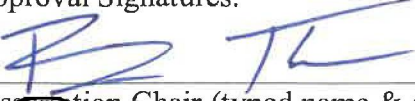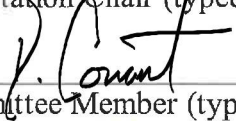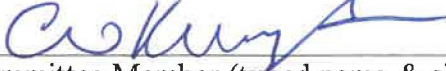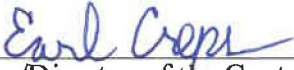A QUALITATIVE PHENOMENOLGOICAL STUDY EXPLORING NATURE-BASED

MINDFULNESS EXPERIENCES OF WOMEN EDUCATORS

By Debbee Aquila Maraglio-Lynn

A dissertation to fulfill the requirements for a
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ABSTRACT

There is a need for global awareness of climate crises, and the United Nations world leaders call for global action to change our relationship with nature (Mirchandani, 2020). A way to cultivate a relationship is through nature-based mindfulness. The knowledge gap is limited understanding of the personal lived experiences of women leaders in education practicing nature-based mindfulness. The combination of the two activities is an emerging phenomenon growing in popularity. Some empirical studies measure nature-relatedness in youth and adults; fewer qualitative studies explore the lived experiences of nature-based mindfulness in leaders (Barrable, 2019; Nisbet et al., 2009; Nisbet et al. 2019; Nisbet et al., 2020; Nisbet & Zelenski, 2013; Shanahan et al., 2019). This hermeneutic phenomenological study aimed to unveil the everyday practices of nature-based mindfulness in women leaders and how it shapes their leadership style. The sample population was of women leaders in education with data collected through interviews. Data analysis was a hermeneutic circle approach and was conducted through the conceptual framework of ecofeminism to identify the experiences of women leaders. Education, leaders, and teachers play a significant role in helping bring awareness to changing the relationship with the earth, beginning with the individual themselves and their practice of nature-based mindfulness (Mirchandani, 2020). Thus, this study adds to the literature by understanding the lived experiences of women leaders in education who practice nature-based mindfulness and how it has influenced their leadership styles.

Keywords: biophilia, ecofeminism, hermeneutic phenomenology, leadership, nature-based mindfulness, women leaders, education

DEDICATION

To all those who came before me, my ancestors known, and unknown, and to those who are no longer with us, you always live on in our memories. You are not forgotten as you are the foundation that has provided the strength and knowledge for us to aspire and grow.

"When you feel life coming down on you like a heavy weight… take a stroll to the nearest water's edge; remember your place. Many moons have risen and fallen long before you came."

– Follow the Sun, Xavier Rudd

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Life is filled with numerous experiences and challenges along the way, and they are balanced with countless people, nature encounters, and spiritual understandings, all met and known in limitless diverse and inspirational ways that guide us through life's journey. The mountains climbed are multiple, both figuratively and literally. The doctoral process is analogous to climbing a Denali or a Kilimanjaro, much more than arriving at the summit. First, I would like to acknowledge the immediate influences on this climb; my advisor Dr. Earl Creps, for his ongoing enthusiasm and support in helping to steer me on the path, ensuring I was supported, focused, and encouraged. Next, I would like to recognize my chair, Dr. Ben Thomas, for his endless reassurance and facilitation of the dissertation process, constantly checking in and supporting the writing process. Followed by my committee members, Dr. Cherri Seese and Dr. Don Conant, whose support, conversations, edits, and comments contributed significantly to the development and completion of my study. I am grateful to you all for your advice, feedback, and encouraging support.

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Table of Contents

CHAPTER 1

Introduction

Nature-based mindfulness is the practice of conscious awareness in a natural space such as an urban park or the woods (Ambrose-Oji, 2013; Djernis et al., 2019). Nature-based means that activity takes place in nature or a green space, local or deep in the woods, even with imagery or pictures (Barton & Rogerson, 2017; Browning et al., 2020). Mindfulness is the moment-to-moment attention as each instant unfolds while noticing emotions, feelings, and sensations in the body and the surrounding environment with openness, non-judgment, and compassion (Gibson, 2019; Kabat-Zinn, 2011; Kabat-Zinn, 2019). Fewer scholars who have studied nature-based mindfulness, a phenomenon that integrates both nature and mindfulness, though the literature on the individual components is abundant and increasing (Jones et al., 2016, Kabat-Zinn, 2019; Nisbet et al., 2019; Roth, 2014; Rupprecht, 2019; Seymour, 2016; Wolsko et al., 2019; Wu & Wenning, 2016; Zivnuska et al., 2016). This study explored the gap in knowledge of the shared lived experiences of women leaders in education who engage in nature-based mindfulness and how it shapes their leadership style. The first chapter of this dissertation provides an overview of the study and background on nature-based mindfulness with a statement of the problem, the purpose of the study, research questions, and supporting information for the rationale of this research. Further, this chapter presents a brief overview of the methodological approach. This hermeneutic phenomenology incorporated an ecofeminist conceptual framework that guided the study, procedures, expected outcomes, limitations, and potential implications. The chapter closes with the definitions of contextual terms, the organization of the study, and the conclusion.

Background of the Study

Globally, leaders face a variety of concurrent problems that are straining both humanity and the environment (Levey & Levey, 2019; United Nations Environment Programme (UNEP), 2021). The *Coronavirus (COVID-19)* pandemic that began at the end of 2019 (World Health Organization (WHO), 2020), along with social justice issues and a global climate crisis, are collectively expanding and transforming across cultures (Haase, 2020; Mirchandani, 2020; UNEP, 2021). Levey and Levey (2019) propose that many leaders refer to this nebulousness as times of *Volatility, Uncertainty, Complexity, and Ambiguity (VUCA)*. In addition, VUCA times affect all aspects of our lives, from personal to organizational and environmental (Levey & Levey, 2019). According to the authors, the chaos of the VUCA times can bring out the worst and the best in people depending on the individual or collective capacity built, and at the same time, bring about innovative change that is life-affirming to communities and organizations globally (Levey & Levey, 2019).

Logan et al. (2021) describe the combination of current planetary challenges as the "Anthropocene Syndrome" (p. 9), which is the "interrelated challenges of our time" (p. 1). The challenges Logan et al. refer to include

> but are not limited to grotesque biodiversity losses, climate change, environmental degradation, resource depletion, the global burden of non-communicable diseases (NCDs), health inequalities, social injustices, erosion of wisdom and civility, together with the many structural underpinnings of these grand challenges (p. 1).

The challenges of the current global climate crisis, caused by the rise in global temperatures and shifting weather patterns, are raising sea levels and will eventually cause catastrophic flooding that impacts drinking water and food production (United Nations, 2021). Severe global

consequences will persist through the future due to the climate crisis; however, the challenges of the current global problems afford an opening to cultivate a robust ability to live and work in more sustainable, empathetic, and intelligent ways (Levey & Levey, 2019). One such opportunity is to build our awareness and relationship with nature (UNEP, 2021).

The authors postulate that "the relevance and vital need for mindful leadership in bringing greater resilience and a deeper wisdom to work is found as we assess the VUCA capability or preparedness of leaders" (Levey & Levey, 2019, p. 4). Mindfulness practices can therefore support enhanced leadership (Rupprecht, 2019). Policymakers, employers, organizational leaders, and healthcare providers are increasingly seeing the value of nature exposure for their employees and are considering the need for contact with nature in planning and operating an organization (Klotz and Bolino, 2020; Robbins, 2020). Moreover, adding nature-based mindfulness practices into organizations for both leaders and followers could be the antidote to help lessen the impact of the global climate crises with resilience and deeper wisdom (Diaby & Roux-Dufort, 2020; Levey & Levey, 2019; Zabaniotou, 2020).

Resilience is a form of psychological capital to have the capacity to overcome adverse, uncertain, and complex situations with an ability to develop beyond the situation (Good et al., 2015; Zabaniotou, 2020). There is a need in society to adapt and resolve current challenges by developing intentional plans and strategies that increase resiliency individually, organizationally, and communally (Zabaniotou, 2020). Academics and decision-makers discuss the need to cultivate and increase resilience across disciplines and sectors to face ecological, socioeconomic, and political uncertainty (Meerow et al., 2016; Zabaniotou, 2020). Diaby and Roux-Dufort (2020) describe leaders' and managers' capabilities to build capacity and expand resilience in times of crisis by developing proclivities of sensibility, reflexivity, and wisdom. Wisdom is the

adaption, improvisation, and creativity of learning, unlearning, and relearning in response to uncertain and changing events (Diaby & Roux-Dufort, 2020). Leaders can develop mindfulness practices and dedicate time connecting to nature to help transform and shape responses to the global climate crisis and increase attributes such as wisdom, resilience, reflexivity, and compassion (Liu & Valente, 2018).

Robbins (2020) asserts that increasing research shows that exposure to nature has favorable impacts on health while reducing stress and improving healing. A United Nations report emphasizes connecting with nature and changing the relationship between humans and the natural world to help with climate change and the planet's health (UNEP, 2021). Specifically, in the United Nations Environment Programme (UNEP) report, the researchers express that the "world can transform its relationship with nature" (UNEP, 2021, p. 15) and confront the global environmental crises facing the world. According to the UNEP report, we are currently not meeting the many targets of restoring, conserving, and sustaining land and water. Further, pollution and biodiversity loss are not reduced enough to meet the global goals set by the Paris Agreement, and "none of the global goals for the protection of life on earth have been fully met" (UNEP, 2021, p. 23). Enhancing the relationship with nature is a step toward improving global health for humanity, more-than-human life, and the planet (Kurth et al., 2020; UNEP, 2021).

As a result of VUCA and the global crises, there is a need for alternative educational approaches for leaders, teachers, students, and citizens to prepare for changing times adequately (Levey & Levey, 2019; UNEP, 2021; Waller et al., 2020). Hence, this exploratory study examined the construct of nature-based mindfulness and how women leaders, in particular, experience the practices in their professional and personal lives. A hermeneutic

phenomenological approach guided the qualitative methodological design for this study through the lens of an ecofeminist conceptual framework.

Nature-Based Mindfulness

Previous studies have found that an individual's overall health improves by spending a couple of hours in nature a week (Richardson et al., 2021; Robbins, 2020; Weir, 2020). Spending time in nature is not only for leisure benefits; instead, an individual can experience mental and physical health benefits (Browning et al., 2020; Frumkin et al., 2017; Nisbet et al., 2019; Richardson et al., 2021; Venter et al., 2020; White et al., 2019). Also, time spent in nature could improve an individual's relationship with nature (Frumkin et al., 2017; Nisbet et al., 2019). For this reason, the UNEP (2021) report urges individuals from all fields to be part of a climate crisis resolution. One of the first steps toward this resolution might be changing relationships with nature by utilizing mindfulness practices (Nisbet et al., 2019; Van Gordon et al., 2018). Nisbet et al. (2019) posit that mindfulness practices in nature enhance mood, increasing connectedness to nature and affective experience in the natural environment. Educational leaders can build awareness and relationships with nature, encouraging a systemic change in teaching and leading for climate justice (Beddow, 2018; Magee, 2019; UNESCO, 2019).

Women leaders in education are well-positioned to influence change (Beddow, 2018; Magee, 2019). Fueled by compassion, their efforts could increase awareness and empathy, leading to action essential for the sustainability of the natural environment (Kurth et al., 2020; Mitten, 2017; Ryan, 2020; Wamsler et al., 2017). Studies found that mindfulness practice in women leaders in higher education positively affects resilience (Pillay, 2020), while mindfulness outdoors positively affects a sense of self and ecological behavior (Deringer et al., 2020). Mindfulness practices increase awareness, compassion, and self-compassion (Wells, 2015).

Compassion is one attribute that facilitates nature connection and adding mindfulness and connection to nature can further increase compassion, boosting psychological resilience, alleviating stress, and increasing ecological identity and pro-environmental behavior and attitudes (Lumber et al., 2017; Mitten, 2017; Nisbet et al., 2019; Wells, 2015; Zabaniotou, 2020).

According to Abel (2015), compassion is a classic virtue that links to biophilia and environmental ethics. *Biophilia* is a human's innate emotional relationship to nature or the love of life and the natural world (Abel, 2015; Capaldi et al., 2014; Wilson, 1984; Yin et al., 2019). Thus, connecting more to nature can be considered a human trait that can increase emotional connection. Abel (2015) posits that a biophilic person or leader has a sense of duty to "behave morally for the sake of the natural world and its human and nonhuman inhabitants, which solidifies biophilia status as a morally good or praiseworthy trait" (p. 5). Leaders can establish social impact because the connection with nature may increase overall well-being and pro-environmental attitudes and behaviors (Capaldi et al., 2014). Hence, one should not ignore the many benefits of nature-based practices.

As stated in the introduction, nature-based means that something takes place in nature or green space (Barton & Rogerson, 2017; Browning et al., 2020). According to Barton and Rogerson (2017), green spaces are curated natural areas that are local, regional, or national such as nature preserves, reserves, urban parks, or wilderness. Research has shown the effectiveness of nature or green spaces in hospitals, schools, and communities positively impacting a person's well-being (Stuart-Smith, 2020). Activities, including nature-based mindfulness programs and practices, that take place in nature, can support the connection to nature (Nisbet et al., 2019). *Nature-based mindfulness* refers to time spent in nature practicing a modality of mindfulness (Capaldi et al., 2014; Djernis et al., 2019; Nisbet et al., 2019). In a recent study, Capaldi et al.

(2014) argued that there is less exposure to nature today than in past generations. Practicing

nature-based mindfulness can decrease the nature connection gap and help build a relationship

with nature that supports the planet (Capaldi et al., 2014).

Mindfulness

The history of mindfulness is rooted in ancient Buddhist philosophy (Ergas, 2013; Ih-Ren

Mong, 2015; Pascal, 2016). Over time, mindfulness activities were practiced in different

religions and then brought into medicine to help patients manage chronic pain (Kabat-Zinn,

1994; Kabat-Zinn, 2012). Western mindfulness has grown in popularity and includes a variety of

contemplative or awareness practices across disciplines; many mindfulness-based strategies are

also increasing in use (Crane, 2017; Wamsler et al., 2017).

Mindfulness has a variety of definitions; the most popular is by Kabat-Zinn (2016), who

described mindfulness as intentional awareness that arises by paying attention moment to

moment in a non-judgmental way. Another mindfulness approach is practicing compassion and

awareness toward oneself and shared humanity; this approach is mindful self-compassion

(Yarnell & Neff, 2013). Mindful self-compassion practices include self-kindness, conscious

awareness, and a connection to common humanity (Yarnell & Neff, 2013). The mindfulness

method can be exercised anywhere, experienced by various groups, and is incredibly influential

when done in nature (Nisbet et al., 2019). For example, research by Anderson et al. (2018)

highlights that youth and veteran groups who spent more than one day in nature through

expeditions saw positive effects on their mental health. Subsequently, nature-based mindfulness

can be beneficial to individuals and society at large. Integrating mindfulness practices in nature

can enhance physical and mental health and promote more robust relationships with nature

(Nisbet et al., 2019). The practice of *mindful self-compassion* combines awareness with an

empathetic concern for others, common humanity, and kindness (Fulton, 2018; Germer & Neff, 2019; Lumber et al., 2017). Lumber et al. (2017) suggest that compassion is a path to connecting with nature and combined with an activity such as walking in a green space, it can increase connectedness to nature.

Research shows that communication is more effective and meaningful, especially in difficult conversations, when individuals are more aware, mindful, and empathetic (Lumber et al., 2017). Individual awareness can increase empathy, leading to more profound dialogue. Specific studies show that mindfulness in nature strengthens connection and compassion, thereby enhancing the benefits of communication, innovation, creativity, and an ecological identity (Barrable, 2019; Capaldi et al., 2015; Gray & Colucci-Gray, 2018; Koskela, 2017).

Nature and Leadership

The need to connect and communicate with awareness and compassion is critical for humanity's survival and ability to flourish (Hougaard et al., 2020). The connection to nature and mindfulness, compassion, and communication are attributes that can enhance leadership in times of crisis (Hougaard et al., 2020). A 21st-century leadership style needs a humanistic approach foundational in awareness, inclusivity, interconnectedness with emotional intelligence, and system thinking attributes (Hougaard et al., 2020; Mitten, 2017; Zabaniotou, 2020). *Emotional intelligence* is not fixed awareness and can be cultivated over time to increase awareness of self, social awareness, and relationship management through consistent practice (Northouse, 2022). According to Hougaard et al. (2020), the current state of an uncertain world is ever-changing and fluctuating with the global pandemic, social justice, climate justice, and human rights. Hougaard postulates that humanity is being tested and emphasizes the urgent need for compassionate

leadership. Nature-based mindfulness is a possible practice to help cultivate compassionate leadership.

Multiple leadership training and development programs offer privileged opportunities to participate in nature expedition programs (Meerts-Brandsma et al., 2020). Many outdoor organizations provide these opportunities, such as the National Outdoor Leadership School (NOLS), Outward Bound in the United States, and the Foundation for Natural Leadership in Europe. Some organizations have included nature-based mindfulness, though not specifically for leadership training. Research shows that a nature connection is trait-like, and more connection contributes to greater self-introspection, awareness, and connection to the overall world and one's environment (Capaldi et al., 2014; Capaldi et al., 2015; Nisbet et al., 2009; NOLS, n.d.). Incorporating mindfulness or contemplative practices in natural leadership training and development settings can benefit individuals and organizations (Urrila, 2021). Conversely, mindfulness changes the relationships with self and others, which can lead to various consequences and positive outcomes (Qui & Rooney, 2017). Hence, leaders can enhance their interpersonal, intrapersonal, nature, and human interconnection abilities and well-being with nature-based mindfulness applications.

Nature-based mindfulness programs can inspire changes in individuals and groups (Djernis et al., 2019; Nisbet et al., 2019). A small number of emerging organizations specifically offer nature-based mindfulness training and introspective lessons to develop ecological awareness (Sharlow, n.d.). Yin et al. (2019) imply that research results indicate the possibility that "biophilic interventions" taking place virtually or physically in the workplace may improve creativity and lower stress levels. An example of the effect nature has on an individual in an organization's building is when patients in a hospital heal faster with pictures of nature on the

wall versus blank white walls (Stuart-Smith, 2020). The time in nature, and even simulated

nature in the workplace, can benefit overall health.

Statement of the Problem

Humanity is in a time of transformation with a significant impact from the ongoing

pandemic (Leach et al., 2020). COVID-19 fully exposed the limitations of the world's current

economic, healthcare, and social systems and the uncertainty of how to proceed as a global

society during and beyond the pandemic (Folke et al., 2020; Leach et al., 2020). The global

pandemic and development emergencies intertwine with social, environmental, and economic

instability that has unveiled the interconnectedness of regional and worldwide challenges, further

exposing existing inequalities and the need for systemic changes to meet the challenges

(Kossow, 2020; Sultana, 2021a; Sultana, 2021b; Walters & Kotze, 2021). According to the

United Nations (UN), five global issues are of urgent prioritization in 2021 (Mirchandani, 2020).

One of these issues pertains to protecting the environment from the current degradation of the

planet. For example, Mirchandani (2020) postulated that the ecosystems are in a state of

collapse, biodiversity is disappearing, and oceans are acidifying. For this reason, there is a need

to "make peace with the planet" (Mirchandani, 2020, para. 14).

Mirchandani (2020) articulated the need for global awareness of the climate crisis and

stressed that an estimated 235 million people will need humanitarian protection and support. The

interlinking of these crises requires conversations globally and the reimagining of multilateralism

and leadership (Mirchandani, 2020). The consensus of UN world leaders is to strengthen global

cooperation through reinvigorated global action. This new action requires inclusivity,

interconnectedness, and voices from all aspects of society, including civil society, businesses,

cities, regions, and local and global leaders (Mirchandani, 2020). Additionally, since 1992, the

United Nations Educational, Scientific and Cultural Organization (UNESCO) has promoted the

Education for Sustainable Development and part of the Sustainable Development Goals (SDG),

which include the well-being of all ages and the protection of the natural environment in all its

forms (UNESCO, 2017b; UNESCO 2021).

      For decades, various organizations and government initiatives have built support for

environmental awareness and education. In 1978, The United Nations Educational, Scientific and

Cultural Organization (UNESCO) emphasized the importance of education to solve

environmental problems in society by offering environmental education for all community

members of all ages and professions. The purpose was to implement environmental education in

social groups of all age ranges, to help cultivate awareness and empathy toward the entire

ecosystem and motivate a desire to help solve environmental problems (UNESCO, 2017b;

UNESCO, 2021). In the spring of 2010, the United States Department of Education (US DoED)

created the Blueprint for Reform act to strengthen educational goals, including environmental

education (Duncan, 2010). The blueprint offered to fund schools willing to improve

environmental education programs, which resulted in increased awareness of environmental

issues.

      Additionally, the US DoED Green Ribbon Schools (ED-GRS) outreach initiative inspired

and awarded recognition to all US education systems that strived toward sustainability practices

to reduce environmental impact, improve overall health and wellness, and provide environmental

and sustainable education (U.S. Department of Education, 2021). Further, in January 2021, the

Biden administration issued an executive order to address the climate crisis through listening

sessions to promote the exchange of ideas in an attempt to encourage collaboration between

organizations and agencies to solve the ecological crises and create a climate adaptation plan (Suarez Falken, 2021).

Human-driven changes have created a geophysical force, also known as the Anthropocene epoch (Steffen et al., 2007). There are three stages to this epoch: the first started in the 1800s with the industrial revolution, the second began in the mid-1940s with the acceleration of all human enterprises, and the third originated in 2015 with the recognition that humans need to meet the challenges that humanity's impact has on earth's life support systems by becoming stewards of the earth (Steffen et al., 2007). The onset of COVID-19 and the initial lockdown in the spring of 2020 resulted in drastic life shifts for humans across the globe (Rutz et al., 2020; Soga et al., 2021). The pandemic pause referred to as the anthropause, slowed human activity worldwide and reduced anthropogenic disturbances in ecosystems (Rutz et al., 2020; Soga et al., 2021). One change was the increase in outdoor physical activity for more people who had the capability, opportunity, and motivation to go outdoors (Soga et al., 2021). The authors further postulate that the number of opportunities for individuals to interact with nature has been altered due to the pandemic (Soga et al., 2021).

However, there is less clarity on the depth of nature connectedness from being in nature without doing activities or having material items (Morse et al., 2020; Soga et al., 2021). Findings from a recent study by Sahni and Kumar (2021) showed an increase in nature-relatedness and mindfulness and vice versa, suggesting that the nature experience with a mindfulness practice can be a self-prescribed activity to help with mental health difficulties. Research shows that there are healing benefits from mindfulness activities and time spent in nature, and there is increasing interest in combining both activities (Djernis et al., 2019). Various programs and activities focus on practicing mindfulness in nature and are becoming more popular (Djernis et al., 2019; Kotera

et al., 2020). Practices such as forest bathing, mindfulness-based interventions, nature-based interventions, and ecotherapy are training programs that help guide people in nature to practice mindfulness (Chaudhury & Banerjee, 2020; Gritzka et al., 2020; Kaufman, 2015; Nisbet et al., 2019).

There are many benefits of nature-based mindfulness for humans, most notably enhanced mood, feeling more connected to nature, and reduced stress (Capaldi et al., 2015; Nisbet et al., 2019; Timko Olson et al., 2020). Individuals can experience a connection to nature when they see themselves as part of nature rather than separate (Chaudhury & Banerjee, 2020; Nisbet, 2019). Connecting to nature can also increase an individual's concern and care for the natural world (Barbaro & Pickett, 2016; Nisbet et al., 2019). Globally, there is an increased awareness of the importance of natural environments on overall human health and wellbeing (Gray & Colucci-Gray, 2018). Hence, the relationship with nature increases ecological attitudes and behaviors, which can be advantageous to humanity and environmental health.

Organizations are much more like living systems of nature, and nature can inspire leaders to mimic the many examples of the environment to create generous and cooperative organizations that are efficient, effective, and supportive of all employees (Allen, 2019). Nature connection research shows that increased mental well-being, improved physical health benefits, and stress reduction can help leaders in organizations (Leavell et al., 2019). A study by Merino et al. (2020) observing student exposure to nature in environmental education, indicated the importance of an interconnectedness with nature to cultivate a positive relationship to, and an increase in character or signature strengths, specifically to the intellectual character traits of appreciation of beauty, love of learning, zest, and curiosity. The correlation between nature-relatedness and character strengths could be of value to all educators, including those in higher

education, and can help education leaders strengthen the sense of interconnectedness and our

relationship with nature (Merino et al., 2020). Considering these benefits, business and academic

communities are making mindfulness programs more accessible in organizational training

sessions (Ihl et al., 2020; Merino et al., 2020).

Nature-based interventions promote increased activity and are increasingly important

across all disciplines, from city planning to medicine (Kondo et al., 2015; Shanahan et al., 2019).

For example, mindfulness-based intervention programs for teachers and leaders in school

districts have emerged in recent years. Many schools' programs stem from secular mindfulness

programs such as mindfulness-based stress reduction (MBSR) (Kabat-Zinn, 1994) or integrate

into social-emotional learning programs (Ryan, 2020). A study by Mahfouz (2018) on school

leaders found that mindfulness improved leadership skills through increased self-reflection and

self-care, correlating to an increase in self-awareness, self-management, and self-compassion.

Through mindfulness practice, the leaders understand their emotions and behaviors and how they

influence their work environment (Mahfouz, 2018).

Nature connection arising from nature-based mindfulness has two critical features,

emotional and cognitive, that create an ability to have an ecological and environmental

awareness to connect to nature (Mundaca et al., 2021). Humans need empathy to cultivate

ecological and environmental awareness and sustainability (Keto & Foster, 2020; Mundaca et al.,

2021). Petersen et al. (2019) wrote that the relational emotions of awe and gratitude are directly

related to well-being and the connection to nature. The authors add that emotions, in general, are

essential to developing a connection to nature, and compassion could be the most influential

emotion (Petersen et al., 2019). Riechers et al. (2021) explain that working toward the

connection to nature can cultivate system transformation and more sustainable life.

