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UNCOVERING MEANING IN MONTESSORI TEACHERS' LIVED EXPERIENCES OF COSMIC EDUCATION AS A TOOL FOR SOCIAL JUSTICE

by

John Allen Branch, B.A., M.Ed.

Presented to the Faculty of the Graduate School of

Stephen F. Austin State University

In Partial Fulfillment

of the Requirements

For the Degree of

Doctor of Education

STEPHEN F. AUSTIN STATE UNIVERSITY
(May 2017)

UNCOVERING MEANING IN MONTESSORI TEACHERS' LIVED EXPERIENCES OF COSMIC EDUCATION AS A TOOL FOR SOCIAL JUSTICE

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John Allen Branch, B.A., M.Ed.

APPROVED:

_____
Patrick M. Jenlink, Ed.D., Dissertation Chair

_____
Karen Embry Jenlink, Ed.D., Committee Member

_____
Brandon Fox, Ph.D., Committee Member

_____
Chance Mays, Ed.D., Committee Member

_____
Liz Vaughan, Ph.D., Interim Chair, Department of Secondary Education and Educational Leadership

_____
Richard Berry, DMA
Dean of the Graduate School

ABSTRACT

This inquiry focused on the lived experiences of Montessori teachers in implementing Montessori's Cosmic Education as a tool for social justice in their classrooms in order to more fully understand Cosmic Education's meaning, purpose, and practice. The researcher also sought to understand how Cosmic Education could be an effective pedagogy of place, providing historical and social contexts in which students may develop and grow. The study used a post-intentional phenomenological design (Vagle, 2014), and was based on a series of interviews with five Montessori teachers from different classroom age levels. The data were analyzed using poetic inquiry through the form of found poetry. Emerging themes of Cosmic Education as a pedagogy of place and how that pedagogy of place contributed to agency in social justice were identified.

ACKNOWLEDGEMENTS

I express my appreciation to Dr. Patrick Jenlink, my Committee Chair. His knowledge, guidance, and questioning have been of immense help in crafting this study. I also thank the other members of my Doctoral Committee: Dr. Karen Embry Jenlink for her frequent encouragement; Dr. Brandon Fox for teaching me more about social justice than I could imagine and encouraging me to push the limits of my understandings; and Dr. Chance Mays for providing illumination of a path to phenomenological inquiry through his own dissertation.

This study could not have occurred without the support of Sherry Herron and Dr. Elisabeth Coe of School of the Woods, and the teachers who became co-investigators in this study. The support and time afforded to me were essential. I must also recognize the support of my coworkers and my students throughout this journey. Thank you.

Dr. Melissa Sampson Leigh participated in untold hours of conversations to and from Nacogdoches over the three-year period. Your friendship, conversation, and proof-reading were invaluable. Thank you to and your family: Quentin, Jordan, Eva, and Sophia.

Finally, I offer gratitude to my parents, Alfred and Lenora, for their continual support and unconditional love.

DEDICATION

This study is dedicated to my companion of 24 years, Matthew Shane Henley. Without your support, this would not have been possible. Thank you for everything.

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CHAPTER I

Introduction to the Study

Cosmic Education, pedagogy of place, and social justice are terms frequently used but often misunderstood in Montessori education; this study sought clarity in these terms and their use. By examining the lived experiences of Montessori teachers, from their credentialing programs to their classroom experiences, the phenomenon of Cosmic Education as a tool for social justice was explored. The preparation of the teacher, both academically and spiritually, has been at the root of Montessori education since its inception. While the academic portion of this equation has been well-studied and established (Certini, 2012; Cosintino, 2006; Dodd-Nufrio, 2011; Lillard, 2005), the spiritual preparation has not. Maria Montessori wrote:

> The first essential is that the teacher should go through an inner, spiritual preparation-cultivate certain aptitudes in the moral order. This is the most difficult part of her training, without which all the rest is of no avail. . . . she must study how to purify her heart and render it burning with charity towards the child. She must put on humility and above all, learn how to serve. She must learn how to appreciate and gather in all those tiny and delicate manifestations of the opening life in the child's soul. Ability to do this can only be attained through a

> genuine effort towards self-perfection. (Montessori, as cited in Standing, 1957/1998, p. 298)

Once one removes the quasi-religious terminology from this quote, it strongly resembles Paulo Freire's (1997/2007) concept of the Teachable Heart, in which he claimed that a teachable brain is insufficient to become a good educator. Real success as a teacher requires that the heart become educated; or, as Montessori would have stated it, that the teacher undergo a spiritual transformation.

When one examines many of the problems facing modern education in its current neoliberal form, one can easily identify what happens when the teachable heart is ignored (Freire, 1994; Giroux, 2011; McLaren, 1999; Slattery, 2013). Slattery (2013, p. 85) stated, "We are all 'willing executioners' when we ignore injustice and when we allow prejudice to go unchecked." Giroux's (2011) issue of the culture of disposability and his response of changing the historical and social contexts of students' lives both derive from educators' failure to acknowledge the power and the influence they have. When students abandon all hope, when they cannot have a positive vision of the future that includes themselves; when all epistemological curiosity (Freire, 1994) has been sufficiently crushed, they are most in need of pedagogies of hope and place. Only when they begin to see themselves as part of the living history of specific places, only when they gain an understanding of criticality of engagement with place in order to create history, will they begin to envision a positive future (Giroux, 2011).

Freire made frequent references to what he called pedagogies of hope, teaching methods that allowed students to visualize a future for themselves. He focused much of his writing on how pedagogies of hope look to the educator:

> It ought to be an integral part of our teacher preparation to discuss the qualities that are indispensable for our teaching practice, even though we know that these qualities are created by that practice itself . . . It is fundamental for us to know that without certain qualities or virtues, such as a generous loving heart, respect for others, tolerance, humility, a joyful disposition, love of life, openness to what is new, a disposition to welcome change, perseverance in the struggle, a refusal of determinism, a spirit of hope, and openness to justice, progressive pedagogical practice is not possible. (Freire, 1998, p. 108)

This pedagogy of hope and freedom requires that the educator assist the student in identifying sources of oppression within their own lives so that the students may more adequately engage with and overcome the oppression (Freire, 1998).

It can be argued that pedagogy of place is a subcategory of pedagogies of hope. Without seeing themselves as part of the living history of specific places and events, students cannot see their future selves as important. Previous life experiences, all of which occurred in specific places, are important considerations in how the present moment is interpreted (Pinar, 2012). One way of creating a sense of hope is by changing the historical contexts through which students interpret their own experiences, by shifting their ontologies. This can be accomplished in two ways: (1) by changing the way they

see or interpret past experiences (Freire, 1994); and (2) providing new experiences of place that guide them in future interpretations (Freire, 1970/2000).

This study how Montessori education utilizes Cosmic Education as pedagogy of place and as a tool of social justice. By exploring Montessori teachers' lived experiences, additional meaning and clearer definitions of Cosmic Education, pedagogy of place, social justice, and the relationships that exist between the three should emerge.

This study was post-intentional phenomenological in design, and was based on the methodologies of Vagle (2014), and supported by the phenomenologies used by van Manen (1997, 2014) and Dahlberg, Dahlberg, & Nyström (2008). Creswell (2007) defined phenomenology as the study of several individuals who have similar experiences of a phenomenon. Post-intentional phenomenology (Vagle, 2014) allows the synthesis of textural and structural descriptions of what is meant by pedagogy of place through the praxis of Montessori teachers, and yet bypasses the egocentric predicament, the inability to understand reality outside of our own perceptions, common to more traditional Husserlian or transcendental phenomenology. Vagle's (2014) post-intentional phenomenology also allows one to concentrate on the variations, the varieties of experience, of a phenomenon, whereas traditional Husserlian and Heideggerian phenomenologies tend to focus more on the invariance and structural components of experience (Moustakas, 1994; Vagle, 2014).

While much has been written about the need for a pedagogy of place, very little analysis on how such pedagogies have actually been implemented or teachers' experiences implementing them as tools for social justice has been conducted. A recent

search of online databases of theses and dissertations returned zero results on implementing pedagogy of place within a Montessori school. A similar search on Google Scholar returned a total of two articles that fit the descriptors. There was not a lot of research on this topic, yet by examining the phenomenology behind Cosmic Education as pedagogy of place as a tool for social justice within Montessori teacher praxis, greater understanding was developed.

Montessori (1948/2015, 1949/1995) wrote extensively about her concept of Cosmic Education, her own version of a pedagogy of place, and it has become a critical component in Montessori education (Certini, 2012; Coe & Sutton, 2016; Duffy & Duffy, 2002). It is now emphasized at all levels of training, from Infant Toddler through Administrator credentialing programs. New Montessori teachers are taught the basics of this pedagogy as they complete their initial credential training, and the techniques are refined over the first several years of their careers. When one first enters a Montessori classroom, at any age-level, they quickly and easily observe a pedagogy of place at work.

One of the primary reasons for conducting this inquiry was my own personal struggle with pedagogy of place, Cosmic Education, and social justice as a Montessori teacher working at the secondary level. I completed Montessori teacher certification and was introduced to Cosmic Education, pedagogy of place, and the beginnings of social justice themes. The definitions of these terms were not provided from textbooks or dictionaries, but from the direct classroom lived experiences of the teacher trainers and of ourselves over time, yet the definitions still lacked clarity. This study was driven by my

seeking a deeper understanding and the uncovering of more complex meanings in my own experiences by examining the experiences of other Montessori teachers.

Montessori also wrote extensively on the rights of the child. She viewed the oppression of children to be the greatest social injustice prevalent world-wide (Standing, 1957/1998). Montessori also believed that the child as a creative and transformative social factor was being ignored in the foundation of our culture (Standing 1957/1998). Including the child as a citizen of the world, with an important voice to be heard in that democracy, would have done much to cure the social ills of civilization (1957/1998). Montessori herself wrote:

> Therefore it is not only the adult who must help the child, but also the child who must help the adult. Nay more! In the critical moment of history through which we are passing the assistance of the child has become a paramount necessity for all men. Hitherto the evolution of human society has come about solely around the wish of the adult. Never with the wish of the child. Thus the figure of the child has remained outside our mind as we have built up the material form of society. And because of this the progress of humanity may be compared to that of a man trying to advance on one leg instead of two. (Montessori, 1926)

To help address these social ills, Montessori created her Cosmic Education curriculum: an attempt to show the unity of all life and all existence within the cosmos. Elsewhere Montessori wrote:

> Society considers important the period of ascent, when they are building monuments of their actions, and all rewards go to the triumphant and successful.

> The privileged classes are the care and concern of society, despite the French Revolution and others. The poor have not yet had proper consideration, and always there remains one class that is yet more completely ignored, even among the rich. Such is childhood! All social problems are considered from the point of view of the adult and his needs – housing, unemployment, wages, suffrage, etc. Far more important are the needs of the child; in whom there exist forces that may remain curbed or may now be developed as has not been widely possible before. It is not enough to ensure for the child food, clothing and shelter; on the satisfaction of his more spiritual needs the progress of humanity depends – the creation indeed of a stronger and better humanity. (Montessori, 1948/1991, pp. 119-120)

From these two passages, the connection between Montessori and social justice should be clear. Maria Montessori devoted the last several years of her life to fighting for social justice through the lives of children. Her additional work on world peace, lessons on grace and courtesy, and continued development and focus on Cosmic Education as the most important foundation for education provide further support for this claim. To this day, social justice issues are at the heart of all Montessori education, as can be readily seen by attending any American Montessori Society conference.

I stated at the outset, even in the title of this inquiry, that Cosmic Education is a pedagogy of place. In order to more completely define the inquiry, it is important to define pedagogy of place. Gruenewald (2003) found this to be a complex task.

> Place-based education lacks a specific theoretical tradition, though this is partly a matter of naming. Its practices and purposes can be connected to experiential learning, contextual learning, problem-based learning, constructivism, outdoor education, indigenous education, environmental and ecological education, bioregional education, democratic education, multicultural education, community-based education, critical pedagogy itself, as well as other approaches that are concerned with context and the value of learning from and nurturing specific places, communities, or regions. (Gruenewald, 2003, p. 309)

Gruenewald (2003) went on to describe the connection between critical pedagogy and pedagogy of place based upon the works of Paulo Freire, Henry Giroux, and Peter McLaren. As Freire stated:

> People as beings "in a situation," find themselves rooted in temporal-spatial conditions which mark them and which they also mark. They will tend to reflect on their own "situationality" to the extent that they are challenged by it to act upon it. Human beings *are* because they are in a situation. And they *will be more* the more they not only critically reflect upon their existence but critically act upon it. (Freire, 1970/2000, p. 109)

Gruenewald thereby connected pedagogy of place and critical pedagogy, showing that a pedagogy of place must account for the social and historical contexts in which education occurs. Human existence has a physical or temporal component; it requires existing in a particular place or location; thus a pedagogy of place also has a geographical or spatial context which contributes to the historical context (2003). Thus a definition of pedagogy

of place as the social and historical contexts, including but not limited to the geographical context, is the primary definition used in the formulation of this inquiry.

By defining pedagogy of place as contexts, it is implied that students and teachers examine the historical contexts of their own lives and develop a vision of the future, thereby creating an emerging historical context, through which to interpret their current experiences (Pinar, 2012). They learn to see themselves as living participants in an emergent history, the living story of the events occurring at a specific place and time. Giroux's (2011) culture of disposability is concomitant to a lack of pedagogy of place as context. Without seeing themselves in a future historical framework, there can be little cause for hope. Without a sense of the proleptic (Slattery, 2013), the present is only shaped by the past, with no vision of future possibilities.

The geographical or spatial context of a Montessorian pedagogy of place stems directly from the writings of Maria Montessori, and can be found in the way the classroom is arranged and decorated (Lillard, 2005). Details as minute as the scale of the furniture and the types of artwork, usually made by students, on the wall are not left to chance. Even common Montessori practices that teach peace and nonviolent conflict resolution have specific places in each classroom (Duckworth, 2006; Williams & Keith, 2000) and provide evidence of pedagogy of place as instructional location. In secondary classrooms, Montessori teachers are taught to use different areas of the classroom for different purposes; one area might be for class administration, one for instruction, and one for class management.

An examination of the Montessori curriculum also reveals the importance of pedagogy of place as culture, or social context (Duckworth, 2006; Williams & Keith, 2000). Most Montessori classrooms share common cultural components based upon Montessori philosophy and each classroom has its own cultural components based on the past experiences of both students and teacher. A White male teacher from a middle-class family who grew up in a metropolitan community is going to have a very different cultural or social context than a Black female whose family struggled financially in rural East Texas. The social and cultural norms of where one is educated help to form a pedagogy of place and of culture, as do the rituals and ritual systems enacted within those cultures (McLaren, 1999). Terrell and Lindsey (2009) offered a very broad definition of culture:

> A culture is the set of practices and beliefs shared by members of a particular group that distinguish that group from other groups. Culture includes all characteristics of human description including age, gender, socioeconomic status, geography, ancestry, religion, language, history, sexual orientation, physical and mental level of ableness, occupation, and other affiliations. (p. 16)

People are cultural beings, and everyone belongs to multiple cultures (Terrell & Lindsey, 2009). We are each unique blends of multiple cultures, composed of racial identity, gender identity, class, religious affiliation, national identity, and many other components based on the communities, lived and virtual, of which individuals are a part (Terrell & Lindsey, 2009). I am male, White, a United States citizen from the southern United States, and many other things, each of which has a culture. My culture or social context

is not a single entity, it is a complex assortment of social contexts particular and unique only to me. Crenshaw (1989) developed the concept of intersectionality to describe this complex interplay between social identities. The classic example from her work is that the experience of a Black woman cannot be reduced to the combination of being Black and being a woman; it is the relationship between being both Black and a woman that provides context for her experiences.

No two people have the exact same cultural identity or intersectionality; likewise, each school and each classroom has its own culture (Terrell & Lindsey, 2009). A pedagogy of place based on context calls for a critical examination of how the multiple cultural contexts of which one is a participant are blended together to form a cultural web. My ongoing experiences, interpretations of those experiences, reinterpretations of past experiences, and predictive vision of future experiences shape my cultural identity (Freire, 1970/2000; Gruenewald, 2009; McLaren, 1999; Pinar, 2012). Just as no two spider webs are identical, no two culture webs can be identical. In this manner, pedagogy of place influences how people view the world and interpret their own experiences

The spinning of these cultures into a web of identity is a vital part of Montessori education; the term often used for this within the Montessori community is Cosmic Education. Upon first hearing this term, one could easily mistake it as referring to some new age spirituality. Within the Montessori community, it is more accurately defined as helping students find their place in the universe. This is not an attempt at predestination; instead it is focused on synthesizing contexts and experiences of the student's past with

the student's own views of the future. Maria Montessori (1949/1995) wrote of the importance of this synthesis of identity, and its criticality in our future:

> We then become witnesses to the development of the human soul; the emergence of the New Man, who will no longer be the victim of events but, thanks to his clarity of vision, will become able to direct and to mold the future of mankind. (p. 9)

At the high school level, Montessori education typically includes a self-construction strand, a series of courses designed to help the student identify, interpret, and reinterpret their own identities. This pedagogy of place is also reflected in the engaged activities of students at the school; at the school where I teach, a private Montessori high school in a large metropolitan area of Texas, students spend their first year of high school focused on what it means to belong to the school community. Sophomores define what it means to be from a large metropolitan area; Juniors reexamine their roles as citizens of the United States. Finally, Seniors seek to define their place and voice in a global society. This pattern is repeated with different activities at the lower grade levels as well, with the goal of educating students as to the effect of cultural place in their own lives and increasing their awareness of different cultural places.

Statement of the Problem

Within the context of the importance of pedagogy of place, a question arises on the teacher preparation to implement Cosmic Education as a pedagogy of place based on the these definitions. We must understand the function of pedagogy of place within the Montessori environment, and how teachers are prepared for it in order to effectively use

it as a tool for social justice. By examining the lived experiences of credentialed Montessori teachers, it is hoped that a deeper and more complex meaning will be discerned. In Freire's (1984/2007) terms, how do we help teachers develop a teachable heart?

The phenomenon addressed by this study was Montessori teachers' lived experiences of Cosmic Education, a pedagogy of place, as a tool of social justice. Examination of these experiences through poetic inquiry in a post-intentional phenomenological study helped to more clearly define social justice through Cosmic Education.

Purpose of the Inquiry

The purpose of this post-intentional phenomenology study is to uncover the meanings of Cosmic Education as a tool for social justice by examining the lived experiences of Montessori teachers, including their preparatory experiences for implementing Cosmic Education in their classrooms. Through the examination of these experiences of Cosmic Education as a tool for social justice in Montessori classrooms, more complete and therefore complex definitions or descriptions of Cosmic Education as a pedagogy of place as a tool of social justice will emerge.

The Phenomenon of This Inquiry

In traditional quantitative and qualitative research, the research is guided by one or more research questions. In phenomenology, the research is guided by the phenomenon studied, which leads the researcher on a path of inquiry. There is only one phenomenon examined in this inquiry: what have Montessori teachers experienced in

using Cosmic Education as a pedagogy of place as a tool for social justice? This single phenomenon or question guided the entirety of this study.

This single phenomenon encompasses many details, including how the teachers define each of the terms, how the teachers learned to use Cosmic Education as a tool for social justice, how social justice and pedagogy of place work in their classroom(s), and more. As a post-intentional phenomenological study, the focus was on the variety of experiences; the fundamental unit of analysis in phenomenology is the experience itself. Unlike other forms of phenomenology, which concentrate on the transcendental nature of the phenomenon, this study will examine the variation and social construction of meaning, consistent with the post-intentional phenomenology methodology of Vagle (2014).

Significance of the Inquiry

With all the different meanings and interpretations given for Cosmic Education, pedagogy of place, and social justice, there is a need to define them within the context of Montessori teacher experience. It is by examining the experiences of these teachers that one can begin to understand not only the theoretical definitions of these terms, but also the practical lifeworld meanings based on lived experiences.

