educators of the day reviewed her methods and found them inflexible. Some parts of her method, they maintained, were good, while other parts seemed outmoded. Montessori insisted her

philosophy and methods be implemented as a whole. She knew her methods could not be dissected nor experienced separately; the philosophy and methods were integral and interwoven. She left the United States when it became apparent her concept was not understood widely enough (Kramer, 1988).

Montessori's work continued to be implemented elsewhere in the world. During the early 1930s, her educational system became prohibited in Italy by Mussolini. She traveled to Barcelona, then Amsterdam, then to India. She was in India when WWII erupted, and she became interned in India by the British government (because she was Italian), though she was allowed to continue her educational pursuits. During the 1940s, she wrote some of her most renowned works. Montessori continued researching her approach with children in different parts of the world until her death (Kramer, 1988; Povell, 2010; Standing, 1998).

The world in which Montessori lived was one essentially similar to the world today. During the early 1900s, the leading nations of the world continued taking steps toward international cooperation. Millions of men and women in both Europe and America became convinced that major wars should never again occur. Peace movements had been growing for nearly a hundred years in Europe and America. Antiwar groups emphasized that war was wasteful and failed to solve the problems it was intended to solve. International agencies as well as individuals took active roles to prevent war and promote peace (e.g., the Pan-American Union, Hague conferences, the World Peace Foundation, the Carnegie Endowment for International Peace, the construction of the Permanent Court of Arbitration at The Hague).

Interdependence among nations was growing. Technology had begun to break down barriers of time and space. Many businesses bought and sold in worldwide markets and built industries in different countries. Humanitarian organizations like the Red Cross existed on an

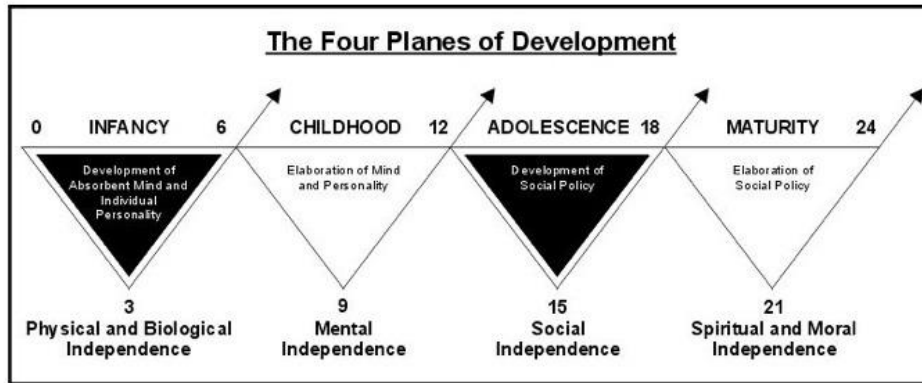
international basis. Professionals (scientists, engineers, doctors, scholars) formed international societies to pool their knowledge. At least thirty different international agencies of government were organized to deal with problems shared by many nations, such as transportation, communication, disease and sanitation, weights and measures, and maritime rules.

Montessori appears to be a product of the world in which she lived—mindful of the tumult and inspired by the ability to meet with others who shared common concerns. Her work with younger children fueled a growing belief that the education of the child in her/his early, formative years plays a key role in creating a better, more peaceful world. With lofty goals, Montessori saw how concentrating on the education of the child could mean ultimately that an entire society could be transformed. She focused her energies and efforts on the classroom experience, on the training of Montessori guides or teachers, and advocating for children and for peace. Maria Montessori was nominated for the Nobel Peace Prize three times— in 1949, 1950, and 1951 (see Nomination database—Peace, www.nobelprize.org/nomination/peace).

Maria Montessori did not publish her work as educational theory nor remain in the world of academia, as did those whose educational philosophies and influences became recognized during the 20th century. It was the academically established theorists who chiefly reviewed and defined Montessori education using the information they had available. But their knowledge of Montessori's education model was incomplete. Complete understanding of the Montessori educational concept among education theorists remains lacking even today.