There are nature-based interventions for both individuals and organizations, including youth in environmental education programs, ecotherapy, and some mindfulness programs for adults, or organizations that have a nature-informed focus such as shin-rin yoku, forest therapy, or wilderness therapy (Barton et al., 2016; Chaudhury & Banerjee, 2020; Chinn, 2015; Djernis et al., 2019; Kotera et al., 2020; Sharlow, n.d.; Zylstra et al., 2019). While valuable and engaging, these approaches have not yet built toward critical or systemic change in how society engages in a relationship with nature (Riechers et al., 2021). Expanding professional development to include nature-based mindfulness may be a way to build pro-environmental behaviors for systemic change and cultivate a stronger relationship with nature (Djernis et al., 2019; Nisbet et al., 2019).

Leaders in education could be the catalyst for change initially through shared leadership, connection, collaboration, accountability, and responsibility, though this is not limited to just leadership or education (Ankrum, 2016; Harris & Jones, 2020). Educational leaders influence changes in school climates, which in turn affects a broader array of students and colleagues across the education system (Harris & Jones, 2020). Existing pedagogy and environmental education (EE) curricula include content on climate, eco-literacy, and the human relationship with nature (Simmons et al., 2019; Wong & Kumpulainen, 2019). Thus, nature-based mindfulness is an important area of focus that could fit naturally within the existing curriculum.

This study's focus on women's leadership in education was motivated by the high percentage of women in education, specifically current data from 2018 released by the National Center for Educational Statistics (NCES), which indicates that 76% of primary and secondary school teachers are women (National Center for Education Statistics, 2021; Robinson et al., 2017). There is an abundance of existing research on leadership and increasing scholarship on women in leadership over the past fifteen years (Northouse, 2022; Robinson et al., 2017). Thus,

understanding the impact of nature-based mindfulness on women may help add to the growing

leadership research in the literature. Another benefit of the choice to focus on women leaders in

education is that they are underrepresented in senior leadership positions, so understanding how

nature-based mindfulness supports cognition, confidence, and improved wellbeing could

influence their professional growth (Northouse, 2022; Robinson et al., 2017). Thus, this study

examined the experiences of nature-based mindfulness practices of women leaders in the field of

education. Research has demonstrated that there may be an increase in health benefits from

connecting to the natural world through nature-based mindfulness (Chang et al., 2020; Kellert &

Wilson, 1993; Nisbet et al., 2019; Yin et al., 2019), providing a path toward human healing,

connection, and environmental preservation.

Purpose of the Study

The purpose of this hermeneutic phenomenological study was to explore and interpret the

lived experiences of women leaders in the field of education who practiced nature-based

mindfulness. The participants were leaders in the field of education from pre-school to the

university and specialty schools and had formal and informal leadership roles such as

administrator, director, coach, or department head. In addition to a hermeneutic philosophy, this

study incorporated an ecofeminist conceptual framework that focused on interpreting and

exploring the described lived experiences of women leaders in the field of education practicing

nature-based mindfulness and its influenced leadership styles in their everyday lives (Creswell &

Creswell, 2018).

Research Questions

This qualitative study made meaning of nature-based mindfulness in the everyday lives of

women leaders in the field of education. According to Yin (2016), the essential features of a

qualitative methodology emphasize the lived real-world experiences that represent participants'

views and perspectives while considering the contextual conditions of those experiences and

using multiple sources to develop new insights or beliefs to explain participants' behaviors and

thoughts. Thus, the following central questions were used to focus on the phenomenon

experienced by the participants:

1. What are the shared lived experiences of women leaders in education who practice

nature-based mindfulness?

a. What are the benefits experienced by women leaders because of practicing

nature-based mindfulness?

b. What challenges do women encounter because of practicing nature-based

mindfulness?

2. How does practicing nature-based mindfulness shape the leadership style of women

leaders in education?

Methodological Approach and Conceptual Framework

This hermeneutic phenomenological approach allowed the researcher to interpret

participants' everyday behaviors and attitudes in relation to nature-based mindfulness (Creswell

& Creswell, 2018). Phenomenology is a method that examines what and how an experience

communicates the essence of something, describing a lived experience and making meaning of

that experience (Neubauer et al., 2019; Peoples, 2021). The methodology is inductive without

generalizations or predetermined meanings, allowing for more introspective meaning from the

findings (Creswell & Creswell Báez, 2021).

This study also used a hermeneutic methodology that allowed multiple lenses to make

meaning of the phenomenon, thus supporting an additional conceptual framework of

ecofeminism to build upon the descriptive phenomenological approach (Peoples, 2021). The

phenomenological design used individuals' interviews, the specific response narrative statements

that described their lived experiences, and a hermeneutic circle technique to derive themes from

the data (Creswell & Creswell, 2018). The population for the study consisted of 12 women

leaders in the field of education who practiced nature-based mindfulness. Following Northwest

University Institutional Review Board's (NUIRB) approval, the researcher recruited participants

using a purposive and snowball sampling strategy. The purposive recruitment was endorsed by

the gatekeepers of a nature-based mindfulness organization and a mindfulness school. The

researcher posted the recruitment flyer on the institutions' social media platforms and obtained

the first six participants. The remaining six participants were recruited through the snowball

sampling technique. The data collected was from interviews (Creswell & Creswell, 2018; Yin,

2016).

The data analysis used a hermeneutic circle to make meaning and understand the themes

and depth of the data gathered (Gadamer, 2000; Peoples, 2021). The hermeneutic circle followed

a continual process of reflecting and replacing information from data comprehension with

original interpretations and understandings until there were no new prominent themes (Gadamer,

2000; Peoples, 2021). Finally, the researcher disclosed any explicit biases and assumptions

throughout the research process, which began with writing in a reflexive journal during research,

data collection, and data analysis and written within the dissertation chapters three and five

(Creswell & Creswell Báez, 2021; Neubauer et al., 2019; Peoples, 2021).

One philosophical worldview that aligns with a hermeneutic phenomenological approach

is the constructivist epistemological perspective that considers multiple realities of participants

and researcher standpoints (Creswell & Creswell Báez, 2021). Utilizing a hermeneutic

phenomenological method with an ecofeminist conceptual framework enabled the researcher to explore and interpret how women leaders in the field of education made meaning of their experiences to co-discover with the researcher information that unfolded from the data gathered (Creswell & Creswell Báez, 2021; Neubauer et al., 2019; Peoples, 2021).

Ecofeminism is the combination of feminist theory and environmental activism that emphasizes human beings as part of nature, explaining that the relationship between women and nature is based on their exploitation and domination by a consumptive and patriarchal system (Chandra Mondal & Majumder, 2019; Ourkiya, 2020; Ryman, 2021). The ecofeminist conceptual framework stems from a critical and constructivist worldview that aligns with the hermeneutic phenomenological method and an existential relationship with nature (Kūle, 2018). Heidegger's philosophy is complicated, and this study will utilize the main concept of *daesin* in the context of the "average everydayness" (p. 130) of being or being in the world and in a milieu of "being with others" (Heidegger, 1953/2010, p. 290). Daesin is temporal as the future, past and present, and considers meditative and calculative thinking and an ethic of care (Brito et al., 2021; Elley-Brown & Pringle, 2019; Malloy et al., 2014). Therefore, hermeneutic phenomenology and ecofeminism align with Heidegger's philosophy and help to inform the research design, data collection, and data analysis.

Significance of the Study

The significant challenges of 2020, including a global pandemic, ecological crisis, and humanitarian crisis, urgently signaled a need for individuals and societies to change their behaviors and increase global awareness that nature and overall human well-being are inextricably linked (Gray & Colucci-Gray, 2018; Mirchandani, 2020). Effectively addressing the ecological crisis and tending to the relationship with the planet will require inclusivity,

interconnectedness, and voices from all aspects of society, including everyday citizens, local community leaders, and regional and global leaders (Ewert et al., 2014; Mirchandani, 2020). Education and teachers play a significant role in helping bring awareness to changing the relationship with the earth, beginning with the teachers themselves and their practice of nature-based mindfulness (Albrecht, 2020, pp. 157-177; Ewert et al., 2014; Mirchandani, 2020). Thus, this study contributed to the literature by increasing the understanding of how nature-based mindfulness practices may shape women leaders' professional and personal lives.

Extant research examines mindfulness practices and the effects of nature on well-being and nature connectedness (Abel, 2015; Albrecht & Albrecht, 2019; Anderson et al., 2018), though few studies have investigated the intersection of nature-based mindfulness, and fewer still on the experience of women leaders in education. Expanding on the understanding of women leaders in education and experiences with nature-based mindfulness revealed how a connection to nature helped facilitate a greater innate perception of nature in relation to the more-than-human world and humanity, which cultivated a deeper awareness of an individual's ecological identity (Bai, 2017; Gray & Colucci-Gray, 2018; Mitten, 2017; Pulkki et al., 2021). Further understanding these experiences leads to more intentional practices for leaders, teachers, and students to strengthen overall wellbeing, health, and cognitive ability (Barrable, 2019; Djernis et al., 2019; Nisbet et al., 2020). Accordingly, this study recruited a sample of women leaders in the field of education and captured a holistic view of their experiences with nature-based mindfulness and its impact on their personal and professional lives of leading, teaching, and communicating.

The study's findings add to the knowledge about nature-based mindfulness and experiences of women leaders in education, expanding what is known about educational

leadership and gendered leadership. A portion of the study's intent was to identify any potential connection between nature-based mindfulness and leadership styles.

Scope and Delimitations

The intent of the study was to make meaning of nature-based mindfulness practices of women leaders in the field of education. The study identified connections between nature-based mindfulness practices and women leaders' personal and professional life through their narrative descriptions of their experiences. Delimitations are choices made by the researcher to set the boundaries for the study to control factors that may affect the results (Peoples, 2021; Terrell, 2016). This study was conducted with a limited time frame and financial resources. Generally, qualitative research has a varied sample with a typical range of 8 to 15 participants; however, the ultimate focus of qualitative work is to reach saturation (Peoples, 2021). This study recruited twelve participants to reach saturation or completeness of the data (Dibley et al., 2020; Peoples, 2021). The researcher ensured that boundaries were set through purposive and snowball techniques for participant recruitment and demographic criteria to specify participants' years of experience leading and their practice of nature-based mindfulness. Thus, the sample was limited by the availability of participants who met the demographic criteria.

Definitions of Terms

The following definitions are significant to the study to ensure clarification of meanings in the context of the research. The definitions will avoid misunderstandings or misconceptions and provide clarity of the terms used in this research.

Authentic leadership: The leadership theory develops over a person's lifetime and focuses on intrapersonal and interpersonal development that may emerge and is nurtured by various transformational life events (Northouse, 2022; Van Droffelaar, 2021). The four main components

are self-awareness, moral perspective, balanced processing, and relational transparency

(Northouse, 2022; Van Droffelaar, 2021). The attributes of authentic leadership are based on

purpose, values, relationships, self-discipline, and compassion (Northouse, 2022; Van

Droffelaar, 2021).

Authentic transformational leadership: This leadership style adds the attributes of ethical and

moral character that include "liberty, utility and (distributive) justice" (Bass & Steidlmeier, 1999,

p. 182) to the four factors of transformational leadership: idealized influence, inspirational

motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994;

Northouse, 2022). Bass and Steidlmeier (1999) emphasize that "to be truly transformational,

leadership must be grounded in moral foundations" (p. 181).

Biophilia. The term originates from the Greek meaning of two words, "bio," meaning life, and

"philia," meaning love. The biophilia hypothesis describes biophilia as a trait expression that all

humans possess and is an inherent connection and yearning toward other humans, nature, and the

planet (Barbiero & Berto, 2021; Gunderson, 2014; Kellert & Wilson, 1993; Wilson, 1984).

Ecofeminism. Ecofeminism combines feminist theory and environmental activism and describes

the relationship between nature and women as dominated and exploited by a patriarchal system

(Ryman, 2021). Ecofeminism is a movement and philosophy that proposes that human beings are

not above or superior to nature but rather a part of nature (Chandra Mondal & Majumder, 2019;

Ourkiya, 2020).

Hermeneutic. The term is a tradition defined as the art of interpretation of Biblical texts (Spier,

2019). Hermeneutic phenomenology interprets an individual's lived experience of a phenomenon

(Crowther & Thomson, 2020; Peoples, 2021). Martin Heidegger is associated with the

hermeneutic phenomenological method, and this study used the Heideggerian approach to this

method. Heidegger described the interpretation as interchangeable with the term "dasein," which

is the being of being-in-the-lifeworld or the interpretation of everyday experiences of being

human in the world (Heidegger, 1953/2010; Spier, 2019).

Leadership style: A leadership style is how leaders conduct themselves toward their followers

(Nazim & Mahmood, 2018), and the behaviors are not fixed but are active to align and adapt to

specific situations and functions within the leader's boundary of their leadership style (Eagly,

2007).

Mindful self-compassion: Mindful self-compassion is the awareness that a person is a part of

the bigger picture and helps cultivate compassion and connection toward humanity, oneself, and

the planet (Aspy & Proeve, 2017; Germer & Neff, 2019; Patzak et al., 2017; Yarnell & Neff,

2013). Compassionate awareness combines three tenets of mindfulness, self-kindness, and

common humanity (Patzak et al., 2017; Yarnell & Neff, 2013). The practice involves mindful

awareness and kindness to self and empathetic understanding toward others' suffering from the

knowledge that all humans are imperfect (Germer & Neff, 2019; Patzak et al., 2017).

Mindfulness: There are many definitions of mindfulness for this study; mindfulness focuses on

moment-to-moment attention as it unfolds while noticing emotions, feelings, and sensations in

the body, internally and externally, with non-judgment and compassion (Gibson, 2019; Kabat-

Zinn, 2011; Kabat-Zinn, 2019). Practicing mindfulness increases awareness by noticing

emerging experiences without grasping or pushing away the incidents rather than giving space to

notice and respond rather than react (Kabat-Zinn, 2019; Nanda, 2009). Thus, an individual can

increase their awareness of their body, emotions, thoughts, feelings, and surroundings by

noticing the present moment as it unfolds. (Gibson, 2019; Kabat-Zinn, 2011; Kabat-Zinn, 2019;

Nanda, 2009).

Nature: The term refers to the living organisms in a physical environment, such as plants, animals, and nonhumans (Djernis et al., 2019; Nisbet et al., 2019; Nisbet et al., 2020; Soga & Gaston, 2020).

Nature connection: A person's closeness to nature positively influences their mental health and concern for the environment and ecological behavior (Nisbet et al., 2020; Otto & Pensini, 2017).

Nature-based mindfulness: The term describes doing an activity or program in nature. For this study, nature-based mindfulness will focus on mindfulness activities in nature, such as awareness of breath, shin-rin yoku (forest bathing), mindful walking, and mindful self-compassion (Djernis et al., 2019; Lücke et al., 2019; Nisbet et al., 2019; Nisbet et al., 2020; Timko Olson et al., 2020).

Servant leadership: Leaders will put the needs of the people served as a priority and will have a social responsibility to find equality for the less privileged in society (Northouse, 2022). There are ten characteristics of Greenleaf's servant leadership, one attribute is awareness, where a leader practices attentiveness and reflects on their thinking and behaviors to help understand other perspectives (Northouse, 2022).

Transformational leadership: The leadership style is based on the prior work of George Macgregor Burns (1978). The main factors of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994; Northouse, 2022). Leaders of transformational leadership inspire and motivate their followers to go beyond their achievements for the group's best interest; leaders are purposeful and trustworthy, building culture by articulating vision (Bass & Avolio, 1994; Saint-Michel, 2018). These leaders are collaborative and benevolent toward their followers, inspiring change and innovation (Bass & Avolio, 1994; Saint-Michel (2018). Transformational leaders share leadership and are highly collaborative with strong interpersonal relationships (Eagly,

2007; Northouse, 2022; Saint-Michel (2018). Eagly (2007) describes the transformational

characteristics closely aligning with feminine or communal traits.

Conclusion

Research suggests that nature-based mindfulness supports overall health and connection

to nature, which can support solutions to the climate crises (Mitten, 2017; Nisbet et al., 2019;

Thiermann & Sheate, 2020). Examining the intersection of nature-based mindfulness and women

leaders in education may illuminate opportunities that support an increased nature connection,

communication, and compassion (Henriksen et al., 2020; Mitten, 2017; Wamsler, 2018). By

implementing nature-based mindfulness practices, educators, school districts, and organizations

could grow their capacity to hold a safe and compassionate space for connection to nature and

mindful awareness, thereby increasing ecological identity and consciousness, compassion, and

communication abilities of students and educators alike.

This qualitative study is organized into five chapters. Chapter two includes a literature

review of nature-based mindfulness, mindfulness, nature connection, women educators, and

conceptual frameworks of the study. Chapter three describes the qualitative method's

philosophical paradigm, methodology, methodological design, sample population, data

collection, and analysis. Chapter four will discuss the results of the data analysis. Chapter five

will discuss the summary of findings and implications for research, theory, and practice.

CHAPTER 2

Literature Review

There is an urgent warning of an unprecedented global crisis from the United Nations (UN) (Guterres, 2020; UN, 2021). The UN Secretary General has called for humanity to change its relationship with nature in response to the climate crisis (Guterres, 2020; UNEP, 2021). The answer is to place better value and make decisions for a more healthy and sustainable humanity and earth (United Nations Environment Programme (UNEP), 2021). Understanding the impact of nature-based mindfulness on women leaders in education could help add to leadership scholarship and comprehension of how nature-based mindfulness supports cognition, confidence, and improved well-being, which could influence professional growth (Northouse, 2022; Robinson et al., 2017). Mindfulness in nature can be a catalyst for changing humanity's relationship with nature to strive toward interconnectedness, compassion, and pro-environmental attitudes and behaviors (Henriksen et al., 2020; Mitten, 2017; Wamsler, 2018).

This hermeneutic phenomenological study aimed to explore and interpret the lived experiences of women leaders in the field of education who practice nature-based mindfulness and how it shaped their leadership styles. The literature review considers these distinct bodies of research to inform this study: nature-based mindfulness (NBM), women and leadership, and NBM shaping leadership and organizations, as well as the ecofeminist conceptual framework. The literature review uses a hermeneutic phenomenological lens with Martin Heidegger's philosophical underpinnings. First, it will draw attention to the history of nature-based mindfulness and its benefits. Next, it will highlight a general history of mindfulness and its benefits. Then, the chapter will discuss environmental education and women leaders, including

barriers. Lastly, the review will conclude with an overview of the ecofeminism conceptual framework.

Hermeneutic Phenomenology

Martin Heidegger was a theologian whose approach to hermeneutic phenomenology was heavily influenced by descriptive phenomenology, yet Heidegger went beyond the descriptive with an interpretative attitude (Neubauer et al., 2019). According to Neubauer et al. (2019), Heidegger approached research with a lens centered around a person's relationship with their world. Heidegger defined *lifeworld* as the totality of life experiences of an individual's multiple realities, which influence their world (Neubauer et al., 2019).

Neither the researcher nor the participants in a study can separate themselves from their background or understandings (Dibley et al, 2020; Neubauer et al., 2019). The background influences the context of an individual's experiences and perceptions of culture, social and political underpinnings. An individual is not tied to the lifeworld; they have the freedom to make choices, which Heidegger refers to as situated freedom (Laverty, 2003; Lopez & Willis, 2004; Neubauer et al., 2019). Hence, the "researcher's past experience and knowledge are valuable guides to inquiry" and require the researcher to understand the foundational philosophies to cultivate "hermeneutic phenomenological thinking, reading, and writing" (Neubauer et al., 2019, p. 95). Hermeneutic thinking and methodology align with understanding the lived experiences of research participants and oneself; this idea will be used to explore the lived experiences of women leaders in education.

An essential purpose of a hermeneutic literature review is to "provide context and provoke thinking", specifically concerning the phenomenon of interest (Smythe & Spence, 2012, p. 12). Hermeneutics is the art of interpretation (Nigar, 2019; Smythe & Spence, 2012).

According to Boell and Cecez-Kecmanovic (2014), an "engagement with a literature is not a routine task, but an intellectual development process" (p. 260) and requires the discovery of publications relevant to the study. Even though the process is ongoing and potentially never-ending, it can guide a researcher toward a systemic and practical review. Thus, Boell and Cecez-Kecmanovic (2014) explain that a hermeneutic circle framework integrates various ways to prepare a literature review while leaving room for creativity and imagination. Smythe and Spence (2012) contend that the main point of a hermeneutic literature review is to incite contemplation from philosophical to scientific texts such that the researcher immerses themself in critical, creative, and innovative thinking. Further, the reader and researcher need to commit and be engaged in introspective and open thinking, questioning, and understanding without expecting an answer (Dibley et al., 2020; Smythe et al., 2008; Smythe & Spence, 2012). Notwithstanding, nature-based mindfulness supports open awareness and observation for comprehension of surroundings and can increase connectedness to nature (Nisbet et al., 2019).

Nature-Based Mindfulness

Nature-based or nature connection activities and practices constitute one being outdoors in various ways, including taking a nature walk, gardening, farming, hiking, contemplative practices, and outdoor activities (Jordan & Hinds, 2016). Much like the term nature-based, there are many descriptions of nature-based mindfulness (Djernis et al., 2019; Lücke et al., 2019; Nisbet et al., 2019). Chinn (2015) identifies it as ecological mindfulness, while other mindful practitioners create name variations like nature connection or mindfulness in nature. According to Chinn, ecological mindfulness is the "awareness of internal and external realities" and a habitual way of thinking based on one's culture (p. 121). Chinn further defines *ecological mindfulness* as an awareness of the natural environment with responsible behavior regarding the

habitat and cultural mindfulness desiring to preserve resources, traditions, knowledge, and language for future generations. Nature-based mindfulness, like ecological mindfulness, increases awareness of the natural environment, thereby cultivating pro-environmental attitudes and behaviors (Chinn, 2015; Nisbet et al., 2019).

Nature-based means to be rooted in nature, and nature connection is the closeness one feels to nature and positively influences ecological behavior and intention (Nisbet et al., 2019; Otto & Pensini, 2017). This influence recognizes the connection to nature in a holistic biophilic sense. Biophilia is the innate trait expression that all humans have an inherent desire for connection toward nature, humanity, and the more-than-human world (Barbiero & Berto, 2021; Gunderson, 2014; Mitten, 2017; Wilson, 1984; Yin et al., 2019). The term biophilia was coined twice, once from a psychological perspective by Erich Fromm and the other from an evolutionary adaptive perspective by E.O. Wilson (Barbiero & Berto, 2021). However, Barbiero and Berto (2021) explain that Wilson and Fromm agree with the definition.

The researchers connect the importance of nature connection in the education system and students, emphasizing the intrinsic necessity for humans to embody nature through feelings, thoughts, and experiences rather than knowledge alone (Chinn, 2015; Pulkki et al., 2016; Wilson, 1984). Chinn's (2015) description of ecological mindfulness is rooted in a Hawaiian perspective, informed by their Chinese and Hawaiian heritage, where nature connection is an essential way of life. Pulkki et al.'s (2016) research suggested that an absence of connection between the senses, body, and nature will disengage empathy and a relationship toward the earth. This disengagement can lead to biophobia, an "attachment to non-natural things such as technology and human artifacts" (Pulkki et al., 2016, p. 216). Conversely, biophilia is a passionate connection to nature (Pulkki et al., 2016; Wilson, 1984).

The Pulkki et al. (2016) study presumed that it is essential to develop a concern for nature and all beings by growing awareness of the senses and encouraging an embodiment of the natural ecosystem. Their research emphasizes that exposing children and adults to nature is not enough and that people also need to be educated to be responsible for the natural environment (Chinn, 2015; Pulkki et al., 2016). Contemplative mindfulness practices and connecting to nature can lead to more profound benefits of awareness and well-being in the day-to-day constant of moment-to-moment experiences in modern life, enhancing people's responsibility for the natural environment (Chinn, 2015; Nesbit et al., 2019; Pulkki et al., 2016). Despite these positive effects, people are overwhelmed by the detrimental impact of human actions on the external environment without realizing their own experiences in nature, including how their embodied thoughts, feelings, and emotions are shaped (Chinn, 2015; Pulkki et al., 2016). The confounding sense over the environmental degradation can be attributed to connection and concern toward nature during these uncertain times and causes an increase in environmentally induced stress or eco-anxiety, sometimes called eco-grief (Coffey et al., 2021).

History of Nature-Based Mindfulness

Historical and Indigenous cultures had a deep connection to nature (Chinn, 2015; Kurth et al., 2020). The connection to nature, nature-based activities, and the relationship of humans to nature have been important and meaningful since the beginning of civilization (Chinn, 2015; Seymour, 2016). For example, ecological mindfulness practice in nature or nature connection was observed in various cultures long before the current rise in interest (Chinn, 2015). Archaeological evidence estimates that present-day Indigenous people maintain practices that date back to the Pleistocene era (Bruchac, 2014). This historical foundation has helped facilitate

the rapid growth in "the application of mindfulness-based interventions (MBIs) in schools"

(Klingbeil & Renshaw, 2018, p. 502; Zarate et al., 2019).

The Indigenous knowledge supports the cultivation and preservation of traditions and

beliefs in relationship with culture and landscape (Chinn, 2015). The historical account of the

human and nature connection can be described through the 10,000-year "journey of separation"

(Hutchins & Storm, 2019, p. 5). Many researchers agree that there is a growing disconnection

from nature and note a disconnect in Western culture that further weakened the relationship with

nature beginning in the 1950s (Hutchins & Storm, 2019). The declining human and nature

connection was evident from a study of popular culture in English, showing a steady decline in

mentioning nature since the 1950s in movies, song lyrics, and fiction books (Kesebir & Kesebir,

2017). Additionally, an increase in the daily average of an adult's media consumption, currently

at thirteen hours and twenty-one minutes of screen time, indicates less time in the natural world

(Frumkin et al., 2017; Kesebir & Kesebir, 2017; Schomer, 2021). Researchers agree that the

decline in the human connection to nature continues (Ives et al., 2018; Kesebir & Kesebir, 2017;

UNEP, 2021). These historical and present-day discussions on humanity's relationship with

nature and its escalation to the current ecological crises (Ives et al., 2018; Kesebir & Kesebir,

2017; UNEP, 2021) signal the ongoing need to enhance our relationship with nature.