As students understand the significance of place as a tool for social justice, it is hoped that they will be able to look both backward and forward in time; it is hoped that they can see the impact of place on their own lives and the lives of others, and seek to define their own place in history and the creation of a more just society. As teachers

understand the significance of place as a tool for social justice, it is hoped that education will become a more socially just and democratic process.

Students cannot develop a sense of their own historical and social contexts unless teachers are prepared to assist them in making these connections. An examination of the experiences of teachers helping students see and establish those connections can inform one about the true nature of their own pedagogical practices.

One need not look far to realize that education in general today lacks the sense of place-based social justice provided through Montessori's Cosmic Education. If we as educators are to combat the neoliberal crisis facing education, an alternative must be provided. This inquiry seeks to more fully understand the implications of Cosmic Education as one of those alternatives; it seeks to understand what it means to live as a teacher who uses Cosmic Education as a pedagogy of place and as a tool for social justice.

Research Design

This study follows Vagle's (2014) methodology of post-intentional phenomenology. As such, it focuses more on the socially constructed meanings that derive from the variations of experience than the transcendental meanings of Husserlian phenomenology. Vagle (2014) described his post-intentional phenomenology as on the edge, where the most radical and generative work occurs. As such, he viewed post-intentional phenomenology as another iteration in the evolution of phenomenological inquiry.

This approach seeks to understand the relationships of ever-changing and dynamic meanings attributed to the lived experiences of the co-investigators within the inquiry. Much more than participants in a study, those who take part in post-intentional phenomenology become co-investigators with the phenomenologist leading the inquiry. Post-intentional phenomenology is more fully explained in Chapter III.

Co-investigators.

The co-investigators in this study were AMS-credentialed Montessori teachers with a minimum of seven years of classroom experience. They represented multiple-age classes, and came from multiple schools. At the time of this study, two of the co-investigators work for the same school as the researcher, but did not work on the same campus or report to the same Principal. All co-investigators were professionally and personally known by the researcher and were selected based on professional background, advanced degrees in education, and commitment to Montessori education.

Data gathering.

Since the fundamental unit of analysis in phenomenology is the individual experience, "data gathering" (Dahlberg, Dahlberg, and Nyström, 2008) was conducted through in depth interviews, either in person or via video conferencing.

> The responsibility for reflective lifeworld researchers is to, with an open and bridled approach, find their way through all these meaning relations and find the best means and the best use of these means in order to see the phenomenon, its otherness and meanings. (Dahlberg, Dahlberg, & Nyström, 2008, p. 172)

The specific techniques used in this inquiry are more fully explained in Chapter III. Additionally, a journal and field notes were kept throughout the process of the study to help with the data analysis and synthesis. The maintenance of such a journal was encouraged by Butler-Kisber (2010), Furman (2007), Pate (2014), and Vagle (2014), and from many of the doctoral-level courses I took over the past three years.

Even though I called Chapter VI a synthesis, it was based more on reflections of the data analysis process rather than an attempt to reorganize the data around a central theme. Likewise, the summary found in Chapter VII is merely an overview of the study, a synopsis, instead of another layer of analysis as typically found in other forms of research. A conclusion or even an evaluative summary is inappropriate in phenomenology (van Manen, 1990). In keeping with Vagle's (2014) post-intentional methodology, the data analysis is the synthesis. In this case, the poems themselves point to the transient, ever-changing, emerging and fleeting glimpses into the phenomenon itself. This study illuminated meaning through the lived experiences of the co-investigators, and allowed the readers to more fully reflect on their own similar experiences or to experience the phenomenon vicariously.

Assumptions

As with all research, certain assumptions were made both prior to beginning this inquiry and throughout the inquiry itself. As a philosophy and a methodology, phenomenology has its own epistemologies and ontologies. From an epistemological standpoint, phenomenology rejects any calls for causality (Moustakas, 1994). This approach to research seeks to understand the meaning of lived experience rather than

seeking explanations for the experiences (Moustakas, 1994). Likewise, traditional ontology is rejected; it does not matter whether the object of a phenomenological inquiry actually exists (Moustakas, 1994). The effect upon the experiences of the subject does not depend on the physical reality of the object, it is the intentionality or the relationship between the subject and the phenomenon that is being studied (1994). Within the context of the methodology, the study used a constructivist worldview; one in which people construct their own understandings and knowledge based on their own experiences and reflection (Creswell, 2007). Such a worldview is a cornerstone of Montessori educational philosophy (Dodd-Nufrio, 2011).

Another basic assumption in this inquiry is the rejection of neoliberal educational agenda. It is assumed that all co-investigators, by nature of their relationship to Montessori education, reject the currently popular movement towards educational standards and accountability. Montessori education is founded upon broad educational themes, not memorization of isolated bits of knowledge, which are tested one day each year (Lillard, 2005).

The other most critical assumption is that the co-investigators are genuinely interested in the outcome of this inquiry, and therefore participate fully, honestly, and openly during the interviews. One of the professional criteria in selecting co-investigators was their ability to be truthful and authentic in previous professional encounters with the phenomenologist. A member check was performed after the transcription of each interview as a safeguard for authenticity and clear communication.

Delimitations

The primary delimitation of this inquiry exists in the nature of phenomenology itself: this is an inquiry into the lived experiences of specific people. There can be no prescriptivity, causality, or generalizability from phenomenological inquiry; there can only be analysis of very specific lived experiences of specific individuals. What was found in the analysis cannot be generalized to all Montessori educators, nor can it be used to critique or create more effective Montessori teacher training; it is simply an analysis and report of lived experiences. This delimitation is one of the strengths of phenomenology; it is hoped that by exploring and uncovering meaning of these specific experiences others will be able to do the same.

I am a Montessori teacher. I have experiences involving the use of Cosmic Education as a pedagogy of place as a tool for social justice within my classrooms. I have used it as such explicitly and intentionally. My own experiences could serve as a biased lens through which I view the experiences of others. To account for this delimitation, I participated in a bridling process (Dahlberg, Dahlberg, & Nyström, 2008; Pate, 2014) so that my own experiences are clearly stated. Since this is a post-intentional phenomenological inquiry, the experiential variations are of primary importance rather than the experiential similarities (Vagle, 2014).

Definitions

Although many terms found here may have been previously used and briefly defined, this section serves as a quick reference to what each of these terms means within the confines of this inquiry.

Cosmic Education.

Cosmic Education was originally designed by Montessori as a way to teach that combined science and history. Maria Montessori's grandson, Mario Montessori, Jr., reminisced,

> One of the most fascinating characteristics of Maria Montessori was her ability to connect life at the moment with life in the distant past. A simple task would start her sketching a panoramic vision of man's evolution up to the present time, irresistibly stimulating the imagination of her listeners. (Montessori, 1976, p. 109)

Through big stories, students were introduced to major themes that led them through paths of inquiry rather than the memorization of facts. Cosmic Education forms the basis for all elementary Montessori education. The ultimate goals of Cosmic Education are to allow students to: (1) appreciate their roots in the universe; (2) sense their place a universal context; and (3) recognize and embrace the role this defines for their lives (Duffy & Duffy, 2002).

Montessori's experiences of World War I and World War II provided the foundation of and the justification for Cosmic Education as a response to war and injustice. Created by Montessori and her son Mario while exiled in India during World War II, between 1939 and 1946, Cosmic Education in the elementary grades relied on the Great Lessons, a collection of five thematic tales that serve as introductions to most of the elementary curriculum. In secondary programs, references are still made to the Great Lessons, but additional curricula are used. The purposes of Cosmic Education in

secondary classrooms are identical to those in the primary or elementary classrooms, but the level of understanding and application are expected to increase. Montessori's Cosmic Education matches the third definition of pedagogy of place: pedagogy of place as context. Similar to Pinar's (2012) explanation of how the regressive and progressive moments combine with the analytic moment to create a synthetical moment, Cosmic Education helps students see the past and the future along with the present in a manner that creates contexts for their experiences..

Curriculum of place.

The curriculum of place is different than the pedagogy of place. Curriculum concerns the *what* that is being taught and/or learned, while pedagogy defines the *how* of instruction. Curriculum of place, therefore, requires an examination of the explicit and implicit power structures that exist within and educational environment in addition to the actual agendas of the educational program. Pinar (2012) presented the idea of curriculum as *currere*, an active form of the verb, thereby expressing the active and evolving nature of curriculum. Mario Montessori wrote, "I believe her [Maria Montessori's] development of education grew out of this unusual ability to connect the past and the present through imaginative thinking" (1976, p. 110).

Montessori credential.

A Montessori credential is the Montessori equivalent of a teaching or administration certificate in traditional public education (AMS-Affiliated Teacher Education Programs, 2016). In order to receive a credential, one must undergo extensive training and complete a one-year practicum. Teacher education in the Montessori world

is one of the few places that multiple Montessori splinter groups have united; together they have formed the Montessori Accreditation Council for Teacher Education (MACTE). Credentials are offered through MACTE members, such as the American Montessori Society (AMS), in Infant and Toddler (ages birth – 3), Early Childhood (ages 2½ – 6), Elementary I (ages 6 - 9), Elementary II (ages 9 - 12), Secondary I (ages 12 - 15), Secondary II (ages 15 – 18), and Administration. At the time of this study, I held both Secondary I and II credentials.

Summary

Montessori (1949/2015) articulated the importance of education as a counter narrative to the prevailing social ills of her time "Cruelties, exploitations, wars and all forms of violence have had to play their part, because men have not yet realized their common humanity and its work in fulfilment of a cosmic destiny" (Montessori, 1947/2015, p. 113). The fields of critical theory in education have garnered a great deal of attention in the past 50 years, but the use of education to promote social justice is much older. In the early 1940's, Maria and Mario Montessori created Cosmic Education, a framework for striking the imagination of elementary students and encouraging engagement not only in academic disciplines but also in humanity as the primary cosmic agent.

As one follows the development and implementation of Cosmic Education across all grade levels of Montessori education, it becomes apparent that there are precursors to the work of Freire, Giroux, McLaren, Pinar, and Slattery, in addition to many others. Montessori educators utilize Cosmic Education as a pedagogy of place, and this forms the

basis for education for social justice within the Montessori classroom. Teachers' lived experiences of this phenomenon can help shed light on the meanings of Cosmic Education, pedagogy of place, and social justice within the Montessori framework.

Based on the writings of Maria Montessori, particularly during the last 20 years of her life, the pursuit of a greater sense of humanity or human unity was a recurrent theme. In the form of Cosmic Education, it formed the basis of advanced teacher preparation and the Montessori Method. Teachers seeking Montessori credentials still learn how to implement Cosmic Education as a pedagogy of place as a tool for social justice, yet there are differing lived experiences of the phenomenon. By examining the lived experiences of the phenomenon of selected Montessori teachers it is hoped that more clarity can be obtained on what it is like to experience implementing Cosmic Education as a pedagogy of place as a tool for social justice.

Organization of the Inquiry

This dissertation consists of seven chapters. Chapter II is an introduction to the educational philosophy and pedagogy of Maria Montessori as it was developed and as it is currently practiced within American Montessori Society accredited schools. This chapter includes contemporary literature as well as the writings of Montessori herself, and concludes with a description of Cosmic Education across the grade levels. Chapters I and II fulfill Vagle's (2014) first step in post-intentional phenomenology: "identify a phenomenon in its multiple, partial, and varied contexts" (p. 121).

Chapter III describes the philosophical underpinnings of post-intentional phenomenology as developed and implemented by Vagle (2014) and explains why this

methodology was chosen. The second part of this chapter addresses the specific methods of this inquiry, including co-investigator selection and interview guidelines. This chapter reflects Vagle's (2014) second and third steps in post-intentional phenomenology: "devise a clear, yet flexible process for gathering data appropriate for the phenomenon under investigation and make a post-reflection plan" (p. 121).

Chapter IV serves as a type of bridling for this inquiry. Although a traditional Husserlian epoché is not part of post-intentional phenomenology, Dahlberg's bridling approach is a necessary and useful tool. Chapter V contains the poetic inquiry analysis of the interviews. In more traditional Husserlian or Heideggerian phenomenology, this chapter would be devoted to transcendental phenomenological reduction, wherein the phenomena are reduced to their transcendent essences. By contrast, I called this chapter existential phenomenological expansion, as it looked to expand the definitions and experiences of the phenomena rather than narrow them. The use of found poetry as a form of analysis, as used in this study, is grounded through the literature as appropriate to post-intentional phenomenological inquiry, and provides the rich texture of analysis needed in order to uncover variations in meanings of the co-investigator's lived experiences. This type of analysis allowed for a more nuanced and richer aesthetic lens through which the co-investigators' lived experiences could be examined and conveyed. A more traditional narrative analysis was deemed unnecessary since it focuses on common or shared meaning, making it more applicable to transcendental phenomenology than a post-intentional study. Combined, these two chapters satisfy Vagle's (2014) fourth and fifth step in post-intentional phenomenology: "read and write your way through your

data in a systematic, responsive manner" and "craft text that captures tentative manifestations of the phenomenon in its multiple, partial, and varied contexts" (p. 121).,

Chapter VI contains a synthesis of the study. In this chapter, I combined Chapters I through IV to produce and examine Chapter V. While the focus of the study was on the variations in meaning, some common phenomena and assumptions did emerge; both are discussed in this chapter.

Finally, Chapter VII contains a reflective summary of the entire study, including recommendations for additional research and reflective observations. In keeping with the phenomenology of van Manen (1990), there is no great synthesis or set of conclusions to draw from the study; one merely reports what one has done and observed.

As Pate (2014), explained, "Poetic inquiry [such as that used in this post-intentional phenomenological study] is not a nomothetic orientation to research or an attempt to reveal objective, universal truths" (p. 3). It is hoped that the study illuminates meaning through the lived experiences of the co-investigators, and allows the readers to more fully reflect on their own similar experiences or to experience the phenomenon vicariously.

CHAPTER II

Literature Review

This chapter set to the task of creating a foundation of Montessori knowledge essential to understanding the nature of this inquiry. Although supported in literature, as indicated throughout this chapter, the information herein is corroborated through my own experiences as a Montessori teacher.

The chapter is organized in three sections: (1) an introduction to Maria Montessori's educational philosophy, in both her own words and through the work of other researchers; (2) an introduction to Montessori's pedagogy, which is a glimpse into parts of a Montessori classroom; and (3) an introduction to the culture of a Montessori classroom, focusing on teacher preparation, creation of identity, and pedagogy of place as it relates to Cosmic Education. It is this last section of the chapter that sets the stage for Montessori teachers to share their lived experiences of Cosmic Education as a pedagogy of place as a tool for social justice.

> Cosmic Education is intended to help each of us search for our cosmic task as a species and as individuals. To do this, we must understand ourselves in context. It is only against the background of our place in the universe, our relationship to other living organisms, and our understanding of human unity within cultural

> diversity, that we can attempt to answer the question "Who am I?" (Duffy & Duffy, 2002, p. 6)

In order to adequately understand this study, one must have a more than casual insight into common Montessori philosophies and pedagogies. This was accomplished by examining historical texts, contemporary commentary, and recent studies by other scholars. At times, comparisons between the philosophies of Montessori, as exemplified in *The Absorbent Mind* (1949/1995) and Dewey, as exemplified in *Experience and Education* (1938/1997) were useful, as conducted by Ultanir (2012). As progressive constructivists, Montessori and Dewey shared more philosophy in common than some are willing to admit.

An Introduction to Montessori Philosophy

Educational philosophies are complex systems of thought; they are not easily summarized a few short sentences. For this reason, only portions of the educational philosophies deemed essential to either the general framework or specifically Cosmic Education were addressed.

Both Dewey and Montessori believed that knowledge is constructed based on observation and past experiences (Ultanir, 2012). Another way of stating this is that everyone approaches new problem-solving challenges based on their previous experiences with similar problems. Thus, as Ultanir (2012) stated, constructivism is an epistemology, an attempt to explain how people learn. How people understand new phenomena is directly dependent on how they understand the "ideas, events, and activities through which they (have already) come into contact" (2012, p. 195). Although

there have been many definitions of constructivism over the past century, a common thread is that learning requires the student to be actively engaged in making meaning.

While there are many interpretations of Maria Montessori's educational methods, Montessori-based education can be characterized by "multi-age classrooms, a special set of educational materials, student-chosen work in long time blocks, collaboration, the absence of grades and tests, and individual and small group instruction in both academic and social skills" (Lillard & Else-Quest, 2006, p. 1893). Why are there multiple interpretations of the Montessori Method? The simplest answer is that the name Montessori is neither copyrighted nor trademarked (Lillard, 2013). Schools and teachers are not required to register with any Montessori licensing body in order to call themselves Montessori. There are however two different Montessori associations in which membership is entirely voluntary: the Association Montessori Internationale (AMI) and the American Montessori Society (AMS). While these two organizations differ on the interpretation of Montessori's pedagogy, the classroom characteristics outlined above tend to be consistent between the two groups, as is common knowledge within the Montessori educational community.

Montessori and the planes of development.

Much of Montessori's educational philosophy can be closely tied to her view of child development. Like many psychologists of her time such as Bühler, Ellis, Havelock, and Stern, all of whom published major research on child development in the period between 1910 and 1932, Montessori believed that child development could be divided into different periods (Montessori, 1949/1995). From her own observations of children,

she saw evidence that each stage or epoch, which she later referred to as planes, lasted six years, and each was divided into two sub phases, each consisting of three years. Each sub phase had its own sensitive period (Montessori, 1949/1995). Montessori originally envisioned three planes of development, covering birth through the age of 18; her work has since been expanded to add one additional plane from ages 18 to 24, as shown in Figure 2.1.

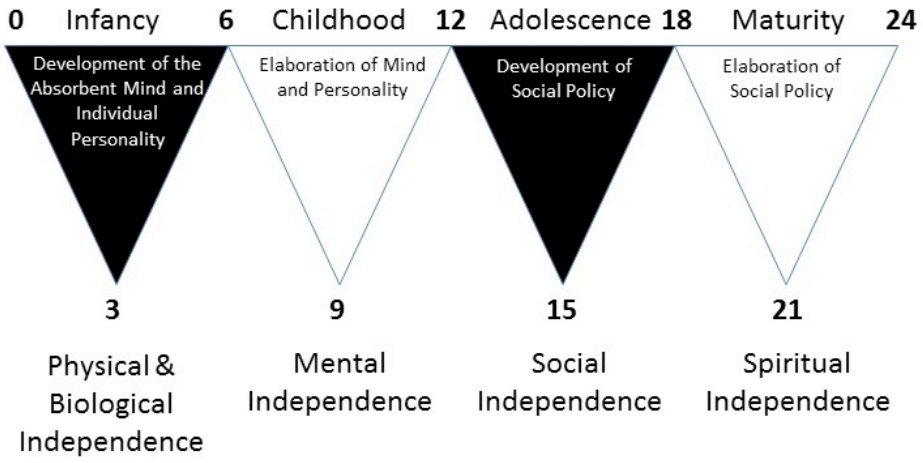


Figure 2.1. The Four Planes of Development, indicating sub phases and showing the primary developmental tasks associated with each plane.

These planes of development are used within Montessori education to divide classes by age-group rather than traditional grade-levels. For example, a lower elementary classroom would consist of students, ages six through eight, which is roughly equivalent to grades one through three. An upper elementary classroom would contain students ages nine through twelve. Infant-Toddler, Early Childhood, and Secondary I

and II courses are generally similar. Almost every Montessori classroom features multi-aged grouping of students.