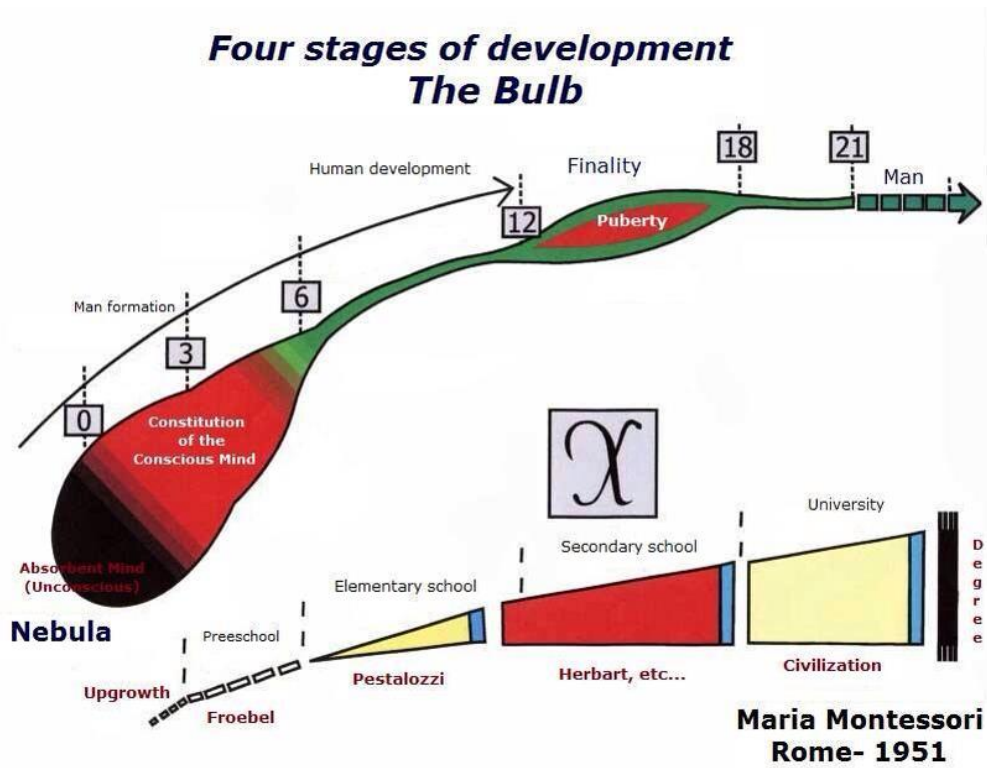
Appendix B:

Maria Montessori's Geometric Image of the Planes of Development



Retrieved from <http://www.stepsstonesgr.org/blog/2015/10/27/montessori-philosophy-explained-the-planes-of-development>

Maria Montessori's Organic Image for the Planes of Development



Retrieved from <http://www.newberryhouse.com/the-montessori-method/>

Appendix C:

Chart Showing Similarities Between Montessori Education Concepts

and Indigenous Education Concepts

Montessori Concept	Indigenous Concept - Jacobs et al. (2013)
Views the child holistically: developmentally, cognitively, physically, socially, emotionally, spiritually/morally (Montessori, 1948b).	“Cognition and consciousness exist in an inseparable body-mind-spirit-nature unity” (p. 66).
Teacher respects children’s drive to self-construct (Montessori, 1948b, 1949b).	Curriculum is a catalyst for discovery; a more self-directed approach preferred to teacher-directed learning (p. 65). “Indian education demands relationships of personal respect” (p. 74).
Periods of long, uninterrupted work time is essential for students to cultivate internal self-discipline, deep concentration and intrinsic motivation; students have choice in work. Mastery learning vs performance (grade) based. (Lillard, 2005; Montessori, 1948b).	“Mastery...begins with self-control; independence...is nurtured by encouraging children to be intrinsically motivated” (p. 67). “Allow for ample observation and imitation rather than verbal instruction; allow students to take their time before attempting a task” (p. 70).
Acknowledges children learn at different paces (Lillard, 2005; Montessori, 1948b).	“Honors student pace” (p. 79).
Child allowed to spot own errors through feedback from the materials; errors are viewed as part of the learning process (Montessori, 1948b).	“A student’s authentic reflection on experience [should be] the locus of authority” (p. 72).
Children are encouraged to teach, collaborate, and help each other (Lillard, 2005).	“Emphasize cooperation versus competition” (p. 71); use peer teaching (p. 80).
Child is provided opportunities to choose own work from interests and abilities, concepts taught within context of interest (Montessori, 1949b).	“Make learning connect to meaningful contexts and real life” (p. 71).