Researchers point to the collective shift toward belief systems that view nature and

humans as separate, technological advances, economic development, and cultural transformation

that widened the gap in human disconnection (Folke et al., 2020; Hutchins & Storm, 2019).

Despite the growing disconnection, Ives et al.'s (2018) systemic review of scholarly articles

investigating the human-nature connection describe an increased interest in human-nature

connection research since 2010 because of an increased link to well-being and time spent in

nature. Understanding history exposes the evolving and weakening relationship between humans and nature. The diminishing connection and the deleterious effects warrant a closer examination of how people currently experience nature-based mindfulness.

Nature-Based Mindfulness Benefits

Research on the individual and combined elements of nature-based mindfulness reveals health benefits and generally enhanced well-being in individuals (Djernis et al., 2019; Nisbet et al., 2019). Recent studies found that engaging mindfully in nature, more often than not, increases individuals' health benefits (Capaldi et al., 2014; Djernis et al., 2019; Fabjański & Brymer, 2017; Klingbeil & Renshaw, 2018; Zarate et al., 2019). In addition, emerging research points to nature-based mindfulness as positively affecting psychological, physical, and social conditions, leading to overall health improvement (Djernis et al., 2019; Holt et al., 2019; Jimenez et al., 2021). Consequently, current research on mindfulness and traditional practices indicates that the combination of informal mindfulness practices in a wilderness setting may increase positive health effects compared to formal mindfulness practices alone or in artificial settings (Djernis et al., 2019). Although researchers suggest a need for more investigation into the types of settings used with the different modalities of mindfulness practices, they suggest that benefits increase in nature (Djernis et al., 2019). For example, those active in local green spaces, such as parks or accessing green areas close to their home, who apply embodied awareness, report a higher quality of life (Holt et al., 2019; Jimenez et al., 2021; Shanahan et al., 2019). As a result, nature-based experiences, including mindfulness, can promote an overall improved mental, social, and physical state of health for an individual (Djernis et al., 2019; Sayrak, 2019; Shanahan et al., 2019).

To this end, a study by Richardson and Hallam (2013) indicated that mindfulness is an outcome of repetitive interaction in nature, which leads to psychological benefits without traveling into the wilderness. This study demonstrated that mindfulness and nature are reciprocal in benefiting an individual's physical and mental health and lead to a sense of interconnectedness with nature which may, in turn, benefit the conservation of the natural environment (Richardson & Hallam, 2013). Boiral et al. (2019) claimed that the benefits of nature connectedness correlate to an increased awareness of self and well-being by connecting to place and environmental issues, and as a result, employees implement more "green behaviors" such as sharing environmental protection knowledge or identifying environmental issues in the workplace. The connection to nature is vital to human life and benefits overall health and well-being (Chavaly & Naachimuthu, 2020). The myriad benefits of individuals connecting to nature are more evident when comparing populations living in urban areas versus rural areas (Capaldi et al., 2015). People with more time and access to natural spaces reported a positive increase in their psychological and emotional health, and evidence suggests that a connection between happiness and nature improves longevity and immune response (Nisbet et al., 2019; Nisbet & Zelenski, 2013; Wolsko et al., 2019).

Mindfulness practice is a method of "mental training" enveloping Western culture as the individual contemplative practice is widely secular and popular with an acceptance by science and health-care communities to promote well-being and healing (Ergas, 2013). Kabat-Zinn (1994), an early adopter and scholar of mindfulness practices, developed mindfulness-based stress reduction (MBSR) that cultivates concentration while strengthening neural pathways in the brain, resulting in calm, alert, and present-moment awareness (Kabat-Zinn, 1994). Practicing mindfulness self-help techniques correlates with well-being (Sayrak, 2019).

Mindfulness practices are shown to improve both cognitive and physical functioning (Anderson et al., 2019; Hansen, 2007; Quaglia et al., 2019). The strategy of practicing mindfulness can enhance the executive functioning of the prefrontal cortex and improve a person's concentration (Harvard Health Publishing, 2020). This improvement through contemplation increases a person's awareness of mental states, surroundings, and body sensations, which may benefit patients with chronic health conditions (Cifu et al., 2018). The contemplative practice combined with modern clinical research and neuroscience reveals opportunities to strengthen the brain (Siegel, 2015). Jennings (2015) observed that mindfulness practice through conscious awareness, observations, and descriptions could cause changes at the cognitive level, opening awareness and focusing attention that can promote critical thinking and creativity. Comparably, recent studies show that the brain's changes may also support improvement in self-awareness, self-regulation, emotional regulation, and pro-social awareness (Vago & Silbersweig, 2012).

An exploratory study of inflammation response by Fountain-Zaragoza and Prakash (2017) examined older adults' well-being and quality of life during increased social isolation due to aging. Researchers found that isolation is "associated with higher inflammatory responses and greater risk for morbidity, associated with greater risks of poor functional status and poor quality of life" (Salive, 2013, p. 8, as quoted by Fountain-Zaragoza & Prakash, 2017). According to Hansen (2007), many Americans live with an overstimulated sympathetic nervous system. They have a chronic stress reaction, leading to continual health issues associated with inflammation, depression, heart disease, and obesity. Hansen (2007) explained that stress hormones cause an increase in inflammation. However, the autonomic nervous system alters and reduces inflammation through mindfulness practices (Hansen, 2007).

Kabat-Zinn (1994), a molecular biologist and scholar/practitioner of Zen meditation and Buddhist teachings, viewed these practices as stress relief for hospitalized patients with chronic illness and pain. In 1979, Kabat-Zinn opened a small clinic to establish a core practice of mindfulness at the University of Massachusetts medical center (Ergas, 2013). Kabat-Zinn (1994) created an 8-week program to help patients suffering from chronic conditions that standard care could not alleviate. The mindfulness-based stress reduction (MBSR) course increased the popularizing and secularizing of mindfulness practices while seeing the effects on willing patients. MBSR can balance secular practices and Buddhist teachings to create a language so that contemporary society could accept the practices to heal and combat stress, independent of religion, spirituality, or Buddhism (Ergas, 2013). Since then, MBSR and secular mindfulness have demonstrated, through many studies, their usefulness in supporting healing in medical communities, psychology, veterans, first responders, teachers, schools, and numerous other modalities (Anderson et al., 2018; Baer et al., 2019; Kabat-Zinn, 1994; Stephenson et al., 2016). Additionally, mindfulness research has expanded beyond stress reduction and into the workings of the mind, specifically in thinking, emotional regulation, attention, decision-making, rumination, and self-regulation (Ergas, 2013).

Mindfulness training can improve social connections, empathy, self-compassion, and resiliency and promote the reduction of physical and psychological symptoms (Braehler & Neff, 2020; Burmansah et al., 2020; Fountain-Zaragoza & Prakash, 2017; Gómez-Olmedo et al., 2020; Hansen 2007). A person experiences a sense of calm resulting from an awareness practice that activates the parasympathetic symptom (PNS), which helps to reduce cortisol and increase oxytocin (Hansen, 2007; Lin, 2019), boosting mood and prosocial behaviors (Vago & Silbersweig, 2012). Additionally, individuals can look at other perspectives with less judgment,

more awareness, and compassion, leading to improved understanding and relationships
(Burmansah et al., 2020).

Mindfulness training can improve emotional regulation and awareness (Anderson et al.,
2019; Hansen, 2007; Wu et al., 2019). The practice of paying attention and allowing each
moment to unfold with curiosity, compassion, and non-judgment is a way to promote this mental
health and well-being (Hansen, 2007). Mindful awareness can increase social and emotional
competencies of empathy, emotional regulation, and social connectedness, cultivating
interpersonal and intrapersonal capacities to create positive relationships (Burmansah et al.,
2020; Goleman, 1998; Gómez-Olmedo et al., 2020). Daily mindfulness practices strengthen the
brain and its ability to respond, rather than react, to emotions and stressors, facing problematic
emotions with calmness (Burmansah et al., 2020; Goleman, 1998). The benefits of mindfulness
practices as a skill, philosophy, or lifestyle strengthen a healthy mind, body, and spirit leading to
healthy regulation of emotions (Hansen, 2007; Fountain-Zaragoza & Prakash, 2017; Lin, 2019).

Growth and Expansion of Mindfulness Practices Across Industries

According to the data and statistics compiled by Smith (2022), research on meditation
indicated that the second most popular mind-body activity is practiced by 200 to 500 million
people around the globe. Yoga is the most popular mind-body practice followed by mindfulness
in the United States (Smith, 2022). Beyond the individual benefits of mindfulness practices,
employers also recognize the positive benefits of mindfulness practices on productivity and
monetary value (Panditharathne & Chen, 2021). In 2018, 52% of workplace employers offered
mindfulness training, and engagement with mindfulness and yoga mobile or online applications
increased by 65%; the most recent figures indicate that the mindfulness industry is valued at over
one billion dollars (Kersemaekers et al., 2018; Smith, 2022). This growth of mindfulness

practices is evident across various industries such as education, medical, law, social work, first responders, and professional sports (Panditharathne & Chen, 2021; Vonderlin et al., 2020). Specifically, there is a growing interest in mindfulness practices in the workplace and their relation to leadership, followership, and workplace behavior (Arendt et al., 2019; Sayrak, 2019; Stedham & Skaar, 2019).

Researchers explored the relationship between mindfulness and how effective a leader is with their followers, explicitly looking at characteristics and behaviors cultivated through mindfulness practices (Rupprecht et al., 2019). Rupprecht et al.'s (2019) study found that leaders could cultivate and improve their self-assessing, self-leadership, and leadership capacities with mindfulness practices. The leaders improved leadership characteristics of self-care, self-reflection, mindful task management, listening skills, and the ability to adapt to change, which enhanced their overall leadership (Rupprecht et al., 2019).

Mindfulness research has expanded beyond stress reduction and into the workings of the mind, specifically in thinking, emotional regulation, attention, decision-making, rumination, and self-regulation (Ergas, 2013; Ergas, 2017). This research (Ergas, 2013; Ergas, 2017; Jennings, 2015; Norton & Griffith, 2020) supports the implementation of mindfulness into part of the curricula within many K-12 schools. Facilitating this evolution to normalizing mindfulness practices in primary and secondary schools is credited to organizations such as Mindful Schools, Collaborative for Academic social-emotional learning (CASEL) with professional development for teachers, psychologists, doctors, and nurses (CASEL, 2021; Kriakous et al., 2020; Mindful Schools, 2017). The training for psychologists, counselors, and wellness professionals includes Mindfulness-based cognitive therapy (MBCT) and Mindfulness self-compassion (MSC) (Ergas, 2013). Many teachers use mindfulness practices to "enhance their well-being and teaching

behavior" (Klingbeil & Renshaw, 2018, p. 502). Additionally, mindfulness practices incorporate activities in a natural setting.

Nature-Based Mindfulness Practices

Mindfulness techniques are a simple way to calm the nervous system, develop the ability to concentrate, and strengthen the brain through neuroplasticity (Follette et al., 2015; Kabat-Zinn, 2008; Kabat-Zinn, 2019). Mindfulness skills can improve physical health and help alleviate stress (Creswell et al., 2019; Gibson, 2019; Kabat-Zinn, 2019). The mindful awareness skills are moment to moment, paying attention to internal and external environments while noticing thoughts, emotions, feelings, and sensations intentionally with compassion and non-judgment (Gibson, 2019; Kabat-Zinn, 2019). The practice enables a person to have space to respond rather than react to external stressors (Kabat-Zinn, 2019).

There are a multitude of ways to practice mindfulness in nature (Nisbet et al., 2019; Timko Olson et al., 2020; Zylstra et al., 2019). The mindful awareness practices in nature are not new and have a long history in Indigenous cultures over many generations (Chinn, 2015; Kurth et al., 2020). Examples of mindfulness practices in nature are Shinrin yoku or forest bathing, mindful breathing, mindful walking, loving-kindness practice, or mindful self-compassion (Clarke et al., 2021; Nisbet et al., 2019; Timko Olson et al., 2020; Zylstra et al., 2019). Shinrin yoku, or forest bathing, was first coined by Tomohide Akiyama, the former director of the Japanese Forest Agency (Miyazaki, 2018; Tsunetsugu et al., 2009). Shinrin yoku was first developed out of intuition in 1982 to attract people to spend time in the many beautiful forests of Japan (Miyazaki, 2018). The practice entails sauntering in nature, and the first study was conducted on the island of Yakushima with five subjects (Miyazaki, 2018; Tsunetsugu et al., 2009). The Japanese deputy director of Chiba University's Center for the environment,

Yoshifumi Miyazaki (2018), further explained that the project called the "Therapeutic effects of

forests" (p. 32), was a national implementation to combat increasing stress and promote healing.

Likewise, mindful walking and breathing are practices of slowing down the pace to pay attention

to how the body moves in the environment (Clarke et al., 2021). When bringing mindfulness to

walking and breathing, a person can notice sensations within the body and sensory input from the

environment, such as temperature, wind, light, and sounds (Gotink et al., 2016; Kabat-Zinn,

2016; Kotera et al., 2020). Additionally, mindful self-compassion or loving-kindness practice is a

routine that considers the individual, their surroundings, other people, and more than human

entities (Germer & Neff, 2019; Kemper & Khirallah, 2015).

General Mindfulness Practices in Western Society

The practice of mindfulness in Western culture is generally introduced in three

categories: focused concentration, open monitoring, and loving-kindness or self-compassion

practice (Fujino et al., 2018; Germer & Neff, 2019). The act of *focused concentration* is to bring

attention to a single point or object while continually bringing the concentration back to this

focus when distracted (Fujino et al., 2018). Next, the practice of *open monitoring* is paying

attention to moment-to-moment details as they arise without focusing on any one point or object

(Fujino et al., 2018). Open monitoring and focused concentration, including *self-compassion*

practice, which cultivates a state of kind attention toward oneself, others, and the universe

decreases reactivity and judgment of experiences (Fountain-Zaragoza and Prakash, 2017; Fujino

et al., 2018; Germer & Neff, 2019).

In Western society, mindfulness became the point of a "contemplative turn" in science,

simultaneously accepting the secular mindfulness practice to regulate an individual subjectively

(Ergas, 2013). Mindfulness practices can enhance both individual and social change (Donald et

al., 2018; Wamsler, 2018; Wamsler et al., 2017). Mindfulness practices that balance focus on the

more profound awareness of self, compassion, and the desire to benefit from the common good

can increase critical consciousness and societal relations that can initiate systemic change

(Arthington, 2016; Donald et al., 2018; Germer & Neff, 2019, p, 357-367; Leggett, 2021; Magee,

2019; Petty, 2017; Steidle, 2018). Conversely, mindfulness can reinforce a capitalist ideology by

focusing on lifelong individual self-development when not connected to shared humanity and the

common good (Arthington, 2016). Magee (2019) wrote about compassionate mindfulness

intertwined with inner and outer work for individual and collective healing in support of social

change. Thus, mindful practice of self-compassion based on common humanity, compassion, and

awareness can be the catalyst to systemic change (Donald et al., 2018; Germer & Neff, 2019;

Magee, 2019; Wamsler, 2018; Wamsler et al., 2017).

The modern Western form of mindfulness promotes mental health while not wholly tied

to its religious underpinnings (Lindahl et al., 2017). The Western and secular versions are

assimilated from Eastern beliefs yet mostly practiced without a connection to religion (Larrivee

& Echarte, 2017). Chin et al. (2019) indicated that the possible benefit of increasing spirituality

and religion is generally not the mindfulness practice's intent in most Western training or

research studies. At the same time, some individuals will experience an increase in religion and

spirituality due to basing their established religions and worldviews on mindfulness practices

(Chin et al., 2019). Nevertheless, there is a lack of research that explores the influence of

mindfulness and religion that are not predominantly white and Christian (Chin et al., 2019).

Comparably, mindfulness practices of the Eastern variation are rooted in ancient and ancestral

traditions and philosophies.

Mindful Self-Compassion

Mindful self-compassion or loving-kindness practices are foundational in drawing on mindful kindness and global interdependence and are considered compassion-based practices (Bankard, 2015; Braehler & Neff, 2020; Germer & Neff, 2019, p. 357-367; Pionke & Graham, 2021; Yarnell & Neff, 2013). Mindful self-compassion is bringing kind attention to oneself with mindfulness while understanding the connection to common humanity (Germer & Neff, 2019). The practices of compassionate-based mindfulness generally begin with self-compassion practices that Germer and Neff (2019) defined as turning toward suffering and unpleasant emotions with an increase in kinder self-response and acceptance rather than avoidance and self-judgment. For example, Petty (2017) wrote:

> Compassion skillfully engages with all of our fears and 'demons,' without cringing, without defense, and stands gently and courageously in the face of what we know and what we do not know or understand. Such compassion allows us to be genuine with one another for the long haul, come what may. It leaves no one and nothing out (p. 12).

Consequently, mindfulness and compassion practices are foundational in nonviolent communication, which is the basis of peace education (Goldberg et al., 2019). According to Nosek and Durán (2017), nonviolent communication (NVC) or compassionate communication is a way to develop communication with empathy to resolve conflicts peacefully.

Compassion can be cultivated through many approaches, not merely with indirect or direct compassion training (Singer and Bolz, 2013). When compassion is a way of life, people are more caring and thoughtful (Germer & Neff, 2019; Singer and Bolz, 2013). A person can flourish in confidence and inner peace through mindful compassion leading to holistic health (Logan et al., 2021). The practice of mindful awareness allows one to notice and pay attention to

each moment without judgment (Germer & Neff, 2019). Mindful self-compassion enables the ability to see unpleasant emotions arise and, with compassion, a person can turn toward those emotions with kindness and care (Braehler & Neff, 2020; Singer & Bolz, 2013).

Therefore, with increasing compassion, a person who faces pain and suffering will be more likely to acknowledge the fear and meet suffering with ease and kindness (Singer & Bolz, 2013). Fostering compassion through various informal means such as generosity, forgiveness, patience, mindfulness concentration, and the formal direct ways of loving-kindness and compassionate-based mindfulness nurtures nonviolent interpersonal and intrapersonal communications (Braehler & Neff, 2020; Germer & Neff, 2019; Pionke & Graham, 2021; Singer & Bolz, 2013; Yarnell & Neff, 2013). Singer and Bolz (2013) posit that compassion strengthens altruism, happiness, and human connection, and an open heart has a natural compassionate response. Consequently, compassion can motivate people toward compassionate giving and receiving.

When a person is more open in communication with other people, they tend to have a natural compassionate response (Germer & Neff, 2019; Singer & Bolz, 2013). Over time life experiences can cause individuals to close off their hearts. Compassion can open people and motivate them toward compassionate giving and receiving to create a more just world (Germer & Neff, 2019). Moreover, compassion strengthens altruism, happiness, and human connection (Germer & Neff, 2019; Singer & Bolz, 2013). This enhanced compassion and connection can be used to develop a more conscious awareness of environmental issues, as is the case in many outdoor youth programs, particularly environmental education programs and forests schools, where mindfulness practices in nature are more common (Djernis et al., 2019; Sunassee et al., 2021; Wamsler et al., 2017). The following section introduces a brief history of mindfulness.

Historical Foundations of Mindfulness

Mindfulness comes from the Buddhist "*Pali"* scripture "sati," meaning awareness of the body and mind with all the sensations and feelings experienced through concentrated breathing or other forms of concentration practice (Goldstein, 2016; Gunaratana, 2015; Ih-Ren Mong, 2015). Mindfulness in Western society is the secular practice of awareness and contemplative practices generally removed from the Buddhist traditional purpose, of freedom from the human birth and death cycle to relieve physical and mental ailments (Garcia-Campayo et al., 2021). Kabat-Zinn's (1994) popular definition is "paying attention in a particular way: on purpose, in the present moment and non-judgmentally" (p. 4). The following sections will highlight the history of mindfulness, from the philosophical and religious underpinnings to the secular practices in medicine and society.

Mindfulness and Monasticism

The initial identification of Buddhism as a religion was inspired by the "cultural and social exchange" experiences of the Buddhist monks and Spanish friars, who each took a vow of poverty (Pascal, 2016, p. 9). Christian monastic tradition arose from a Biblical perspective of mindfulness through a traditional prayer called *Lectio Divina*, which is Latin for divine reading (Ih-Ren Mong, 2015). The prayer combines scripture reading, contemplative practice, and prayer to promote communion with God (Ih-Ren Mong, 2015). Eastern pluralistic societies allow for the practice of Christianity and Buddhism due to the understanding that religions are bridged through contemplative/mindfulness practices to cultivate compassionate understanding and ease suffering (Ih-Ren Mong, 2015).

The first Christian scholar to practice the "Buddhist practice of right mindfulness in Christian" contemplation was Anthony de Mello (1997), who taught that conversations with God

occur through the awareness of oneself, the body, and sensations and that "becoming aware of one's own breathing or bodily sensations leads to interior silence. God's revealed word is understood only in silence" (De Mello & Galache, 1997, p. 14). Ih-Ren Mong (2015) stated that silence and "withdrawl [*sic*] can heighten our perception of the present situation which is required in practising [*sic*] right mindfulness" (p. 112). Thus, mindfulness can amplify spiritual awareness in silent prayer. Mindfulness and Buddhism have gained popularity as secular practices in Western behavior therapy and in the Christian tradition as spiritually contemplative practices (Ih-Ren Mong, 2015). Today, the trend has developed global relationships between religion, society, spirituality, and materiality, resulting in a desecularized world (Wu & Wenning, 2016).

Secular Mindfulness

Secularism is the lack of religion (McMahan & College, 2017). The consequence of secularity is a "spiritual void causing burnout syndrome and a loss of a spiritual and cultural identity" (Wu & Wenning, 2016, p. 551). In the context of the complexity of secularity in the world and learning, the authors wrote,

> in an increasingly pluralistic world, the entanglement of the secular, spiritual, religious, and wisdom traditions provides the opportunity to rethink education as a creative realm and an impossible possibility to re-engage the minds and lives of those in the hybrid pedagogical time (Wu & Wenning, 2016, p. 551).

The authors speculated that intertwining secular mindfulness with religion and spirituality can give rise to a creative domain in education, and yet without the addition of faith, it can cause a spiritual void (Wu & Wenning, 2016).

Wu and Wenning (2016) examined the post-secular turn as an output-oriented purpose in education and expression, indicating a newness in religion, spirituality, and wisdom traditions that complement one another. McMahan and College (2017) postulate that religious and secular practices of mindfulness can cause problems and, at the same time, provide various opportunities and limitations within the national context. Buddhism has often been reconstructed and reinforced as modernized throughout the world "through its re-articulation in the languages of science and secular thought" (McMahan & College, 2017, p. 115). Thus, McMahan and College (2017) describe Buddhism as aligning more with a scientific worldview and practicing ethics and thought. Similarly, Christopher et al. (2009) warned that people should not overlook the origins of mindfulness and all the elements of the traditions in the name of science. Western practices of spirituality without historical context or an understanding of the origins appropriate the tradition. Thus, mindfulness individualizes problems and suffering to self-transformation or self-help, distracting individuals from systemic issues instead of a collective approach (Wu & Wenning, 2016).

The authors posit that Western psychology research on mindfulness practices and interventions can help people worldwide yet emphasize the importance of the tradition's origin (Christopher et al., 2009). In contrast, a review of limited research by Baer et al. (2019) illuminated that there was a potential for people to experience adverse or unwanted effects of mindful practices, such as troubling thoughts or feelings. Mindfulness is a mental practice with variations worldwide in some form or another within every culture (Goldstein, 2016; Gunaratana, 2015). The practices of secular and sacred mindfulness can be foundational in any training focused on the inner work of equity, social justice, and mental health (Ih-Ren Mong, 2015; Magee, 2019; Petty, 2017). Complex global challenges such as shifting social practices

toward sustainability are responsible for all of society in changing our relationship with nature, mindfulness, and environmental education (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2017a; Wamsler, 2018). Over time, the practices can develop a more holistic approach to systemic change and collaborative relationships when awareness is grounded in compassion and the non-judgment of self, others, and surroundings (Jones, 2019; Magee, 2019; Petty, 2017). The following section will detail nature and education.

Nature and Environmental Education

The roots of environmental education (EE) are expansive and varied, dating back to the 1700s (Mccrea, n.d.). Philosophers such as Jean-Jacques Rousseau believed education should focus on the environment; by the 1800s, educators like Louis Agassiz emphasized the importance of nature over books for students (Mccrea, n.d.). By the early 1900s, nature study was famous, then the "dust bowl" of the 1930s spurred a focus on conservation in education to help address the environmental problems as they arise, such as pollution in waterways and the launching of Earth Day in 1970 (Mccrea, n.d.).

Due to the rise in environmental problems and the need to consider human activity with the environment, Doctor Stapp et al. (1969) first developed the definition of environmental education in 1969. The authors assessed many factors and wanted to go beyond conservation education which concentrates on essential resources from the earth to environmental education. Stapp et al. (1969) defined it as becoming knowledgeable and aware of the environment and the associated problems to help work toward viable solutions. Stapp was the first International Director of Environmental Education (EE) for the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and worked with environmental educators from across the globe to influence international working definitions of environmental education at the Belgrade

and Tbilisi conferences on Environmental Education (Stapp et al., 1969). The derived definition, in brief, is that EE is a process that aims to help make the world's population knowledgeable and concerned for the entire ecosystem and associated problems through the development of attitudes, motivation, commitment, participation, and skills to act individually and collectively for environmental problem solving and proactive solutions (Eneji, 2017; Stapp et al., 1969). In 1978, world leaders at the United Nations Educational, Scientific and Cultural Organization (UNESCO) conference emphasized the importance of education to "play a role" in solving environmental problems in society (UNESCO, 1978).