The first plane of development: The absorbent mind. Montessori (1949/1995) referred to each plane as an epoch, and each three-year sub-plane as a subdivision. The first epoch she referred to as The Absorbent Mind (Standing, 1957/1998). This plane is divided into The Unconscious Mind and The Conscious Mind (Standing, 1957/1998), the key being that it is during the first six years of life that the individual develops. Montessori wrote:

> Why then should it be necessary for the human being to endure so long, and so laborious, a babyhood? None of the animals has so hard an infancy. What happens while it is going on? Beyond question, there is a kind of creativeness. At first, nothing exists, and then, about a year later, the child knows everything. The child is not born with a little knowledge, a little memory, a little will power, which only have to grow as time goes on. The cat, after a fashion, can mew from birth; the newly hatched bird, and the calf, make the same kind of noises as they will when adult. But the human baby is mute; he can only express himself by crying. In man's case, therefore, we are not dealing with something that develops, but with a fact of formation; something nonexistent has to be produced, starting from nothing. (Montessori, 1949/1995, p. 23)

At first, this development of language, memory, will, and intellect occur without intention (Montessori, 1949/1995). In the second half of this plane, the will becomes more important, as learning occurs with some intentionality (Standing, 1957/1998).

The second plane of development: Uniform growth. Montessori's second plane of development, for children ages six to twelve, was marked by continuing development of the mind and the body (Montessori, 1949/1995; Standing, 1957/1998). Often found in social groups, children of this age develop both social and logical reasoning faculties (Montessori, 1949/1995). Standing (1957/1998) suggests that this is the beginning of children learning to separate themselves from their parents.

It is also during this second plane of development that much progress is made in terms of moral development (Standing, 1957/1998), as children of this age become concerned over the concept of fairness. Montessori (1949/1995) wrote of the importance of the social construction of moral concepts: "And it must not be forgotten that these forms [morals] have also to be established by common consent in the measure to which their influence is able to be extended" (p. 188). In many ways, the experimentation of social groupings associated with this age run parallel to the moral concerns of fairness and the creation of a moral self.

The third plane of development: Adolescence. Montessori wrote very little about the third plane of development, adolescence. What little she did write was in an appendix to her book, *From Childhood to Adolescence* (1948/2004), and focused on the experiential learning from the land, *erdkinder*, which she considered necessary at that age. Montessori did indicate that the early adolescent had more in common with the newborn child than with a child in the second plane; adolescents are learning to navigate a new spatial world due to their sudden increase in body size, they are renegotiating social order and groupings, and creating their own sense of personal identity in

relationship to their social structures (Standing, 1957/1998). Standing also indicated that it is during this plane of development that spiritual and financial independences are sought.

I teach this age group. According to Elisabeth Coe, Director of the Houston Montessori Society and past president of the American Montessori Society, although there are a growing number of Montessori secondary programs, Montessori herself wrote very little on the subject (Elisabeth Coe, personal communication, June, 2009). The only original text authored by Maria Montessori in which she addressed adolescent education is Appendix A in *From Childhood to Adolescence*. It has been my experience that most Montessori secondary programs combine the philosophy of Maria Montessori with the latest constructivist educational research and the latest brain research on learning and cognition and synthesize these into a program consistent with Dr. Montessori's teachings. A complete and thorough examination of the history and a defense of Montessori secondary programs are outside the purview of this particular study.

Challenging traditional education power dynamics.

Ultanir (2012) stated that one of the critical components of Montessori's philosophy of education was independent work. Students in a Montessori environment continually make choices about which pieces of work they wish to master, with the scope and overall sequence determined by the teachers. Maria Montessori created her curriculum to be interactive; she, much like Dewey, had little use for traditional curricula that kept students in rows of desks and graded students on whether or not they could sit still in those desks (Hedeen, 2005). Lillard (2013) described the traditional approach to

education as contradictory to the principles of constructivism and ineffective. In many ways, a Montessori educational approach rearranged the power dynamics of a classroom. No longer was the teacher in charge of every decision within his or her classroom; instead, there is a sharing of power and the possibility of real choice (Ultanir, 2012). The goal of this power arrangement was to teach the child self-discipline (Ultanir, 2012).

The fact that the teacher is not making every decision was commonly referred to as the decentering of the teacher (Hedeen, 2005). In practical terms, this meant that the teacher was a facilitator and co-learner rather than a repository of knowledge. As in the case of Dewey (1938/1997), the learner assumed the top role in the classroom, with a strong emphasis on the creation of community (Cossentino, 2006; Hedeen, 2005). An effective Montessori environment balances "self-directed individual learning and cooperative group learning" (Hedeen, 2005, p. 187). This environment must play a crucial role in learning, and a messy or chaotic learning environment makes it more difficult for a child to explore (Certini, 2012). Within the structure of a classroom, students have a great deal of freedom to choose which materials (lessons) they use (Lillard, 2013).

The relationship between work and play.

Another key component of Montessori educational philosophy was progressive skill development (Hedeen, 2005). One of the primary activities in the progressive development of skills is self-reflection. It was through self-reflection that students developed awareness of their own experiences (Hedeen, 2005). As with Dewey

(1938/1997), the students' experiences and their interpretation and integration of those experiences were critical to learning.

The progressive skill development was often referred to as a child's work (Cossentino, 2006). By work, Montessori did not mean task completion or economic productivity; instead, she defined work as the natural bridge between pedagogy and development (Cossentino, 2006). This activity had to be the focus of the classroom (2006). One way this was exemplified in the classroom was that there were no extrinsic rewards (Lillard, 2013). Rewards such as gold stars, grades, and the teacher's approval are considered by Montessorians to be remnants of a behaviorist learning theory (Lillard, 2013). Students learn to respond to their own internal motivators rather than external rewards; intrinsic motivation was the goal.

The concept of play and its relationship to work has often been questioned in Montessori education. Lillard (2013) described two different types of play: (1) free play, which was usually without adult oversight or control; and (2) guided play, where an adult steers a child toward specific goals. Playful learning, which was the contrapositive to didactic learning, spans both free and guided play, but Lillard (2013) found that Maria Montessori highly discouraged pretend or fantasy play. Although Lillard (2013) described Montessori education as playful learning, it was skewed toward guided play instead of free play. Montessori education combines "freedom within structure, and structure within freedom" (Lillard, 2013, p. 161). This combination of Montessori principles and playful learning ensured that learning occurred in an environment of choice (Lillard, 2013). "There are four ways in which Montessori education differs from

playful learning: the deep structure of the materials, the limits on choice, the description of school activities, and the lack of pretend play" (Lillard, 2013, p. 168).

Montessori's disdain of pretend play was an extension of her passion for scientific truth (Lillard, 2013). She viewed all myth, fantasy, and make believe play as fostering untrue ideas within children's minds; this included Santa Claus, fairy tales, and even object-substitution pretense, such as using one object to represent another unrelated object (Lillard, 2013). As an example, Montessori would not have allowed a teacher or student to use a wooden block to represent anything other than a wooden block; it could not be used to represent a dog, cat, or person. Lillard (2013) also stated that Montessori believed that adult-imposed fantasy did more damage to a child's imagination than good.

Maria Montessori stated that the goal of all education of children, especially between the ages of 7 and 12, was to interest a child to the extent that he or she would devote all of his or her energy to educational task at hand (1947/2015). The result of this energy, according to Montessori (1947/2015), was the discovery of reality.

Education and creating democracy.

Certini (2012) stated that Montessori considered children to be the builders of democracy and freedom, because they experienced democracy and freedom within the classroom environment. Certini (2012) also asserted that this democracy extends to "the life of institutions, the many forms of civic engagement, to the sharing of knowledge and the complexity of human relationships" (p. 11). It was through engaging in civic or cultural activism that students experience democracy through the educational

environment (2012). It was Montessori's concept of work that linked human development to social progress (Cossentino, 2006).

> Traditional education fosters self-centered competition for personal, rather than group, enhancement, and delivers curricula unrelated to self-knowledge or the joy of learning and sharing knowledge . . . Montessori Education is fundamentally about developing democratic sensibilities within children's classroom activities, topics, and processes. (Williams & Keith, 2000, pp, 217-218)

One final critical component of Montessori education was the emphasis on peacemaking (Williams & Keith, 2000). Montessori viewed children as capable of learning the principles of democracy early in life, and using those principles to create and participate in democracies for their lives (Williams & Keith, 2000). Those principles were taught through the use of peacemaking, such as the Peace Table, the Peace Mandala, and the Talking Stick within the Montessori curricula (2000). The Peace Table was a place for students to practice personal conflict resolution and find a quiet space; the Peace Mandala was used to promote calm and introspection; and the Talking Stick was used to help students learn to communicate peacefully.

While both Dewey and Montessori believed strongly in the importance of democracy, their methodologies and reasons for implementation differ. As stated by Saltmarsh (2008), Dewey believed that community-based experiential education would be helpful in solving any social problems; thus experiential education was critical to Dewey's concept of a democratic society. For Montessori, the practice of democracy and inclusivity in the classroom would serve as a model for adult life and participation in the

democratic society; the classroom is where people learn to be democratic (Williams & Keith, 2000). These can be restated as Dewey believed the democratic society relied on the school, while Montessori believed a successful school relied on democracy. Both of these views appear to be interdependent; together they form a continuous process where the community relies on the school and the school relies on the community.

Cosmic Education.

Cosmic Education as a guiding principle of elementary education as developed by Maria Montessori was first introduced in 1935. Montessori wrote:

> Since it has been seen to be necessary to give as much to the child, let us give him a vision of the whole universe. The universe is an imposing reality, and an answer to all questions. We shall walk together on this path of life, for all things are part of the universe, and are connected with each other to form one unity… The knowledge he then acquires is organized and systematic; his intelligence becomes whole and complete because of the vision of the whole that has been presented to him, and his interest spreads to all, for all are linked and have their place in the universe on which his mind is centered. The stars, earth, stones, life of all kinds form a whole in relation with each other, and so close is this relation that we cannot understand a stone without some understanding of the great sun! (1947/2015, pp. 8-9)

At first glance this may appear to have been an attempt to systematize and categorize all knowledge, at least scientific, so that it could be absorbed by the unfortunate students enrolled in such a school, but such was not the case. Rather, Montessori saw this second

plane of development as a fertile field in which the seeds of a wide variety of knowledge could be sown (Standing, 1957/1998).

By providing a cosmic context or perspective for learning, Montessori's methods provided a far broader context in which to situate and analyze content than most students brought to the classroom, creating what Duffy and Duffy have termed "Children of the Universe" (2002, p. ii). According to Duffy and Duffy (2002), the goal of Cosmic Education is to engage the student in an exploration of self-identity: What does it mean to be me?

> Cosmic Education is intended to help each of us search for our cosmic task as a species and as individuals. To do this we must understand ourselves in contexts. It is only against the background of our place in the universe, our relationship to other living organisms, and our understanding of human unity within cultural diversity, that we can attempt to answer the question "Who am I?" (Duffy & Duffy, 2002, p. 6)

This was a cultural curriculum (Duffy & Duffy, 2002; Standing, 1957/1998). Using Cosmic Education as the framework, the Great Lessons describe cultural contributions to knowledge, and elaborate on how different cultures make similar observations, experience similar things, and reach similar conclusions, although the stories surrounding the topic may change (Duffy & Duffy, 2002). Children enrolled in Montessori classrooms therefore developed a keen interest not only in understanding their own context, but also being able to view different contexts through the framework of Cosmic

Education. Learning to care for each other and the Universe comes from this context of place and the willingness to see from multiple perspectives (Greenwood, 2008).

An Introduction to Montessori Pedagogy

In order to appreciate and understand Montessori educational principles, one must understand the basic pedagogical structure of a Montessori environment. As with all things Montessori, there is variation in each of these structures, but the core concepts remain the same. The ideal method for learning about Montessori pedagogy was through direct experience or observation; in the absence of those, it was hoped that this brief overview was beneficial.

The importance of a child's search for meaning.

Maria Montessori believed that all children could do advanced work in all subjects, including the sciences (Montessori, 1947/2015). She disliked any traditional education that limited the natural intelligent search for meaning by the child (Certini, 2012). She advocated teaching even children as young as seven the proper names and terminology of all the sciences, and believed that students needed this information in order to properly classify their knowledge (Montessori, 1947/2015). This approach was commonly referred to in the Montessori community as the whole-part-whole method of teaching. Students were exposed to the entire abstract subject, developed a thorough understanding of individual parts, and finally synthesized those parts back into an abstract whole. In some Montessori schools the terms abstract and concrete replace whole and part.

The goal of this type of pedagogy was to give the student the terms they need in order to pursue their own natural curiosity (Montessori, 1948/2004). The proper terminology and classification allowed the student to form the framework on which to attach new knowledge. Montessori gave several examples of this approach in science, including organic chemistry (Montessori, 1948/2004). She believed it was ludicrous to wait until students where in college to cover such topics, and that there was no need to over-complicate the subjects (1948/2004). By teaching students how to identify and classify organic compounds by their functional groups, teachers helped them understand the basics of chemical bonding and molecular shape. The high school chemistry curriculum I still use implements this approach.

Montessori summarized her own approach to teaching: "To teach details is to bring confusion; to establish the relationship between things is to bring knowledge" (1948/2004, p. 58). She therefore advocated that teachers remain in the abstract domains, thereby letting students, once introduced to the domain, pursue their own related interests or make their own choices on concrete applications. Even so, Montessori offered concrete examples of abstract principles to be used in the teaching of the sciences (Montessori, 1948/2004). "When details are presented as parts of a whole, they become interesting" (1948/2004, p. 20). This approach to education is based on the student making and analyzing spontaneous discoveries (Certini, 2012). This was the student's source of creativity and imagination (Certini, 2012). The role of the teacher was to observe continuously, teach very little, and direct the student to appropriate activities by which to explore their own understanding of the world, thereby expanding it (Certini,

2012). Cossentino (2006) added that then current attempts at curriculum alignment, standards, and accountability through standardized tests produce "a muddle of disconnected 'best practices' that are more likely to confuse than to guide [the teacher's] practice" (p. 87).

This requirement for precision in terminology may initially seem odd, but Montessori believed that the child's intellect requires precision (Montessori, 1948/1994). It is for this reason that children continue to question, even when simple answers are provided. For Montessori, different subjects such as mathematics, geography, biology, chemistry and physics had to be related; one could not possibly teach one without the others (Montessori, 1948/2004).

The constructivist classroom.

Ultanir (2012) identified four key components that differentiate a constructivist classroom from a traditional classroom: (1) the instructional emphasis; (2) the classroom activities; (3) the instructor roles; and (4) the student roles. In both Dewey and Montessori's classrooms, instructional activities that were learner-centered, authentic, and Socratic in nature helped create learning environments that supported active and collaborative learning (Ultanir, 2012). At the same time, the student was recognized as the constructor of knowledge while the teacher served as a collaborator and facilitator (2012).

Lillard (2005) reported that the Montessori curricula, materials, and teacher training contribute to isomorphism across different classrooms. Evidence of such consistency in the implementation of Dewey's pedagogy of experience was not found in

the literature; such isomorphism would be incongruent with Dewey's philosophy as stated in *Experience and Education*.

> When it is said that the objective conditions are those which are within the power of the educator to regulate, it is meant, of course, that his ability to influence directly the experience of others and thereby the education they obtain places upon him the duty of determining that environment which will interact with the existing capacities and needs of those taught to create a worth-while experience (Dewey, 1938/1997, p. 45).

The planes of development in the classroom.

The first plane. The first plane of development, which Montessori (19491995) referred to as The Absorbent Mind, had several defining characteristics. Coe and Sutton (2016) summarized the works of Montessori (1912/1986; 1949/1995) on these characteristics as: (1) the absorbent mind, in which the child absorbed culture and language; (2) sensorial explorers, in which children explored their environments with all of their senses; (3) physical independence, as exemplified in the Practical Life activities in a Montessori classroom, such as learning to dress oneself; (4) a sensitive period for external order, in which students wanted to categorize and sort objects; (5) repetition, in which familiar stories or objects were requested over and over; (6) a psychosocial task of trust/initiative, which was exemplified in both consistent routines and freedom of choice in activities; and (7) people as the environment, in which the adult was the link to the natural world. All of these characteristics were required of an optimal learning

environment, and all were to be found in the typical Montessori Early Childhood classroom.

The second plane. The transition to the second plane is gradual, and is the continuation of growth and maturation processes initiated in the first plane (Montessori, 1949/1995). Coe and Sutton (2016) identified the key characteristics of the second plane of development: (1) a reasoning mind, in which the student moved from sensorial experiences to concrete logical thinking; (2) an imaginative explorer, in which students began to ask "what if" type questions; (3) intellectual independence, as exemplified by learning the basic tools necessary for reading, writing, and mathematics; (4) mental order, rather than relying on physical order, the environment for this age student must make sense; (5) repetition with variety, as students became easily bored with repetition as they moved from concrete to abstraction as they began to see concepts from multiple concrete perspectives; and (6) a psychosocial task of industry, as evidenced by the students' enthusiasm for projects.

Once again, these characteristics were readily visible in the typical Montessori Elementary classroom. By preparing the educational environment to meet the key characteristic needs of students in this plane, the students' engagement in and love of learning were both strengthened (Montessori, 1949/1995).

The third plane. Adolescence, or the third plane of development, resembled more the first plane than the second; whereas the second plane was one of steady and continual growth and development, the first and third planes were punctuated by rapid and uneven growth, both physically and intellectually (Coe & Sutton, 2016; Montessori,

1948/2004; Montessori, 1949/1995). Coe and Sutton (2016) summarized these key characteristics as: (1) emotive mind, as the emotional mind could overtake the logical thinking characteristic of the previous plane; (2) a humanistic exploring of society, as shown by enthusiastic activism and seeking of ways to participate in society more fully; (3) social order, as the concept of fairness changes from equality to justice; (4) emotional independence and interdependence, as students began to seek role models and advice outside the traditional power structures of their families; (5) 4epetition to interpret, in which students listened to others and learned to articulate their own viewpoints while working through alternative viewpoints; (6) people as personal, as this age was sensitive to relationships; and (7) psychosocial identity, as this was the stage at which students began to discover or determine who they were in relation to others and the world.

Rather than focusing on specific lists of concrete facts to be repeated at end-of-course exams, Montessori education places the emphasis on the key characteristics and needs of the learner, enabling each student to build the framework upon which to attach new knowledge or accommodate divergent information (Elizabeth Coe, personal communication, 1999).

Efficacy of the methods.

Some may have questioned the effectiveness of such an approach, yet in a study by Lillard and Else-Quest (2006), Montessori students performed significantly better than their traditional education peers on both cognitive/academic measures and social/behavioral measures at both the 5-year-old and 12-year-old levels, even when

factors such as socio-economic status were taken into account. In that study, they concluded:

> By the end of kindergarten, the Montessori children performed better on standardized tests of reading and math, engaged in more positive interaction on the playground, and showed more advances social cognition and executive control. They also showed more concern for fairness and justice. At the end of elementary school, Montessori children wrote more creative essays with more complex sentence structures, selected more positive response to social dilemmas, and reported feeling more of a sense of community at their school. (Lillard & Else-Quest, 2006, p. 1894)

An Introduction to Montessori Culture

Understanding the philosophy and parts of the basic pedagogy of a Montessori educational system is insufficient to fully grasp the context of a classroom. This section covers many of the factors that contribute to the unique culture of Montessori classrooms, and helps to set the backdrop against which Cosmic Education as a pedagogy of place is enacted as a tool for social justice. This section addresses the preparation of a Montessori teacher, the construction of the self-identity, and introduction to pedagogy of place and pedagogy of hope, and the application of Cosmic Education across the Planes of Development. Although each of these topics could stand as their own volume, that was not my purpose; my purpose was to ensure that sufficient background material was presented so as to make their definitions and usages clear and precise. Identification of

the context expressed by these terms will in turn assist in understanding the contexts of this study.

The preparation of a Montessori teacher.

Maria Montessori was trained as both an engineer and a physician, and as such she believed strongly in the role of scientific experimentation. Her definition of experimentalism, however, would differ considerably from what is generally known as the scientific method: for Montessori, the key to understanding scientific relationships was observation (Lillard, 2005; Montessori, 1976).