Passages in the right column are taken from Jacobs, D. T., England-Aytes, K.,Cajete, G., Fisher, R. M., Mann, B. A., McGaa, E. , & Sorensen, M. (2013). *Teaching truly: A curriculum to indigenize mainstream education*. New York, NY: Peter Lang Publishing.

Appendix D:

Letter of Invitation to Participate in Montessori Research

Email subject line: Invitation to be part of a Montessori research project:

My name is Ann Sutton. I am currently working on a PhD in Sustainability Education and this email is to invite you to be part of a Montessori research project.

Title of Project: *Gathering Insights on Effective Montessori Teachers*

Principal Investigator: *Ann D. Sutton, Doctoral Student, Prescott College*

Faculty Advisor: *Denise Mitten, PhD, Prescott College*

Currently I live in Houston, TX where I am on the faculty at Houston Montessori Center teaching adults taking the secondary teacher education program and doing field visits. I have taught in Montessori secondary classrooms for 15 years prior and while my own experience is at the secondary level, this research intends to glean pearls of wisdom from Montessori educators with experience in all levels.

A description of the project is below. It's a lengthy read and I believe it will be helpful for you to know before you decide.

The basic criteria for participants: (1) Montessori credential or diploma (any level); (2) Montessori classroom experience (5 or more years); (3) minimum of 20 years in Montessori; (4) worked as Head of School and/or Teacher educator.

The information below is taken from excerpts from one of my papers, so that you can see the overall research plan/design first-hand.

Here's the overview:

The purpose of my research involves digging deeper into the essence of Montessori from experienced and respected Montessori practitioners in an effort to learn more about teachers who are able to accept and implement this different educational paradigm.

At the core of the Montessori approach, within which establishing the environment of learning is as crucial as the content, is the teacher/guide. In order to fully implement the Montessori philosophy and pedagogy, a teacher must acquire a deep level of understanding and acceptance in order to follow through with the integral aspects imperative for effective implementation. A significant number of adult learners find this a challenging task. Long time Montessori practitioners ponder this dilemma frequently in informal conversations. This research attempts to add information to the body of literature in Montessori education specifically as regards the Montessori teacher. There exists little literature from the viewpoint this research features; there has not been recorded, to my knowledge, such a collection of perceptions from highly experienced Montessori practitioners.

The main question I consider asks, what insights on implementing a different educational approach can experienced Montessori practitioners offer to teachers?

Maria Montessori wrote extensively about the preparation of the teacher and the dispositions required to implement her approach to educating (Dress, 2012, p. 28; Montessori, 1948b, 1949b), yet her

words were flowery and the ideas often seem elusive. There have been only a few attempts to distill her thoughts into identifiable traits (Huxel, 2013; Whitescarver & Cossentino, 2007).

The Montessori community seeks to gain more knowledge about what fosters one's ability to implement the Montessori philosophy and pedagogy (a) in an effort to communicate more information to prospective Montessori teachers before they undertake the intensive, time consuming, and costly training, and (b) to learn how to better support teachers who have taken the training and continue to struggle with implementation in the classroom setting.

For the data I plan to use group dialogues. The data collection process for my research needs to be open to all insights, the conversations fluid, reflective, and reflexive. The guiding questions used in my research must keep the focus while allowing fluidity in order to remain open for varying perspectives. Dialogues by design are more informal and allow for the group to ponder together as ideas are examined. The process is organic and supports the importance given relationship. It remains important to not restrict what the Montessori participants express and to establish the sharing space as open and respectful of all knowledge.

Overall, the questions and responses will be guided by an Appreciative Inquiry approach – focus will be on the positive.

[Here is an overview of what the experience will look like:](#)

Date:

Duration of session: approx. 2 hours

Time frame:

Location:

First hour:

Consent form (review; ask questions; basically you are free to end participation at any point)

Brief movement/centering

Short lesson on dialogue guidelines

First question about which to dialogue

Second hour: (after brief and appropriate food, etc break)

Second question about which to dialogue

All the sections will be audio-taped in order to be transcribed later. You will have an opportunity to review the transcriptions as you are willing.