Eneji et al. (2017) surmised that the definition of environmental education (EE) has organized efforts that lead to teaching about the function of the natural world and the interaction of humans, and other living beings, associating with one another and the environment to live in balance. Effective environmental education can be achieved through individual citizens learning to cultivate a relationship with nature through more harmonious, conscious, ecological knowledge-building skills; capitalizing on environmental attitudes and values as well as interpersonal and intrapersonal skills allows for working collaboratively to address complex environmental issues (Anufrieva et al., 2020; Ardoin et al., 2020). Additionally, environmental education should be a continuous lifelong process beginning at preschool and expanding through local policy and higher education (UNESCO, 2016).

Moving beyond environmental education is ecopedagogy and eco-literacy. A variety of theorists embrace the term ecopedagogy and the ideas generated by Paulo Freire (Zocher & Hougham, 2020). Ecopedagogy is rooted in Central and South America, based on the 1970 publication of *Pedagogy of the Oppressed* by critical educator Paulo Freire, and is a humanistic approach to environmental education (Zocher & Hougham, 2020). Freire's model of

ecopedagogy goes beyond traditional environmental education, and Zocher and Hougham (2020)

defined it as the "aspects of critical pedagogy and constructivism, making it both relevant to

urban populations and transformative for students seeking to make change" (p. 35).

Ecopedagogy is a critical theory grounded in prescriptive concepts such as biophilia,

sustainability, and planetary ideology initiated by Freire (Freire, 1973/2000; Zocher & Hougham,

2020).

      Misiaszek (2020) highlighted ecopedagogical literacy from the critical thinking of

ecopedagogy and Freire. Ecopedagological literacy is a teaching and learning approach that

stems from disrupted learned ideologies that leave out nature and emphasize unsustainable,

consumptive, oppressive, unjust relationships with the earth (Freire, 1973/2000; Misiaszek,

2019). Thus, ecopedagogy literacy focuses on more holistic and biophilic roots that deepen and

widen the local to planetary ecology's learning to prepare for solutions to environmental crises

(Misiaszek, 2019).

      Similarly, Hilmi et al. (2021) defined "Eco-literacy" as ecological intelligence to learn

and comprehend how nature supports all living beings. Hilmi et al. (2021) described how eco-

literacy is supported through the multiple intelligences of intellectual, spiritual, social, and

emotional, including science, to solicit action to create a sustainable society for future

generations. Hilmi et al. described an example of a recycling company's eco-literacy activities

that cultivate "participatory environmental awareness" through classes and camps emphasizing

recycling waste material skills.

      Comparably, Fadjarajani and As'ari (2021) stressed eco-literacy as developing four

competencies: cognition, emotions, active and connected, or head, heart, hands, and spirit.

Fadjarajani and As'ari emphasize participation in learning and field application to increase a pro-

environmental attitude and behavior for the environment using the four previously mentioned

competencies. Furthermore, to increase eco-literacy, Fadjarajani and As'ari highlighted more

ecopedagogy-based learning through action, encouraging and increasing the formation and

comprehension of attitudes, concerns, morals, ethics, and community connection. The following

section will highlight nature-based mindfulness and how it can shape organizations and leaders.

Nature-Based Mindfulness Shaping Leadership

Miller (2015) depicted the early thoughts on emotions in the workplace regarding how

satisfied an employee was on the job. As interest in emotions at work grew, the focus expanded

to working within organizations' rational and emotional aspects (Miller, 2015). Emotions focus

leads to emotional intelligence and greater emphasis on mindfulness practices (Goleman, 2006).

Johnson and Hackman (2018) posited that successful leaders recognize the importance of

acknowledging and expressing emotions, citing an overemphasis on emotional intelligence's

importance. For example, some labeled competencies are more about rational thinking than

emotions. A more reliable approach to emotions is having equanimity of rationality and emotions

(Johnson & Hackman, 2018).

In leadership, analytical and emotional knowledge is essential. The ultimate achievement

is effectively and skillfully integrating the thinking and feeling of being a leader and a person

(Johnson & Hackman, 2018). Further, there is a link between respectful leadership, social

mindfulness, and knowledge sharing (Gerpott et al., 2019; Rechberg, 2021). According to

Gerpott et al. (2019), respectful leadership has a genuine interest and concern for others, while

social mindfulness is cognitive perspective making. The cognitive efforts are to deliberately

distance people from their perspective to see the world through another person's eyes and

humbly inquire with genuine interest about another person's perspective (Gerpott et al., 2019;

Van Doesum et al., 2018).

Social and Collective Mindfulness

Gerpott et al. (2019) defined *social mindfulness* as emotion and communication with a

motivation to increase opportunities for others and enable "knowledge sharing" through

"cognitive or perspective-taking" and empathetic concern in communication. However, the

empathetic concern is the affective action to feel for and with others in emotionally

understanding another person's situation and appropriately acting with an empathic willingness

to benefit others (Gerpott et al., 2019). Findings from Hu et al. (2019) indicate that servant

leaders who considered employees' well-being first and modeled compassion could help anxious

employees stay engaged at work and in the community.

Collective mindfulness is not the sum of mindful individuals but rather the whole team's

mindfulness (Curtis et al., 2017). Collective mindfulness unfolds the behaviors of contributing

individuals who align with team members' activities, thus supporting team relationships and

tasks. Additionally, individual and collective mindfulness supports engaging in relationships

(Curtis et al., 2017; Samul, 2020). To be successful, collective mindfulness and decision quality

must meet four criteria: voting, discussing decision principles, information distribution, and

information aggregation (Curtis et al., 2017). Moreover, Curtis et al. (2017) explained that to

avoid multiple monologues of team members was to have successful, robust dialogue dependent

on collective mindfulness.

Concurrently, Jones et al. (2016) conducted a study to examine whether mindfulness is a

metacognitive resource that positively influences active listening, empathy, and supportive

messages to help a person with difficult emotions. Jones et al. (2016) discovered that active

listening and empathy partially interrupt the relationship between mindful describing, observing, and helping another person through difficult emotions. Thus, collective mindfulness supports healthy dialogue that enables improved decision-making and task completion as a cooperative team (Curtis et al., 2017). The various collective mindfulness attributes of curiosity, empathy, attention, mindfulness, interaction, and cognition are essential in communication and decision-making (Curtis et al., 2017; Rajoo, 2020) and are qualities that are essential in leadership (Lewis & Ebbeck, 2014).

Mindfulness and Emotional Intelligence

Emotional intelligence, mindfulness, and compassionate communication skills are needed to enhance and cultivate workplace relationships because emotions permeate organizations and contribute to work and personal life (Burmansah et al., 2020; Goleman, 2006; Kaoun, 2019; Miller, 2015). Mindful leadership can increase compassion and non-judgment (Burmansah et al., 2020). According to Goleman et al. (2013), emotions are more powerful than intellect. The limbic system of the brain is a human's emotional center. Here, the brain is alerted to an urgent situation and is immediately ready to create an action plan to solve a problem. The thinking brain results from the limbic portion of the brain taking orders under stress or risk (Goleman et al., 2013), supporting leader decision-making and communication in workplace situations (Burmansah et al., 2020). Further, emotions are contagious for better or worse (Goleman, 2006). The emotional contagion can spread from the top down and impact a workplace, affecting the quality of the climate (Goleman et al., 2013).

Overall, the research demonstrates that mindfulness practices are essential for developing a leader's emotional intelligence and improving leadership (Kaoun, 2019). A leader's emotional intelligence and mindful practices can help increase communication skills and are displayed in

the communication style of the leader (Nadler et al., 2020; Rogers and Rose, 2019; Schein & Schein, 2018). Goleman (2006) defined "emotional intelligence" as knowing oneself while managing self-awareness practices of emotions, noticing the emotions of others empathetically, and motivating oneself while managing relationships. The five emotional intelligence competencies are motivation, self-awareness, self-regulation, empathy, and social skills (Goleman, 2006). Mindfulness strengthens self-awareness which is the keystone to emotional intelligence and the ability to understand emotions deeply (Goleman, 2006; Goleman et al., 2013; Gómez-Leal et al., 2021). A person with high emotional intelligence will have a strong sense of their strengths and weaknesses and an understanding of their values and intentions (Goleman et al., 2013).

With awareness practices, a person can be authentic by knowing their "true" best version of self, emotions, behaviors, and values while being aware of the emotional landscape and core values of a group or organizational essence (Goleman et al., 2013; Sağnak & Kuruöz, 2017). Mindfulness practice cultivates and influences social and emotional intelligence by emphasizing presence or a way of being (Goleman et al., 2013; Wells, 2015). Emotional intelligence connects to "resonant leadership," which the authors define by eighteen competencies that fall into two domains (Goleman et al., 2013). The two competencies' categories are the personal domain, which focuses on self-awareness and self-management, and the social domain, which focuses on social awareness and relationship management. Emotional intelligence competencies are not innate but are learned (Goleman et al., 2013).

The connection between mindfulness and system change in women and leadership begins with the foundation of individual awareness practices or mindfulness (Beddow, 2018; Magee, 2019; Phillips & Grandy, 2018). The practice of developing new patterns and habits through

mindful awareness grows emotional intelligence (Goleman et al., 2013). As leaders begin

increasing their skills individually, they can proceed with assistance from a coach, family,

friends, and co-workers (Goleman et al., 2013). Increased awareness cultivates and enhances

social and emotional intelligence, accentuating the ability to understand and empathize with

other people's perspectives, which extends to the external community and the natural

environment (Goleman, 2010). The increased social and emotional intelligence then advances

the ecological intelligence of how human systems interact with natural ones. Ecological

intelligence is an extensive knowledge of interdependence and interconnectedness between

human actions and the subsequent impacts on the planet's environment, health, and social

systems (Goleman, 2010).

Mindfulness and emotional intelligence are fundamental to an individual's development

and help address global challenges facing the sustainability of the environment and humanity

(Hilmi et al., 2021). Current research points to mindfulness approaches and interventions that can

help increase psychological resilience in individuals (Pillay, 2020; Thompson et al., 2011) and

the organizational resilience of groups (Levey & Levey, 2019; Wang et al., 2021). Additionally,

an exploratory study found a positive effect between mindfulness and resilience in women

leaders in higher education institutions (Pillay, 2020). Thus, it is essential to look at the path of

women's leadership in education. The following section will highlight a general overview of

women and leadership, followed by women's leadership in education.

Women and Leadership

Many shared social activities involve leadership indirectly or directly (Van Vugt & von

Rueden, 2020). Humans have adapted culturally and behaviorally to adopt leader and follower

dynamics (Van Vugt & von Rueden, 2020). There is a plenitude of qualitative and quantitative

research studies on leadership that examines various components, from styles and traits to theories and influences on followers and organizations, to gender in leadership (Beddow, 2018; Dirani et al., 2020; Miranda, 2019; Northouse, 2022; Phillips & Grandy, 2018; Stefan & Nazarov, 2020). Northouse (2022) describes leadership as a multi-dimensional, complex process due to increasing globalization and the volatility, uncertainty, complexity, and ambiguity (VUCA) of our time and thus, is without one agreed-upon definition. Northouse discusses the 21st-century leadership approaches and styles that accommodate a rapidly changing world. The rise of more diverse populations and the need for leadership to face the concepts of morality, ethics, spirituality, humility, and authenticity point toward a requisite for improved communication and inclusivity (Levey & Levey, 2019; Majeed et al., 2019; Northouse, 2022). Therefore, there is an increased need for more representation of people from diverse backgrounds in senior roles across organizations, yet populations are still underrepresented in these positions (Arday, 2018; Murrell, 2018; Schwanke, 2013).

Over the past decades, women's leadership has had many advances with increased literature on women's leadership styles, progressing into more leadership roles, and opportunities to navigate challenges (Andersson et al., 2021; Northouse, 2022). Despite the advancements, there are still hidden barriers for women that manifest in various ways, such as structural issues embedded in the community and organizational cultures and in policy with negative consequences such as domestic inequality for women who have challenges regarding childcare and motherhood (Andersson et al., 2021; Edge, 2019; Gupta et al., 2018; Murrell, 2018; Northouse, 2022; Phillips & Grandy, 2018; Randell & Yerbury, 2020; Schwanke, 2013; Van Vugt & von Rueden, 2020; Yildiz & Vural, 2019). Even more, women are still underrepresented

in senior leadership roles across most industries, even with organizations' purposeful efforts (Charatan, 2020; Smith and Suby-Long, 2019).

Rogers and Rose (2019) proposed that the underrepresentation of women in formal leadership roles is based on the overcompensation of women attempting to meet a masculine leadership style and setting high expectations of a perfect leader, which contributes to questions about their confidence, belonging, and competence. The role of a leader becomes more important than a leader's gender as a leadership role is situational, yet organizations need to practice gender competence (Bierema, 2016). However, a recent study suggested that the central issue of underrepresentation is in the different societal roles of women and men, where men are seen as agentic and women more supportive and passive in the workplace (Coleman, 2019). Skov (2020) explains their scoping review on unconscious gender bias as an assumed hidden barrier in academia and cautions that there is currently not enough supporting scientific literature because their findings suggest that there is not enough empirical data supporting a relationship between implicit bias and less opportunity in employment for women (Skov, 2020). The next section draws attention to how metaphors can hide and highlight barriers.

Women Leaders Metaphors and Barriers

An overview of metaphors helps to emphasize how gender shapes the distribution of power throughout an organization and highlights the invisibility of institutional barriers that are generally attributed to individuals (Clavero & Galligan, 2021). According to Randell and Yerbury (2020), scholarship on women's leadership and the derived metaphors have a strong Western influence. The researchers identified a need for a shared global cultural understanding of the metaphors that are useful to understand the abstract and practical aspects of culture and leadership, not just routine leadership dialogue (Randell & Yerbury, 2020). Metaphors can shape

social perception and be interpreted differently across cultures and individuals yet may be

influential in transforming perceptions for more profound understanding (Carli & Eagly, 2016).

Moratti (2021) posits that metaphors can suppress the complexities of gender inequality rather

than expose the hidden barriers and can inadvertently hide the phenomenon. In contrast, Moratti

postulated that metaphors are euphemisms for women in academia, helping shed light on

unsavory hindrances.

      The most common metaphors applied to women's experiences in leadership are the glass

ceiling, glass cliff, sticky floors, and labyrinth (Andersson et al., 2021; Northouse, 2022; Randell

& Yerbury, 2020; Yildiz & Vural, 2019). The glass ceiling was first coined in the 1980s as a

framework to describe the invisible barriers that prevent women and other groups from

advancing to senior-level leadership due to discriminatory and biased practices (Andersson et al.,

2021; Bendl & Schmidt, 2010; Moratti, 2018; Northouse, 2022; Randell & Yerbury, 2020;

Yildiz & Vural, 2019). The glass ceiling breaks when women move past the barriers and

increasingly step into leadership roles. The glass cliff metaphor represents women in

organizations promoted to "precarious leadership" (p. 2) roles that often lead to failure because

they were in unstable positions (Smith et al., 2012).

      In addition to the previous metaphors, the "labyrinth" (Carli & Eagly, 2007, p. 1) and

"firewall" (Bendl and Schmidt, 2010, p. 623) are more accurate ways of describing the

unconscious biases and discrimination of gender inequality (Andersson et al., 2021; Smith et al.,

2012). Andersson et al. (2021) argued that the current gendered metaphors are static and

problematic because it "conceals the everyday doings of gendered norms and power relations,"

which maintain the status quo (p. 11). The firewall metaphor is more "fluid, dynamic, and

variable" (p. 12) in describing the barriers that women face (Andersson et al., 2021). In contrast,

the labyrinth metaphor explores the difficulties of navigating through challenging passages and the need for extra effort to achieve higher levels of leadership (Carli & Eagly, 2016). Success through the labyrinth depends on women getting past dead ends and maintaining persistence, motivation, and skills while navigating the uncertain and challenging terrain (Carli & Eagly, 2016). Women in formal leadership roles are faced with gender stereotyping, hidden barriers, and challenges (Bierema, 2016; Carli & Eagly, 2016). The following section further highlights the influences that shape women's leadership in education.

Women Leaders in Education

Many women leaders experience hidden barriers and discrimination on their path to leadership and find that there is still an underrepresentation of senior women in academia despite advances in gender equality (Andersson et al., 2021; Burkinshaw & White, 2020; Calderone et al., 2020; Carli & Eagly, 2016; Clavero & Galligan, 2021; Moratti, 2021; Northouse, 2022; Randell & Yerbury, 2020; Robinson et al., 2017; Yildiz & Vural, 2019). The research is biased toward white middle-class women in gender studies, which exemplifies the need to examine women in leadership using an intersectional theoretical approach (Crenshaw, 1991) that recognizes identities, privileges, and oppressions (Davis & Maldonado, 2015; Moorosi et al., 2018). Carbado et al. (2013) explained that intersectionality is an enduring theory to consider as a reflection of "disciplines, issues, geographic and national boundaries" (p. 303). For instance, Davis and Maldonado (2015) accentuate the intersectionality of race and gender in African American women's path to leadership in their study while highlighting that there are few studies of African American women in academia. The study revealed that the lived experiences of women leaders in academic leadership roles direction were influenced by race and gender; despite the inequities, the women in the study prevailed, they often put in double effort toward

their work or projects to prove themselves (Davis & Maldonado, 2015). Thus, continuing the

necessary work to pursue gender equity requires intersectional theory, practices, and research to

account for all women (Davis & Maldonado, 2015).

   Over the past ten years, organizations have made great strides in leadership

accomplishment, particularly in education and women leaders' recruitment and retention (Edge,

2019; Northouse, 2022). However, there are still barriers for women, predominantly in spotting

talent, recruiting, training, and retaining leaders in senior positions (Bierema, 2016; Carli &

Eagly, 2016; Organisation for Economic Co-operation and Development (OECD), 2020;

Northouse, 2022). Another barrier is seen for women generation X leaders under 40 years of age

with a "temporal tension between work and family" (Edge, 2019, p. 5). Edge (2019) noticed

emerging patterns and highlighted three pronounced challenges for women in education: 1)

juggling career planning and family, 2) struggles in work/life balance without mentorship or role

models, and 3) assumed family support needed at home. Edge (2019) asserted:

> Early leadership experience in North American leaders may be shaking up the notion of a
>
> 'glass floor' that limits leadership trajectories due to a lack of early leadership experience.
>
> These findings create interesting tensions and consideration for policy/practice leaders
>
> interested in supporting and retaining young women leaders (p. 5).

A global concern in education systems is to ensure that educators are empowered and adequately

recruited (Edge, 2019; United Nations Educational, Scientific and Cultural Organization

(UNESCO), 2016). Through academic and policy discussions, researchers have found that there

is still sexism toward women with the skills and motivation to access senior roles in education

(Bierema, 2016; Carli & Eagly, 2016; Edge, 2019; Northouse, 2022).

The career paths of women leaders in education find work-life balance and motherhood as reasons they do not pursue leadership roles; rarely are men discussing these issues regarding their leadership (Bierema, 2016; Carli & Eagly, 2016; Edge, 2019; Northouse, 2022). Moreover, the pressures of being a school leader include doing more with less time, resulting in extended hours that intensify challenges beyond work (Cansoy et al., 2021; Edge, 2019). Cansoy et al. (2021) described work intensification as "the insufficiency of mental and physical capacity related to work done during working hours" (p. 2). Globally, education systems amplify the work intensification of their leaders (Cansoy et al., 2021; Edge, 2019).

Researchers described the current state of academia specific to women leaders as affected by "the global pandemic and incidents of racial injustice in the United States and around the world [that] have profoundly impacted the higher education landscape, and the experiences and trajectories of women academics in particular" (Helms et al., 2021, p. 3). The current global status for women in leadership showed a deficit of senior women leaders in higher education (Cheung, 2021; Edge, 2019; Skov, 2020).

Cheung (2021) described the progress in increasing women's enrollment in undergraduate courses and leadership at small colleges as only one dimension of gender equity and does not translate to increases in the representation of women in "other levels of academia" and leadership (p.5). Edge (2019) emphasized the importance of looking deeper into the obstacles that women leaders in higher education face and wrote:

Much more needs to be done to address the systematic barriers preventing women from achieving leadership positions in higher education. Despite decades of effort through research, training, and networking, numerous systematic barriers to women's leadership in higher education remain at individual, institutional and societal levels (p. 5).

Thus, changing the culture of hidden barriers and structural biases, organizations need to create accountability measures that support and mentor women's development, retention, recruitment, and promotion (Bierema, 2016). The subsequent section will feature the details of women leaders and leadership styles.

Women Leaders and Leadership Styles

Leadership is complex, with many components and ways to conceptualize its meaning (Northouse, 2022). *Leadership* is a process that encompasses communication that determines the behavior between a leader and a follower to influence group members toward a common goal (Johnson & Hackman, 2018; Nazim & Mahmood, 2018; Northouse, 2022). Equivalently, communication is a process that transforms the "attitudes and behaviors of others in order to meet shared group goals and needs" (Johnson & Hackman, 2018, p. 12), and a leader's influence is through their behavior and communication between followers (Northouse, 2022).

According to Nazim and Mahmood (2018), a leadership style is how leaders conduct themselves toward their followers. Comparably, Eagly (2007) declares that leadership styles are not fixed behaviors but actions that align with specific situations and functions within a leader's particular style. Leadership is evolving beyond the masculine agentic standard to include feminine relational styles in leadership (Nash & Moore, 2018; Post et al., 2019). Classic leadership rarely identifies women leaders in examples, and current literature points toward women leaders' basic feminine styles and traits (Bierema, 2016).

Research from Badura et al. (2018) describes the agentic traits as positive and communal as unfavorable, using a model to look at the traits through participation in group discussions, and found that gender differences in leader emergence by understanding the agentic and communal attributes. The research indicates the average traits associated with women as communal and

men as agentic, and both genders can be one or both, androgynous being agentic and communal (Fjendbo, 2021; Kulich et al., 2021). Fjendbo (2021) suggests that gender differences result from societal expectations of boys and girls and can vary across cultures. Societal role expectations in leadership and women have changed over time, helping to decrease the gender gap in leadership, yet there are fewer women in senior leadership roles across industries (Badura et al., 2018; Cheung, 2021; Edge, 2019; Northouse, 2022; Skov, 2020).

The research indicates that the combination of agentic and communal traits in leadership and androgynous leadership is more widely accepted, yet there is still a prevalence of the belief that the stereotypical successful leader is masculine (Keck, 2019; Kulich et al., 2021). However, exemplary leadership combines communal and agentic attributes (Keck, 2019). The stereotypical qualities associated with being feminine in leadership are collaborative, cooperative, democratic, nurturing, relational, and mentoring (Eagly, 2007; Post et al., 2019). The stereotypical attributes linked to masculine leadership are assertive, competitive, ambitious, dominating, and goal-oriented (Saint-Michel, 2018). The research by Saint-Michael (2018) revealed that women leaders who described themselves as more communal were perceived by their followers as transformational leaders. A leader's behavior attributes are positively influenced by mindfulness practices and are associated with transformational leadership (Arendt et al., 2019; Carleton et al., 2018).

Mindfulness can cultivate emotional intelligence, and research findings indicate that emotional intelligence can influence leader effectiveness, self-efficacy, and positive affect (Carleton et al., 2018; Kaoun, 2019). Arendt et al.'s (2019) initial empirical study revealed that cultivating mindfulness in leadership and organizations can promote resilience and personal well-being and positively affect interpersonal skills and communication behaviors. Research

suggests that a leader's mindfulness reflects their communication style (Arendt et al., 2019;

Rogers & Rose, 2019) and increases a calm demeanor in times of stress, including an increase in

resilience-building strategies, self-care practices, empathy, and self-awareness which positively

impacts the people around them and is supportive in transformational change and times of crisis

(Chesley & Wylson, 2016). Further, a mindful change leader will have an improved ability to

coach and interact with others while maintaining perspective, understanding, objectivity, and

purposeful engagement (Chesley & Wylson, 2016). Research is emerging that indicates that

mindfulness can increase emotional intelligence and self-leadership that complement the

attributes of authentic, transformational, and ethical leadership styles (Chesley & Wylson, 2016;

Kaoun, 2019; Lange et al., 2018; Nübold et al., 2019; Rupprecht et al., 2019; Stedham & Skaar,

2019; Urrila, 2021). Analogously to mindfulness, nature-based leader training in the wilderness

improves and complements authentic leadership's self-awareness and relational and emotional

regulation attributes (van Droffelaar & Jacobs, 2018).

Mindfulness in leadership is reflected in leadership styles and positively affects behavior

attributes in transformational and authentic leadership and communication (Arendt et al., 2019;

Carleton et al., 2018). Burmansah et al. (2020) declared that mindfulness increases leaders'

empathy, self-awareness, and emotional intelligence. Generally, women tend to show the

attributes of transformational leadership style through relational behaviors (Nash & Moore,

2018). Studies show that women are more likely to take on these transformational leadership

attributes than men (Nash & Moore, 2018; Silva & Mendis, 2017). Moreover, transformational

leaders have the attributes that empower, encourage, inspire, motivate, grow, and innovate

through teamwork and relational behavior (Cheung, 2021; Nash & Moore, 2018; Sidhartha

Panda & Banik, 2020). In two studies, researchers found a positive correlation between school

leaders and administrators applying transformational leadership and increased followers' work satisfaction (Day & Burbach, 2019; Frieder et al., 2018; Hu et al., 2019). Similarly, Nazim and Mahmood's (2018) research found that principals' transformational leadership positively correlates with job satisfaction.