> The teacher must undertake at twofold study: she must have a good knowledge of the work she is expected to do and the function of the material, that is, of the means of a child's development. It is difficult to prepare such a teacher theoretically. She must fashion herself, she must learn how to observe, how to be calm, patient, and humble, how to restrain her own impulses, and how to carry out her eminently practical tasks with the required delicacy. She too has greater need of a gymnasium for her soul than of a book for her intellect. (Montessori, 1912/1986, pp. 150-151)

This focus on observation was important in all of Montessori's writings (Lillard, 2005). The goal of teaching is for the teacher to introduce the child to the materials, then to become a silent observer, taking in and analyzing the child's experiences with the materials. Ideally, once the child is engrossed in an activity, the teacher should act as if the child did not exist (Montessori, 1967). Mario Montessori, Jr. (1976), Maria Montessori's grandson, wrote that these spontaneous manifestations seen through self-

directed activity reveal the secrets of childhood, and that this was the only way the true nature of childhood could be observed.

The opportunities for observation are built into Montessori pedagogy. Lessons are divided into three periods: (1) an overview of the whole or abstract, including striking the child's imagination; (2) a review of the parts, or rather, an opportunity for practice of the lessons; and (3) a return to the whole, or the application of what had been learned (Montessori, 1912/1986). The efficacy of this method has been well documented by Certini (2012), Cossentino (206), Dodd-Nufrio (2011), Lillard (2005), and many others.

Student construction of identity.

Duffy and Duffy (2002) defined the nature of Cosmic Education as three essential questions: (1) Who am I; (2) Where do I come from; and (3) Why am I here? These were the philosophical realms of ontology, epistemology, and eschatology, and a Montessori education would answer none of these questions for the student. Instead, Montessori education promoted the individual construction of answers to these questions on both the individual and societal/species level.

> Cosmic Education is intended to help each of us search for our cosmic task as a species and as individuals. To do this we must understand ourselves in context. It is only against the background of our place in the universe, our relationships to other living organisms, and our understanding of human unity within cultural diversity, that we can attempt to answer the question 'Who am I?' (Duffy & Duffy, 2002, p. 6)

Maria Montessori referred to this self-actualization as valorization of the person, and it is the goal of Montessori secondary education (Coe & Sutton, 2016). It was only through a deep understanding of the social, historical, and cultural factors that constitute our student's contexts that we as educators could be of assistance in their self-construction or valorization (Kincheloe, 2008).

By beginning Cosmic Education at an early age, students were comfortable with the difficult questions such as "Who am I?" when addressed and redressed throughout their lives (Duffy & Duffy, 2002). "Montessori education is about more than memorizing facts, it is about learning who I am, finding my voice, and deciding how to use that voice to say what I need to say" (female Montessori high school student, personal communication, 2016).

Within the high school where I taught at the time of the study, the self-construction strand was one of the core subject areas. Students began in ninth grade with Personal and Social Responsibility, followed by Communication Applications, then Theories of Knowledge, and finished with Senior Thesis. This scaffolded self-construction by first introducing an opportunity to define their identities as individuals, a community, future citizens, and inhabitants of Earth and the Universe. Students then learned effective communication skills, followed by an introduction to systems of logic and critical thinking. Finally, as Seniors, they selected a topic of interest and pursued this passion first in a major research paper of 20 – 30 pages then in a 45-minute presentation to the entire community. In order to do this well, they demonstrated the development of their own identity and own voice.

Montessori and pedagogy of place.

William Pinar (2012) developed the theory of *currere*, that curriculum is a process involving the regressive moment, or the past, the progressive moment, or the future, and the synthetical moment, the present. Mario Montessori, Jr. (1976) believed that Maria Montessori developed Cosmic Education "out of this unusual ability to connect the past and the present through imaginative thinking" (p. 98). The goal of Cosmic Education was to situate the student in an historical context with awe and wonder, striking the student's imagination so that there was internal motivation to connect the past with the present, all while developing a sense of the future.

At the elementary level, Cosmic Education is found in Montessori's The Great Lessons (Duffy & Duffy, 2002; Lillard, 2005)). The five Great Lessons are: (1) Story of the Universe, an introduction to cosmology and the Big Bang; (2) The Story of Life, an introduction to evolution; (3) The Story of Humans, an introduction to civilization; (4) The Story of Writing, and introduction to language arts; and (5) The Story of Mathematics, the history of numbers, algebra, and other mathematics (Duffy & Duffy, 2002; Lillard, 2005).

Many of these were updated over time, but the essences of the stories remained the same. Each lesson attempted to connect the past, the present, and future possibilities. As the students began to see themselves as participants in these stories, they began to develop awareness of their own historical and social contexts.

Since everything that has happened in the past, collectively and individually, was location-dependent, meaning that all history had location, Cosmic Education was indeed

a pedagogy of place (Duckworth, 2006; Montessori, 1948/2015; Williams & Keith, 2000). Through the application of Cosmic Education as a pedagogy of place, students were able to address the existential question of identity.

Cosmic Education across the planes of development.

As previously covered, Montessori herself wrote extensively on Cosmic Education, but most of that writing concerned only the second plane of development, the typical elementary school years (Lillard, 2005; Montessori, 1948/20145; Montessori, 1976). Within Montessori education, the Cosmic Education curriculum continues across all of the planes of development (Coe & Sutton, 2016). The Cosmic Education focus for each plane can be summarized as follows (Coe & Sutton, 2016):

- Early Childhood (0 – 6 years of age): Cosmic Wonder and Exploration
- Elementary (6 – 12 years of age): Cosmic Stories and Imagination
- Adolescence (12 – 18 years of age): Cosmic Action and Promise

One may recall the focus within Montessori education of whole-part-whole, or big picture, details, then integration or synthesis as covered in Chapter I. The pattern of foci for Cosmic Education followed the same pattern. Early childhood students focused on exposure to nature and development of gross motor skills (Coe & Sutton, 2016). Culturally, the students were learning concentration, coordination, independence, and grace and courtesy through the Practical Life activities (2016). As Coe and Sutton (2016) found, "How does the young child get to know the Universe? And know their role within it? By letting them explore their environment with all their senses and absorb the awe and wonder of the universe."

Within the second plane of development, the goal of Montessori education was to strike the child's imagination and then let them create (Coe & Sutton, 2016; Montessori, 1947/2015). Not only did this plane fall within the whole-part-whole framework as the "part", every story, lesson, and work cycle follows this same whole-part-whole pattern, including the use of the Great Lessons (see Chapter I). These lessons were repeated throughout the six-year curriculum, with increasing complexity and depth. Student research projects, presentations, and activities also reflected a deepening understanding and complexity of the lessons and allowed for great personal freedom of choice.

The Great Lessons were actually lessons about culture and history (Coe & Sutton, 2016; Montessori, 1949/1995; Standing, 1957/1998). In each reiteration of the lesson, new understanding was attached to previous learning, and the history of concepts was crucial. Whereas younger students worked with movable alphabet to learn how to read, older students researched the history of the letters, of writing, and the etymology of words (Coe & Sutton, 2016). This was the time of big stories and using one's imagination to explore the multiple meanings of the stories.

In the third plane of development, the students deepened their own understanding of themselves and their roles in the world (Montessori, 1948/2004). All of the previous learning techniques, the three-part lesson (whole-part-whole), the prepared environment, the use of the Great Lessons, continued throughout the third plane, but their use was once again transformed (Coe & Sutton, 2016). Many Montessori secondary schools now use John Fowler's (2002) *Timeline of Light* for their middle school curriculum and Big History Project, LLC's (n.d.) *Big History* as the basic high school curriculum. Both of

these are interdisciplinary approaches to traditional subjects, the goal being to create within the adolescent a "broader sense of place, identity, and purpose upon which to draw as they grow into adulthood" (Coe & Sutton, 2016). It is here that students questioned who they were and what that meant to both themselves and the world. This process of self-actualization was what Montessori called valorization (Coe & Sutton, 2016).

Summary

For Maria Montessori, education was about hope for humanity's future (1949/1995). She witnessed both World War I and World War II. She and her son were not allowed to return to Italy from India, where they were visiting, once World War II started. Her first school was for the poor in the San Lorenzo slums of Rome (Standing, 1957/1998). It was out of these contexts that her concern for children as the only hope for humanity's future arose (Lillard, 2005; Standing, 1957/1998). Her concern can be seen in her development of Cosmic Education as the unifying theme to Montessori education (Duffy & Duffy, 2002; Lillard, 2005).

Understanding Montessori's educational philosophy in light of the historical realities of her life provides a backdrop against which to view Montessori pedagogy. Key components of Montessori philosophy include the Planes of Development, the six-year epochs, which define birth through adulthood (Lillard, 2005). Her educational philosophy emphasized the child and allowed for great freedom of choice in the student's work; this approach challenged the traditional power structure within the classroom, and continues to do so today.

Heavily democratic in structure, Montessori schools challenged the status quo. Montessori believed that no oppression was greater than that of the child. She viewed the promulgation of peace as her personal cosmic task in her later years, and wrote that it all began with the commitment not to let adults oppress children (Duffy & Duffy, 2002).

From a pedagogical stance, there were many differences between Montessori education and more traditional educational approaches. The influence of the Planes of Development was clear in every Montessori classroom, (Lillard, 2013) and the unifying themes of Cosmic Education were crucial to the construction of knowledge and of the self (Montessori, 1976).

The self-construction of individual identity within a Montessori environment followed the path of Pinar's (2012) *currere*. The "Who am I/Where did I come from/Why am I here?" questions paralleled Pinar's synthetical, regressive, and progressive moments. The understanding of these historical, social, and cultural contexts established Montessori's Cosmic Education as a pedagogy of place.

CHAPTER III

Methodology and Methods

Before beginning any discussion of methodology, it was important to distinguish between methodology and methods. Methodology refers to the philosophical framework or epistemological foundations of research. This often includes topics such as the nature of knowledge, the nature of inquiry, and the role of the inquirer. Methods refer to how the particular methodology is put into practice. Rather than a philosophical focus, the methods were action-focused. Another way of differentiating between the two is that methodology attempts to answer the question "Why?" while methods attempt to answer "How?" Both topics are addressed in this chapter.

An Overview of Phenomenology

A basic definition of phenomenology would be a good place to start, but even such a basic definition is not easy to derive. One could use the circular argument that phenomenology is the study of phenomena, but that begs the question for a definition of phenomena. At its heart, phenomenology belongs to the category of interpretive social sciences (Newmann, 2011), the goal of which therefore is *verstehen*, a deep empathic understanding with shared meaning. Dahlberg, Dahlberg, and Nyström (2008) described phenomenology as a philosophy that "seeks to avoid the reductionism that was offered by

positivism and its preceding ideas, an instead grasp and describe the world as lifeworld" (p. 36).

By studying phenomena, the phenomenologist attempts to understand the relationship between a subject and an object, where subjects are the people being studied and objects are those things with which the subjects are in relationship. In other words, the phenomenologist observes and classifies what it is to experience the phenomenon being studied as exemplified and evidenced in multiple subjects' actual lived lives. Phenomena are how we interact with the real world each and every day (Vagle, 2014). Dahlberg et al. (2008, p. 36) describe phenomena as "all possible 'things' of the world." The phenomenological approach seeks to reduce common experiences of a phenomenon in order to grasp the "universal essence" (Creswell, 2007, p. 58) of the phenomenon, frequently referred to as the *noesis*, or underlying meaning, of the *noema*, the experience of a phenomenon (Moustakas, 1994). Unfortunately, there is little agreement among phenomenologists on a more precise definition of phenomena; almost every phenomenologist creates their own definition through their own work to suit their own purposes. Phenomenology, therefore, is not one single direct approach, but combines many variants in philosophy and approach in order to shed light on and reveal the hidden meanings of our common lived experiences. This existence of a multiplicity of phenomenological philosophies and methodologies points to the strength of phenomenology to add depth, richness, and texture to the analysis of how people as subjects are connected with objects through phenomena.

Basic concepts of phenomenology.

Without regard to the particular paradigm of phenomenology in which one is engaged, Stewart and Mickunas (1990, as cited in Creswell, 2007, pp. 58-59) identified four philosophical perspectives common to phenomenology: (1) [Phenomenology is] a return to the traditional tasks of philosophy; (2) [phenomenology is] a philosophy without presupposition; (3) the intentionality of consciousness; and (4) the refusal of the subject-object dichotomy.

By returning to the traditional tasks of philosophy, phenomenology is a rejection of modernist scientism or positivism (Dahlberg et al., 2008). Phenomenology relies on the use of wisdom and rationality over scientific proof as a basis of reality. "Thus intuition is the beginning place in deriving knowledge of human experience, free of everyday sense impressions and the natural attitude" (Moustakas, 1994, p. 32). This expansion of the concept of consciousness through phenomenological reduction solves the riddle of transcendence as identified by Husserl (Brough, 2008). Paraphrasing Husserl, everything experienced is open to the possibility that, despite appearances and one's conscious experience of those appearances, the phenomenon itself may not exist outside the mind of the person experiencing it. Thus any epistemological basis outside of the subjective experience of the self is unreliable and therefore subject to skepticism.

This apodictic subjectivity can be traced to the philosophy of Descartes and his *cogito* arguments for reality (Husserl, 1960).

> And since you cannot doubt that you doubt, and, on the contrary, it is certain that you do doubt, and even so certain that you are not capable of doubting it, it is also

> true that you, who are doubting, exist, and that this is so true that you can no longer doubt it. (Descartes, as cited in Romano, 2012, p. 426)

Thus skepticism creates its own undoing, thereby justifying Cartesian subjectivity. Husserl used this defense from skepticism to create "an unshakable foundation for the edifice of knowledge" (Romano, 2012, p. 425).

Husserl used Cartesian epistemology as the foundation of his phenomenology (Husserl, 1960). To Husserl, phenomenology explained and resolved the Cartesian dichotomy between subjects and objects, thus "phenomena are the building blocks of human science and the basis for all knowledge" (Moustakas, 1994, p. 26). This is accomplished through intentionality, the connectedness between subjects and objects (Vagle, 2014). The goal of phenomenology is not to study people or things, but to show how the two are related or connected through lived experiences. As found by Dahlberg, et al. (2008), we live through our bodies, and all of our understanding, everything we process physically or mentally, is embodied. Thus any form of Cartesian duality of existence is rendered irrelevant; whether an object exists in the lifeworld or not has no effect on the relationship or connection it has with the people who have experienced it. Phenomenology is not concerned with proof, measurement, categorization, transformation, or replication; it is concerned with the world as lived through people (Vagle, 2014). Intentionality then consists of *noema* and *noesis* (Moustakas, 1994). As an example, consider a coffee mug. The appearance of the coffee mug to an observer is one of its *noemata*, the plural form of noema. As one changes angles or notices different aspects of the coffee mug, one develops multiple noema for the object. The synthesis of

collected noemata, allow the perceiver to construct the appearance of this one coffee mug in this one place in space and time. Concomitant with the synthesis of noemata, one recalls past experiences with cups of coffee. These memories help provide meaning that is self-evident in the experience; this is the noesis of the intentionality, and it can be said that the object is *noetic*. Applied to phenomenology, every intentional act is comprised of both perceptions decoded by the observer subject, the noema, and the act of interpreting those noemata, the noesis.

> For every noema there is a noesis; for every noesis there is a noema… The working out of the noema-noesis relationship, the textural (noematic) and structural (noetic) dimensions of phenomena, and the derivation of meanings is an essential function of intentionality. (Moustakas, 1994, p. 30)

When to use phenomenological inquiry.

To begin, the fundamental unit of analysis in phenomenology is the phenomenon itself (Dahlberg et al., 2008; Husserl, 1960; Moustakas, 1994; Vagle, 2014; van Manen, 1997). It is not the person, a particular group of people, the social structure, or social artifacts that are being studied. For example, if one wanted to study the experience of insomnia, a phenomenological approach would seek to understand precisely that – what it is like to experience insomnia. A phenomenologist would not search for the causes or cures for insomnia, nor would one be examining characteristics of those who experience insomnia. In order to study phenomena, we look for deep meaning coming from peoples' lived experiences of the phenomena (Dahlberg et al., 2008).

> The type of problem best suited for using this form of research is one in which it is important to understand several individuals' common or shared experiences of a phenomenon. It would be important to understand these common experiences in order to develop practices or policies, or to develop a deeper understanding about the features of the phenomenon. (Creswell, 2007, p. 60)

Like most qualitative approaches to research, phenomenology is employed when a deep understanding of the experience is required; it is used when topics of study are complex and involve many details (Creswell, 2007). The goal of all such qualitative research, according to Creswell, is to further our understanding of these complex social worlds. Dahlberg et al. (2008) further described phenomenology as an attempt to "know how the implicit and tacit becomes explicit and can be heard, and how the assumed becomes problematized and reflected upon" (p. 37).

Post-intentional phenomenology.

Post-intentional phenomenology is based upon existentialist philosophy, and fundamentally rejects Husserl's possibility of complete reduction (Kafle, 2013). The need for a transcendental subject to constitute objects and the world (Legrand, 2008) in traditional Husserlian and Heideggerian phenomenology has been phenomenology's greatest criticism (Deleuze, 1994; Foucault, 1972; Foucault, 1980). Post-intentional phenomenology has no such requirement (Vagle, 2014), and thereby avoids this criticism. This approach to phenomenology then is based on the common everyday experiences as perceived by subjects. As such, it then avoids the dualism between phenomenology as description and phenomenology as interpretation, offering some combination of the two

(Dahlberg et al., 2008; Vagle, 2014). Vagle's own phenomenological methodology is a post-modern, post-structural approach that emphasizes *through*-ness over *of*-ness or *in*-ness (Vagle, 2014). By using the preposition *through*, Vagle implies movement; the relationships between subject and object are always dynamic, never static or fixed. Intentionalities therefore are "multiple, partial, fleeting meanings that circulate, generate, undo, and remake themselves" (Vagle, 2014, p. 41). In such an approach, particular attention is paid to the contexts in which subjects and objects interact, and how those contexts, social, historical, and otherwise, influence the experience of phenomena. This was a primary reason for choosing post-intentional phenomenology as the methodology for this study; it was precisely studying the contexts in which Montessori teachers create and share meaning through their lived experiences that led the researcher to the methodology. Dahlberg, Dahlberg, and Nyström (2008) stated that the researcher should always allow phenomenon to drive the methodology.

Conducting Post-Intentional Phenomenological Research

Regardless of the type of phenomenological research conducted, several steps are common (Creswell, 2007). Before choosing which type of phenomenological research to conduct, one must identify the phenomenon to be studied and ensure that the study is well-suited for phenomenological methods. The philosophical assumptions of the desired methodology are then reviewed, typically bracketing out the phenomenologist's own experiences with the phenomenon. Data are then collected from people who have experienced the phenomenon and phenomenological data analysis is performed.

Identifying significant statements is called horizontalization (Moustakas, 1994); these statements are then grouped into clusters of meaning.

Intentionality, at least in a philosophical sense, is used to describe how human beings are "connected meaningfully with the world" (Vagle, 2014, p. 112). To add the prefix *post* to the term intentionality means therefore to move beyond intentionality. Human bodies are existential in nature, not transcendental, and any lived experience is embodied through human social relations; any embodied intentionality must therefore be interpreted in light of the social contexts of existence (Vagle, 2014). It would be impossible to discuss intentionality and not recognize the ways in which social contexts shape and mold subjective interpretations of meaning. Intersubjectivity, the importance of situating our own experiences with those of other people, must be a key component of how we interpret our own experiences; it is a vital part of life (Dahlberg, et al., 2008). The need to move beyond transcendental phenomenology's conception of the subject is also reflected in the work of Weimin (2008).

In conducting post-intentional phenomenological research is the assumption that phenomena are social in nature, not individual (Vagle, 2014) is primary. This change to Husserl's concept of intentionality allows the phenomenologist to explore complex, changing, and even competing contexts. An example methodology, non-prescriptive in nature, is suggested by Vagle:

> What resulted is a five-component process for conducting post-intentional [existential] phenomenological research.
>
> 1. Identify a phenomenon in its multiple, partial, and varied contexts.