[There is more...](#)

I am seeking to follow what I deem are Montessori principles throughout this entire process. Indigenous research principles are guiding this research (if you're interested, you can read about that part separately...I would welcome that, and it's not necessary; you're call at any point)

The spirit:

Elders in Indigenous communities are considered valuable “not in their own individual right, but for what they contribute to society as a group” (Martin & Mirraoopa, 2003, p. 209). Such designation of the role of elders reflects the spirit of what my research seeks to accomplish. It is my hope and intent that participants will feel it an honor to be part of this. Research that benefits the Montessori community has been imperative in determining my topic from the outset.

Non-anonymity:

Inclusion of the names of the Montessori participants is expected to be revealed in the research unless a participant requests anonymity. Biographical information on the participants considered relevant within the Montessori culture can enhance the context of the insights participants share. Knowing the sources of information can lend reliability and credibility within the Montessori community as well as foster community ownership.

Participants will be asked to provide a narrative roughly 1-2 typed pages that include:

(a) their story of how they entered into Montessori education; (b) country of origin; (c) native language; (d) all languages spoken; (e) years, if any, in other educational settings; (f) number of years in Montessori education; (g) levels taught; (h) overview of their work in Montessori in all relevant aspects (administration, authorship, training, etc.); (i) their academic background, and possibly (j) the relationship shared with other participants. Because their identity ultimately will become public information, two opportunities will be offered for participants to review the decision to share their name and personal information before it becomes part of the final work. It is important to respectfully allow participants to consider unintended consequences that might arise in the future.

To clarify, if you choose to be identified, it will be done in the body of research in a section designated about the participants, not by any specific words or passages. The intent is to glean collective insights, not individual ones.

And because you will be asked to read the transcript, offer input on interpretation and analysis, and how to represent the findings, participants are considered co-creators or co-researchers in this study...*always though to extent you wish.*

Please let me know your thoughts and willingness to participate.

If you are willing and able, I will need to work with you (and the others in your dialogue group) to set a date/time and location for the dialogue.

Certainly I appreciate your consideration of this.

I look forward to hearing back from you; questions/comments welcome.

Thank you.
Respectfully,
Ann

Appendix E:**Prescott College IRB Approval (Signed Pages)****Prescott College
IRB PROPOSAL REVIEW FORM**

Note to all Prescott College students, Prescott College employees (faculty, staff, and administrators), and nonemployees acting on behalf of the college to conduct research with living participants or systems: Please submit this form, with all other appropriate preliminary documentation (including interviews, surveys, consent forms, etc.), to Academic Operations (academic_operations@prescott.edu). If you have questions about the process, see the IRB Flow Charts.

Project Title: Gathering Insights from Experienced Montessori Practitioners on Effective Teachers

Title on consenting documents (if different from project title): Gathering Insights on Effective Montessori Teachers

Identification of Researcher(s) and Research Oversight**Researcher 1**

Name: Ann D. Sutton	Degree: B.S. Secondary Education; Masters of Humanities	Phone: 214-862-1498
Specialty: Education	Email: ann.sutton@prescott.edu	

Research Supervisor (Faculty, Administrator, or Chairperson):

Name: Denise Mitten	Degree: PhD	Phone: 231-598-7477
Specialty: Adventure Education	Email: dmitten@prescott.edu	

Researcher Contact Information

Name: Ann D. Sutton	Phone: 214-862-1498	Email: ann.sutton@prescott.edu	Fax: N/A
Mailing Address: 8221 Kingsbrook Rd # 209 Houston, TX 77024			

Faculty or Mentor Contact Information (if applicable)

Name: Denise Mitten	Phone: 231-598-7477	Email: dmitten@prescott.edu	Fax: N/A
Mailing Address: 220 Grove Avenue Prescott, AZ 86301			

Project Start Date: July 16, 2016	Project End Date: December 31, 2021
--	--

Support

Does intra- or extramural funding support this research project? No
If "yes," sponsoring agency/ies?

Verification of Human Subjects Training

All individuals conducting research involving living participants/systems (with or without financial support of any sponsoring organization or agency) must complete the Human Subjects Research Protection Training Course (<http://phrp.nihtraining.com/users/login.php>). Researchers and all of the committee members must meet the same standards of competency related to the understanding of conducting research with living participants and systems.