Transformational Leadership

The transformational leadership style is based on the prior work of George Macgregor Burns (1978). The main factors of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994; Bass & Steidlmeier, 1999; Northouse, 2022). Idealized influence is the charisma factor in transformational leadership and describes leaders with strong ethical and moral values as influential role models for their followers (Bass & Steidlmeier, 1999; Northouse, 2022). Inspirational motivation is the communication of high expectations and shared goals and vision that inspires team spirit and concern for subordinates and the organization's success (Bass & Steidlmeier, 1999; Northouse, 2022). Intellectual stimulation is the stimulation of creativity and innovation element of transformational leadership, supporting curiosity and communication in problem-solving, growth, and generating creative solutions in an organization (Northouse, 2022). Finally, as the fourth factor of transformational leadership, individualized consideration emphasizes the supportive atmosphere leaders create as coaches and advisors assisting individual followers toward attainable goals and growth to their fullest potential (Bass & Steidlmeier, 1999; Northouse, 2022).

Leaders of transformational leadership inspire and motivate their followers to go beyond their achievements for the group's best interest; leaders are purposeful and trustworthy, building culture by articulating vision (Bass & Avolio, 1994; Saint-Michel, 2018). These leaders are

collaborative and benevolent toward their followers, inspiring change and innovation (Bass &

Avolio, 1994; Saint-Michel (2018). Transformational leaders share leadership and are highly

collaborative with strong interpersonal relationships (Eagly, 2007; Northouse, 2022; Saint-

Michel, 2018). Eagly (2007) describes the characteristics closely aligning with feminine or

communal traits. Transformational leadership is more compatible with women's attributes in

leadership, linking influential and visionary personality traits (Eagly, 2007; Fjendbo, 2021). A

transformational leader has solid moral values, and advocates change for others by influencing

their followers to achieve goals while drawing attention and inspiration to the needs and growth

of their followers (Northouse, 2022). A recent study by Lange et al. (2018) found a positive

relationship between transformational leadership and mindfulness in leadership and a negative

connection between mindfulness and *destructive leadership*, which uses harmful or abusive

communication styles. Cultivating mindfulness skills positively supports communication in

transformational leadership (Lange et al., 2018).

Transformational Leadership in Education

Transformational leadership is the most dominant leadership model in education and is

highly relevant regarding school restructuring, pressures, and changes from local communities

much like an organization (Berkovich, 2017; Northouse, 2022). Transformational leadership is

popular in organizations and organizational change, which changes and transforms people

(Northouse, 2022). Transformational leaders tend to influence and motivate followers, helping to

create an encouraging and supportive climate (Eagly, 2007; Northouse, 2022; Saint-Michel,

2018). Values, ethics, standards, and vision motivate inspire and influence how leaders assess

their followers and consider them as complete human beings (Northouse, 2022). Several studies

on transformational leadership in education explore the impact on leaders, women leaders,

principals, teachers, students, and school climate (Berkovich, 2017; Bin Bakr & Alfayez, 2021; Hyseni Duraku & Hoxha, 2021; Francisco, 2019; MORA, 2012; Thomas et al., 2018; Wang, 2019; Wang et al., 2020; Yang, 2014).

In the recent study by Wang (2019), transformational leadership positively impacted school climate regarding school leaders who cultivated care, encouraged innovation, and created an equitable school climate. Another study examined the relationship between principals' transformational leadership and school improvement (Yang, 2014). Yang (2014) describes a case study emphasizing the importance of transformational leadership to implement school improvements from discovering problems to finding solutions; transformational leadership skills form ideas, build a shared vision, support power sharing, gain confidence, and successful outcomes. Hence, a principal's transformational leadership is vital to promoting school development (Francisco, 2019; Yang, 2014).

Transformational Leadership and Educational Leadership

Research conducted by Bin Bakr and Alfayez (2021) examined the empirical data to consider the relationship between transformational leadership, gender, and the impact on the psychological empowerment of Saudi Arabian women leaders in higher education. Bin Bakr and Alfayez's findings suggest that female transformational leaders empower their followers like their male colleagues. The study indicated no gender difference in leadership ability regarding the psychological empowerment of their subordinates. The authors indicate that leaders can instill a sense of meaningfulness in work, including knowledge sharing, decision-making, and improved self-confidence (Bin Bakr & Alfayez, 2021). The findings in the study reaffirm that women transformational leaders are equally influential as their male peers in empowering their subordinates (Bin Bakr & Alfayez, 2021).

In a recent study from China, Wang (2019) looks at the effect of school climate, the

school head's transformational leadership, and students' modernity. Student modernity is a

person's perceptive ideas, values, behavior, and attitude patterns. As mentioned earlier,

transformational leadership significantly impacts the school climate, and the climate plays a

substantial role as a mediator between a transformational leader (school head) and student

modernity (Wang, 2019). Concerning cultivating a safe and just school climate, transformational

leaders will shape a caring, trusting, and accessible environment that considers passion,

innovation, long-term vision, and equity ethics and values issues (Wang, 2019).

Hyseni Duraku and Hoxha (2021) conducted a nascent study that revealed the impact of

transformational and transactional attributes of principal leadership on teacher motivation for

work. The study's results indicated that transformational leadership attributes of idealized

influence and inspirational motivation predict self-directed motivation in teachers and

complementary tasks with the transformational attribute of individual consideration (Hyseni

Duraku & Hoxha, 2021). Additionally, the study considered that the transactional leadership

attributes of contingent reward were less effective than transformational attributes. The overall

study emphasized the positive effects transformational leadership had on teachers' self-directed

motivation and their motivation for complementary tasks and student evaluations (Hyseni

Duraku & Hoxha, 2021). Similarly, another study found that a principal's transformational

leadership positively influenced first-year teachers' job intrinsic motivation mindset, self-

efficacy, and job satisfaction (Thomas et al., 2018).

Transformational Leadership Teachers and Students

In nascent research, Wang et al. (2020) found that students had high self-efficacy and

were aware of their teacher's transformational leadership. In the study, student self-efficacy had

a high correlation with idealized influence, intellectual stimulation, individualized consideration, and inspirational motivation that increases student self-efficacy, knowledge sharing, problem-solving, general ability to work, and expertise in work career planning (Wang et al., 2020). The study used structural equation modeling to calculate the correlation between variables and found a significant positive correlation between teachers' transformational leadership and student self-efficacy, including the positive effect of problem-based learning on student self-efficacy and employability (Wang et al., 2020).

In a two-stage stratified study conducted in China, researchers found that the transformational leadership of school principals significantly and positively relates to teacher leadership and teacher self-efficacy (Li & Liu, 2020). However, teaching leadership positively affects student academic performance (Li & Liu, 2020). The positive effect between principals and teachers when cooperative in leadership inspires and develops staff teachers to lead with the principal, which includes inspiring motivation and preparing and supporting teachers through a transformational climate; the teacher leadership supports student learning (Li & Liu, 2020). A longitudinal study at a large German university on transformational teaching derived from transformational leadership in higher education on student motivation revealed increased engagement, creativity, and task performance due to increased trust in their teacher (Pachler et al., 2019). The researchers examined the relationship between the teachers' transformational behavior of the teachers, motivation, and student performance (Pachler et al., 2019).

Servant Authentic and Transformational Leadership

A servant leader will prioritize the needs of the people served and have a social responsibility to find equality for the less privileged in society (Northouse, 2019). Northouse (2019) describes Greenleaf's ten characteristics of servant leadership; one characteristic is

awareness, where a leader practices awareness and reflects on their thinking and behaviors to understand other perspectives (Northouse, 2019). Self-awareness advances servant leaders toward a greater understanding of empathy and compassion, growing their emotional intelligence and behaviors to serve and build communities.

Authentic leadership develops over a person's lifetime and focuses on intrapersonal and interpersonal development, which is nurtured and emerges throughout their lives, possibly triggered by a critical life event (Northouse, 2022; Van Droffelaar, 2021). The attributes of authentic leadership have a foundation of purpose, values, relationships, self-discipline, and compassion (Northouse, 2022; Van Droffelaar, 2021). The four main attributes of authentic leadership are self-awareness, internal moral perspective, balanced processing, and relational transparency (Northouse, 2022; Van Droffelaar, 2021). The findings from an empirical study by Van Droffelaar (2021) on the wilderness experiences of leaders propose that participants' emotional experiences were significant in improving self-awareness, feeling the value of nature, increasing calm, interconnectedness, and self-confidence, and instrumental in changing their leadership style.

Additionally, combining authentic leadership with transformational leadership merges the attributes of ethical and moral character that include "liberty, utility and (distributive) justice" (Bass & Steidlmeier, 1999, p. 182) to the four factors of transformational leadership (Bass & Avolio, 1994; Northouse, 2022). The four main factors in transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994; Northouse, 2022). Further, Bass and Steidlmeier (1999) emphasize that "to be truly transformational, leadership must be grounded in moral foundations" (p. 181). Thus, authentic transformational leadership focuses more in-depth on the morality and

ethics of transformational attributes and can include other attributes of leadership styles (Murari & Mukherjee, 2021).

In a recent study, a researcher explored crisis leadership around COVID-19 and discovered that Canadian leadership responded in four stages of leadership styles. The four stages gradually evolved from authentic, servant, and transformational leadership to participative leadership styles, aligning with authentic transformational leadership. Researchers identified six traits associated with authentic transformational leadership as associated with the six universal virtues (Sosik & Cameron, 2010). More specifically, Murari and Mukherjee (2021) point out that authentic transformational leadership is necessary for our current global challenges by identifying the traits of clear concepts, trust, inspired motivation, intellectual stimulation, mentorship and coaching, self-awareness, transparency, cultivating organizations, and having harmonious values (Murari & Mukherjee, 2021).

Authentic, servant, respectful, and transformational leadership reflect mindfulness in the attribute of self-awareness, which is like emotional intelligence, specifically self-awareness, social awareness, and the ability to influence emotional expression (Arendt et al., 2019; Carleton et al., 2018; Gerpott et al., 2019; Miao et al., 2018; Stedham & Skaar, 2019). Mindfulness practices help cultivate self-awareness, social awareness, and communication, increasing emotional intelligence in leaders (Arendt et al., 2019; Brown & Moshavi, 2005; Carleton et al., 2018; Kaoun, 2019; Rogers & Rose, 2019; Stedham & Skaar, 2019). Moreover, self-awareness is foundational to mindfulness and emotional intelligence and is instrumental in effective leadership, such as authentic transformational leadership (Brown & Moshavi, 2005; Stedham & Skaar, 2019). The following section details this study's conceptual framework, which is a critical perspective of ecofeminism to consider the connection between power and relationships.

Conceptual Framework

A conceptual framework is the culmination of assumptions, concepts, beliefs, and the analysis and interpretations of a theory that supports, shapes, and guides research design, questions, and methodology (Grant & Osanloo, 2014; Maxwell, 2013). The framework guides data analysis and helps identify any validity threats (Maxwell, 2013). The conceptual framework for this study is framed by an ecofeminist perspective that blends ecology, feminism, spirituality, and intersectionality with an inclusive worldview that connects humans and nature (Buckingham, 2015; Kings, 2017; Martin, 2011). *Ecofeminism* is a social and political movement that combines environmentalism and feminism (Buckingham, 2015).

Ecological feminism, also referred to as ecofeminism, was initially coined in 1974 by the French feminist Françoise d'Eaubonne, in their publication of Le Feminisme ou la Mort (Chandra Mondal & Majumder, 2019; Estévez-Saá & Lorenzo-Modia, 2018; Foster, 2021; Gough & Whitehouse, 2019). "Ecofeminism" is a movement and philosophical approach that is rooted in the "French tradition of feminist theory" (Claxton, 2017, p. 83), beginning with the work of Simone de Beauvoir, who saw that women and nature were considered "other" by the patriarchy (de Beauvoir, 1949/2010, p. 39). Ecofeminism combines feminist theory and environmental activism and describes the relationship between nature and women as dominated and exploited by a patriarchal system (Ryman, 2021). Ecofeminism is a branch of feminist theory exploring the connection between women and nature and proposes that human beings are not above or superior to nature but rather a part of nature (Chandra Mondal & Majumder, 2019; Ourkiya, 2020).

While there are many variations of ecofeminism, all ecofeminists agree that there is historical systemic domination and subordination to maintain power over women, and nature

connects to all forms of oppression affected by patriarchy (Claxton, 2017; Warren, 1996).

Claxton (2017) described the work of ecofeminist researcher Ariel Salleh and her examination of

Ecofeminism as Politics, explicitly stating that the term ecofeminism applied to any man or

woman with the idea that the domination of women and nature are "interconnected" (p. 84). The

ecofeminist conceptual framework stems from a critical and constructivist paradigm aligning

with a hermeneutic phenomenological method, which considers 'the being' as detailed in a study

by Kūle (2018), who reiterated:

> The creative symbiosis of existential powers, passions for place, vital spacing, the skies,
>
> the infinite, and the fullness of the logos are conceptual apparatus for phenomenology of
>
> life as eco-phenomenology (p. 49).

Ecofeminism is like phenomenology in that it historically had two main approaches: essentialist

or cultural, and constructivist or social worldviews (Peredo Beltrán, 2017). There is division and

criticism between these cultural and social strands (Peredo Beltrán, 2017).

However, historically ecofeminism compared women and nature; accusing and criticizing

ecofeminism as an essentialist and reductionist view of women with descriptions of nurture, care,

and reproductive capabilities that link women to the earth that is socially and materially

detrimental, and the researchers warn of generalization and naturalization of this connection

(Estévez-Saá & Lorenzo-Modia, 2018; Peredo Beltrán, 2017). Further, researchers describe an

ethic of care from the lens of feminism and an environmental ethic or ecological ethic of care as

a sense of care and morality. The ecological ethic of care is a social practice and care in

childhood to adulthood for self and community (Jax et al., 2018). Ecofeminism considers life in

nature as collaborative and caring, based on love, empathy, and morality (Chandra Mondal &

Majumder, 2019). Care is essential to being human and being in the world (Caputo, 2018; Elley-Brown & Pringle, 2019; Heidegger, 1953/2010; Spier, 2019).

The resurgence and evolution of ecofeminism reveal multiple perspectives, philosophies, and approaches (Hatten-Flisher & Martusewicz, 2018; Peredo Beltrán, 2017). Thus, ecofeminism has varied feminist affinities such as liberal, radical, and socialist (Hatten-Flisher & Martusewicz, 2018; Milosevic, 2019; Peredo Beltrán, 2017). *Ecofeminism* is a complex concept working to dismantle the patriarchal binary systems that separate women and men, culture and nature, equate women with nature, and historically established hierarchies (Hatten-Flisher & Martusewicz, 2018). The many branches of ecofeminism include cultural or spiritual, socialist, radical, or critical ecofeminism and are ever evolving with the changes in our environment and society (Di Chiro, 2021; Estévez-Saá & Lorenzo-Modia, 2018; Kadi et al., 2020; Milosevic, 2019). This research took a more critical constructivist lens of ecofeminism to align with Heidegger's hermeneutic phenomenological approach to find a connection between ecofeminism attributes, women leaders in education, their practice of nature-based mindfulness (NBM), and how NBM impacts their leadership qualities.

The main attributes of ecofeminism identified in the research are detailed in a study by Philips (2019), who describes ecofeminist ethics as "care-sensitive" and centered around the values that are typically invisible in traditional ethics, such as care, compassion, friendship, and trust that is appropriate for the context. Thus, Phillips proposes that the focus is on the interconnections between human and non-human in nature and affective engagement with the living world, emphasizing respect for all beings, "human and non-human," including the "totality of ecological processes" (p. 1159) and connecting to others beyond self. Subsequently, Lupinacci (2017) calls for leadership that encourages a "social justice and sustainability" (p. 20) mindset

that veers away from "egotistical leadership"(p. 20). Lupinacci suggests that egotistical leadership is individualistic and should move toward a more exceptional collective leadership that is ecotistical, not egotistical, and shaped by a critical and ethical commitment toward justice, health, and well-being of the larger ecological community (Lupinacci, 2017).

Heidegger and Ecofeminism

Feminism in phenomenology began with Husserl and one of his students, Edith Stein, who were both essentialists (Köhler-Ryan, 2020; Missaggia, 2020). The phenomenology study branched into two distinct approaches, Edmond Husserl's transcendence or descriptive phenomenology and Martin Heidegger's Hermeneutic or interpretive phenomenology. The Hermeneutic philosophers who associated with Heidegger were existentialists. Heidegger and his student Hans-Georg Gadamer, Merleau-Ponty, Simone de Beauvoir, their partner Jean-Paul Sartre, and Hannah Arendt shared philosophical viewpoints (Köhler-Ryan, 2020; Missaggia, 2020). Additionally, Simone de Beauvoir was a philosopher and constructivist feminist (Köhler-Ryan, 2020). Köhler-Ryan (2020) emphasized the epistemological differences between the phenomenological feminists, Stein and de Beauvoir, and further explained the similarities in thinking between the two. Köhler-Ryan (2020) revealed that Stein, like de Beauvoir,

> argues that women should be free consciously to choose what they want from life. Also, like Beauvoir, Stein thinks that women are responsible for defining themselves as individuals within a society. She also argues that women discover more about themselves, as women, through involvement in public, [and] professional life (p. 11).

The conceptual framework of ecofeminism complements Heidegger's phenomenology to develop an ecofeminist phenomenological methodology.

The 1970 Earth Day global awareness for environmental protection simultaneously was the catalyst to the beginnings of the ecofeminism movement, and Heidegger was considered the philosopher for ecology and the environmental movement (Rentmeester, 2016). Though controversial, the author claims that Heidegger is an "asset to environmentalism" (p. xix) and is a possible basis to develop environmental ethics and eco phenomenology (Rentmeester, 2016). In addition to ecofeminism, the conceptual framework will be influenced by the philosophical underpinnings of eco phenomenology and the concepts of phenomenology philosophers Martin Heidegger, Maurice Merleau-Ponty, and Edmund Husserl (Claxton, 2015; Deka, 2018; Kūle, 2018). Like phenomenological methodology, ecofeminism has multiple perspectives. The two main branches of both are essentialism, the assumption of pre-determined innate qualities, and constructivism, which is socially, historically, and culturally constructed (Rentmeester, 2016; Toadvine, 2009). This study used a constructivist ecofeminist lens. Ecofeminism assumptions are grounded in ecological exploitation due to Western ways of thinking (Kumar, 2020) and are a movement with concern for ecology and its emancipation from patriarchy for human and planetary liberation (Kumar, 2020; Merchant, 2008). Another assumption that ecofeminist Shiva points to is that Western progress is available globally. However, it has perpetuated the Western idea of wealth and maintained colonization and patriarchy; thus, the exploitation and exclusion of women, degradation of nature, and erosion of other cultures continue (Kumar, 2020; Shiva, 2016).

Ecofeminism is as diverse as feminism, and though there are various concepts and branches of ecofeminism, there is an agreement among the central tenants that humanity is interdependent and interconnected to everything (Warren, 2000). The interconnection and interdependence of being-in-the-lifeworld, and subsequently the rise of human disconnection to

nature and social and environmental challenges, lead to ecofeminism aligning with this research

(Claxton, 2015). The conceptual framework is at the foundation of the research design. It was

instrumental in considering the data analysis of the population of women leaders practicing

nature-based mindfulness. Thus, using an ecofeminist lens helped to guide, support, and clarify

the findings from this study of the lived experiences of women leaders in education practicing

nature-based mindfulness.

Conclusion

Mindfulness has many benefits in supporting and improving the well-being of individuals

and organizations. Adding nature to mindfulness increases the benefits and leads to pro-

environmental behavior and attitudes (Burmansah et al., 2020; Goleman, 2010). Nature-based

mindfulness improves the health of human beings and connects them to others and their

environment (Nisbet et al., 2019). Current research supports that being in nature while practicing

mindfulness increases health benefits further (Djernis et al., 2019). In summary, mindfulness

practices have a foundation in Buddhist traditions that have, over time, become a part of

everyday culture across the globe in a variety of organizations, from schools to corporations to

medicine.

Organizational and social mindfulness increase interpersonal and intrapersonal

communication and cultivate improved emotional and social intelligence while increasing

compassion and empathy in relationships (Burmansah et al., 2020; Goleman, 2006; Kaoun, 2019;

Miller, 2015). Additionally, collective mindfulness supports healthy dialogue that enables

improved decision-making and task completion as a collaborative team. Next, chapter three will

describe the methodological approach and research design, including the philosophical paradigm,

methodology, sample population, data collection, and analysis.

CHAPTER 3

Methodology

The purpose of chapter three is to provide an in-depth description and rationale for the methodology of this qualitative study. This chapter will detail the study's research design and justification, discussing how the participants' lived experiences were explored. Followed by the research design, the chapter will include sections covering a philosophical worldview, the role of the researcher, population and sample, data collection process and procedures, data analysis, trustworthiness, and protection of human subjects.

Purpose Statement

The purpose of this hermeneutic phenomenological study was to explore and interpret the shared lived experiences of women leaders in education who practice nature-based mindfulness and how it shaped their leadership style. A hermeneutic phenomenology is a different approach from other qualitative research as it examines the basic concept of everyday human life (Heidegger, 1953/2010). This study aimed to uncover aspects of the everyday lived experiences of being a woman leader in education practicing nature-based mindfulness (Heidegger, 1953/2010; Van Manen, 2014). The research broadly explains the behaviors and attitudes of the participant's experiences of the same phenomena through their verbal and written depictions (Creswell & Creswell, 2018; Heidegger, 1953/2010; Spier, 2019; Van Manen, 2014). This study was guided by the philosophy and methodology of hermeneutic phenomenology in conjunction with an ecofeminist conceptual framework.

In phenomenology, understanding is gathered through the direct experiences of the participant and the researcher (Spier, 2019). A hermeneutic phenomenological method is an interpretive research method combining the direct experiences of participants who make

meaning of their day-to-day world and the researcher who can help uncover perspectives and

hidden realizations (Creswell & Creswell, 2018; Frayne, 2015; Yin, 2016). This study

implemented a hermeneutic method to examine nature-based mindfulness through an emerging

process of semi-structured open-ended interviews with participants to make meaning of their

experiences of the phenomenon. Additionally, using a Heideggerian phenomenological approach

helped focus the research questions framed by an ecofeminist ontology and epistemology,

integrated into the perspectives and meaning-making of the experiences with nature-based

mindfulness (Allen, 2019; Deka, 2018; Lessem & Schieffer, 2010; Payne, 2020).

Research Questions

In phenomenological research, the fundamental instrument is the researcher, who

typically engages in dialogue with participants through interviews, providing an opportunity to

extract specific statements that may be the forgotten experiences of being (Spier, 2019).

Heidegger (1953/2010) suggested that creating the questioning must center around the "meaning

of being" (p. 52) with transparency and clarity in the question.

This study examined the lived experiences of women leaders in education who practice

nature-based mindfulness through the following research questions:

1. What are the shared lived experiences of women leaders in education who practice

nature-based mindfulness?

a. What are the benefits experienced by women leaders because of practicing

nature-based mindfulness?

b. What challenges do women encounter because of practicing nature-based

mindfulness?

2. How does practicing nature-based mindfulness shape the leadership style of women

leaders in education?

The philosophical assumptions in the next section will provide an overview of the paradigm of

leading philosophers behind phenomenology and ecofeminism, which informed the rationale for

using this approach. The study's scope includes collecting information specific to nature-based

mindfulness practiced by women leaders in education and finding the themes in the data to

describe the participants' lived experiences of the phenomenon.

Philosophical Worldview

The philosophical worldview or paradigm are interchangeable constructs that describe

personal beliefs that shape the research (Buriro et al., 2021; Creswell & Creswell Báez, 2021).

The worldview consists of ontology, epistemology, methodology, and methods. The hermeneutic

study has an ontological view of interpretivism, which is a relativist stance of seeing reality as

subjective (Vogl et al., 2019). The assumption of ontology is the nature of the world and

existence; the ontological constructivist sees reality as subjective and as a social construct

(Scotland, 2012). Fundamental worldviews in research include the study of being, what is known

and seen, values and biases, and how they all influence methodology and the expression of

language (Buriro et al., 2021; Creswell & Creswell Báez; 2021; Scotland, 2012). In this

worldview, a person's reality is formed by their social, cultural, and historical experiences

(Buriro et al., 2021).

The constructivist researcher embraces participatory beliefs and collaborates with the

participant to inspire change (Creswell & Creswell Báez, 2021; Råheim et al., 2016). The

researcher sees the participant as the expert and will make meaning collaboratively during the

interview process. The participants and the researcher have different experiences and multiple

realities that are uncovered in the research process and through the practice of reflexivity (Creswell & Creswell Báez, 2021; Crowther & Thomson, 2020; Maxwell et al., 2020; Spier, 2019). Hence, a hermeneutic phenomenological approach implements a constructivist epistemology that acknowledges reality as a social construct and subjective, allowing one to build their reality based on their perceptions and lived experiences (Buriro et al., 2021).

Phenomenology

Phenomenology, which differs from other qualitative approaches, is a philosophical tradition originating from the work of Edmund Husserl (Lessem & Schieffer, 2010; Peoples, 2021; Schacht, 1972; Toadvine, 2019). Various thought leaders and philosophers contributed to the development of phenomenology, "most notably Max Scheler, Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty, Emmanuel Levinas, and Jacques Derrida" (Toadvine, 2019, p. 585). The term phenomenology is a two-part Greek expression of phenomenon and logos, meaning "what shows itself in itself" (Heidegger, 1953/2010, p. 110). Hence, constructing a phenomenon is to understand and make meaning of lived experiences (Neubauer et al., 2019). Neubauer et al. (2019) described the different types of phenomenology, rooted in diverse philosophical attitudes, as being "each rooted in different ways of conceiving of the what and how of human experience" (p. 91). Phenomenology is a descriptive philosophical and methodological approach, while hermeneutics extends beyond descriptive to add an interpretative approach focusing on contextual meanings (Matua & Van Der Wal, 2015; Oxley, 2016).