2. Devise a clear, yet flexible process for gathering data appropriate for the phenomenon under investigation.
3. Make a post-reflection plan.
4. Read and write your way through your data in a systematic, responsive manner.
5. Craft a text that captures tentative manifestations of the phenomenon in its multiple, partial, and varied contexts. (Vagle, 2014, p. 121)

It would be convenient if there were a prescriptive methodology that worked in all phenomenological inquiry, but that is not the case. As stated earlier, each phenomenologist uses the tools that seem most appropriate to the study of the phenomenology at hand; although this study uses Vagle's post-intentional phenomenology as its base framework, it also includes bits and pieces of Dahlberg, Gadamer. Heidegger, and van Manen's phenomenological methodologies. "The lifeworld cannot be reached through method, but rather met in an *open* way of approach" (Dahlberg et al., 2008, p. 76). Similar to a construction worker, one chooses the most appropriate tool for the job that needs to be performed. A builder would not carry only screwdrivers or only hammers, as both are necessary tools of the trade that are not, under usual circumstances, easily interchanged. Unlike most quantitative and some qualitative researchers, phenomenologists do not stick to one standard prescriptive methodology. "The methodological tool must be carefully selected and formed so that the desired knowledge is obtained accurately and effectively" (Dahlberg et al., 2008, p. 97).

Transcendental phenomenology as described by Husserl relies on the invariant essences of phenomena in order to arrive at the meaning of experiences. As a student of

social justice, it is important that the variant essences, or differing perspectives on experiences, be recognized and heard. This requires that phenomenology take on a dialogic quality (Vagle, 2014), where competing essences are equally valid. Once again, there is cause to move beyond the classical definitions of Husserlian phenomenology. The political and social justice issues critical to understanding phenomena today had limited or little usefulness in traditional phenomenology (Vagle, 2014). Slattery (2013) wrote that phenomenological studies "understand knowledge as a human construction and social life as enacted, meaning-embedded experience, inseparable from human beliefs, values, and creativity" (p. 244). Dahlberg et al., citing Elliston's 1977 analysis of Husserl's *Cartesian Meditations,* wrote:

> We cannot directly experience what s/he [another person] is experiencing. The mental and emotional life of others is never directly present to us . . . In order to understand the nature of this sense and how it is formed, we must 'immerse ourselves in our everyday experience of others in order to describe the meaning that presents itself'. (2008, p. 59)

In a complex and postmodern world, there is a need for a method of phenomenological inquiry that takes the experiences of others and the effects they have upon our own experience of phenomena into account. Quoting Dahlberg et al. once again:

> We do not only belong to the same world, we constitute the meaning of this world, of myself and the other, together. We do this by means of experiencing, acting in the world and by expressing it. (2008, p. 63)

Phenomenology and Montessori

As indicated in Chapter II, Montessori based her own research on direct observations of children's experiences. Through a process very similar to phenomenological bracketing, Montessori sought to remove all of her own preconceptions of how children learn, allowing the phenomena to manifest themselves (Montessori, 1949/1995). In many ways, she was practicing Husserlian phenomenology before Husserl. Mario Montessori, Jr. (1976, p. 31) wrote:

> The new aspects of child behavior that came to light through Montessori's work clearly demonstrated for the first time that children have an inner need to learn to know themselves and their world; to develop their intelligence and other mental functions through purposeful activity.

Regarding the role of the teacher, Montessori (1976, p. 7) also wrote "He [the observer] should be interested in the phenomena he is observing and understand them. He should allow situations to develop freely, abstaining from intervention when it is not necessary and acting appropriately when it is."

From a curricular standpoint, Pinar argued that the practice of *currere* is analogous to phenomenological bracketing, claiming "one's distantiation from the past and extrication from the future functions together to create a subject space of freedom in the present" (2012, p. 46).

A quick search of dissertations and theses completed in the last six years resulted in over 500 documents that were phenomenological studies of varying aspects of Montessori education. Even though the precedent for phenomenological inquiry in the

Montessori universe is well-established, none of these studies addressed teacher experiences of Cosmic Education as a pedagogy of place nor their experiences of preparation for such. Much as the Great Lessons lay the framework for students to address their own ontological questions, it is hoped that this study will help Montessorians establish the ontological framework of their own pedagogical praxis. Slattery (2013) stated that this is the purpose of phenomenology; it is more than the description of phenomena; it is about what lies behind those descriptions.

The Role of the Phenomenologist

The role of the phenomenologist is that of an involved researcher. "It is not possible for researchers to investigate a reality 'outside the window', as sometimes research instructions make one understand" (Dahlberg et al., 2008, p. 131). By conducing phenomenological bracketing, which Dahlberg et al. refer to as bridling, the phenomenologist attempts to remove, or at least identify, all preconceived notions of the phenomena being studied. The phenomenologist then attempts to understand the given phenomena through the lived experiences of others without injecting his or her own notions into the data, "we do not make definite what is indefinite" (Dahlberg et al., 2008, p. 122). Through a highly creative process (van Manen, 2014), the phenomenologist then attempts to weave together the diverse experiences of the phenomena in an attempt to arrive at a more complete meaning and understanding.

Phenomenological Method

This study used post-intentional phenomenology, following the steps outlined by Vagle (2014). Since the unit of analysis in phenomenology is the experience, not the

person, multiple views of Montessori teacher experiences of the phenomena were solicited. Five credentialed Montessori teachers with a minimum of five years of Montessori classroom experience each were interviewed using loosely structured, tiered interviews. Example interview starter questions may be found in Appendix A, and are based on examples and guidelines established by van Manen (1990). The informed consent agreement may be found in Appendix B.

Dahlberg et al. (2008) cautioned against using scripted interview questions; the open approach to interviewing is preferred. "To be open is to conduct one's research on behalf of the phenomenon . . . certainly not to decide beforehand upon the methods by which the phenomenon should be studied" (Dahlberg et al., 2008, p. 98). This does not mean that there was no plan for the interview nor for the analysis afterwards, but rather that the phenomenologist had to be open to the phenomenon as it presented itself. Following a predetermined route through the analysis of data jeopardized openness to the phenomenon and therefore restricted the possibility of true understanding of it .

> We want the world of experience, i.e., the lifeworld, including its phenomena and meanings, to present itself in all its complexity, its beauty as well as its ugliness. This allows the researchers to see what is well-known in a new light, making it strange and different, as well as making the invisible aspects of the world visible. (Dahlberg, et al., 2008, p. 121)

Bridling.

Within Vagle's (2014) and Dahlberg et al.'s (2008) phenomenological methods, bridling serves as a modern equivalent to Husserl's epoché. For Husserl, the epoché

process was focused on refraining from judgement based on the everyday way in which phenomena are perceived (Moustakas, 1994). "In the Epoché, the everyday understandings, judgements, and knowings are set aside, and phenomena are revisited, freshly, naively, in a wide open sense, from the vantage point of a pure or transcendental ego" (Moustakas, 1994, p. 33).

This use of epoché is problematic for Vagle, since he rejects the purely transcendental nature of meaning. If, as Husserl and the phenomenologists that have come since him have claimed, meaning is comprised of variant and invariant components, the Epoché was supposed to help the phenomenologist eliminate the variant components, seeking only the underlying invariant or transcendental essences of meanings (Vagle, 2014).

One of the ways Vagle addresses this issue is through the work of Dahlberg et al. (2008). The concept of bridling, rather than more traditional phenomenological bracketing or Epoché, fits into the epistemological framework behind Vagle's (2014) post-intentional phenomenology. Bridling, as defined by Dahlberg et al, comes from their experiences on a horse ranch:

> The kind of "bridling" that we think of has to be put in play with the same sensitivity and open attitude towards the phenomenon and its meaning as the horse riders of the Spanish riding school practice when they bridle their horses and make them dance. Their bridling of the horses is one aspect of their disciplined interaction and communication with the horses, which is an embodied dialogue between two entities within, or two sides of, the equipage as a whole.

> The specific means they use in their work are being chosen very carefully by way of the motto "less is more" and with full respect to their horses and their individuality. (Dahlberg et al., 2008, p. 129)

According to Dahlberg, this definition serves three purposes: (1) it covers the traditional phenomenological bracketing or Epoché by encouraging restraint from what we think we know; (2) it encourages phenomenologists to proceed slowly and cautiously, not making the indefinite definite too quickly; and (3) by attempting to focus on the whole of understanding, it points forward to meaning, rather than backwards, as in phenomenological bracketing, to pre-understandings. The goal of all three purposes is to maintain openness on the part of the phenomenologist during the inquiry: "to bridle one's understanding of the phenomenon she [Dahlberg] suggests that we take on a reflective, open stance" (Vagle, 2014, p. 67). Thus the phenomenologist assumes a phenomenological attitude, or more distanced, relationship with the phenomenon rather than the natural attitude which we use every day to see and understand our everyday lives (Vagle, 2014).

The phenomenological reflection required in bridling involves identifying the context of a phenomenon through historicity and pre-understandings (Dahlberg et al., 2008). Our traditions, how we have historically interacted with phenomena, influence our pre-understandings of the phenomena, which in turn help define how our present-day interactions are interpreted; this is the natural attitude of the everyday lifeworld. Phenomenology requires that we slow down this process and carefully examine those prejudices, assumptions, and taken-for-granted theories that affect the context of the

phenomenon being investigated. It is awareness, not elimination, of these biases that allow the phenomenologist to remain open (Dahlberg et al., 2008). Our pre-understandings cannot be eliminated, they are crucial to gaining any knowledge; the task is to distinguish between pre-understandings that are true and lead to understanding from those that are false and lead to misunderstandings (2008). These pre-understandings, both true and false ones, stem from history or tradition, our own cognition, social influences, and emotional considerations (2008).

Co-investigators.

I chose to use the term co-investigators in this study as opposed to participants. As a teacher of high school science and math classes, including statistics, the term participants caused me think of a quantitative study. While it is true that qualitative studies also have participants, my own prejudices leap first toward the quantitative upon hearing that term. The term co-investigators implies that the people who participate in this inquiry with me will also increase their understandings of the phenomenon in question; they are not participants who grant an interview then leave the researcher to decipher the meaning. Co-investigators are active in uncovering the meanings of their own experiences through the open loosely structured interview process; they should leave the experience with increased awareness of their own experiences. This was on purpose; it was an attempt at increasing the immediacy (Dahlberg et al., 2008) during the interview process and should help balance the power dynamics within the interview.

The co-investigators for this study were purposefully selected from three different Montessori schools. Three elementary Montessori-certified teachers and two secondary

Montessori-certified teachers were interviewed, and came from three different schools and three different states. The reason for including two secondary teachers, both of whom teach in middle schools, was to include both private and charter school perspectives. This was to provide increased variation in their experiences; post-intentional phenomenology emphasizes what is different in experiences over what is common in order to provide a more nuanced picture of the phenomenon. By contrast, traditional Husserlian or Heideggerian phenomenology would explore what was common in their experiences instead of the variations.

The co-investigators were selected on the basis of close professional working relationships with the phenomenologist; all were over 21, had at least five years of Montessori classroom experience, and many held advanced degrees. Their involvement with Montessori teacher education, the American Montessori Society (AMS) Research Council, and continuing education for Montessori practitioners were also taken into account. Co-investigators could withdraw from the study at any time. No compensation was offered for participation in the study.

Data gathering.

Dahlberg et al. (2008) preferred the term data gathering to data collection. Dahlberg et al. (2008) went so far as to say, "There are no human science research methods per se and there are no phenomenological, hermeneutic or lifeworld research methods, techniques or means for data gathering per se" (p. 171). This means that all possible approaches to data gathering at the researcher's disposal were possible, but one has to examine the phenomenon being studied in order to select the best approach(es),

"using all everyday means of understanding" (2008, p. 174). They also cautioned the phenomenologist that, "Every researcher must be prepared to have the phenomenon tell her/him how it is best studied, instead of applying oneself, one's pre-understandings and expectations on the phenomenon" (2008, p. 177).

For this study, dialogic interviews were used. The purpose of such interviews was to listen to the experiences of the informants and strengthen the voice of the phenomenon; the interviewer's role was to support the informant's reflections on the phenomenon (Dahlberg et al, 2008). As open dialogues, interviewers were encouraged not to have lists of prepared questions, but to listen attentively and rely on their own "spontaneity and commitment during the interview, but all the time lead by the phenomenon" (Dahlberg et al., 2008, p. 187). This open approach to interviews was also the method recommended by Vagle:

> I think it is a myth that the unstructured interview technique is "wide open" and without boundaries or parameters. To the contrary, this technique starts with a clear sense of the phenomenon under investigation and then the interviewer needs to be responsive to the participant and the phenomenon throughout. (Vagle, 2014, p. 79)

A key component of this interview process was immediacy, the bridled relationship between the phenomenon, the interviewer, and the interviewee (Dahlberg et al., 2008). They found that such immediacy produced higher quality interviews with far greater detailed descriptions of the phenomenon; for this reason, it was preferable that the interviews be conducted in person rather than remotely, at least at the first level. This

immediacy also allowed the phenomenologist to thoroughly question the meaning behind co-investigator statements, even when they thought the meaning was clear. “

> An interview dialogue, for example, is more than just two people talking. The meeting gives rise to a situation where two body-subjects are being led by the meaning within the situation, i.e. the meaning of the conversation. Such a dialogue gives birth to memories and experiences that could have been forgotten a long time ago. (Dalhberg et al., 2008, p. 64)

Three levels of interviews were initially proposed, with each subsequent level dependent upon the need based on data analysis of the preceding level; only two levels were actually used. The first level of interviews produced data which once examined helped the phenomenologist determine that a second level of interviews was needed with two respondents. On the basis of that additional data, no third level interviews were needed. The first level was conducted in person, face-to-face. Transcripts of all of the interviews were produced and provided to the co-investigators as a member check.

Data analysis.

Only one form of data analysis was used. That analysis took shape during the process itself. Dahlberg et al. (2008), Vagle (2014), and van Manen (1990; 2014) all stressed that the phenomenologist must be careful not to define the analysis too clearly prior to data gathering. It is not advisable to predict exactly how the data will be studied prior to finding the data; to do otherwise would jeopardize the openness critical to post-intentional phenomenology.

Vagle (2014) clearly stated that the key to good analysis was in spending extended time with the data: "In order to craft phenomenological research it is important to slow down and really dwell with the phenomenon" (p. 62). My first inclination or pre-understanding of phenomenological data analysis was to use a computer program to identify, flag, and synthesize recurrent themes from the interviews. Such an approach would be antithetical to post-intentional phenomenology, where the variant meanings are just as important, if indeed not more important, than any transcendent invariant meanings uncovered. By bridling this pre-understanding, I was able to use found poetry to uncover meaning based on lived experiences.

The use of poetry in phenomenology may seem unusual, but precedents have been set for this approach. Galvin and Todres (2009) described poetic interpretation of phenomenological interviews as embodied interpretation, strongly influenced by the work of both Gadamer and Gendlin. In this approach, narrative texts such as interviews were interpreted using a "body based hermeneutics" (Galvin & Todres, 2009, p. 308) that goes back and forth between the text itself and an attempt to capture the felt sense of the text. "As phenomenological researchers we have often been 'stopped short' by how the complexity of lived experience, whether others or our own, says much more than is verbalized" (2009, p. 308). The aesthetic sense of the words used and the stories told in traditional phenomenology can be lost during the attempt to find transcendental meaning; since post-intentional phenomenology seeks to focus on variants of meaning rather than invariants, the aesthetic component can be returned. "This summative emphasis [of traditional phenomenology] can kill the aliveness of the experience, and as such, can

replace the richness of all the implicit nuances that may get lost in a search for scientific essences" (2009, p. 309).

Just like Vagle (2014) and Dahlberg et al. (2008), Galvin and Todres (2009) emphasized that a closeness with and an openness to the data were critical to understanding the experiences of others. Experience is unique to the person undergoing the experience, and can never be fully understood by any other person; poetic interpretation offers the possibility of increasing that understanding by attempting to recreate the feeling of the experience aesthetically (2009). Such an approach to data analysis also fit Vagle's (2014) requirements that phenomenology account for the complex and changing nature of meaning; grasping the felt sense of the aesthetics of the phenomenon is yet another way of accessing the phenomenon itself. Vagle (2014) describes Pate's (2014) phenomenological work on listening to music as creating the opportunity to engage in and experience the phenomenon itself. Galvin and Todres wrote:

> All this offers traditional phenomenological research a greater aesthetic direction because it wishes to use language as an artistic form rather than as a traditional scientific one that summarizes information. Within this view, words are ways to show the plenum of experiences, lives and lifeworlds, and such showing, shows more, rather than less. (2009, p. 315)

The nature of the poetic inquiry used in the data analysis for this study was found poetry, the "rearrangement of words, phrases and sometimes whole passages that are taken from other sources and reframed as poetry by changes in spacing and/or lines (and

consequently meaning), or by altering the text by additions and/or deletions" (Butler-Kisber, 2010, p. 84). Such a form of analysis was by definition ideographic in nature, focusing on individual experiences. It also united the phenomenologist's voice and that of the co-investigators to create a new voice (Butler-Kisber, 2010) and uncover new depths of meaning. Such an approach is never finished (Pate, 2016).

Pate (2014) used found poetry as the final stage of Vagle's post-intentional phenomenology in his research. Dahlberg, Vagle and Pate cited each other frequently as examples of applications of their methodologies. Pate (2014) stressed that the found poems in his research must be read as in process, never finished products; this is consistent with Vagle's assertion that meaning is ever changing and developing.

Summary

Phenomenology is not a single methodology. There is nothing that resembles the standardization of the scientific method, nor even the consistency of many qualitative approaches to research. Instead, everyone who conducts phenomenological inquiry must start with the phenomenon, and let the phenomenon guide them to the most productive and beneficial framework. Even though there are differing schools of thought within phenomenology, there are many overlapping themes, practices, and philosophies. A good phenomenologist uses the methodologies that support a deeper understanding of the relationship between people and the experience of phenomena. This availability of so many choices is one of the strengths of phenomenology. To quote Richard Furman (2007), "Our life context and histories, and the meanings we ascribe to them, are complex

and varied. They are not easily studied through research methods that seek clean and tidy reductionistic categories" (p. 1).

Phenomenology offers different epistemological and ontological frameworks from the current obsession with positivistic sciences as found in American public education today. Rather than looking for external objective proof of existence, phenomenology does not rely on validation outside of the mind of the person experiencing the phenomenon. There is a non-duality of subject and object; there is no object without some embodied experience or familiarity with the object, the intentionality between subject and object.

Of the many variations of phenomenology, this study used Vagle's (2014) post-intentional phenomenology. By posting intentionality, Vagle moved beyond the relationship between subject and object, and sought understanding and definition through the complex and ever-changing nature of our relationships with phenomena. People are social creatures, and meaning is based upon the complex social contexts shape our understanding. Thus post-intentional phenomenology seeks to illuminate the variant meanings of phenomena rather than the transcendent.

The literature review in Chapter II showed clear parallels between Montessorian philosophy and phenomenology. The two approaches fit together like pieces of a puzzle, sharing many components of epistemological and ontological freedom. The role of the phenomenologist is analogous to the role of a Montessori teacher, intervening in the process only when necessary to more fully observe phenomena.

Bridling (Dahlberg et al., 2008; Vagle, 2014) is an attempt to remain open to the phenomenon as it presents itself; it is a tool for keeping the indefinite indefinite long enough for the phenomenon to be experiences without the undue influence of pre-understandings and traditions. Much as in controlling a horse through the Spanish school of riding, the goal is to use as little force or direction as possible. The maintenance of openness to the co-investigators' experiences and to the phenomenon itself was critical. The data for this study were collected through in-person interviews.

This study used found poetry from interview transcripts as the primary analysis tool. The connection between poetic inquiry and phenomenology has been well-established by Butler-Kisber (2010), Dahlberg et al. (2008), Furman (2007), Galvin and Todres (2009), Pate (2014), and Vagle (2014). This aesthetic approach allowed the emotional components of the phenomenon to become more apparent, thereby adding richness, depth, and texture to the meaning of lived experiences.