Name noted on NIH Certificate: Ann Sutton

NIH Certificate Number: 964099

GENERAL APPROVAL INSTRUCTIONS

- According to current processes, please see IRB Flow Charts and appropriately route your proposal for review and approval.
- Prescott College Academic Operations (academic_operations@prescott.edu) will record one final copy.

IRB COMMITTEE

We/I have examined the proposal cited above, and certify that ALL of the following are true:

- The information contained herein is complete;
- The scientific aspects of the project include appropriate provision for protecting the rights/welfare of the living participants or systems.
- Based on review of the proposal, the Institutional Review Committee has determined that this project (check only one):
 - Places living participants/systems at no risk
 - Places living participants/systems at minimal risk.
 - Places living participants/systems at more than minimal risk.

Research Supervisor (Faculty, Administrator, or Chairperson)

Name (Print): Denise Mitten	Signature (electronic): Denise Mitten
Date: July 11, 2016	Academic Program: PhD in Sustainability Education

Institutional Review Committee (e.g., Core Faculty):

Name (Print): Denise Mitten	Signature (electronic): Denise Mitten
Date: July 11, 2016	Academic Program: PhD Sustainability Education

Appendix F:

Participant Consent Form

Title of Project: *Gathering Insights on Effective Montessori Teachers*

Principal Investigator: *Ann D. Sutton, Doctoral Student, Prescott College*

Faculty Advisor: *Denise Mitten, Ph. D, Prescott College*

The PhD program in Sustainability Education at Prescott College supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. Refusal to participate or a decision to withdraw from the study will not result in a penalty of any kind for you

Investigator

This study will be conducted by fellow Montessori educator, Ann D. Sutton, to be used for doctoral research work at Prescott College.

Invitation to participate and purpose

You are being invited to take part in this study as part of my doctoral research.

The purpose of the research involves digging deeper into the essence of Montessori education from experienced and respected Montessori practitioners in order to learn more about teachers who are able to embrace and implement this different educational paradigm (a) in an effort to communicate more information to prospective Montessori teachers before they undertake the intensive, time consuming, and costly teacher development course, and (b) to learn how to better support teachers who are completing or have completed the course and continue to struggle with implementation in the classroom setting.

At the core of the Montessori approach, within which establishing the environment of learning is as crucial as the content, is the teacher/guide. In order to fully implement the Montessori philosophy and pedagogy, a teacher must acquire a deep level of understanding and acceptance in order to follow through with the integral aspects imperative for effective implementation. A significant number of adult learners find this a challenging task. This research attempts to add information to the body of literature in Montessori education regarding the Montessori teacher.

Voluntary nature of the study

The information in this form is provided to help you decide whether or not to take part in this research. As the principal investigator, I will be available to answer your questions and provide additional information. If you decide to participate, you will be asked to sign this consent form. A copy will be provided for your records.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to respond during the dialogue or throughout the entire process for any reason.

Methods/Procedures

If you agree to be part of the study, you will be asked to participate in a group or individual audio recorded dialogue. It is possible there will be a video recording made, provided all participants agree. I also plan to make notes on responses during the dialogue sessions. There will be two consecutive sessions of approximately one hour each; the entire experience will last approximately two hours.

This consent form indicates that you give permission for this information to be recorded in both written and audio form. If all dialogue participants agree, this form also indicates you give permission for the dialogue to be video recorded.

The responses recorded will be used to determine patterns or themes found within the responses made by participants.

Field notes will be transcribed and respondent information will be combined with others to form composite information. Links between individual statements and specific identifying characteristics (e. g. , schools, location, etc.) will not purposefully be made within the research write up. To clarify, if you choose to be identified, it will be done in the body of research in a section designated about the participants. Specific words or passages will not be linked to an individual. The intent is to glean collective insights, not individual ones.

I will negotiate the process to share findings with participants. A complete write up will be available upon completion of the dissertation

Description of your involvement

You will be given several opportunities to participate beyond the dialogue.

I. After the dialogue in which you participate, I will ask you to review the written transcription of the audio recording within a specified time frame to verify that the dialogue in which you participated was recorded accurately. Your participation in reading the transcript is voluntary.

II. After all the dialogues have taken place and transcriptions are done, the phase of interpreting and analyzing the data begins. During the interpretation and analysis phase, you will be apprised of the findings and your input will be sought within a specified time frame. Again, it is voluntary on your part as to how much you wish to participate.