The purpose of phenomenology is essentially to make meaning of emerging phenomena brought into being from "living in the world" not only in relation to human interactions but concerning nature and nonhuman beings (Matua & Van Der Wal, 2015; Spier, 2019; Vagle,

2018, p. 20; Valentine et al., 2018). Phenomenology begins with inquiry to explore the meaning of a particular phenomenon through the interpretation of participants' telling of their lived experiences of a phenomenon (Matua & Van Der Wal, 2015; Peoples, 2021). Intentionality is the driving core of a phenomenological study, which examines the "interconnectedness between people, things, and the world they live in" (Valentine et al., 2018, p. 462). The research approach is to uncover people's everyday experiences, noticing what is unnoticed (Spier, 2019).

The two foremost foundational phenomenological philosophers are Husserl and Heidegger, and all subsequent phenomenological philosophies build on one or both of their foundational approaches (Matua & Van Der Wal, 2015; Peoples, 2021). Edmund Husserl originally developed the theory of phenomenology early in the 20th century to explore the meanings of a phenomenon that people made in their everyday lives, what he identified as the essence of consciousness (Oxley, 2016; Reeves et al., 2008; Smith, 2013). The descriptive phenomenological approach communicates pure detailed descriptions of people's experiences in contrast to hermeneutic phenomenology, which interprets those experiences (Matua & Van Der Wal, 2015.

Descriptive Phenomenology

The founder of phenomenology, Husserl, was influenced by philosopher and psychologist Franz Brentano (Lessem & Schieffer, 2010). Husserl proposed new philosophical concepts and techniques to uncover the core reality of human consciousness or the "lifeworld" (Lessem & Schieffer, 2010; Singh Sikh & Spence, 2016). The *lifeworld* is defined as the place where all subjects and objects dwell, and humans cannot break from this or have an outside perspective (Valentine et al., 2018). When using a descriptive phenomenological approach, nothing is assumed or taken for granted when discerning the phenomenon of study (Lessem & Schieffer,

2010; Peoples, 2021). Researchers using a descriptive approach have an attitude toward the

lifeworld that removes themselves from the research to enable the ability to set aside

assumptions and biases; the researchers can transcend and remove themselves from the

phenomenon, called *bracketing*, to better describe the research details (Valentine et al., 2018).

According to Valentine et al. (2018), intentionality is the central focus of investigation

across all phenomenological methods. The phenomenological attitude is a way to experience the

lifeworld through the openness of the meanings in everyday experiences that interconnect across

the intentionality of context, time, and relations (Heidegger, 1953/2010; Spier, 2019). The

descriptive researcher can understand the "essence" of the phenomenon through a series of

reductive stages that Neubauer et al. (2019) described, as it

> Requires the *transcendence* from the natural attitude in everyday life through *epoche*,
>
> also called the process of *bracketing*. This is the process through which the researchers
>
> set aside—or bracket off as one would in a mathematical equation—previous
>
> understandings, past knowledge, and assumptions about the phenomenon of interest (p.
>
> 93).

Consequently, descriptive phenomenology does not use additional frameworks or lenses in

describing the data as the researcher is "bracketing" (Tufford & Newman, 2012). Heidegger was

a student of Husserl and was highly influenced by descriptive phenomenology, yet Heidegger

rejected the reductionism and bracketing of Husserl's approach (Tufford & Newman, 2012).

Hermeneutic | Heideggerian Phenomenology

Hermeneutics is known as interpretive phenomenology and is traditionally the art of

interpreting various texts (Spier, 2019). Heidegger (1953/2010) described the phenomenon as

what already shows itself in appearances, prior to and always accompanying what we

commonly understand as phenomena (though unthematically), can be brought

thematically to selfshowing. What thus shows itself in itself ("the forms of intuition") are

the phenomena of phenomenology. For, clearly, space and time must be able to show

themselves in this way (p. 106).

Hermeneutic phenomenology is a descriptive and interpretive act in which both researcher and

participant are integral in understanding the minutia in the everyday experiences of the

phenomenon (Kafle, 2011; Valentine et al., 2018). The description and interpretation focus on

the group and individual experiences (Kafle, 2011).

A researcher can uncover hidden details not recognized in everyday experiences leading

to more insightful perceptions of the phenomenon and this is appropriate when studying a

participant's past life experience (Matua & Van Der Wal, 2015; Ramsook, 2018). Heidegger's

construct allows multiple lenses to develop new understandings (Peoples, 2021). For example,

Smythe et al. (2008) describes how hermeneutic phenomenology is challenging and rewarding

when observing the everyday lived experiences of people regarding the same phenomenon. The

researcher considers various lenses to understand the everyday experiences of participants.

Hermeneutic research is informed by the relationships and connections between

worldview, past experiences, and context of the researcher, the participant, and the research

(Dibley et al., 2020). Heidegger (1953/2010) described "the fundamental ontological task of the

interpretation of being as such thus includes the elaboration of the temporality of being" (p. 81).

Heidegger explained that "being-in-the-world" is the combined phenomenon of "in-the-world,"

"the being," and the "being in as such" seen as a whole (p. 146). The philosopher describes the

trio as a being-in-the-world phenomenon that cannot be broken down and is in the mind as a

whole phenomenon. Thus, being in the world is being in relation to space, time, and history and is in the whole of every being (Heidegger, 1953/2010).

Four key Heideggerian terms identify and inform hermeneutic research, *daesin*, *thrownness, care,* and *situated* (Dibley et al., 2020; Heidegger, 1953/2010; Peoples, 2021; Spier, 2019). The English translation of *daesin* is there-being or being there (Dibley et al., 2020; Peoples, 2021). The Heideggerian definition of *daesin* is being human in the world by understanding self and being in the world (Heidegger, 1953/2010). In this study, *daesin* will be the understanding of the being of being human in the world through the relation of time and space with a meditative way of thinking, leading to an open awareness (Dibley et al., 2020). The Heideggerian term *throwness* is the being that involves the researcher's prior knowledge shaped by family, social and cultural experiences (Dibley et al., 2020; Heidegger, 1953/2010). The personal and professional life of the researcher is important and will influence the research and requires self-awareness and reflexivity.

The hermeneutic researcher must be aware of how they influence every aspect of the research as they are not separate from the study (Dibley et al., 2020; Spier, 2019). The Heideggerian term *care* is daesin, meaning humans exist in the world primarily as *care* with the ability to have concern or not, the ability to question being and one's own being (Heidegger, 1953/2010; Spier, 2019). The awareness of the "thrownness" and "daesin" is the beginning of the hermeneutic circle (Dibley et al., 2020). Therefore, the researcher begins research with self-awareness and reflection on experiences and biases that may shape the design and interpretation of the study.

Despite any clarity of the phenomenon, a realization and challenge in phenomenology is the principle that comprehension comes from everyday people who, like the researcher, have

various experiences and understandings (Smythe et al., 2008). Another challenge of hermeneutic

interpretation lies in the inability of the researcher to separate from the study and handle all the

contrasting emotions and feelings that can arise from the research (Smythe et al., 2008). The

term *situated* means a researcher is a part of the investigation with all their personal and

professional experiences and that those experiences are not separate from time, space, and

context (Dibley et al., 2020). Hence, the researcher is fully immersed in the research and must

bring awareness and reflexivity of all their life experiences, assumptions, and biases throughout

the entire research process (Dibley et al., 2020). Doing so can enhance the trustworthiness and

validity of the study.

  Eco-phenomenology. Given the multiple lenses offered by hermeneutic phenomenology,

the researcher incorporated an ecophenomenological lens to assist in interpreting the

phenomenon of nature-based mindfulness. Ecophenomenology is the intersection of

phenomenology and environmental philosophy (Brown & Toadvine, 2003; Thomson, 2004;

Totaro, 2018). Totaro (2018) described ecophenomenology as the harmony between human

beings, the earth, and the cosmos that constructs a new relationship toward and with the non-

human ecosystem. At the same time, Kūle (2018) defined ecophenomenology as a "fundamental

phenomena unifying the world's natural, human, cultural and symbolic dimensions – light,

rhythm, silence, place" (p. 43). Analogous to phenomenology, ecophenomenology has a variety

of philosophical underpinnings that inform the methodology.

  Ecophenomenology developed as an emerging philosophy to contend with environmental

crises, extending past environmental philosophy to investigate the root causes of the global

ecological crises (Deka, 2018; Toadvine, 2009). Deka (2018) claims that ecophenomenology

examines how human beings experience the ecosystem through exploration of the human-nature

relationship, possibly leading to a deeper understanding and sensitivity toward nature. Deka suggests that sensitivity leads to the "understanding that humans are essentially embodied and embedded in this world" (p.125). Deka (2018) postulates that the theoretical framework is grounded in the philosophies of phenomenologists Husserl, Heidegger, and Maurice Merleau-Ponty, which further supports the methodology for this investigation of nature-based mindfulness.

Ecophenomenology has a history in environmental education, connecting nature to writing and art (Iared et al., 2016). This branch of phenomenology has a philosophical foundation influenced by philosophers such as Nietzche, Husserl, Levinas, Heidegger, Merleau-Ponty, and Gadamer, among others (Iared et al., 2016). Brown and Toadvine (2003) explain that philosophy plays a role in re-establishing a relationship with nature. Furthermore, phenomenology can help develop a new relationship with nature despite the 'vague theoretical inquiry' into the consciousness or being of experiences (Brown & Toadvine, 2003).

The ecophenomenological hermeneutic ontological perspective of Merleau-Ponty and Gadamer, examined through the lens of art, posits that there are no dichotomies between subject and object and that there is a reflective consciousness in the aesthetic experience in nature (Iared et al., 2016). Merleau-Ponty has a phenomenological approach to embodiment toward sensing and perceiving a phenomenon based on "being-in-the-world" (Iared et al., 2016; Thomson, 2004). Gadamer extends hermeneutics through an interpretive application of language and understanding (Laverty, 2003). Like Heidegger, Merleau-Ponty and Gadamer agree that being-in-the-world, knowing, and perceiving being-in-the-world, consciously and unconsciously, is based on the pre-understandings of an individual (Iared et al., 2016).

Deka (2018) describes the importance of considering the active role of the whole body in the human experience in dwelling, space, place, time, and the experience of other beings in a shared world, looking at the relationship of humans with nature. Thus, ecophenomenology is a culmination of environmental philosophy and the phenomenological philosophies rooted in the "lifeworld" of Husserl, the "being" and "being-in-the-world" of Heidegger, the hermeneutic and interpretation of Gadamer, and the "embodiment" and "perception" of Merleau-Ponty (Brown & Toadvine, 2003; Deka, 2018; Thomson, 2004).

Role of the Researcher

A hermeneutic researcher is a part of the study and is an instrument that influences the research topic, design, and outcomes (Bazeley, 2013; Creswell & Creswell, 2018; Creswell & Poth, 2018; Dibley et al., 2020; Peoples, 2021). In contrast to Husserl's bracketing, in Heidegger's philosophy, a researcher cannot set their assumptions and biases aside (Peoples, 2021). Additionally, assumptions and biases are always in the "lifeworld," and the researcher must then focus on those that are relevant to the study by having continual reflexivity when assessing new information and conceptualizations (Peoples, 2021; Vagle, 2018).

Researcher positionality is the ontological and epistemological beliefs that influence the study (Holmes, 2020). The researcher is an instrument of interpretation and data collection (Dibley et al., 2020). This ever-changing study necessitated continual reflection on positionality by the researcher (Holmes, 2020). The historical, social, and political context of experiences, worldviews, values, biases, and assumptions required self-awareness and mindful disclosure by writing in a personal journal, research journal, and dissertation (Dibley et al., 2020; Gadamer, 2000; Holmes, 2020). In addition to acknowledging bias, the researcher reflected on preconceived thoughts and understandings through reading and questioning perspectives

emanating from my past experiences to find a "horizon of understanding" to prepare for a new

depth and expansion of ideas in the dissertation process (Dibley et al., 2020; Gadamer, 2000).

The approach to the in-depth interviewing of data collection required deep active listening, open

and reflective thinking, and understanding as an interviewer (Dibley et al., 2020). I recognized

through the study that my own experiences and presumptions have influenced my philosophical

assumptions and interpretations, specifically with the data analysis process of the hermeneutic

circle. Thus, I continuously and consciously considered how my personal and professional

experiences, including socioeconomic status and gender, have shaped my worldview,

observations, and interpretations throughout the entirety of the study (Creswell & Creswell,

2018; Holmes, 2020).

In this study, I focused on the phenomenon of nature-based mindfulness. My interest in

the study topic is derived from personal and professional experiences as a science educator,

community leader, outdoor leader, mindfulness instructor, and young women's coach and

advisor. As a middle school math and science teacher and leader, I observed difficulties as a

female educator and in my students identifying as female. The hidden misogynistic messages in

communication and curriculum revealed challenges for my profession and shaped how I

experienced my community, prior relationships, and work relationships.

Consequently, I experienced a shift in perspective in my professional and personal life

when I was faced with difficult life circumstances upon returning from a semester sabbatical trip

as a participant in an international women's organization that financially and physically assisted

three women-run non-governmental organizations (NGOs). Before the trip, my worldview was

unrealized, and I was a part of an individualistic system of competitive, comparative,

consumptive behaviors and attitudes that motivated me to do incredible activities and

achievements without detailed awareness of self or the surrounding world. During the trip, my awareness expanded from the self and how being in the world unveiled a deeper connection globally to humanity and the more-than-human world to comprehend the interdependence of life more profoundly on the planet and a vital need for a collective, collaborative mindset. A month after returning from the trip, I began teaching and sought new ways to overcome doubt and depression personally and professionally and further developed self-awareness. I discovered mindfulness and found that deep reflective practices helped me to look more consciously into challenges. I took numerous and extensive mindfulness training sessions online and in person while deepening my practice and growing spiritually. My worldview shifted to embrace a more global collective perspective and continues to grow and develop.

I implemented mindfulness practices into my personal and professional life and eventually taught students in the classroom and teachers in professional development workshops. The practice of mindfulness completely changed how I related to students and the environment regardless of whether I was teaching the practices or not. The personal practice of mindfulness brought a new presence into the classroom and to teaching, interacting, and connecting with students and colleagues. I found that mindfulness helped me develop more assertive communication, connection, and empathy concerning people's situations. It was deepening a greater understanding and compassion for self and others.

Further, I was less critical and judgmental and felt this lifelong practice could help other teachers and students find the same benefits. In my teaching experience, I found that many teachers and students had difficulties with non-critical and non-judgmental communication, empathy, and compassion. Through mindfulness practices and witnessing the difficulties experienced by my fellow teachers and students, I gained awareness of the many ways of being

that were unhealthy and that had been accepted as a part of my life. The continual practice of dealing with many vicissitudes has shaped my understanding of how I am in the world and how I can become.

I began teaching mindfulness approaches to students and teachers, and to this day, many of those who were practicing with me recall with fondness the benefits of the practice. I found I had challenges instructing overworked teachers who did not want to add one more activity to their plate. Through training and experiences, I developed an increasing awareness of emotional and affective states, leading to a more profound ability to learn and understand and provide a more empathetic understanding of how to support student learning (Tyng et al., 2017). The self-directed knowledge of mindfulness practices was transformative and provided humanistic learning that I could fully embody and comprehend (Allen et al., 2022; Kim, 2018; Merriam, 2017).

Simultaneously, I understood more about connecting to nature through adventure sports and activities in regional, national, and international parks and green spaces. The combination of nature-based activities with mindfulness practices I personally noticed more benefits from combining the two practices. My mindset and worldview shifted further with increased awareness and connection to the natural world and humanity. This realization helped me further develop as a teacher and a person.

Research Design

In this qualitative hermeneutic phenomenological study, data was gathered from interviews and reflection artifacts from supplementary data and analyzed using a hermeneutic circle to create deep meaning (Yin, 2016). A hermeneutic philosophy guided the interpretation and exploration of the lived experiences of women leaders in their everyday lives, thus making

meaning of nature-based mindfulness practices and how the phenomenon shaped their leadership (Creswell & Creswell, 2018). According to Yin (2016), there are four forms of data collection which include (1) interviewing and conversing that emphasize communication and language, (2) observation of the gestures of the individuals interviewed, (3) collecting of artifacts, and (4) noticing the feelings and sensations throughout the data collection. Through interviews, the intent was to engage in recollection of the phenomenon in the participants' past and recent experiences to recognize how it has shaped their current trajectory and how it might guide their leadership. With the incorporation of narrative analysis, participants engaged in a chronological unfolding of their lived experiences while acknowledging these experiences with personal, social, and cultural contexts (Creswell & Poth, 2018).

Population and Sample

This study used purposive and snowball sampling techniques through an international network of contacts (Creswell & Poth, 2018; Yin, 2016); a total of 12 women leaders in education participated in interviews. A sample size for qualitative research varies based on results from the interview process; for this study, the 12 participants resulted in reaching saturation for the data (Sebele-Mpofu, 2020). Qualitative studies commonly implement a purposive sampling strategy by using one or more types to maximize variation (Creswell & Poth, 2018; Yin, 2016). The inclusion criteria for the population were age 30 to 70, which accounted for experience to achieve leadership status and retirement age, at least one year in a leadership position or teaching position, and one-year practicing nature-based mindfulness with an ability to articulate their experience (Appendix C). The criteria of the population limited the sample and did not fully represent all ages or experiences of women leaders in education. Additionally, one

participant through snowball sampling was a friend of the researcher. The researcher was extra vigilant in ensuring reflexivity in the interview process and data analysis.

Half of the participant source was drawn from networks of people engaged in an organization practicing nature-based mindfulness and another school teaching mindfulness-based coaching to obtain an interested population familiar with the phenomenon (Dibley et al., 2020). These networks have members from all over the world; the members were mostly from the United States and Europe and may not represent women in education from a specific geographical region, such as all or no participants from a particular nation. The other half of the participants were drawn from the snowball sampling technique. A snowball typology identifies people interested in the study through individuals who pass on the information to connect with the researcher (Creswell & Poth, 2018; Yin, 2016). The sample size for a phenomenological study is generally small to collect vast details to interpret the phenomenon. Phenomenological studies range from one to 325 participants, though there are no concrete numbers, and a typical sample size of a study is three to ten participants (Creswell & Creswell Báez, 2021). The sample size is highly dependent on the complexity of the phenomenon and the quantity and quality of data collection (Creswell & Creswell, 2018; Vagle, 2018; Yin, 2016). The sample size is adequate when the researcher attains data saturation (Creswell & Poth, 2018). Saturation in "theory, codes, themes, data and meaning" (p. 14) allows for the interpretation and support in understanding the complex phenomenon (Sebele-Mpofu, 2020). The researcher recruited 12 participants for the study to allow for data completeness and understanding of how nature-based mindfulness practices influence the participants' leadership styles (Dibley et al., 2020).

Sampling Procedures

The data collection began after approval from the Northwest University Institutional Review Board (NUIRB) of the application to protect human subjects (Creswell & Creswell Báez, 2021). The purposive sampling was initiated through email and social media posts sent to the two organizations that granted permission for the study and with access to potential participants practicing nature-based mindfulness. The organizations had member platforms where, with permission, the researcher posted a recruitment request (Appendix A). Additionally, the recruitment process included a snowball technique to ensure an adequate sample size. The researcher invited all potential and interested candidates to volunteer for the study with an email link to the screening questions and selected participants who met the following selection criterion (Appendix A & C):

1. Nature-based mindful practitioners with one or more years in the field,

2. English speaking to ensure the meaning of lived experiences is not lost in translation,

3. Identify as women leaders, and

4. Are established (one year or more) leaders in education with ages ranging from 30 to 70. The age range is selected to consider time to obtain experience for formal leadership positions, retirement age, and one year or more in a formal leadership position.

A formal leadership role in this study was an appointed or assigned position within a school or an organization, from preschool to university level and beyond, where the leader is assigned tasks that influence, coordinate, and communicate to one or more individuals who are subordinates or are influenced by the leadership role (Northouse, 2022). Participants who agreed to volunteer were sent an electronic copy and a Google form of the informed consent and

provided compliance through their online signature and subsequent involvement in the interview, including any consequent follow-up meetings (Appendices E, F, & J).

Data Collection

In the phenomenological method, the researcher is the data-collection instrument (Creswell & Creswell, 2018; Shufutinsky, 2020; Yin, 2016). According to Creswell and Creswell (2018), good qualitative research includes "multiple sources of qualitative data to make interpretations of the research problem" (p. 187). Accordingly, the data collection process for this study included in-depth interviews (primary data) and a written narrative reflection (supplemental data) completed after practicing an audio recording of a nature-based mindfulness session and the researcher's reflexive journal (Appendices G, H & I). The variety of data collection sources helped to provide a robust picture of the lived experiences participants had with the phenomenon of nature-based mindfulness (Creswell & Creswell, 2018). The following sections provide greater detail on the interview, reflection, and artifacts collected during this study.

Interview

An interview is a verbal conversation, including body language, for participants to describe their experience, behavior, and perspectives to questions a researcher asks (Yin, 2016). The interviews were conducted online through recorded Zoom video sessions and were the primary data of the study (Appendices G). The consent form included an agreement for recording the interviews for the purposes of transcription and asked permission to record at the start of each meeting (Appendices E & F). The researcher observed the behaviors, facial expressions, voice fluctuations, and body gestures to the extent possible of the participants during the interview and through real-time video conferencing, including notations and

reviewing the transcripts and recordings. Observations are essential in qualitative data and help

inform the researcher's understanding of the phenomenon. The researcher may notice a portion

of the participants' physical gestures, actions, social interactions, and environment during the

interview process to the extent possible in a video conference (Seidman, 2006; Yin, 2016).

Creswell and Creswell Báez (2021) explained that the role of the observer is to record and write

reflective field notes of these observations.

The researcher relies on interviews first in qualitative data collection (Seidman, 2006).

The purpose of interviewing is to understand the "lived experience" of participants in the study

and how they make meaning of their experiences (Seidman, 2006, p. 9). The Heideggerian

hermeneutic phenomenological approach methods are informed by a reflexive and critical

philosophy that helps interpret the participants' lived experiences to disclose their meanings

using "ontological inquiry" (Crowther & Thomson, 2020, p. 1). The researcher used reflexive

journaling throughout this study, including the pilot of the interview questions and during the

interview process, analysis, and discussion. The researcher piloted the interview questions,

protocol, and guide with two volunteer participants who were as similar to the research sample

population as possible and understood they were not eligible to be a part of the study (Appendix

G; Maxwell, 2013). To understand how the participants would experience the process, the

researcher had the interview questions administered to them to adjust and edit slightly before the

onset of the interview progression (Maxwell, 2013). The testing of the interview process was to

ensure the reliability of the questions and provide knowledge that the questions are helpful to

reaching the objective of the study (Maxwell, 2013; Seidman, 2006).

This study used an in-depth, one-on-one interview style to gather participants' lived

experiences and allowed for more in-depth opportunities to discern the phenomena. The one-on-

one interview is preferred when participants have a perspective that they may not be comfortable

sharing in a group setting (Creswell & Creswell Báez, 2021).

In this phenomenological method, the researcher gathered data through interview

sessions (Creswell & Creswell, 2018; Shufutinsky, 2020; Yin, 2016). The researcher conducted

12 semi-structured interviews that lasted between 32-minutes and 80-minutes and were guided

by an interview protocol and interview guide for the researcher to ensure consistency in

gathering data through the interviewing process while encouraging participants to be open and

share experiences, opinions, ideas, and views (Creswell & Creswell, 2018; Lauterbach, 2018;

Yin, 2016). The interview protocol is a general line of inquiry that a researcher establishes to

provide a mental framework for interactions with participants to support the focus and direction

of a study and inform the identification of relevant data (Yin 2016). The interview guide has a

basic similarity to the research protocol and is a set of reminders or prompts for the researcher in

the interview process (Yin 2016). At the same time, the phenomenological approach requires a

researcher to interview with a "phenomenological" open and reflective mind to allow for the

unfolding of experiences and facilitation of the interviews without bias or expectations (Suddick

et al., 2020). In the interview process, a researcher can mistake feelings, thoughts, and

perceptions with experiences and must identify the experience of perceptions ensuring the focus

is on the experiences of the phenomenon (Peoples, 2021). Participants were encouraged to share

the factors and experiences they had in education, leadership, and life encounters that were

influenced by their nature-based mindfulness practices and how nature-based mindfulness

shaped their leadership style.

Conducting an interview requires the researcher to ensure the setting is suitable for the

participants and follows the interview protocol to stay on topic and continually refocus on the

purpose of the interview (Creswell & Creswell Báez, 2021; McGrath et al., 2018). To ensure an appropriate virtual interview setting, the researcher worked with the participants to find an optimal date and time to join the video conference from the comfort of their own homes or equivalent location. Following the interview, the researcher sent a follow-up email to participants with verbatim transcripts to ask any clarifying questions, which is a component of member-checking to enhance trustworthiness (Creswell & Creswell Báez, 2021; Peoples, 2021; Yin, 2016). The researcher collaborated with the participants to recount their experiences through email correspondence (Appendix G). During each interview session, the researcher used the interview protocol and guide (Appendix G). After the interview, each participant was invited to participate in a supplementary data activity and reflection and member-check the transcripts through a follow-up email. Once all member-checking email communication was complete, each participant received a $10 e-gift card from EarthHero with a "thank you" note for their contribution by email (Appendices H, I, J & K).

Artifacts and Reflections

After the initial one-on-one interview, participants were invited to participate in a 12-minute nature-based mindfulness recorded activity in their favorite local nature space (Appendix H; Creswell & Creswell Báez, 2021). The activity provided supplemental data on participants' reflective narratives of their experiences through a written, recorded, or artistic format (Appendix I). The researcher asked the participants to detail their experience of the practice and to consider thoughts, feelings, and emotions that arose in relation to their physical surroundings (Appendices H & I). The participants were encouraged to submit their reflective narrative of the activity through email; although encouraged, if the participant did not email the reflection, it did not disqualify them from the study.