CHAPTER IV

Bridling Process

> The first step an intending Montessori teacher must take is to prepare herself. For one thing, she must keep her imagination alive; for while, in the traditional schools, the teacher sees the immediate behavior of her pupils, knowing that she must look after them and what she has to teach, the Montessori teacher is constantly looking for a child who is not yet there. (Montessori, 1949/1995, p. 276)

Introduction

As stated in previous chapters, post-intentional phenomenology does not use a traditional epoché process. Dahlberg, Dahlberg, and Nyström (2008) used bridling as an alternative to the bracketing done in epoché and phenomenological reduction. If one is to accept post-intentional phenomenological epistemology, it stands to reason that one could not eliminate one's own past experiences in the interpretation of the experiences of others; the social nature of creating meaning is foundational to post-intentional phenomenology (Vagle, 2014). This requires an open, reflective, and reflexive approach to understanding phenomena, one in which we are ready to await and observe the phenomena as it presents itself, not as we expect it to be presented (Vagle, 2014).

I started this chapter with a quote from Maria Montessori. The similarity between Montessori's preparation of the teacher and Vagle's understanding of phenomena seems clear: the teacher awaits the child who is not yet there and the phenomenologist awaits the phenomena. Neither can predict how or when either will present itself. The purpose of bridling is therefore to delineate the experiences and interpretations already existing within the phenomenologist, thereby allowing one to identify how these *a priori* experiences shape and guide, or bridle, the study, much as the Montessori teacher must keep her imagination alive. Rather than attempting to remove or bracket-out this knowledge, bridling allows one to become aware of the existence and influence of these experiences (Vagle, 2014). With this knowledge comes the awareness of a phenomenological attitude rather than a natural attitude toward phenomena, allowing the phenomenologist to understand the phenomena in new ways (Vagle, 2014).

Bridling as Process

Rather than being something the phenomenologist does once at the beginning of a study, bridling requires an ongoing process; as one reveals new experiences of phenomena, one must revisit the bridling process frequently (2014). As such, the bridling process described here evolved throughout the study. In an effort to remain open to the experiences of the phenomenon in question, I needed to reconsider my own experiences and interpretations in order to remain in reflexive relationship with the co-investigators and the phenomena. The approach to this study, including the use of poetic inquiry, was one of the ways I sought to bridle my own experiences and comfort zones; the bridling process was highly self-reflective. "Bridling then means to scrutinize the involvement

with, this embodiment of, the investigated phenomenon and its meaning(s). Bridling means to reflect upon the whole even when meanings come into beings" (Dahlberg et al., 2008, p. 132).

The purpose of bridling is to slow the process, to take time before setting forth clear boundaries and definitions of phenomena (Dahlberg et al, 2008); it is to allow the definite to emerge from the fleeting glimpses of phenomena, the indefinite, over time. Phenomena are considered fleeting because every time experiences are verbalized they are made more definite. When teachers tell of their lived experiences, those experiences move slightly closer to being definite. When those verbalized experiences are transcribed, they move closer still. When those transcriptions are then analyzed, the experiences become even more definite. Creating found poetry from the transcriptions moves the experiences even further to the definite side of the scale. Bridling ensures that the researcher gives sufficient time and space for meanings, even conflicting ones, to emerge, engage within the researcher's mind, and reflect the complexities of the phenomena.

The following sections of this chapter reflect the preunderstandings (Dahlberg et al, 2008) within the researcher's mind that created the mental space in which the phenomena were explored. The experiences of the teachers had to be approached with a phenomenological mind rather than a natural attitude; in other words, we seek to overcome the "taken-for-grantedness of everyday acting and thinking" (van Manen, 2014, p. 42). The goal of the phenomenological attitude, by comparison, is

> . . . to return to the beginnings, to take things themselves as they give themselves in lived through experience – not as externally real or eternally existent, but as an openness that invites us to see them as if for the first time. (van Manen, 2014, p. 43)

In order to accomplish this, the researcher must identify the preunderstandings that exist, the summation of one's own experiences and interpretations of related phenomena, which act as bridles, shaping the course of the research and allowing for control of the speed at which the indefinite is made definite.

This process is iterative; the researcher's own emerging understandings and experiences, including the experience of conducting the research itself, can impact the findings. Only by returning frequently to the bridling process can a phenomenologist remain true to the experience of phenomena and maintain authenticity.

Montessori and Progressive Education

Prior to being hired as a Montessori teacher, I had little formal or informal knowledge of Maria Montessori or Montessori philosophy and methodologies. My only exposure to Montessori was through a developmental psychology course I took in my undergraduate days, some 30-plus years ago. I believe she was mentioned on one page in the textbook. Although her approach seemed slightly interesting, it was not really germane to my life or career at that time.

Without realizing it at the time, most of my educational experiences were consistent with Montessori's approaches. In high school I was allowed to follow many of my passions, particularly in science classes. I would ask questions, then my teachers

would assist me in finding my own answers to those questions. This is the same as Montessori's admonition to follow the child. In college this was reinforced by my advisor, Dr. Chris Spatz. He often repeated that we should never let the forms of education interfere with the purpose of education (Chris Spatz, personal communication, ca 1985). My undergraduate degree was focused on learning by doing. Hendrix College's motto, translated from Greek, was "Unto the whole person". The interpretation was that education was to be about and for the whole person, not just the intellect. Montessori's approach was to educate the whole child. This is reflected throughout Montessori education today, which in my experience seeks to not only stimulate the logical intellect, but also a full complement of additional intelligences, including emotional, social, and existential, and kinesthetic.

As a credentialed Montessori teacher, I have spent some time studying Montessori philosophy; it is a requirement of the all Montessori credentials, including my own Secondary I and II credentials. Unfortunately, Maria Montessori wrote very little about educating adolescents. My credential training did include the basics of the philosophy and of Dr. Montessori's life, but very little of the material was the original writings of Montessori. Instead, much of the reading and discussion material centered around more current theories of adolescent education including recent brain research, updated stories of the universe more appropriate to adolescents, and theories of classroom management. Given the lack of original materials by Montessori, these other studies did help prepare me to teach in the Montessori environment. At that time, I was not required to read some of the more foundational works for the other age levels. As a result, I did not understand

some of the historical context of Montessori education. When faced with the daunting prospect of teaching multiple courses in a few weeks, it is common sense that the focus of teacher education should be works of value that will assist in the immediate future; there is always time to return to the philosophy at a later date.

As I dug further into the phenomenology of Cosmic Education as a tool of social justice, I needed to expand my knowledge of Montessori's original works. This was part of the reflexive nature of post-intentional phenomenology. As I prepared for my interviews, it became increasingly important to understand the historical context of each age level. This was accomplished through the reading of the appropriate Montessori works: *The Absorbent Mind* (1949/1995) for Early Childhood; *To Educate the Human Potential* (1948/2015) and Mario Montessori's *Education for Human Development* (1976) for Lower and Upper Elementary; and all of *From Childhood to Adolescence* (1948/2004) for Upper Elementary and Secondary I. These were interspersed with preparing and conducting the interviews and with developing the methodology for this study. Passages of current authors on phenomenology would trigger deeper research into Montessori's works, which in turn raised further questions on the research methodology used. This cycle resulted in an emerging methodology consistent with van Manen's (2014) and Vagle's (2014) cautions against beginning phenomenological research with a well-established methodology predetermined. One must be open to the phenomenon as it presents itself, which requires a methodological openness as well.

It is critical to point out that my knowledge of other Montessori levels is theoretical and vicarious; I have not lived in those worlds. My knowledge comes only

through my readings, observations, and conversations with teachers in those levels. Thus, the dialogic interview process was critical to developing a deeper experience with the phenomena as presented in the co-investigator's lived experiences. The data analysis presented in Chapter V reflects my own journey for deeper understanding of Cosmic Education as a tool of social justice; without their lived experiences, the study would lack grounding in the lifeworld.

Cosmic Education

Previous to my training as a Montessori teacher, I had never heard of Cosmic Education. My initial reaction upon hearing the term was what one would expect from a traditional math and science teacher: skepticism and caution. As I prepared to teach in a Montessori high school, Cosmic Education was mostly relegated to the self-construction strand of coursework: Personal and Social Responsibility for ninth-grade; Communication Applications for tenth; Theory of Knowledge for eleventh; and Senior Thesis for twelfth-grade.

During the course of this study, it became apparent that Cosmic Education was the unifying theme of the earlier levels of Montessori education. Since the high school curriculum was not unified, the concept of Cosmic Education was difficult for me to understand or comprehend. Now I understand Cosmic Education as the fundamental task for Montessori educators; we help students find their place/voice in the universe. Over the course of this study, I have come to realize that Cosmic Education forms the backbone or scaffold on which students build their concepts of reality and interpret experiences in their own lives; it is the foundation of learning.

Pedagogy of Place

Much like Cosmic Education, my exposure to pedagogy of place was nonexistent prior to my Montessori teacher education program. During that program, pedagogy of place was briefly described as the history of a particular place or institution. Example pedagogy of place lessons were given on the history of my school and references were made, through Cosmic Education, to high school students' struggles to define their place in the universe.

It was only through my doctoral courses in curriculum and instruction that a more clear definition of pedagogy of place began to develop. That definition has been thoroughly discussed earlier in this dissertation, but has been influenced by the works of Giroux (2011), Pinar (2011), and Slattery (2013).

Throughout this study, my understanding of pedagogy of place continued to develop. During the initial prospectus stages, I questioned whether or not there was a connection between Cosmic Education and pedagogy of place. Deeper study of both topics allowed me to reach the conclusion that they were intrinsically connected.

Social Justice

I grew up in a conservative Southern Baptist home in rural Arkansas. We were not wealthy, but we had enough to meet our needs. My school and community were all White; we had one Native American student in my school. There were no Black, Hispanic, or Asian families in the nearest town or in my school. Almost 50% of our community of about 3,500 were members of the First Baptist Church. Obviously, diversity was not a strength of that community. This was not an easy place to be

anything other than a White, Christian, preferably Baptist, conservative, heterosexual, sports-playing adolescent.

My exposure to diverse people and diverse thought really began in college. I attended a relatively small liberal arts college in Arkansas, one that is highly respected for its academic programs. The college was affiliated with the United Methodist Church, and placed a strong emphasis on social justice. It was at this school that I had my first experiences of female ministers, roommates of other races, critical approaches to theology, and active political participation.

Hendrix College follows a liberal arts curriculum; students are encouraged to take a variety of courses from many different disciplines. One of the most popular departments on campus was Philosophy and Religion. Almost every student takes at least one course from this department while enrolled, but none are required. It was there that I became familiar with such diverse thought as liberation theology, process theology, Easter religious thought, recent Roman Catholic theology, and two semesters of the History of Christianity. I transitioned from someone wary and skeptical of divergent thought to someone who embraced many forms of spirituality. This is important to my bridling process because these courses helped shape my views on social justice. Liberation theology was a particularly impactful course. As we studied the plights and the emerging theologies of the oppressed in Central and South America, people of color, women, and others, almost everyone in the class became involved in some type of activism. Such activity was strongly encouraged by the college. Students were rallying for the college to divest from companies that supported apartheid in South Africa; we

boycotted and protested at a local chain restaurant over their firing of anyone they suspected of being gay or lesbian. We even pushed for greater tolerance within the United Methodist denomination.

Through the coursework for my doctoral program, I was introduced to the writings of Brazilian philosopher and educator Paolo Freire. These integrate very closely with liberation theology as developed by Father Gustavo Gutiérrez, a Dominican priest from Peru, in his 1971 book, *A Theology of Liberation: History, Politics, and Salvation*. I studied Gutiérrez's work as an undergraduate. Paolo Freire's most famous book *Pedagogy of the Oppressed*, was published only one year before Gutiérrez's. The concerns for social justice in neighboring countries during the same historical and similar social contexts, was a commonality I sensed immediately upon reading Freire. These connections were confirmed in a later class when I read Slattery (2013).

Summary

Phenomenology differs from other qualitative research methods in many ways. One of those ways is how researcher bias is considered and controlled. Van Manen (2014, p. 343) stated, "Phenomenology describes not the *factual* empirical but the *existential* empirical meaning structures of a certain phenomenon or event" [emphasis in original]. As such, any attempt at understanding the existential empirical nature of a phenomenon must be interpreted through the lens of the researcher. Bridling offers a methodology of identifying these lenses, and correcting or removing their influence as needed. This is primarily accomplished through reflection and keeping the indefinite indefinite as long as possible in order to allow alternative meanings to emerge.

By identifying my own existential experiences with progressive education, Cosmic Education, pedagogy of place, and social justice, I have delineated the preunderstandings that define the working space for the consideration of the phenomenon of this study. My own lived experiences and encounters with this phenomenon, and my ongoing contemplation and reflection on them, provided the bridle that kept the study on track.

Upon reflection of this chapter, it became clearer that as a young man, I began to own who I was, to claim my place within the universe in Montessori terms. I became increasingly distant from my religious upbringing and more open to diversity. These experiences helped shape who I am, and they shaped the nature of this study. When I found Montessori education, I began to discover an educational system that, as reflected in Chapter V, seeks to help students claim their places and their voices throughout the universe. It took me almost 40 years to do that; if I can help any student advance on their own personal journey my time has been well spent. Seeking a greater understanding of how Cosmic Education promotes such growth and valorization of students is of intense personal importance; it is as much about understanding my own journey as it is helping others on theirs.

CHAPTER V

Existential Phenomenological Expansion

Introduction

The next step in the analysis of phenomenological data in traditional Husserlian phenomenology consists of transcendental phenomenological reduction and imaginative variation (Moustakas, 1994). This study however made use of post-intentional phenomenology, which in many ways accomplishes the opposite of transcendental phenomenological reduction; as a result, I have chosen to call this process existential phenomenological expansion. Vagle (2014) found two critical bases for post-intentional phenomenology: 1) subjectivity is actually embodiment, and bodies are existential rather than transcendent; and 2) intentionality is an ever-changing "circulation of meanings" (Vagle, 2014, p. 113). In conducting a post-intentional phenomenological study, it stands to reason that one would use the terms that Vagle used: existential as opposed to transcendental and expansion as opposed to reduction. In this approach to phenomenology, intentionality or meanings as they come into being, which are inherently unstable, are constantly changing. Thus the role of existential expansion is to create a space in the mind of the researcher where glimpses of the socially constructed intentionalities can emerge and reveal themselves; it is to expand the variations of

meaning by examining the relationships between the subject and the phenomena rather than to reduce them to their essences. The emphasis of such a post-intentional phenomenology then would be to ensure that there was sufficient consistency between the experiences of the phenomena to create research validity (van Manen, 2014) yet seek the variations in those experiences in order to uncover new meanings and interpretations of them (Vagle, 2014).

The existential expansion for this study consisted of the creation of five found poems based on the interviews. Found poetry uses the co-investigator's own words, rearranged and formatted to create an aesthetic interpretation of the interview (Butler-Kisber, 2010). In this way, the feeling and emotion of the co-investigators' lived experiences are conveyed to the reader.

Each poem was divided into sections in order to facilitate reading and reflection. There was not a set number of sections imposed upon each poem; rather, each poem was allowed to use as many sections as needed to convey the lived experiences of the co-investigator.

To create each poem, important themes and stories were identified in each corresponding interview. Rather than using phenomenological reduction and bracketing to extract only the invariant or transcendent themes, post-intentional phenomenology was used to include primarily the variant themes. The bridling process, as explained in Chapter IV, was used during both the interview process and the creation of the poems to ensure that my own experiences and interpretations were not overlaid onto that of the co-

investigators. This was an implementation of Vagle's (2014) concept of validity for post-intentional phenomenology.

The poems followed the age classifications of Montessori classrooms: Poem One is based on the interview with an Early Childhood teacher, Poem Two is based on the interview with a Lower Elementary (grades one through three) teacher; Poem Three is based on the interview with an Upper Elementary teacher (grades four through six); and the last two poems are based on interviews with two Secondary I (grades seven and eight) teachers.

Providing additional or further narrative analysis or interpretation of the poems would violate the nature of post-intentional phenomenology and poetic inquiry. The poems should speak for themselves. Expanding upon a previous quotation,

> A more aesthetic phenomenology is different from traditional descriptive phenomenology which uses a particular type of language that is concerned with summatively capturing the boundaries of the experience. This summative emphasis can kill the aliveness of the experience, and as such, can replace the richness of all the implicit nuances that may get lost in a search for scientific essences. (Galvin & Todres, 2009, p. 309)

Likewise, Furman found that our experiences "are not easily studied through research methods that seek clear and tidy reductionistic categories" (2007, p. 2). Therefore, any attempt at creating additional narratives other than the poetic embodiment of the phenomena studied would be moving away from the very goal of such a phenomenological study, and would be counter to the methodology used here.

Poem One: The Family

I

Children two years and six months…

…until they are ready for first grade

practical life sensorial math language culture

learn discrimination by:

size

sound

texture

using all the senses

Everything sensorial is setting the stage for math

concentration coordination independence order

II

Place themselves in their world:

That's where they are.

The world begins with family structure,

Nature, and the world outside their house.

E X P A N D.

Classroom. Map. School. Map.

City and town – one of many in the state.

State – one of many in the nation

Nation – one of many on this continent

Continent - one of many on the planet

Planet – one of many…

In one universe.

Pedagogy of Place.

Cosmic Education.

Nature Evolution Discovery

III

Social units of family, friends, classroom.

Portraits.

Portraits of people.

Portraits of people from around the world.

Differences. Why is someone's skin color different?

We treat everyone the same.

Social justice

Problem solving within social units

The five-year-old has a strong sense of social justice.

Engage two-year-olds through engaging acts.

Not understanding that sometimes we have to do things differently,

To help others understand.

And that they can help.

Their social unit is the family.

Nothing global, no politics, no current events.

A sibling in a different class – “It’s not fair!”

Small-realm social justice.

The children will talk about it amongst themselves.

Children at lunch discussing the merits of marrying the same gender.

We don’t get involved.

Sitting in a circle, “on line”

It comes up again.

“Isn’t it great that everyone is different!”

How boring if we were all the same…

All wore the same thing…

All believed the same…

All looked the same.

They don’t need my opinion.

“If Trump is President my Grandpa isn’t going to live with us anymore.”

“That is sad. I know you like having your Grandpa live with you.”

They don’t need my opinion.

Everything ties back to the family.

The child’s understanding of community.

IV

Cosmic Education is a Pedagogy of Place.

It is foundational.

Where we stand in our size.

Our place in community,

Our family,

Our perceptions of community.

Before we can move beyond.

It starts with the self…

Lessons on mapping body parts.

Body awareness: I can see my hands, but I can't see my bones.

There are things that exist that I can't see.

I know they are there.

My family is still there even when I can't see them.

Where exactly is Mommy right now?

Where is Daddy?

The family.

Even though you can't see it, it is still there

And you're still a part of it.

Where is our body?

On the continent of North America.

On the surface of the planet.

We can look around, but we can't see everything.

The Earth goes into the Universe.

We are just a dot within that space.

It all starts with body parts.

It all starts with the self.

We can hop on a plane

And fly to Japan.

They are doing their thing in their space

And I can be doing the same thing in my space.

All over the world children are building the Pink Tower

Isn't that fantastic?!

V

There are problems that they can solve.

"You threw sand in my face."

Give them the words.

"When you throw sand in my face, it hurts my eyes."

What do you need to feel better?

It won't happen again.

I will keep the sand on the ground,

Where it is safe.

I will be more careful.

Both children are aided.

No one is out.

Problem solved. No outside disciplinary action.

Comforting that they can solve their own problems.

Everything is black and white.

Not much gray.

"Put it away and try again tomorrow."

No judgement, no punishment.

No second chances, no excuses.

"Put it away and try again tomorrow."

Respect for things, respect for others.

Consequences are known.

No negotiation, no "Next time …"

"Put it away and try again tomorrow."

I know I can do better next time.

Every child is an individual.

Treat where they are developmentally.

Move at their own pace;

Allowed to develop.

That's where he is,

And this is where you are.

And that's OK.

Social justice.

You teach the child academically as an individual.

You teach the child socially as an individual.

"Mary won't play with me today."

"Thank you for telling me."

That’s often enough.