III. Once the findings have been established, ways of representing and disseminating the findings will be determined. Your input will be sought (again, within a specified time frame) to the extent you are willing.

The doctoral committee members and I will have access to your input if you choose to provide

input. Your input can remain anonymous to the committee members if you so designate at the time you send your input.

IV. Non-Anonymity and Professionally Related Information

You are being asked to participate because of your valuable experience in Montessori education. The intent is to honor the wisdom of Montessori educators. Knowing the sources of information can lend reliability and credibility within the Montessori community as well as foster community ownership. Information about the participants considered relevant within the Montessori culture can enhance the context of the insights participants share. To clarify, if you choose to be identified, it will be done in the body of research in a section designated about the participants, not by any specific words or passages. The intent is to glean collective insights, not individual ones.

If you prefer, you may remain anonymous.

The information requested includes: (a) country of origin; (b) native language; (c) all languages spoken; (d) years, if any, in other educational settings; (e) number of years in Montessori education; (f) levels taught; (g) overview of Montessori work in all relevant aspects (administration, authorship, training, etc.); (h) the story of how you entered into Montessori education; (i) academic background, and possibly (j) the relationship shared with other participants.

Because your identity ultimately will become public information, two opportunities (one initially at the time of the dialogue and one before final publication) will be offered to you so that you might review your decision to share your name and professionally related information. It is important to respectfully allow participants to consider unintended consequences that might arise in the future.

The information you submit, if you agree to do so, will be subject to editing/revising by me. Your consent to use your information in its final form will occur before the final publication.

You will be one of approximately twenty-five participants.

There is no compensation for participating in this study.

Benefits

While you may not receive a direct benefit from participating in this research, some people find sharing their ideas and expertise a valuable experience. It is my hope that this study will contribute to a larger body of research which might provide valuable information for Montessori educators.

Risks and discomforts

There are no anticipated physical risks to participants. If you seek utmost confidentiality, a potential risk exists that some of your responses might be discussed by the investigator and others on the doctoral committee. Although there are no foreseeable risks in participation of this study, you may withdraw for any reason without penalty.

Storage and Future Use of Data

I will store the data obtained during this research to use for my dissertation as well as possible future research studies or publications. Information from this study may be shared with other investigators of future studies with the same ethical considerations proposed in this release

Contact information

The investigator for this study, Ann D. Sutton, can be contacted via email at anndsutton@msn.com, or ann.sutton@prescott.edu

Personal cell number: 214-862-1498.

Address: 8221 Kingsbrook Rd, #209, Houston, TX 77024.

Dr. Denise Mitten is chairperson of my doctoral committee. She is faculty for the PhD program in Sustainability Education at Prescott College. You may contact Dr. Mitten who represents Prescott College's Institution Review Board in this research if you have any questions. Her contact information is below:

Email: dmitten@prescott.edu

Phone: 231-598-7477

Mailing address: Prescott College, 220 Grove Avenue, Prescott, AZ 86301

Consent

By signing this document, you are agreeing to be a participant in this study and to have read the information above.

_____ By initialing this line, I agree to participate in the dialogue and be audio recorded. I understand who to contact with questions and understand what I am being asked to do.

_____ By initialing this line, I agree to the use of video recording for the dialogue (N/A).

Participant's Name (*Print*)

Participant's Signature

Date

Appendix G: Basic Guidelines for Dialogue

Source: David Bohm's *On Dialogue*

Sit in a circle so that everyone can see each other.

- Talk about your thoughts &/or experiences as they relate to the topic.
- Avoid offering solutions; stick to sharing your thoughts or reflections.
- Suspend assumptions.
- Ask clarifying questions of others if you like.
- Allow for silence.
- Remain open minded and open hearted.
- Suspend judgment.
- Be respectful.
- Listen to others' contributions; avoid thinking ahead to what you might say.
- When you speak, let what you say flow naturally with the dialogue.
- Invite/Bring in silent participants
- Set personal ego aside.
- Slow down; you'll end up going further

Spend the last 5 to 10 minutes of the dialogue soliciting a 'take away' from each member in the circle.

It is not in the answers (usually, there are no real answers that are identified at the time), it is in *the way* the group practices the dialogue-- examining, exploring ideas of a situation/issue that makes the difference, that produces best outcomes.