Artifacts are tools designed for a specific function (Viola, 2021). The artifacts that were requested of participants after the interview was a reflective piece of optional participation in nature-based mindfulness practice, including information and training from open sources such as teacher development and colleges or other items directly connected to the participants (Yin, 2016). The artifacts can be classified as cognitive or affective. The cognitive artifacts are from tasks that result in a physical item. Affective artifacts can be grouped into three areas: feeling, evaluative, and motivational (Viola, 2021; Yin, 2016). The artifacts represent the feelings or emotions that arise with a particular experience and impact a person's bodily and emotional state extending to an external object, such as a wedding picture or, in this research, artwork from the secondary data activity (Viola, 2021). In this study, the researcher attempted to collect reflective narratives of an experience with a recorded nature-based practice (Appendix I). Prior to carrying out the practice, each participant was given instructions with the link to the SoundCloud recording and had the autonomy to choose a location to conduct the nature-based practice and complete it with a reflective narrative (Appendices H & I). Although all participants were interested in participating, their time and availability were limited, and as a result, only one participant submitted a reflection with art and poetry to express their experience. The remaining individuals did not participate.

Confidentiality

Confidentiality considers the rights of an individual's privacy, the dignity and worth of all people and respects the names of locations and organizations (Yin, 2016). The privacy and confidentiality of participants and all data collected and analyzed in this study were respected, and the researcher took action to protect the identity of the participants from being discovered by others (Ramsook, 2018; Yin, 2016). The researcher assured participants of confidentiality in this

study and did not reveal a participant's identity, association with an organization, or participation

in the study (Creswell & Creswell, 2018, Ramsook, 2018, Roth & von Unger, 2018).

Anonymization is the deletion of details that could identify a participant; a pseudonym of the

participant is one practice used (Roth & von Unger, 2018). A list of the assigned pseudonyms

and study characteristics were kept in a separate file from consent forms and interview

transcripts and were securely stored and encrypted on the researcher's password-protected

personal computer hard drive and an encrypted password-protected SanDisk portable external

drive (Yin, 2016). Interview recordings were labeled only with the date and pseudonym and

stored with encryption in a labeled file on the researcher's password-protected personal computer

hard drive and an encrypted password-protected SanDisk portable external drive. The name of a

tree was assigned as the pseudonym of each participant to protect the interviewee's identity and

privacy. All data files and transcriptions were appropriately stored and encrypted on the

researcher's password-protected computer hard drive and an encrypted password-protected

SanDisk portable external drive. The files had no identifying details and were coded with a

pseudonym to protect the participants' identities. Once the audio was transcribed, the researcher

deleted them from the files to ensure anonymity. Before each interview, the participant was

asked for consent and permission to continue and reassured that they could elect to end the

interview and participation in the study at any moment and for any reason (Creswell & Creswell,

2018; Yin, 2016).

Data Analysis

Data analysis aimed to evaluate the various types of data collected in the study to make

sense of all the material gathered (Creswell & Creswell, 2018). The Heideggerian approach to

data analysis is intersubjective and makes meaning of being and language (Vagle, 2018). This

contextual ontology maintains curiosity and a *through-ness*, which is actively moving forward

from the focus on being to more on becoming (Heidegger, 1953/2010; Vagle, 2018). There is a

limited structured methodological framework for the researcher to follow; instead, Heidegger

suggested that the researcher always asks questions and understands the meaning of being

(Crowther & Thomson, 2020; Vagle, 2018). The researcher reflexively journaled through the

data analysis process to keep track of thinking, understanding of the phenomenon, and revisions

(Peoples, 2021).

The participants' lived experiences were analyzed to gain a deeper understanding and

meaning of the human condition through intensely repetitive and comparative analyses involving

continual sorting and resorting of data (Bazeley, 2013; Crowther & Thomson, 2020; Vagle,

2018). The analysis process required continually reading and rereading the data to unveil the

multiple meanings of the phenomenon in an iterative fashion and to craft themes that became the

foreground and the qualities of the phenomenon (Vagle, 2018). A hermeneutic circle uses the

Heideggerian approach (Vagle, 2018). The researcher interprets the data by formulating the

research questions, gathering the data, working with - and dwelling in - the data (Crowther &

Thomson, 2020; Vagle, 2018). The hermeneutic circle is not a linear methodology but rather a

continual weaving throughout the study (Crowther & Thomson, 2020). Essentially, this

hermeneutic circle constantly shifts back and forth between the whole and part of the

phenomenon (Yin, 2016). The researcher interpreted the being of the data to "deepen the

understanding of the political, historical, sociocultural, and other real-world contexts" (p. 336)

within which the phenomenon occurs (Yin, 2016). A depiction of the hermeneutic circle or a

spiral reveals the essence of the phenomenon as seen in Figure 1 (Dibley et al., 2020).
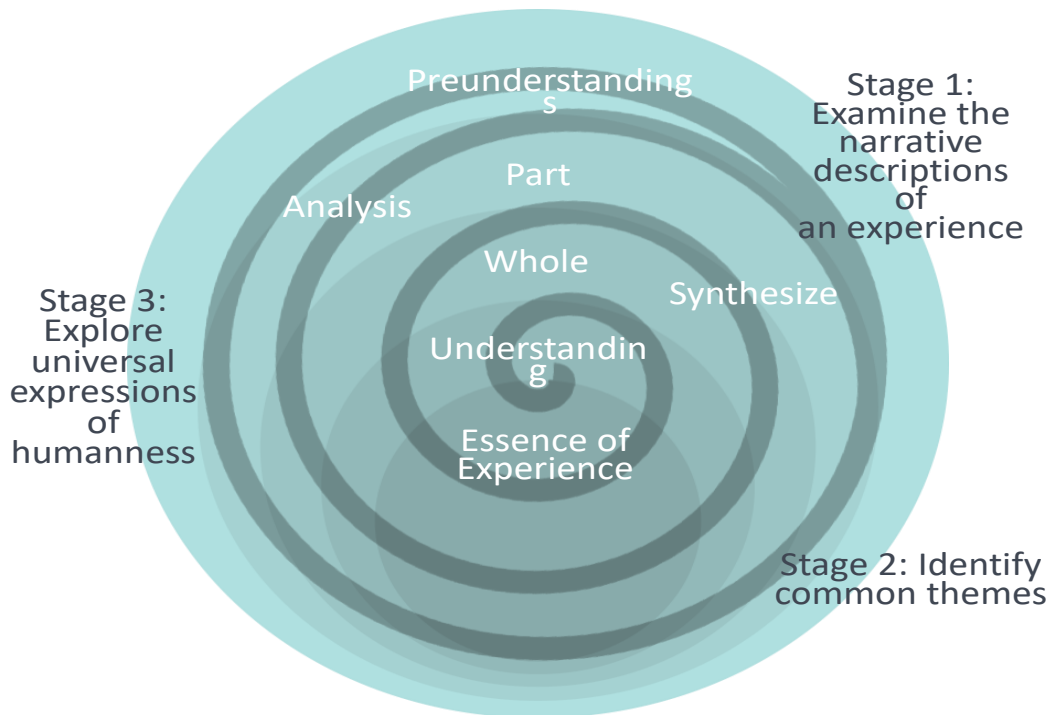
Figure 1. Heidegger Hermeneutic Circle & Spiral (Alkhateeb et al., 2016; Crowther &

Thomson, 2020; Monaro et al., 2014; Sebold et al., 2018)

      Crowther and Thomson (2020) describe the Heideggerian hermeneutic data analysis as a

methodology that begins through the initial interpretation and description of the data and the

ability to articulate the philosophical underpinnings into themes to derive more profound

meaning, then use the philosophical concepts to take an interpretive leap (Crowther & Thomson,

2020). Heidegger defines leaping as the "outside of me" (Heidegger, 1953/2010, p. 451). The

interpretive leap is leaping ahead to read and contemplate each individually crafted story and

then all the stories together, creating descriptions and individual interpretations to read and

explore beyond the obvious and consider the philosophical underpinnings (Crowther &

Thomson, 2020). Then the researcher considered this exploration of the initial descriptions and

interpretations, followed by asking if the philosophical underpinnings reveal any meaning

beyond the apparent descriptions and interpretations (Crowther & Thomson, 2020). The process

continued with a series of leaps leading to deeper insights into the phenomenon, using a different philosophical concept such as Heidegger's notion of temporality each time (Crowther & Thomson, 2020). A model of the overall hermeneutic phenomenology process taken in this study is shown in Figure 2.
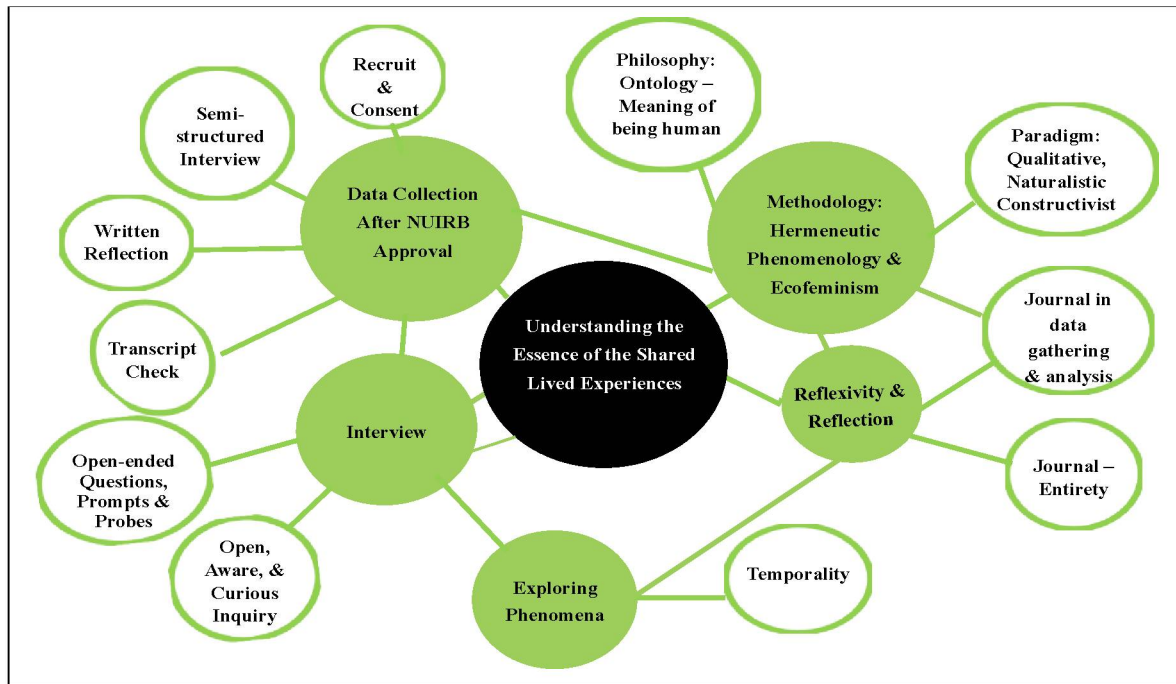
Figure 2. Model of Hermeneutic Phenomenology Process (Cook, 2022; Creswell & Creswell Báez, 2021; Dibley et al., 2020; Gadamer, 2000; Heidegger, 1953/2010; Peoples, 2021)

Data analysis was supported by using NVivo Version 12 data software to manage the collection and sorting of the data and to help shape the data themes through coding, queries, and analysis (Creswell and Poth, 2018). The initial transcripts were read and reread several times, along with listening to the audio recording three times. The researcher then entered the transcripts into the NVivo 12 Pro software to analyze, synthesize, and support the movement from part to the whole of the hermeneutic circle (Alsaigh & Coyne, 2021). The researcher identified common keywords and phrases or meaning units through coding, including organizing any theme generation until all prominent themes were developed through data saturation

(Creswell and Poth, 2018; Peoples, 2021). The researcher was cautious by maintaining a reflexive journal and philosophical engagement with the data to understand how their personal biases and experiences may affect data collection, interpretation, and conclusions (Creswell & Creswell, 2018; Crowther & Thomson, 2020; Peoples, 2021).

The data analysis program NVivo 12 Pro software helped efficiently store and locate the data so the researcher could have an audit trail of codes, run queries, codebooks, and interpret more effectively and efficiently (Creswell & Creswell 2018). Qualitative data analysis software is beneficial for organizing data. In contrast, some phenomenologists say the use of software in phenomenology defeats the purpose of dwelling in the text because it separates the researcher from the phenomenon of study (Peoples, 2021). Therefore, the researcher was purposeful in remaining immersed in the information, using continuous reflexivity, and journaling considering the words were from a human being in a particular context connected to people and nature (Peoples, 2021). Once data analysis was complete, the researcher deleted the files from the computer and collected them onto an encrypted password-protected SanDisk portable external drive stored in a locked cabinet in the home office. The researcher will securely destroy all data and coded data 12 months from the study's data collection, no later than June of 2023. All raw data will be removed or coded of any identifiable information by the researcher to ensure destruction.

Trustworthiness

The quality of research is demonstrated by the trustworthiness and rigor of a study (Maxwell, 2013). To obtain trustworthiness, a researcher conducts research that reflects validity and credibility, triangulation, member and participant checking, and an audit trail (Maxwell, 2013; Peoples, 2021; Ramsook, 2018; Yin, 2016). Member-checking was done when edited

transcripts were sent to participants for review and content satisfaction (Peoples, 2021). During

the development of themes, the researcher invited two peer-researchers to review initial codes

and themes, including a sample of transcripts with no identifying names, for a critique of the data

analysis and validation of conclusions checking for researcher bias (Johnson et al., 2019). The

researcher consciously attempted to achieve transparency and establish trustworthiness by

designing and conducting a competent, ethical, and explicit research design that acknowledged

biases through continual reflexivity during the research process (Dibley et al., 2020; Nowell et

al., 2017; Yin, 2016). The researcher made every effort to be authentic, which refers to the

soundness of the researcher's work, including reliable resources and providing an accurate

representation of participants' descriptions of themselves (Yin, 2016). Thus, the researcher

maintained the research design by following the methodology and adhering to the design

protocols, including continuous journaling (Dibley et al., 2020). Reflexivity is a proactive way to

maintain awareness of the researcher's relationship with the research and continually question

thoughts, assumptions, and biases, and adjust the influence on the research as it was happening;

this takes a self-aware researcher (Creswell & Creswell Báez, 2021). The researcher practiced

reflexive journaling and established trustworthiness and validity protocols to alleviate limitations

as much as possible.

Validity

This study focused on qualitative validity, using multiple strategies to accurately interpret

the findings of the study with conclusions that reflected the real world of the phenomenon (Yin,

2016). Qualitative validity means the researcher validated the findings throughout the research

by using specific checks for accuracy in findings and utilizing strategies that most aligned with

the philosophical orientation of the researcher (Creswell & Creswell Báez, 2021). The researcher

collaborated with the participants throughout the research process to ensure validity, including

soliciting feedback and discussions through email and member-checking of the initial transcripts

(Creswell and Poth, 2018).

Establishing validity necessitates thoughtfully designing the research and then conducting

it as described, meaning that the researcher adheres to the design protocols and continually

practices reflexivity (Dibley et al., 2020). The researcher and participant co-construct knowledge

to make sense of an experience and the methodological process (Creswell & Creswell Báez,

2021). The researcher is a part of the study and recognizes the role of minimizing researcher bias

by acknowledging biases and assumptions, writing in a journal, and into the research as

appropriate (Creswell & Creswell Báez, 2021; Yin, 2016). Moreover, the adoption of research

questions and the data gathered from different sources influences the researcher's role in the

study (Creswell & Creswell Báez, 2021). However, it is essential to consider the individual

perspectives of participants, and the researcher does not make claims for a whole population

(Creswell & Creswell Báez, 2021). Additionally, the member/participant checking validated and

provided credibility to the accuracy of the research as the participants reviewed their transcripts

from the interview to confirm their perspectives and ideas (Creswell & Creswell, 2018; Creswell

& Creswell Báez, 2021).

Triangulation

Triangulation contributes to the researcher's interpretation of the study and helps

establish trustworthiness using multiple methods and collection sources in qualitative studies of

the same phenomenon (Abdalla et al., 2017; Creswell & Creswell Báez, 2021; Denzin, 2012;

Hussein, 2009; Fusch et al., 2018). Triangulation ensures increased validity in a study by using

large amounts of information and various sources derived from data collection and analysis

methods and protocols (Abdalla et al., 2017; Creswell & Creswell Báez, 2021; Peoples, 2021).

This study had in-depth interviews, one narrative written reflection, and artifacts collected from

open sources such as the website of the organizations a participant is a member of and works for

or has received leader development education or training from; these sources are not identified

by name or location.

Limitations

Limitations are weaknesses in the study that are out of the researcher's control and can

affect the results (Peoples, 2021; Terrell, 2016). Multiple biases and assumptions among both

participants and the researcher may influence the study outcomes (Creswell & Creswell Báez,

2021; Peoples, 2021; Yin, 2016). One type of bias is that the participant may respond to a

question with an answer that they believe is acceptable rather than their authentic experience

(Maxwell, 2013). Another type of bias is that a participant may form an opinion about the

researcher and answer a research question based on their opinion or answer a question out of

obligation (Maxwell, 2013). The researcher may have a bias in data collection because of past

experiences in the profession. To alleviate these biases, the researcher implemented ongoing

reflection, a reflexive journal, and member-checking interpretations and transcripts with

participants (Maxwell, 2013).

Another limitation was the small sample pool that lacks generalizability to the larger

population (Peoples, 2021). Qualitative research design focuses on individuals' lived experiences

to uncover a more in-depth meaning of participants' perceptions of their reality and is not

designed to generalize to a large population (Creswell & Creswell Báez, 2021). The researcher

may have biases that influence the study's outcome, and the researcher made every attempt to

demonstrate an open and reflective awareness of assumptions throughout the study (Creswell &

Creswell Báez, 2021).

Protection of Human Subjects

Researchers must accurately report their research ethically, divulge any errors or

limitations that arise, and ensure no harm to research participants occurs (Babbie, 2013). The

interviews began upon Northwest University Institutional Review Board's (NUIRB) approval. A

signed informed consent form was collected from each participant who agreed to participate

voluntarily (Appendices C & D). The participants were informed of the purpose of the study and

that there were no foreseeable risks associated with participation. Further, participants were

informed that they could withdraw from the study at any time. Additionally, participants were

asked for verbal consent to be recorded on the Zoom video-conferencing platform at the start of

each interview. All digital data was encrypted and stored on the researcher's password-protected

computer, an encrypted password-protected SanDisk portable external drive in a locked cabinet

in their home office.

Ethical issues

Ethical issues can arise throughout the research process, beginning with the preparation

and start of the study; ensuring NUIRB approval and consent was a way to alleviate these issues

(Creswell & Creswell Báez, 2021; Peoples, 2021). In collecting and analyzing data, the

researcher established trust and discussed the general purpose of the study. The researcher

avoided using data to disclose only positive outcomes and ensured to divulge multiple

perspectives while respecting the confidentiality of participants by assigning aliases and

composite profiles of participants (Creswell & Creswell Báez, 2021; Peoples, 2021). Additional

ethical issues that could have occurred during the study were reporting and storing data,

publication of the study, and power differentials (Creswell & Creswell Báez, 2021; Peoples,

2021). Any data reported, stored, or published followed ethical guidelines to prevent the

violation of confidentiality and privacy, or causing harm to individuals or groups (Maxwell,

2013). In the hermeneutic interviews, the researcher worked with the participant to create an

atmosphere of trust and safety (Creswell & Creswell Báez, 2021; Peoples, 2021). If this is not

intentionally created by the researcher, then there could be a perceived power difference between

either the participant or the researcher, thus the importance of the ongoing practice of reflection,

awareness and reflexivity and journaling was necessary (Creswell & Creswell Báez, 2021;

Laverty, 2003; Maxwell, 2013; Peoples, 2021).

The researcher considered each ethical issue and proactively addressed them by adhering

to the code of ethics as a researcher, following the American Psychological Association (2020)

"ethical compliance checklist" (p. 26), using transparency, preparation, honesty, ensuring

anonymity, and confidentiality of the participants so they cannot be identified (Creswell &

Creswell Báez, 2021; Babbie, 2013). For example, the researcher had participants choose a tree

for their pseudonyms to protect participant anonymity. Finally, the researcher continually and

reflexively journaled in the recognition that their experiences and knowledge of the phenomenon

could alter perspectives in data collection and analysis (Creswell & Creswell, 2018).

Summary

Chapter three presented the research design with an in-depth description and rationale for

the hermeneutic phenomenological method of the study. The study detailed the purpose

statement, methodological design, and justification to explore the participants' lived experiences.

The research questions result from the purpose and problem (Creswell & Creswell, 2018). In

addition, the sections discussed the role of the researcher, a philosophical worldview, population

and sample, research design and methodology, data collection process and procedures, data

analysis process and procedures, creditability, validity, reliability, and protection of human

subjects. Next, chapter four will present the study's data and findings. Chapter five will conclude

with significant findings, conclusions, implications for action, and recommendations for possible

future research.

CHAPTER 4

Findings

Mirchandani (2020) articulated the need for global awareness of the climate crisis, which has led the United Nations world leaders to call for global action to change humanity's relationship with nature by increasing value-driven decisions and sustainable practices to improve the well-being of the planet and humanity (UNEP, 2021). Globally and concurrently, leaders face many problems that damage the entirety of the biosphere (Levey & Levey, 2019; United Nations Environment Programme (UNEP), 2021). One way to develop a relationship with the environment is through nature-based mindfulness. This hermeneutic phenomenological study explored the experiences, challenges, and benefits of women leaders in education who practiced nature-based mindfulness and interpreted the meaning of nature-based mindfulness in their shared lived real-world experiences (Yin, 2016). The following central questions guided this study:

1. What are the shared lived experiences of women leaders in education who practice nature-based mindfulness?

a. What are the benefits experienced by women leaders because of practicing nature-based mindfulness?

b. What challenges do women encounter because of practicing nature-based mindfulness?

2. How does practicing nature-based mindfulness shape the leadership style of women leaders in education?

The purpose of chapter 4 is to provide the context of the participant demographics and description, presentation and explanation of themes, and analysis of the study's key findings. The

chapter will begin with the participant description and themes. The recorded interview conversations and transcripts were analyzed using a hermeneutic method underpinned by Heidegger and Gadamer's philosophies and a conceptual framework of ecofeminism (Claxton, 2017; Dibley et al., 2020; Peoples, 2021).

Purposely, in dwelling with and analyzing the transcripts, the researcher used Heidegger's daesin, care, and temporality to understand being as humans in the world through the relationship of time, space, and open awareness (Dibley et al., 2020; Heidegger, 1953/2010). Unless otherwise noted in the subsequent sections, the findings are from the researcher's interpretation of the interview texts using the ontological lens of Heidegger's (1953/2010) *daesin* being of beings. Specifically, *daesin* is broadly concerned with the "world" or "nature" as it relates to "time" (Heidegger, 1953/2010, p. 94).

The process of the hermeneutic circle and triangulation of the data revealed overarching themes that connected the participants' experiences in this study. Excerpts of the interviews are provided in the chapter to support and develop a horizon of understanding, the ability to see beyond a situation for each participant including the researcher, formed from their backgrounds and cultures to apprise the analysis and interpretation that becomes a fusion of the horizons between researcher and interviewees (Dibley et al., 2020; Gadamer, 2000).

Research Participants

Data for this study was obtained through virtual meetings with 12 participants using semi-structured interviews over Zoom video conferencing. The screening criteria were created to select women leaders in education. However, of the 12 participants, nine were in the pre-K to collegiate professions, and of the nine, four were entrepreneurs. The remaining three were entrepreneurs who solely taught and coached mindfulness, yoga, and nature-based mindfulness

in their field and associated with professional and personal development teaching. Each

participant interview was recorded and transcribed through the Zoom video conferencing

platform. The length of the interviews was between 32 minutes and 80 minutes long.

The summary of the participant screening criteria showed that half of the participants had

six to 10 years of experience in leadership, and the other half had more than ten years of

experience in leadership. Half of the participants had less than ten years of mindfulness practice

experience, while the other half had more than ten years of experience. In the participants'

experience with nature-based mindfulness, four participants had less than 20 years of experience.

In contrast, the remaining participants had more than 20 years of experience, with six

participants with more than 30 years of experience. None of the participants had nature-based

mindfulness as their first practice. Instead, six participants started nature connection and

mindfulness simultaneously, while the remaining six started with nature connection practices

first (Table 1). Nine participants were from the United States, and three were from Europe. The

demographic criteria that were considered for the conceptual framework of this study were to

1. identify as a woman leader,

2. have at least one year of nature-based mindfulness practice,

3. have at least one year as a leader in their organization.

For confidentiality purposes and to align with the study's phenomenon, pseudonyms of trees

were assigned to each participant. Participants could choose their favorite tree or have one

assigned to them to represent a woman leader in the field of education. Table 1 shows a summary

of the characteristics and demographics of the participants.

Table 1.