Poem Two: Connections

I

I'm not sure what all these words mean…

It's helping the whole child to develop

Starting with the Tree of Life

Our place in history, in biology…

Appreciation for early humans, counting, language…

Discovery.

A spiritual aspect, a depth of understanding.

It is spiritual for me, seeing them discover.

Spiritual experience comes from the discoveries they make

Using their hands and their brains together.

It comes from discovering things on your own.

"Wow, that's the reason that we do this!"

Not God, not the afterlife,

Just feeling enriched through learning.

Self-discovery is the spiritual aspect.

II

Learning to appreciate what came before;

Streptococcus can cause infections, but is also in yogurt.

Adopting favorite bacteria and fungi.

Learning to appreciate the little things.

Before working up through civilizations.

The Maya. The Hindus.

Contributions to math.

A way to record nothing.

Learning to weave, solving problems the Maya faced.

We are not the best just because we are modern.

The Ancient Mayans engaged in genetics by growing corn.

It is amazing.

The historical context is as important as the facts.

Our curriculum is a pedagogy of place.

Animals Plants Relationships.

Pictures of a Stegosaurus… and of Uncle Henry.

Secure in place of family and community.

T H I N K B R O A D E R.

Place in the Tree of Life,

Relationship to Protista.

Looking for connections,

Leading to gratitude.

III

The Big Bang,

The laws of planetary movement.

Stardust in all of us.

The more teachers share with the students, the more we both learn.

Bacteria Plants Animals

Human Evolution, societies, cultures

All to develop empathy.

If we have empathy, we're more likely to believe in justice.

They don't even want to kill the insects in my classroom.

Pick them up, set them outside.

The beginnings of social justice,

Even for mosquitoes.

Hysteria against Muslims.

Hostility towards Black Lives Matter

Hostility towards Women's Rights

Hoping that nobody in our class would ever be attracted.

I don't see it here.

I see interest.

One girl was interested in Ruby Bridges,

Ruby Bridges from the Civil Rights Movement

Ruby Bridges helped everybody to accept other races and religions as all equal.

The girl gave her report on her birthday.

Her parents sitting there.

A sense of justice.

Empathy for all that we study,

Applied.

"What do you mean?"

"They discriminated against people because of the color of their skin?"

They are amazed by it.

I was shocked by discrimination when I moved to Texas

The children do not have as many problems with discrimination as adults.

They will get mad,

Then forget that they were mad.

And do nice things.

Issues come up,

But they get over it quickly.

I've never seen them hold a grudge.

A lesson for adults.

IV

Every society has their own creation story.

People did the best they could,

Explaining things they didn't know

Metaphors

Everybody's on their own path...

For learning…

And their own spiritual path.

Nobody's wrong.

V

Kids are aware of climate problems.

We talk about the problems;

We talk about not wasting things.

Recycling.

Not wasting resources.

We talk about what we can do

We try.

Life has been around so long.

It kept evolving into new things.

Optimistic.

Maria Montessori encouraged us to be stewards of the Earth.

Learn to be a steward of the Earth

by being kind,

and by helping another.

A rescued baby goat,

Bottle-fed.

The kids took turns.

Becoming good stewards.

Now we have a gardening project.

They watch it grow.

Taking care of it every day.

Becoming good stewards.

Spiritual.

That’s the connection.

Poem Three: We Don't Isolate Ourselves

I

We don't isolate ourselves from humanity.

How does whatever we are doing work for people in other places?

Cosmic views: the development of the earth and the universe.

Moving from concrete to abstract.

Histories:

Earth Mathematics Language

These are the histories of the universe and of the people,

Everything contributes to the whole.

Studying civilization, any civilization –

What did they know?

What did they do?

It is the connections that are important.

Cosmic education:

Difficult to explain,

Easy to observe.

Let it develop.

Observe Make Connections Develop

Let the adult discovery of Montessori be a cosmic experience for them as well.

The whole of one thing:

Look at it,

Connect it to what else is out there.

We learn with the children;

It is how we teach them to learn.

Wherever we are – a broken-down bus taught us about Durango, Colorado.

Some things we get out of;

Some things we don't.

We take the situation and make it into whatever is there.

Wash your materials and move on.

II

Timelines of Life… going on a fossil dig.

Timeline of Early Man… understanding archaeology.

Detailed views of what it is or was like… and the techniques involved

…to live,

…to study,

…to be.

This is Cosmic Education.

Where do you get your information?

And how reliable is it?

How does it change?

Looking at the Maya,

Understanding ancient civilizations.

We know what we know, but not what we will know.

Yes, the Maya had a written language.

Destroyed as the work of the devil.

Destroy the books, but the language existed.

Gather artifacts, sort by culture.

Simulated digs…

Relating knowledge to experience.

Meet the archaeologists…

Watch older children dig.

Watch…

And practice…

And prepare for their turn.

III

Older children as mediators.

No longer take the children out to problem solve;

Let them learn to resolve on their own.

There is always a place to start.

Reading a story written by children in the class 20 years go…

They looked at the literature and decided it was not fair;

The Maya were not just a violent evil group.

The middle of war.

Time for harvest.

Stop the war,

Until the harvest is over.

Look at what happened to Australopithecus;

Archaeological finds indicate some idea of social justice.

The Children help create the classroom rules,

And they realize what that is.

Not everyone in the world is in the same economic or social situation.

Connections between current events and things we learned in class.

Never taking sides,

But giving them time to express their points of view,

Time to listen to what goes on and what will happen.

Affecting social justice everywhere.

The older children know how to look around,

Realize when someone needs help.

This is what social justice is for us:

Assist one another,

Make a difference.

To GrOW and understand.

IV

I lived through World War II and what was going on with the Jews.

I had no idea, neither did other people in Europe.

I knew there was a war; I knew who was bombing who;

I did not know about that.

I never gave much consideration to integration.

My home had people of a different race who worked there.

I was expected to treat them respectfully.

I never knew they walked from their homes to ours.

I became aware.

Sharing experiences with students.

One way of sharing is going out to

Libraries Museums Nature.

Experiencing business.

Eating at different ethnic restaurants.

Learning to manage their own money.

Reality comes alive!

Students discovering the things they are good at doing,

And want to do… in addition to the ABC's and XYZ's.

To develop a dream,

…and to follow it.

One boy had leukemia.

Bone marrow transplants,

That led to HIV.

We didn't know back then.

No treatment. He knew he was going to die.

Atoms are much older than the materials they compose.

Atoms in your body have been around long before the solar system.

They cycle and recycle.

You don't own the atoms that make up your body, you borrow them.

We are all part of the same cosmic universe.

"We were going to become blood brothers, and it's a very good thing we didn't.

I had this disease and didn't know I was going to die.

I'm glad we didn't do that so you don't have to die too."

V

I put my own child in Montessori at five.

No coloring inside the lines.

An experiment in integration.

My son progressed much faster.

Active integration.

Active in working for civil rights.

Mixed-race grandchildren.

"We're not the same color.

Oh, we're the golden children."

Crazy to separate people.

Children just don't feel the differences.

We look at where we're going in the universe,

Not just what's happening today,

We don’t isolate ourselves.

Poem Four: Engagement

I

Social justice is in our charter;

Required by our district.

Required courses in service learning,

And social justice.

Grades.

Some parents forbid it:

social justice = President Obama

"Here's the charter, and here's what we are for…"

Did you pick the wrong school?

Détente.

Social justice is a recurring theme,.

Embedded throughout the curriculum.

Craving to understand their place.

Geo-spatial understanding:

Students make relief maps to show elevations and water flow.

Analysis of water quality:

plant studies animal studies water studies.

Intense pollution from pet swans and ducks.

Findings presented to HOA by students,

Prepared with flak jackets;

Expecting violent reactions

Parents

Property owners.

"This was the most balanced actionable talk we've had

at this Homeowner's Association meeting in five years."

Studying chemistry of cooking.

Preparing a cooking show in front of panel of local chefs,

But also studying hunger in the community.

Affecting one-fifth of the students in our community

II

How to integrate technology for global peace curriculum?

Closed-off Montessori culture;

Limited pool of diversity.

Schools collaborate;

Create projects that go to Syrian refugee camps.

Partners with a school in Pakistan.

Overcoming language and communication barriers.

Accused of engagement with Islamic radicals,

At war with our country.

Criticism all because we said "Hello" to someone in Pakistan.

Interesting disconnect.

Here is the big, big picture…

…And here is where you fit into that big picture

You are one of many fellow travelers.

Grace and courtesy are different for adolescents.

No longer conflict resolution,

It is about engagement.

Creating safe and polite members of digital communities.

Facilitating their own digital communities,

Normalizing them,

For their own purposes.

An extension of peacemaking for this generation.

Lessons in grace and courtesy;

Lessons in conflict resolution;

Lessons in self-expression;

Lessons in the meaning of community.

How to give feedback, and how to receive it.

How to be a trusted reader.

Start physically, then move into digital world.

Reality, then virtual realms.

Students get to practice the conversations.

III

Montessori education is fuzzy:

You do grace and courtesy,

You do service learning,

You do Cosmic Education

that seems like a Monty Python song

"You're just a speck",

in many different versions.

It's this amazing thing.

Creating a sense of humility,

Of agency.

Pedagogy of Place,

Tying service learning and the cosmic curriculum together,

Humility

"I can take action in my own piece."

That is the goal.

Teaching participation, not just passive observation.

Role-playing elections,

Scaffolding for them to act on their own;

To be an adult with a diverse network of people,

To be a trusting person,

This is critical space.

Schools can be homogenous

In culture,

In values,

In race,

In income levels.

Interact with others.

Learn culturally appropriate ways of butchering chickens.\

Learn to carry water.

Experience living in third world conditions.

They hate it.

They complain.

"It was the greatest thing that happened."

Afterwards.

IV

I'm an immigrant to this country.

I am still an outsider.

Root for the outsider, for the underdog.

Getting outside your own community and connecting with others is valuable.

One teacher bragged about never leaving her hometown:

Born there,

Went to school there,

College two miles away,

Taught there for 20 years.

That really bothered me.

She hungered for social justice education, even as an Algebra teacher.

Unit on the Holocaust and the evils of the German people.

Isolation.

Not connected to curriculum.

Problematic.

Look at our own history

With as fixed an eye as anything else.

As a gay teacher,

I expect students to respect each other pretty intensely.

I studied Biology,

Took a course on teaching evolution.

A lot of students in this community are creationists.

It is similar to being a gay teacher –

If parents feel ambushed or blindsided, they feel

Betrayed.

Many come to Montessori because public school is "corrupting their spiritual values".

We teach evolution and Cosmic Education.

Let them know what will be taught,

And when,

So that they can have other conversations at home.

It works because they feel respected.

V

I see Cosmic Education through a biologist's lens

Maria Montessori was a scientist at a revolutionary time in science;

The long view of the universe;

The evolution of life;

The evolution of hominids.

Intrinsic part of Montessori,

Cannot be separated from it.

Not optional.

Students live in a time where they feel ripped by crisis.

They are worried.

We are educating for a more hopeful outcome.

Writing historical fiction,

Seeing how their characters addressed real crises in a different time.

Arguing over the nature of the universe

…As new discoveries are made…

The conversations continue.

Engagement...

How are you going to take action?

How are the experiences of others related to that?

When we get the matrix right,

We take the students through this whole journey.

Poem Five: Understanding the Perspectives of Others

I

Cosmic education is the backbone of the whole curriculum

Start with the creation of the universe,

It lays the foundation for all the other lessons.

Strike the imagination of the child.

The child is in the universe,

A product of the universe,

And lives in this universe.

The Timeline of Life

Creation of the universe and the four forces,

Learning about themselves,

Their roles,

How they create and find themselves.

Teenagers are in a period for finding themselves and social justice.

Brains are rearranging,

Synapses pruning,

Other myelinating.

Egotistical.

Where do they fit in?

"How do I fit into this big puzzle?"

Foundational

Creation

Pin Maps

"How do I fit into this?"

"How am I affected by this?"

"Why is this important to me?"

The Timeline of Light

Learning styles:

individual

community

II

Social Justice

Social justice on a global level…

Montessori Model United Nations

Support each other

Get every child there

Choice, research, ambassador roles, topics of interest

Nuclear weapons in space

Bulgaria and Pakistan

Life and social justice in that country

Fitting into the world puzzle

How does the US act?

Social justice on a national level…

going to Washington, DC, and meeting our senators.

Talking of issues facing teenagers in our state.

Writing letters.

Social justice on a personal level…

through building peace boxes for refugee children

Local service projects.

Creating works of art to sell to support families affected by recent natural disaster.

Social justice in the classroom…

Whenever someone is treated unfairly

Each side states the facts.

Then how they felt.

"How did you feel when that happened?"

Separating facts from emotions

"How can we make sure this doesn't happen again?"

Miscommunication/misbehavior

"Thank you for changing."

"Thank you for helping me."

Some are receptive … Some are resistant

Some think about others … Some don't see the

connection yet.

"I have my own problems to deal with,

and I'm stuck there,

so why do I need to help these people?

Honest and true,

and eye-opening.

They have their own issues.

III

Civil rights in the South

Not a diverse school.

Neighbors and friends:

Other races,

Other religions,

Other cultures

I ask questions.

The students have questions.

We research them,

Learn about them

We go see people.

We meet people from different walks of life.

It's in every piece that we do.

Personal World Natural World Social World Language Arts

Mathematics

Everything is integrated together.

Something that matters

Social justice projects.

Student-led aspects because they have more of a stake in it.

We talk about bias.

Understanding their own personal biases.

Keeping open minds.

Practical life for the teenager.

My students do not like canned curriculum.

No Seven Habits of Highly Effective Teens

No Heroic Journey.

They like things to do with the home:

Sewing

Art

Self-expressive activities done with the hands

Create from their own.

What is going to work?

What do you need?

Setting boundaries

Appropriate relationships

Self-mind talk

Things that are useful

Flexible with curriculum.

"I'm done with this. Can we do something else?"

"Okay, let's brainstorm"

And off we go!

IV

Raised in the church.

Very liberal, very social service action

Seeing discrimination made me angry.

I was one of the students picked for a new gifted program.

No African-American or Hispanics were picked.

That's not okay.

Service learning is working alongside,

Learning just as much as they learn.

It is not a White Messiah.

I know my students feel unconditional love from me

And support no matter what they do

The students created an element on the periodic table for me:

Lv

It is love.

That is the ultimate role of the teacher.

Unconditional love

Understanding where they are coming from

In order to help them and teach them.

It is understanding the perspectives of others.

CHAPTER VI

Synthesis

> Suddenly, from behind the rim of the Moon, in long, slow-motion moments of immense majesty, there emerges a sparkling blue and white jewel, a light, delicate sky-blue sphere laced with slowly swirling veils of white rising gradually like a small pearl in a thick sea of black mystery. It takes more than a moment to realize this is Earth . . . home. In outer space you develop an instant global consciousness, a people orientation, an intense dissatisfaction with the state of the world, and a compulsion to do something about it. (Edgar Mitchell, as cited in Kelly, 1988)

Introduction

This chapter ties the phenomenon of the study and the data analysis together to demonstrate the completion of the study. In post-intentional phenomenology, there is little to be done once the data is presented; we can however review the phenomenon that was studied and determine to what extent that phenomenon has been explored and expanded by the research.

As illustrated in the quotation by Edgar Mitchell, and Apollo 14 astronaut, a different perspective can lead to greater consciousness of social injustice. Just last week I

attended a presentation by Dr. Neil deGrasse Tyson, Director of the Hayden Planetarium at the American Museum of Natural Science, where he encouraged people to adopt a similar "cosmic perspective" (Tyson, 2017). Many authors, particularly in the critical theory realm, have written that education is never neutral; "The determination of curriculum was perceived as inherently a political issue" (Apple, 2004, p. 27). Montessori made no secret of her agenda with Cosmic Education; it was created to promote peace and justice. According to Pinar, "The school curriculum communicates what we choose to remember about our past, what we believe about the present, what we hope for the future" (2012, p. 30). As demonstrated in the co-investigator's stories of lived experience, Montessori's Cosmic Education is one of cosmic perspective, one that generates hope for the future in our students. Generating hope is insufficient though without also generating agency. My own experiences as a Montessori educator and the reported experiences of the co-investigators demonstrate that Cosmic Education also creates student agency leading to action for social justice.

Emerging Phenomena

The phenomenon of Montessori's Cosmic Education as a pedagogy of place was inherent throughout the interviews. Every teacher interviewed explained how they saw Cosmic Education as a fundamental pedagogy of place, one upon which the rest of the curriculum was built. Their experiences of pedagogy of place through Cosmic Education were consistent with Vagle's (2014) post-intentional phenomenology. Their experiences shaped and continue to shape their very definitions of both pedagogy of place and Cosmic Education. While post-intentional phenomenology does not look for the

transcendent meaning of experiences, the commonality of this phenomenon demonstrated the solidity of one of the fundamental assumptions of the study: Cosmic Education is a pedagogy of place.

The second common phenomenon to emerge was that this pedagogy of place helped teachers create an orientation toward social justice in their classrooms; they all experienced social justice through Cosmic Education. By examining the differing lived experiences, from expanding the definition of family in an Early Childhood classroom to children coping with losing a classmate to HIV/AIDS, one begins to see a more complete picture of the interplay between Cosmic Education, pedagogy of place, and social justice than is apparent to the natural mind, that of the everyday observer (Husserl, 1960). The experiences reflected in the found poetry contained in this study provided glimpses in the transient, fleeting nature of meaning and relationship; our knowledge and understanding of the processes of Cosmic Education, pedagogy of place, and social justice are continually emerging, just as they did for the researcher in this study. They have not stopped; in post-intentional phenomenology, meaning is always in transition. Even so, the connection between Montessori's Cosmic Education, , pedagogies of place, and social justice appear to be so strongly interwoven as to allow a combination of the terms into a new term: cosmic justice.

Such a term would need to be carefully defined so as not to be confused with terms such as karma, and serves to illustrate the expansion of meaning uncovered through the lived experiences of the co-investigators. Cosmic justice, based on the experiences of social justice through Cosmic Education in Montessori classrooms, would focus on three

concepts that emerged during this study: 1) what it means to be human; 2) the development of a cosmic perspective; and 3) what the first two mean in relation to how we as people treat each other. Our place in the universe, and our relative insignificance given our lifespans against the history of the universe, call for individual agency and action. Montessori's Cosmic Education sets that stage. It establishes the framework, as reflected in the data of this study, to create within each student a cosmic perspective and individual agency.

Such a definition can be neither prescriptive nor complete. Phenomenology seeks explanation of what is, not what should be. By examining lived experiences, post-intentional phenomenology shows us different ways of subjects being in relationship to objects; in this study, I examined five different experiences of how Montessori teachers have experienced social justice through Cosmic Education. Each experience was interpreted through the lens of each teacher's own previous experiences. Reduction to the essence of the experience would have been to reduce the value of the variety in the experiences; each experience of the phenomenon adds to the definition and understanding of the phenomenon. In this way, post-intentional phenomenology is the cosmic justice of intentionality. Every experience relating to the phenomenon studied was important; every experience had its own voice, its own story, and each needed to be heard in order to develop a more complete understanding of the phenomenon. Collectively, the experiences of the co-investigators lived experiences contributed to their own and the group's constantly changing definitions of Cosmic Education, pedagogy of place, and social justice.

Summary

Cosmic Education, pedagogy of place, and social justice are inextricably tied together in Montessori education; one does not exist without the other. The convergence of the meanings of these three topics emerged through this study. When one begins to view the universe from a larger perspective, one cannot help, as Apollo 14 astronaut Edgar Mitchell (as cited in Kelly, 1988) said in the opening quote of this chapter, to "develop an instant global consciousness, a people orientation." The quote came from his first exposure to earthrise, and is a powerful reminder of our place in the universe.