A collective intelligence is exponentially greater than just one.

"We are all unique, but we are never alone. I can see things you cannot see, and you can see things I cannot. We must try to see what is there together." Michael Holquist

Appendix H:

Questionnaire for Participant Demographics and Dialogue Feedback

Please note if you choose to leave any blank so I'll clearly know your intent.

1. Please give the total number of years you have worked in Montessori education in any capacity.

2. Please give total number of years you have taught in a Montessori classroom (regardless of level or school):

3. Has your Montessori experience been in private school, public school, and/or public charter school? (check all that apply)

____ Private Montessori

____ Public Montessori

____ Public Charter

4. Please list the countries in which you have taught in a Montessori classroom.

5. Please list the countries in which you have worked with Montessori teachers, either in teacher education programs or with teachers already in the classroom.

6. Please check the levels in which you hold a Montessori credential, diploma, or certificate:

____ Infant/toddler

____ 12 – 15 years

____ 3 to 6 years

____ 14 – 18 years

____ 6 – 9 years

____ Administrator

____ 9 – 12 years

7. If you have taught or been in administration in **conventional** education (non-Montessori), please indicate the total number of years.

8. Please indicate the Montessori organization(s) in which you hold a certificate, diploma, or credential:

- AMS (American Montessori Society)
 - AMI (Association Montessori Internationale)
 - AMI-USA (Association Montessori Internationale-USA)
 - IND (Independents Not In A Consortium)
 - IAPM (International Association for Progressive Montessori)
 - IMC (International Montessori Council)
 - MEPI (Montessori Educational Programs International)
 - PAMS (Pan American Montessori Society)
 - other, please specify in the blank space provided
-
-

9. Please check the Montessori positions you hold or have held: (all that apply)

- Parent of a Montessori child
 - Grandparent of a Montessori child
 - Assistant in a classroom
 - Teacher (Lead and/or Co) in classroom
 - Administrator (Head of school, Curriculum director, etc)
 - Field Consultant for adults in training
 - Teacher educator/instructor
 - Consultant for Montessori program
 - Montessori organization (board member, task force, elected office, etc)
 - Accreditation team member (for Montessori program)
 - Other (indicate in the blank space if you choose)
-

10. Please give the year in which you were born. _____

11. Please provide the ethnicity with which you wish to be identified. _____

12. Please indicate your native language: _____

13. Please list all the languages you speak.

14. Education: Please check all those that apply and **include your major or degree focus**

- High school graduate, diploma or the equivalent (for example: GED)
- Some college credit, no degree
- Associate's degree in _____
- Bachelor's degree in _____
- Master's degree in _____
- Professional degree in _____
- Doctorate degree in _____

15. Employment Status: Are you currently...?

- Employed by someone else
- Self-employed
- Retired
- Unable to work

16. There is research (Bebeau, Born, & Ozar, 1993; Creed and Hennessey, 2015; Lanz, Bebeau, Zarkowski, 2011) that indicates how our self-identity impacts what we do and how we function. In consideration of that research, the following question asks,

What do you most consider your work in Montessori as part of ? (one choice only please):

- service work
- manual work
- professional work

Feedback on the research dialogues:

A. Please give three words or phrases that you would use to describe the dialogue experience.

- 1)
- 2)
- 3)

B. What worked well about the dialogue?

C. What would you wish were different (would have improved the experience)?

D. Other comments about the experience working on this project:

*Thank you again for your participation in the research dialogue and
thank you for your time and attention in completing this survey!*

Appendix I:

Coresearcher Experiences

From the beginning of the project, those who had been contacted to participate seemed to feel appreciative to be included and were supportive of the research. Comments received upon acceptance of the invitation to dialogue included sentiments similar to these: “I am willing and excited to participate in your work”; another said, “I am honored and humbled to be part of this important work. I look forward to sharing whatever I can in the pursuit of your deeper discovery of preparation of the Montessori teacher.”

After dialogue transcriptions had been sent out for coresearchers to read and approve, the typical comment I received back is captured in what one contributor said: “I read it all this morning. What a lovely way to start the day! I'm fine with it and just assume if you use parts of it that you will make the grammar correct and eliminate extra ‘you know’ and make it more formal written language.” I did not promise to eliminate the “you know,” though did seek to minimize them when removing superfluous phrases. The “you know” remain endearing to me, signaling the conversational speech and reflecting the comfortable cadence of the dialogue.

At the conclusion of the work, coresearchers’ comments remained in the affirmative. In the questionnaire that coresearchers completed after all the dialogues had been held (see Chapter 4), participants were asked about their professional experiences and for comments on the dialogue experience (see again, Appendix H). The first request regarding participation in the dialogue asked for three words or phrases to describe the experience. There were 32 different words or phrases offered. Many phrases remained similar in meaning. A sampling of responses made about the dialogue experience includes “thought provoking,” “engaging,” “collaborative,” “inspiring,” “enriching,” “enjoyable,” “affirming,” “self-awareness,” and “reflective.”

Some reported that the experience stimulated their own thinking and might influence their actions in the future. Examples from different coresearchers include “I think participating in your research may also have opened up the perspective of your ‘elder researchers,’ I know it did mine” and “Reflecting about how I have been a supportive leader as well as not successful in the past caused me to set new goals for myself.”

There were three additional requests on the questionnaire regarding the dialogue experience. Coresearchers were asked to comment on what worked well about the dialogue, what they wished could be different or would have improved the experience, and any additional comments about the experience of working on this project.

What Worked Well About the Dialogue

There were many comments offered by elders about what they enjoyed. They spoke about being inspired, relishing time spent with colleagues discussing the meaning of their work, the dialogue being guided effectively, gaining new learning, and appreciation for the opportunity. The following offers a few direct passages that capture comments made about the dialogue that worked well and/or were expressed in the open-ended request at the end of the questionnaire:

Ability to take turns, inspiration of others in hearing their own stories, the pace, the social aspect.

Respect, comfort level, familiarity, size of group, atmosphere.

Having a set amount of time to discuss kept me from straying away from topic; leader well organized and put me at ease.

I thought the questions were provocative. Sitting with like-minded colleagues, expressing honestly and listening to others, continuing with the strand of thought as we reflected on our own experiences.

It was a very enjoyable and stimulating conversation. I got to engage with people I respect and don't see very often in an intimate conversation about a subject that we have a great passion for.

Challenged to think beyond my daily work and search for reasons that Montessori education and teacher development is vital to preserve and enhance. The future of the work depends on knowing ways to identify and support adults for the children. I hope I have helped the project in some small way.

What Could Have Been Improved

There were fewer responses to the question asking what could have been different or better about the dialogue experience. Some simply wrote, "Fine, enjoyed just as it was." There was one comment that suggested, "Would be interesting to meet for an hour over course of a month, though we all have busy schedules; maybe meet once a year for a few years with spin-off questions." A few comments addressed the number of people in their small dialogue group and time constraints: "More voices would have enriched the experience" and "Would have liked a little more time to delve a little deeper into the questions, but understand that is part of the format and design." The desire to have a larger number of participants in the dialogue group and more time are discussed in the section on "Limitations."

Coresearcher Response to Findings and Analysis

Fifteen of the coresearchers affirmed the analysis and findings. Their comments were all supportive and heartening to me as the researcher. Several had referenced the project as "great work" from its inception; that phrase was echoed by several at the conclusion. Below are a selected few that reflect the responses overall:

It was really an enjoyable experience for me to read all of the comments from others and to be inspired by their thoughtful additions. I think you've put together a wonderful project that will be a

great help to others in the Montessori arena, teachers, trainers and administrators. You synthesized each area well and presented a well-organized and well-thought-out analysis.

All the passages where you quote me are true to the actual conversation we had. (I really need to stop saying ‘You know?’ at the end of every sentence).

Thank you again for including me in this Great Work.

What you have put together is what we in Montessori have not been able to quantify. It is helpful, it is real, it is informative and it is affirming! Also, the basis is pertinent to teachers inside and outside of Montessori.

I have read the whole thing, some sections more than once. Wow! I find the presentation logical and understandable, and the main theses very substantially supported by the collective words and experiences of the group.

As the researcher, I remain humbled and grateful to have had these coresearchers on the journey. Their participation and willingness to stay engaged throughout the process was remarkable. The support they provided, evident in their comments all along the way, has buoyed me many times. Each contributor is a testament to the spirit of respect and collaboration found among members in the Montessori community and reveals why the study has been so gratifying and a true labor of love.