Maria Montessori first developed the foundation of Cosmic Education during World War II. Some 70 to 75 years later, it is still a subject of discussion, and is still relevant. The lived experiences of Montessori teachers reinforce this connection to social justice through Cosmic Education, through the cosmic perspective. It is the cornerstone of Montessori education, and it helps students establish their voice, identify their own agency, and find their place in the universe. Cosmic Education bends students towards social justice, stimulates their epistemological curiosity, and shows them how to create their own agency. If ever there were an educational philosophy that shared Paulo Freire's pedagogy of hope and Pinar's (2011) theory of currere, Montessori's Cosmic Education seems fit for the task, even though it predates both of them by several decades.

CHAPTER VII

Reflective Summary

Introduction

This chapter is not a true summary of the entire study. Rather, it is more of a review of previous chapters and closing reflections on the study. To summarize would be to impose my own thoughts on the outcome of the study, a move that would be counter to post-intentional phenomenology. Reflecting on the study, however, is allowed, and is part of the reflexive/reflective process. Since post-intentional phenomenology is never prescriptive (Vagle, 2014), once the data has been analyzed using the desired method, the study is complete. In this study, once the poems were written, rewritten, restructured, and recreated several times in an iterative process, I arrived at a product that reflected the path of inquiry that guided the study. Let the poems speak for themselves; to add further interpretation on my own work could interfere with the reader's experience of the poems. There can be no summary of findings nor recommendations that emerge from post-intentional phenomenology; the creation of central organizing themes does not reflect the nature of phenomenon manifestation and changing meanings (Vagle, 2014). Likewise, there is no prescriptivity to post-intentional phenomenology, so recommendations are of little value. In this study I explored the manifestations of the identified phenomenon.

Through those explorations I sought clarity of the phenomenon by immersing myself more deeply into the lived experiences of others; observing, analyzing, listening, and always watching for the emergence of enhanced, expanded, and multiple meanings. The poems were my synthesis of that activity; the only recommendation that could possibly emerge would be for the reader to be observant of their own experiences for additional manifestations of the phenomenon.

Selection of the Topic

In order to understand this study fully, it is important for the reader to understand how I chose the phenomenon to be studied. This topic arose out of my own epistemological curiosity; instead of just accepting that Cosmic Education was an important part of Montessori curriculum, and that social justice was also an important curricular component, I wanted to understand how one contributed to the other. As a Secondary II teacher, I had little exposure to other levels of Montessori experiences; I thought that perhaps asking those with significant experience in those other levels would be beneficial to my own understanding. Literature searches on the topic generated very little, therefore this was an opportunity to contribute to the literature.

Review of Methodology

There are two major parts of the methodology to review: first, the methodology itself; and second, why I chose the methodology. Both parts are addressed here.

The methodology chosen was post-intentional phenomenology as described and defined by Vagle (2014). The process consisted of five steps: 1) identification of a phenomenon; 2) developing a flexible approach for gathering data; 3) making a post-

reflection plan; 4) reading and writing through the data; and 5) crafting a text that reflects the manifestations of the phenomenon. The phenomenon of the study was identified as manifestations of social justice enabled through Cosmic Education in Montessori teachers' lived experiences. The data were gathered following Dahlberg et al and van Manen's dialogic interview protocol; five experienced Montessori teachers from differing grade levels and types of schools were interviewed. The interviews were open and, while bridled to cover similar themes, remained open-ended so that manifestations of the phenomenon of the study could emerge. Those interviews were then transcribed and reviewed. I decided to use found poetry as a form of phenomenological inquiry based on the works of Pate and Vagle. After reading through each transcript many times, I began to identify the themes, particularly the ones that illustrated the variety of ways in which the phenomenon was manifested. I then began to craft the poems. This process was iterative; I read, then wrote, then reread, then rewrote, always trying to bridle my own input so that the poems accurately reflected the nature of the co-investigators' experiences of the phenomenon.

As stated in Chapter IV, post-intentional phenomenology requires that one bridle one's own *a priori* knowledge and experiences in order to more fully understand the experience of phenomena by others. The very nature of this study was one of the ways this was accomplished. It would have been far easier for me to conduct a quantitative study of something; I knew how to do that. Scientific and statistical methodologies were my friends; we have worked well together for many years. Yet there is more to the story of reality than traditional quantitative methods could tell; it was almost as though

quantitative methods suppressed the voices of other equally valid epistemologies. By exploring a new epistemology and methodology, I could not rely on my previous knowledge of conducting research; it provided an opportunity for my own personal and professional growth.

The combination of post-intentional phenomenology and poetic inquiry allowed me to capture the aesthetic richness of the experiences of the co-investigators in a manner that other approaches would not. While other methodologies could have been used in this study, such as ethnography or narrative non-fiction, I wanted the focus of this study to be those experiences, not the people or their stories. Their lived experiences of Cosmic Education as a tool of social justice, told through the dialogic interview process, was an attempt to help clarify, illuminate, and deepen my own understanding of that phenomenon.

Dahlberg et al. (2008) and Vagle (2014) all recommended proceeding slowly with the data analysis. In this study, the interviews were scheduled so that time for contemplation of each interview occurred before any other interviews were conducted. Once the interviews were finished, the transcripts were read individually and repeatedly over the next three weeks. Once the text crafting began, there was an iterative process of reading the transcript, reflecting on the interview as it was conducted, writing the poem, rereading the transcript, reflecting again, and adjusting the poem. This process repeated several times for each poem, and each poem was addressed in sequence. In most cases, the composition of a poem took between seven or eight days of daily editing, reading, and reflection. Once composed, I avoided looking at the poem for one to two weeks,

then returned to give each poem a final reading without referring to the transcription on which it was based. I asked myself what images and meanings emerged from the poem, and then each poem was shared with another educator, who was asked the same question. Finally, the poems were revisited as a collective whole to see how they functioned as a set. In total, the process of transforming the interviews into the poems took about eight weeks. As the aforementioned authors cautioned, attempting to increase the speed at which the transcripts were analyzed would have jeopardized the process; it was critical that I spend sufficient time with the data in order for the definite to emerge from the indefinite (Dahlberg et al., 2008).

The use of poetry as data analysis is a radical departure from my previous experiences. Not only did I learn about phenomenology, I also had to learn about poetic inquiry, including how to create found poetry as phenomenological inquiry. Embodied interpretation, such as found poetry, is a more poetic form of descriptive analysis of transcribed text (Galvin & Todres, 2009). Traditional approaches to phenomenology attempt to strip or reduce experiences to their bare bones, which in many cases "kills the aliveness of the experience" (Galvin & Todres, 2009, p. 309).

The creation of the found poetry was an interesting exercise; I had to keep reminding myself of the path of inquiry that guided this study, continually checking to ensure that the path was a logical and consistent one. By contrast, the interviews were moderately wide in scope, and being dialogic, gave sufficient opportunity to pursue tangents in an effort to deepen understanding.

Review of Findings

Both the interviews and the resulting poetry contributed to the realization that many Montessori teachers have rich experiences and stories to share, and that these should be documented. There is great wealth to be found in understanding, even partially, the lived experiences of others. Conducting this study not only allowed others to share their experiences of Cosmic Education as a tool for social justice, it helped me put my own experiences and meanings in perspective and in context of others.

I began this study to explore the lived experiences of Montessori teachers in regards to Cosmic Education as a tool for social justice. The poems used as data analysis showed the social justice ranges from understanding one's family in Early Childhood, to facing the death from HIV of a student in Upper Elementary, to conducting environmental studies in Middle School and political activism of High School students. The poems showed how Cosmic Education is a tool for social justice. Montessori's Cosmic Education helps students develop a cosmic perspective, one that helps them understand their place, their relevance. Such a perspective, when fully developed, creates a desire in students for social justice, a cosmic justice, and allows them to develop their own agency so that their perspective is heard.

Implications

Cosmic Education, to quote one of the co-investigators, "is the curriculum" at the elementary and middle school levels; it undergirds everything that is taught. The diversity of disciplines reflected in a high school curriculum may be one of impediments or causes of discomfort, including my own, with Cosmic Education at the high school

level. Clarity of the purpose of an integrated framework, along with a deeper understanding of Cosmic Education, could be of benefit in attempts to promote social justice at all levels, especially the Secondary II or high school level. Integration of disciplines with a framework of Cosmic Education is a potential field for additional research and study.

Another fertile field for additional study is collecting similar lived experiences from additional teachers. These additional stories could lead to a large collection of poetry; there are many emotionally vibrant experiences of social justice through Cosmic Education that are worth capturing and preserving.

Conclusion

As this study draws to a close, I was reminded again of the importance of a cosmic perspective and the need for Cosmic Education. I strongly believe, based in part on the evidence provided in this study, that such curricula can and does lead to social justice; it makes us better humans. In 1990, the Voyager I spaceship turned its cameras back towards Earth, almost four billion miles away. The resulting photograph showed the Earth as a very small blue dot, barely visible even with magnification against the vastness of space. Carl Sagan, the noted astrophysicist, wrote the following reflection after seeing that photograph, and I believe it accurately reflects the need for social justice through Cosmic Education. I can offer no better reflective summary.

> Look again at that dot. That's here, that's home, that's us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands

of confident religions, ideologies and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every "superstar,' every "supreme leader," every saint and sinner in the history of our species lived there – on a mote of dust suspended in a sunbeam. The Earth is a very small stage in a vast cosmic arena. Think of the rivers of blood spilled by all those generals and emperors so that, in glory and triumph, they could become the momentary masters of a fraction of a dot. Think of the endless cruelties visited by the inhabitants of one corner of this pixel on the scarcely distinguishable inhabitants of some other corner, how frequent their misunderstandings, how eager they are to kill one another, how fervent their hatreds.

Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves. The Earth is the only world known so far to harbor life. There is nowhere else, at least in the near future, to which our species could migrate. Visit, yes. Settle, not yet. Like it or not, for the moment the Earth is where we make our stand.

It has been said that astronomy is a humbling and character-building experience. There is perhaps no better demonstration of the folly of human conceits than this

> distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known. (Sagan, 1994, p. 8)

Epilogue

Now that the study has ended, I have had some time to reflect on the nature of the study, the outcomes of the study, and the effects both of these have had on my own identity as both a scholar and a practitioner. I do not believe that it is possible to conduct a major study, especially on phenomenological in nature, and remain unchanged. As results of this study, my own epistemological basis has been modified and expanded. Likewise, my ontological understandings if Montessori education, Cosmic Education, and pedagogy of place have expanded greatly.

Early in the study I identified a path of inquiry rather than a research question. In my experience with this study, and confirmed by the writings of Dahlberg, Dahlberg, & Nyström (2008), van Manen (2014), and Vagle (2014), creating a specific research question in Chapter I would have potentially limited the direction of the study and the tools used in analysis; by remaining open to the phenomenon, one can constantly look backward and forward to ensure that one is still on a logically consistent path of inquiry without restricting the emergence or analysis of the phenomenon. The difference here is striking: had this study been conducted in a more traditional methodology, such as the use of surveys, the epistemological underpinnings of survey research would have undergirded the findings before the survey instrument was even distributed. By contrast, the approach used here allowed the researcher and the co-investigators to explore their

lived experiences jointly, always watching for the emergence of the phenomenon and always ready to capture brief glimpses into meaning. Our teaching methods in a Montessori high school are a strong parallel: we introduce the big-picture concepts, but then we give the students many ways to discover how the big concepts work in their own lives. Finally, we ask the students to show us the connections they have made between the work they completed and the big picture or greater concept. We do not tell them how they must discover the connections; we allow them to explore and make their own connections. A path of inquiry is similar: after introducing large concepts, such as Montessori's Cosmic Education and social justice, one goes off to begin the work, to see how the concept works in reality. Too detailed a scripted path would not allow for individuals to arrive at their own connections; instead, by refusing to make definite that which is indefinite (Dahlberg et al, 2008), we allow for the creation of new knowledge instead of the reproduction of existing knowledge. On a path of inquiry, therefore, one must always monitor the path, making sure that it is connected to conceptual underpinnings, which provide its anchor. Slow down, backup, and look at the bigger picture.

This study has been a major personal journey for me. When I started, I had read only a tiny part of Montessori's original writings. Of course, I had read a great deal of what other authors wrote on her teachings and philosophies, but not much in terms of her original work. Allow me to be more specific: 12 pages. Part of the preparation for this study consisted of going back and reading all I could find of her writings that were relevant to the study, which consisted of over 900 pages. Likewise, when I said that I

was interested in phenomenology, I had little idea what all was involved. However, as I started to read and explore the methodology and its underlying philosophical claims, I became increasingly convinced of its strengths. The egocentric predicament often used to criticize traditional approaches to phenomenology was an issue until I discovered post-intentional phenomenology. This approach managed to counter many of the arguments against phenomenology and made great sense to me from its epistemological and ontological frameworks; it matched my experiences of reality. I could not imagine using any other phenomenological methodology, and I could find no better methodology for studying what I wanted to study.

Conducting the research for the study was an amazing task. Even though I have been a Montessori educator for nine years, I had not heard the stories of other teachers. As I began the interviews, it quickly became apparent that these teachers have powerful and important stories to tell, stories based on their experiences of social justice through Cosmic Education. If these five co-investigators had such stories, how many more stories, equally powerful and important if not more so, exist? The power of their experiences was profound; their experiences moved me and reminded me why I teach. The use of found poetry as the data analysis was my attempt to aesthetically and faithfully recreate their experiences of the phenomenon of Cosmic Education as a tool for social justice, hopeful that the reader could then tie these experiences with those of their own. So many teachers have powerful examples of this phenomenon; it would be worth the effort to collect more and make them available. In a similar vein, it would be very interesting to study how Taylor's (2004) concept of social imaginaries works together

within post-intentional phenomenology to create both varied and invariant meanings and understandings of phenomena. We again see an example of Firestein's (2012) claim that every bit of knowledge that is uncovered or revealed raises even more questions to be answered or studied.

On an even more personal level, this study has caused me to become even more committed to social justice and to the methodology of post-intentional phenomenology. Parker Palmer wrote that teaching is about making connections:

> As good teachers weave the fabric that joins them with students and subjects, the heart is the loom on which the threads are tied, the tension is held, the shuttle flies, and the fabric is stretched tight. Small wonder, then, that teaching tugs at the heart, opens the heart, even breaks the heart – and the more one loves teaching, the more heartbreaking it can be. The courage to teach is the courage to keep one's heart open in those very moments when the heart is asked to hold more than it is able so that teacher and students and subject can be woven into the fabric of community that learning, and living, require. (p. 11)

Following Montessori's (1948/2015; 1949/1995) logic behind the development of Cosmic Education, it is in making these connections that a classroom's capacity for social justice is increased.

As for post-intentional phenomenology, I believe it adds great depth and flexibility to the study of real world experiences. I do agree that the phenomena should drive the methodology, but my belief in the strengths of post-intentional phenomenology would almost cause me to ask how I could examine any topic of interest through this

lens. It is my sincerest hope that this study will inspire others to use a similar methodology in future studies.

The same can be said of the use of found poetry. Prior to this study, I had limited exposure to the creation or use of poetry, but it seemed to fit so well into this particular study. While it may not necessarily be the best form of data analysis for all post-intentional phenomenological studies, by remaining open to the phenomenon as it presented itself in this study I was able to select and implement a form of data analysis outside my own comfort zone; and it worked. Had anyone told me when I started the doctoral program that my dissertation would not only be phenomenological in approach, but also that I would use poetry as the form of data analysis, I would probably have accused them trying to play some trick on me. However, having gone through this study and the doctoral program, I have learned that limiting my epistemological viewpoint and methodological preferences can often do a great disservice to the study at hand. Being open and responsive to the needs of ignorance in our field allows us to craft studies that not only respond with new knowledge, but further the state of ignorance by asking new questions (Firesetein, 2012). This is how we, personally, as a discipline, and as a society, grow and evolve, and this is what I do, and why. By sharing this study, including my own personal journey, with others, it is hoped that others will be encouraged to explore other areas of ignorance, to increase our collective knowledge, and to raise new questions.

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APPENDIX A

Example Interview Topics

Tier I Interview Questions

The Tier I interviews were dialogic, and therefore did not follow specific questions, but these are indicative of the types of questions asked during the dialogues:

- What have you experienced of Cosmic Education as pedagogy of place in the classroom?
- How is social justice taught in your classroom?
- How do you respond to negative parents?
- When is social justice addressed in your classroom?
- What is the role of Cosmic Education in your curriculum?
- How does it feel in your classroom when teaching Cosmic Education?
- How does it feel in your classroom when teaching social justice?
- What is the relationship between Cosmic Education, social justice, and peace education in your class?
- How do you teach those concepts?
- How do you create agency among your students?
- What personal experiences prepared you to engage in Montessori education?
- What experiences have contributed to your use of Cosmic Education and social action?
- How has Cosmic Education helped students in your class develop hope for the future?

Tier II questions were developed on an individual basis to cover topics not covered in the Tier I interviews. No Tier III interviews were deemed necessary.

APPENDIX B

Informed Consent

A Phenomenological Inquiry into Montessori Teachers' Experiences of Cosmic Education as a Pedagogy of Place

I would like to request that you participate in an inquiry that I am doing as part of my work toward a Doctor of Education degree in educational leadership. This study is designed to explore the lived experiences of Montessori teachers regarding Cosmic Education and pedagogies of place. I expect that the research will last twelve weeks.

During this research period, I will be conducting interviews with the five people I have selected based on professional work relationships and experience within Montessori education. The first round of interviews should last approximately one hour each, and will be conducted in person or via Skype depending on your availability. The second round of interviews, during which I will ask questions based on the results of the first round, will be conducted by telephone or Skype, and should last approximately 30 minutes or less. The final round of interviews, based on the results of the second round, should take less than 30 minutes and will be conducted via your choice of email, Skype, or telephone.

No experimental techniques or procedures will be used during the study. I do not anticipate that you will be uncomfortable in any way during the study, but you may refuse to answer any question or request that your answer not be published for any question. You will have the opportunity to review your transcribed interviews after each round of interviews.

For the purposes of the study, I will write a set of summaries about each participant including their years of experience in Montessori education. This information will be included in my study, but your name will NEVER be used. You will be asked for a pseudonym, which will be used in the study. These records will be strictly confidential and no one else will be allowed to see your actual identity or the school for which you work without your written permission.

If you have questions about the study or anything that is related to it, please feel free to contact me, John Branch, at 832-236-3713. Also, my email address is nwjohn@gmail.com. My degree will be awarded by Stephen F. Austin State University in Nacogdoches, Texas and my faculty sponsor is Dr. Patrick Jenlink. He would be

happy to visit with you concerning the study and you can call him at either 936-468-2908. His email address is pjenlnink@sfasu.edu.

Your participation is ABSOLUTELY voluntary. No penalty will happen if you decide that you do not want to participate in the study and you can decide to stop your participation at any time. All you need to do is let me know that you wish to be taken out of the study.

You will receive a copy of this consent form. Please feel free to contact me or Dr. Jenlink for more information at any time.

Any concerns with this research may be addressed to the Office of Research and Sponsored Programs, Stephen F. Austin State University at 936.468.6606.

Parent/guardian date

Researcher date

VITA

John Allen Branch received his Bachelor of Arts in Psychology Degree from Hendrix College in 1986. He then received his Master of Education Degree in 1989 from The University of Arkansas. While pursuing this degree, he began his teaching career as adjunct faculty at Northwest Arkansas Community College. He moved to Texas in 1989, and began teaching in secondary education in 1990 in Hearne Independent School District. He served as a mathematics and computer science teacher in addition to running the district's adult, community, and alternative education programs. He then worked several years in corporate training and professional development. In 2009 he returned to secondary education at School of the Woods, where he taught mathematics and science. In 2014 he completed his principal certificate at Stephen F. Austin State University. He was accepted into the 2014 Doctoral Cohort at Stephen F. Austin, where he earned a Doctorate of Education in Educational Leadership in 2017. Currently, he continues to serve as a mathematics and science teacher at School of the Woods.

Permanent Address:	2706 Hendricks Lakes Drive, Spring, Texas 77388
Style manual designation:	*Publication Manual of the American Psychological Association, Sixth Edition*
Typist:	John Allen Branch