Description of Participants

Participant Tree Pseudonym	Age Range	Regional Location	Years in a Formal Leadership Role	Years of Mindfulness Practice	Years of Nature-based Mindfulness Practice	Profession within Teaching and Education
Almond (1)	50-59	SW Europe	6-10 years	Less than 10 years	20 or more years	K-12
Aspen (2)	40-49	US NE Region	6-10 years	20 or more years	More than 40 years	Entrepreneur K-12
Banyan (3)	40-49	Central Europe	6-10 years	Less than 10 years	Less than 10 years	Entrepreneur
Dogwood (4)	60-70	US NW Region	More than 10 years	Less than 10 years	Less than 10 years	K-12
French Cashew (5)	30-39	US NE Region	More than 10 years	Less than 10 years	30 or more years	Pre-K Entrepreneur
Grandmother Piñon (6)	60-70	US SW Region	More than 10 years	More than 50 years	More than 50 years	Entrepreneur
Manzanita (7)	50-59	US West Region	More than 10 years	30 or more years	40 or more years	Collegiate / Entrepreneur
Palm (8)	60-70	US NW Region	More than 10 years	Less than 20 years	Less than 20 years	Entrepreneur
Peach (9)	60-70	US NE Region	More than 10 years	10 or more years	10 or more years	Collegiate Entrepreneur
Poplar (10)	40-49	US Great Lakes Region	6-10 years	Less than 10 years	30 or more years	Collegiate
River Birch (11)	40-49	US Upper Mid-West	6-10 years	20 or more years	20 or more years	Collegiate
Willow (12)	40-49	SW Europe	6-10 years	Less than 10 years	40 or more years	K-12

Themes: Shared Experiences

The understanding of the shared lived experiences of women leaders in education practicing nature-based mindfulness was based on using hermeneutic analysis of the participants' narratives. The researcher and the participants have their own horizons of understanding which direct the interpretation into a fusion of horizons (Alsaigh & Coyne, 2021; Dibley et al., 2020; Gadamer, 2000). The use of the hermeneutic circle's iterative process and reflective acknowledgment of the researcher's pre-understandings throughout the analysis led to moving back and forth and pervaded with the transcripts, reading, listening to the audio, and pulling out codes across all interviews to find commonalities and categories in developing the themes (Alsaigh & Coyne, 2021; Dibley et al., 2020).

Hermeneutic patterns relate to ontological experiences such as beliefs; once ideas were developed, the process continued to unfold patterns in the data (Dibley et al., 2020). The patterns and themes developed during data analysis in relation to the research questions are described below. The themes were supported by codes, direct quotes, phrases, and similar words from the participants. There were four main themes that were developed. Below is a brief description of each shared theme, beginning with the (1) women leaders' transformative life experiences and followed by (2) benefits of nature-based mindfulness practices, (3) challenges of women leaders practicing nature-based mindfulness, and (4) characteristics of leadership style.

Women Leaders' Transformative Life Experiences

This theme describes the commonality of participants' shared experiences who had transformative and impactful life occurrences connecting to nature. All participants recalled stories in childhood or in their past spending time in nature with a parent, family, friends, or an event that influenced their connection to nature and mindfulness. Most women in the study

shared fond and vivid childhood memories, while many participants reminisced about an event that transmuted their perspectives. There were a few participants who spoke of connecting nature with mindfulness. For example, Manzanita does not spend days in nature going camping; however, she described how her time in nature has helped her connect more deeply with awareness since she was a child. Manzanita stated, "I've always felt that nature was a place in which there were access to deeper states of consciousness or a sense of being aware, connected, or present." Manzanita detailed sitting under the stars as a teenager where she realized mindfulness and continued, "nature has always been an access door into mindful practice and more mindful being." Several participants shared that they spent time examining the night sky.

Analogous to Manzanita, Grandmother Piñon recalled some of her first memories as a teenager walking with her dad underneath the stars. She said that during these times

> we would just talk things over, but it was like underneath the dark skies, and seeing the stars, and really feeling like we were meditating together as we were walking, and we would see a star or a meteor, just shooting stars, what we called it, and we would make wishes.

The walks that Grandmother Piñon had with her father provided moments when she realized she was part of something more than just herself and exclaimed, "it gave me a different perspective." Childhood memories in nature was a catalyst for most of the participants to gain different viewpoints.

There were several participants who fondly recalled childhood memories in nature that were significant in their connection to nature. Aspen, Poplar, Peach, and River Birch all spoke of moments with their families and specified their delight in being in the woods, trees, and rocks. Aspen expressed joy and laughter recalling the ease of access to the woods in her grandparents'

backyard in childhood and then hiking in high school with her best friend. River Birch described

her first experience in nature when she was able to see rocks for the first time as a very young

child who was legally blind without a strong prescription. River Birch shared her experience of

receiving her first tiny "cabbage patch kid classes" with a deep delight and expression. She

detailed what she saw for the first time as a child and recalled:

> I just remember looking down at the rocks in my mom's yard, and I was like Mom, there
>
> are different colors like the whole world just opened up once I could legit, see and just
>
> noticed all these different shades and shapes, and it was just kind of fascinating, and I've
>
> been fascinated and take in the details ever since.

Similar to River Birch and Aspen, French Cashew shared fond memories of growing up in the

Caribbean, being encouraged to go outside and play along a river next to her house. She depicted

how she would play with her friends among the many fruit trees. She joyfully described her

favorite moments climbing the French cashew tree when it was in season:

> my favorite thing to do as a child was to steal little moments… There was this nice little
>
> crook in the tree that was the perfect relaxing spot, and I used to make myself very
>
> comfortable and lie in there and let the wind be, the wind would sway the tree, and I
>
> would just relax, and I would only come out if I heard somebody call me.

French Cashew described how she finds moments throughout her day to breathe, observe nature,

or pause to notice the quiet, much like her youthful description of "stealing little moments."

Parallel to French Cashew, Peach had a profound childhood recollection of a fruit tree in

her southern United States yard where she would muse over the sweet taste of the peaches; she

continues to look for the sweet taste of the peaches many years later. Describing the perfect

peach, she pondered how the taste of the peach sparked a desire to "taste, literally, to taste nature

and to be nourished by it. And yeah, it's a lifelong journey." She continued to express her lifelong journey of encapsulating nature for her own voyage to its end by declaring, "until I join the stars again at the other end of this journey, you are but stardust, and unto stardust, you shall return." Peach shared her spiritual connection to nature and her faith during her interview.

Several participants described transformative experiences in nature as an adult. One participant spoke of how her connection to nature and mindfulness was magnified from an experience on the beach near her home during a difficult life period. Dogwood described difficulties that reflected a state of possible depression amidst difficult life challenges, and she admitted she thought she "could have been suicidal." Dogwood further illustrated how her walk on the beach forced her to connect and sense everything surrounding her; she contemplated, "give me that sign that I'm connected, and it's all worth it, and a seal popped up. Probably no more than 3 feet from me." She continued explaining how that request being answered with a seal popping made her feel. Dogwood said,

> I felt like at that moment, I was really connected, and [the seal] was connected with me, and it could have happened at any time, but it happened then, and it was like, okay, I know this part is what's really important. And this will always be important to me; [life] is worth it.

Dogwood stated that this event on the beach was when her practice of nature-based mindfulness was initiated as an important part of her life practice.

Another participant shared a traumatic event while running on a secluded beach that sparked insight and a shift in how her mindfulness and nature could inform decision-making in a time of distress and inform trauma. Almond specifically stated that the beach incident was one of many "real transformation kind of moments." Almond articulated how two men "appeared out of

nowhere and basically attacked me from there." She continued describing how she felt "strange" and when the men approached, she could sense time standing still. Almond was able to pause and utilize her mindfulness practice, which she called "top-down," using "executive functioning" to assess the life-or-death situation and use her awareness and connection to nature, which she named "bottom-up," to make decisions. She elucidated,

> an awareness of nature and everything that was there.... it just became very, very clear
> with this combination of mindfulness and nature connection what to do. And so, I
> actually [dove] into the sea, and I swam, and then I swam away from them.

Almond spoke of how she saw the power of nature-based mindfulness in times of trauma, to help "explain situations, and also how we can use it to heal from situations." The beach experience would then inform Almond on how to "use nature and mindfulness to actually work with trauma." The traumatic experience Almond shared transformed her to understand trauma for herself and bring the knowledge into her work life.

In brief, the participants had key moments that sparked an insight into the importance of having nature-based mindfulness practices as a part of their lives. Additionally, there were four subthemes that the participants consistently shared about their experiences as women leaders: (1) the unplanned decision to practice nature-based mindfulness, (2) the consistency in the interpretation and types of nature-based mindfulness practiced, (3) the similarity between the participants on the unintentional emergence into their leadership roles, and (4) mentorship and empowerment as an important element in women leaders.

Unplanned Decision to Practice Nature-Based Mindfulness

All participants either started their nature-based mindfulness because of their love of nature or simultaneously when beginning mindfulness. Nevertheless, most participants spoke

about a lifelong love of being in nature and organically developing a nature-based mindfulness

practice because of time in nature or doing activities in nature from childhood. Like most

participants, Poplar's childhood was centered on nature, yet the intentional practice of

mindfulness would come much later. She explained, "it wasn't an intentional start, I don't think. I

grew up in the country, and I was a part of a 4-H hiking club that was out in a nature." During

the time in nature hiking and climbing mountains, Poplar felt she was able to pay attention to the

trees and birds and notice her breathing while hiking.

Poplar explained that nature-based mindfulness was an unintentional accident; she

attributes her practice to being initially "developed from living in the country, and especially the

4-H Hiking Club." Nature-based mindfulness became more important to practice after Poplar

began to read more about the benefits of mindfulness and studies on time in nature. Poplar was

able to see first-hand the benefits of mindfulness as she helped a university student who was

doing a study on mindfulness with students. Thus, Poplar began to combine her time in nature

and increase her mindfulness practices to be more intentional.

Another participant spoke of how the unanticipated practice of nature-based mindfulness

began. River Birch had difficulty pinpointing the exact start as she felt it has "been a part of my

life" since she was a child. River Birch's connection to nature was an initial part of her life as she

shared about her time spent in the garden with her mother, a master gardener, and in nature and

outdoors playing. However, River Birch did not begin formal mindfulness practice until she was

an adult, "probably like 20 years ago." The formal mindfulness practice began with her

husband's chronic health issues. River Birch wanted to learn new coping skills to deal with her

husband's conditions and found a course in mindfulness-based stress reduction (MBSR). River

Birch expounded that "learning a little bit more about meditation and things to help myself kind

of handle difficult situations a little bit better" would be the start of her mindfulness practices,

which she would add into her nature connection, especially her time spent in her local botanical

garden.

Another participant unveiled how nature-based mindfulness evolved for her with the

combination of mindfulness and walking in nature. Willow revealed how it is important to

simultaneously train the body and the brain for optimal health to "feel well in your mind" and

"you need them both, body practice and mind practice." Willow explained that over time her

mindfulness training courses added up and combined with time in nature she was walking more

and found nature-based mindfulness "was quite natural." Willow disclosed that she began to be

more aware of her "surroundings, of the environment, of the sounds, of [her] body, of how it was

feeling, of [her] breath." Willow further detailed how the mindful awareness and time in nature

helped her be focused and not get "carried away by this hectic life" and to be aware of when she

is living on automatic pilot rather than from a place of awareness.

Almond considered how she serendipitously came to mindfulness after her connection to

nature through working in parks. Almond felt she was practicing mindfulness "unconsciously"

but would learn about mindfulness through a back injury. The rehabilitation center where she

worked on the recovery of her injury was where Willow was taught about mindfulness.

Relatedly, another participant's work is in teaching a nature-based curriculum. Her

connection to nature since childhood was a focus until she stumbled on mindfulness as a skill to

help with mental health wellness. French Cashew described her introduction to mindfulness

through therapy and how she implements it into her everyday life when she spends 90 percent of

her day outside teaching young children. She described how she finds "moments in the day" to

do mindfulness using an app to remind her "every so often to take a minute for mindfulness."

In contrast, Banyan has connected with nature and mindfulness simultaneously. She explicated, "I have, over the years, had many, many different types of experiences relating to connecting with nature from a mindfulness perspective." Banyan described her connection to nature using her senses and as a shared experience between her and nature. She illuminated, "I could learn from what the nature in that area, what the beings in that area are experiencing." Banyan described that in addition to using her senses in nature, she infused her senses to talk with plants to connect more deeply with nature. Many participants shared that they spoke to plants in their homes or the garden. Peach and Dogwood specified that they talked to the plants in their gardens. Aspen shared that she spoke to her Bonsai tree and explained how she happened to discover nature-based mindfulness practice when coaching and acknowledged that she has been practicing nature-based mindfulness without defining it as such. Aspen explained it as a "new aha moment." However, Aspen believed that her overall nature-based mindfulness practices have been happening her whole life.

A shared connection among many of the participants in this study was that they spontaneously began their practices of nature-based mindfulness, and for all the women, the nature-based mindfulness practices developed into a way of life. Nature-based mindfulness practices point toward the participants emerging a necessity to take moments of pause to notice and respond rather than react or get carried away by a frenzied life.

Consistency in the Interpretation and Types of Nature-Based Mindfulness Practiced

This subtheme describes the various types of informal and formal mindfulness practices participants completed in nature. All the participants who practice nature-based mindfulness defined their nature-based mindfulness practice through walking, sensory activities, and various outdoor activities as informal practices and as a part of the participant's life. Dissimilar

inconsistencies are the formal practices such as sitting meditation, contemplation, prayer, and awareness. Though there are multiple ways of defining the uniformity and types of practices, most participants had various nature-based mindfulness practices.

Amongst all participants, there was a common thread of practices based on the foundations of mindful breathing, walking, and using the senses while in nature. Some of the participants spoke of the act of gardening or walking through gardens or a labyrinth as a form of nature-based mindfulness. At the same time, nearly half described walking their dog or caring for animals as another form of nature-based mindfulness. One participant spoke of forest therapy and forest bathing as both practicing and teaching the method. Ultimately, all participants spoke about nature-based mindfulness as a way of life embedded in their day-to-day activities.

However, most individuals proclaimed that they would like to have more time in nature. Palm Tree discussed her informal and formal practices and emphasized that she needed to "separate them out" because they are combined. She described her seated practice as "being very present and very still"; she talked about spending time in the garden as a practice between the earth, plants, and herself and declared, "that's a wholeness." Palm Tree depicted her "walk in the woods", as a meditation, different from being seated; conversely, she explained she often stops to sit in meditation in the woods.

Walking in nature was a common practice amongs the participants. Poplar described walking her dogs twice a day in the rural acreage around her home. Admittedly, Poplar remarked that it is not possible to be 100 percent mindful while walking her dogs yet she, like several of the participants, defined walking the dogs as the practice of nature-based mindfulness. Poplar explained that she can practice nature-based mindfulness to notice and be aware despite being attached to two dog leashes of a Great Dane and a Rhodesian Ridgeback.

Resembling Poplar, River Birch spoke of her nature-based mindfulness as walking her dog and explained how she incorporates breathing and walking together. She shared, "I've kind of evolved [mindfulness] to just incorporate into every day a little bit more of nature-based practices, which I do include breathing when I walk." River Birch described adding a count to her walk while consciously noticing her inhale and exhale; "I might walk a pace of four, and breathe in, and then exhale for a pace of four." The walking and breathing are a shared nature-based mindfulness practices enjoyed by the participants.

Not unlike River Birch, Peach implements walking her dog as a practice of nature-based mindfulness as well as walking in the labyrinth that her husband has been building for 10 years in their backyard. Peach detailed the practice:

> following the pattern of the it's releasing, going into the into the center of the labyrinth, receiving, and then returning back out into the world, that is very much for me, a nature-based mindfulness practice.

Peach further contemplated that she might incorporate gardening into her walk with "the weeding of the labyrinth, [it] really becomes integrated into my spiritual practice of noticing." In addition to the two walking practices of nature-based mindfulness, Peach described gardening, pruning, and talking to her plants as practices she enjoys.

All participants described a sensory activity with the act of smelling, hearing, seeing, feeling, and tasting or going further to embody the senses. All the participants emphasized hearing when in nature and using the senses to be aware of their surroundings. Less than half of the individuals mentioned smell and taste, and nearly all accentuated seeing, touching, and feeling in their awareness practice in nature. All participants emphasized the seasons and how their senses detect the subtle and obvious changes from season to season.

Poplar described using all her senses when practicing nature-based mindfulness on a walk, noticing smells along with what is seen and heard. She spoke of hearing birds during the spring and fall seasons when the bird population dramatically shifts:

> it always amazes me when you'll go walk out one day in the spring because… [there are] chickadees and some woodpeckers, and then the next day all the wildlife all the foul will show up, all here, cranes calling because the cranes will have moved in, red wing blackbirds just everything.

Poplar explained how at the change of season everything shifts within a 24-hour period. Poplar emphasized that if she is not paying attention to the moments during this time, she will miss the changes that she can notice with all her senses. Much like River Birch, Poplar described focusing on her steps as a mindfulness practice in nature and noticing wither her senses, "looking around and cycling through [senses] until I'm one hundred percent present and just not in my head any longer." Participants shared that their moment-to-moment awareness is a part of their sensory practice. Most participants described the sights, sounds, and smells in nature.

Another participant detailed using smell and the importance of the sense when in nature. Dogwood conveyed how critical smell is for her when she thinks of nature and how to understand the landscape smell is her way to see. Dogwood defined her smell as a connection to nature. She stated, "when I connect there's so much smell involved that even if I didn't have eyesight to enjoy what's there, I would know where I was because the smell." Dogwood detailed that "even if those smells are pleasant. They're pleasant because they're part of [nature], and even if it's decay, it's a connection." Dogwood felt that the senses are the connective piece to nature-based mindfulness.

For another participant, sound and listening were important in their description of senses in the woods. Willow explained her nature-based mindfulness practice as walking in the woods, highlighting the sounds of the wind and the birds singing; "you realize what season it is and what is seen or not seen because it's not the season." Willow accentuated the sounds that get "inside you and make you feel so alive." Willow described the "wonderful" fall season with leaves falling or spring with the greens emerging as giving her "peace of mind." Parallel to Dogwood, Willow described the beach and the senses that helped her "connect with the sound of the waves." Willow realized in the moment how important the sounds are as she shared her connection to the beach.

The participants in this study shared compatible descriptions of what they considered to be nature-based mindfulness practices. The most common practice was walking in nature using breathing and all the senses to practice and enable noticing, observations, and connection. Some participants emphasized that part of their nature-based mindfulness practices was gardening and connecting to plants. The following section discusses the participants' leadership roles and how they transpired.

Unintentional Emergence into Leadership Roles

This subtheme explains how most participants ended up in leadership roles because of extensive experiences, being in the right place at the right time, shifting careers, time in position, or credentials that landed them in a leadership role. Most women referenced their first leadership roles and their current leadership roles. Poplar stated it was "by accident," and Banyan said it was "a fluke" regarding how they ended up in their current leadership positions. A few of the women in the 60 to 70 age range shared how their unique skill sets helped them into a leadership role, a founder role, or, as Peach said, "a trailblazer" role. Peach further portrayed her path of

ordained and pastoral leadership teaching and inspiring women that influenced her current role as mentor and coach to women in the clergy. Peach was ordained 40 years ago at a time when there were not many women clergy. She developed a "niche or a specialty" to teach women in a seminary which developed into a mentoring and coaching role to teach "women to preach." Being a "trailblazer" in her field, Peach faced some restrictions but also had the freedom to define the role she wanted. Peach described that her role in leadership "is in coaching leaders to be more [effective] leaders." Some participants were in the right place at the right time with the needed experience to get into their leadership roles.

Manzanita ended up in a leadership position because of her experiences and knowledge. She described herself as a person who took on leadership roles as they became available and self-proclaimed, she was "bossy" from a young age. Manzanita expounded her director role as "my life's work, so because of that it lets me be in a role where I can help shape the [mindfulness] field, and I've been part of a number of initiatives working to make the field." Like Peach, Manzanita was able to define and shape her leadership role.

Almond's leadership journey was wide-ranging and rich with experiences. Almond referred to her initial leader role as one that developed "through knowledge, passing on, and through coaching and mentoring other people as well." Almond described her leadership in "influencing people and affecting change" as more important than following procedures.

Comparable to Almond and Peach, French Cashew described her passion for teaching that would lead her to get the necessary credentials to build her own business and define her leadership role. She depicted the need to grow and expressed:

> I wanted to better my craft. I was like, what better way to do that than to go back to school and get a degree? And that's exactly what I did.

Many of the participants described their leadership as happening by chance rather than on purpose. Yet their efforts would suggest preparation for a leadership position. River Birch described herself as a "go-getter," working up through the levels of librarianship. River Birch explained how she acquired her leadership role by holding multiple national and state leadership positions. She attributed her leadership to community service and her desire to give back to the community. She expressed, "being in community with people is really important to me." Most of the participants had multiple volunteer positions and seemed to be motivated to connect and support the community in addition to their leadership roles.

The participants came into their unique leadership roles in very different ways with more than enough credentials. However, all the participants ended up in their respective roles serendipitously. Poplar described how she obtained her leadership role in education, much like how she came to nature-based mindfulness, by "accident." Poplar admitted perhaps, "you're gonna think I live a very unintentional life, and for the most part, actually, I do." Poplar explained how she was available to lead student organizations by becoming the student advisor. When her colleague left, Poplar became the faculty head of the department by default. The participants all displayed lifelong learning and not necessarily intentional paths toward leadership. The next section details the shared experience of mentorship and empowering other women into leadership.

Mentorship and Empowerment as an Important Element in Women Leaders

This subtheme details the shared passion of the participants to help other women into leadership through mentoring, coaching, teaching, or empowering peers and subordinates and was prevalent with the participants. All the women, except one, spoke about the importance of having a mentor, apprentice, advisor, role model, guide, or wise teacher in leadership.

Participants talked about having or being in a mentorship role to encourage and empower women, men, or students into leadership. They also spoke about the importance of having a mentor on their journey to leadership. The implication of "paying it forward" (Dogwood) or "passing it along" (Poplar), both to support women leaders in leadership roles and nature-based mindfulness practices in leadership, was a component in many of the interviews.

River Birch articulated what it meant for her to be a woman leader and the importance of advocating for other women. River Birch continued by using a metaphor to explain, "like a plant that grows, I personally like to always evolve and grow, and I definitely want to see that in my colleagues and try to nurture that as much as they can." River Birch explained passionately that as a women leader it is important for her to champion "other people in general, but especially my female colleagues." River Birch explained it is her obligation to help women move forward and is an essential part of mentorship.

Manzanita explained her challenges in leadership through the years and that now her primary purpose is mentoring, underscoring how she helps support and develops new leadership. She detailed how it took a long time for her and expressed, "part of my growth curve as a leader [is] to find ways to delegate, to say no, to empower others, to mentor." Grandmother Piñon highlighted how her life's work and roles as a psychotherapist, chaplain, and coach was to "create a school for people to learn about themselves and then take it to the streets and help other people empower themselves." Both Manzanita and Grandmother Piñon are helping support and develop leadership.

Resembling mentorship, another participant illuminated the importance of being a role model as a leader and a mother. Almond stated:

I think role modeling has been a part of [leadership]. I have three daughters, so it's very

much… what do I want to teach them about being a woman and being a leader?

Almond answered her question and described how she inspired and encouraged people to

develop self-leadership in her description of her leadership journey; she stated, "my role as a

woman was to inspire and encourage others, in that way other women in particular." Similarly,

Grandmother Piñon spoke about apprenticing with her two mentors who influenced and inspired

her to create a school to support some teachings and encourage people.

Many of the participants spoke about the importance of role modeling, mentorship, and

uplifting other women into leadership roles, even taking on leadership roles when they did not

want to, as a way to encourage other women to move into leadership roles. The following section

draws attention to the participants' descriptions and benefits of nature-based mindfulness

practices.

Benefits of Nature-Based Mindfulness Practice

This theme refers to the benefits that participants have experienced because of practicing

various nature-based mindfulness approaches. Subthemes reveal the consequences of practicing

nature-based mindfulness as (1) amplified well-being and (2) a strong connection to the

community and the earth. For the twelve participants, the benefits of nature-based mindfulness

outweigh the challenges. Namely, the advantages of nature-based mindfulness are spending time

outdoors and connecting to nature, such as trees and plants, increased happiness and joy,

recentering and rejuvenation, and speaking and moving more slowly. River Birch stated,

"spending time in nature really gives me the grounding to start my day to kind of do what I have

to do." Comparably, Aspen affirmed, "It makes me feel more alive, more connected. I feel like

joyfully alive when I'm connected mindfully with nature." The participants shared their

perceived benefits of nature-based mindfulness of being grounded and connected.

Peach explained her relationship with nature concerning nature-based mindfulness and

acknowledged that the experiences have been benevolent for her. She further detailed, "I have

experienced nature as invitational for me in terms of inviting a relationship. I experience it as

welcoming." Likewise, nature-based mindfulness helped Peach "feel more rooted, grounded,"

and able to exercise and get "fresh air"; she continued, "those are the physical benefits of being

outside, being in nature." Analogously, French Cashew depicted nature-based mindfulness by

explaining the benefits of awareness of the breath and a sense of peace. She communicated, "I

feel most at peace when I'm in nature, most relaxed when I am in nature. I don't even know how

to describe it other than to say like I feel most at peace and relaxed while I'm in nature." The

participants described being in nature and feeling grounded and relaxed in nature.

Grandmother Piñon described the benefits of nature-based mindfulness and being in

nature as more connected and embodied. She stated, "I feel as though my life … has more

meaning and more purpose as a result." As a result of the many years of practicing nature-based

mindfulness, Grandmother Piñon exclaimed, "I started really seeing that Mother Earth and I are

one, that we are the same, we come, I come from Mother Earth." From Grandmother Piñon's

statement, she sees herself as nature rather than on or in nature.

Amplified Well-Being as a Benefit

Participants explained the various benefits of well-being as defined by enhanced mental

health, physical health, and spiritual health. The women spoke of renewal, movement, and

connecting to nature and nature's beauty that helped them move through their days and handle

the stressors. Participants such as Peach described ways of dealing with stress and found they

were rejuvenated because of their nature-based mindfulness practices. Peach verbalized her stress as "ramped up" and illustrated that time outside would help her "downregulate," and "being outside just helps me to calm down." In parallel with relaxation, River Birch suggested that "nature is a way to relax and a way to spend time, in a way to celebrate." River Birch explained how rejuvenated she is after a long day's work by simply weeding in the garden or going to a nearby park.

Similarly, the participants shared that nature provides a place to find balance and relax from the frenzy of everyday life. Aspen depicted being in society as tumultuous and that she finds ways to escape the chaos by opening up to nature. For Aspen, "nature is like my home and my teacher." She described nature as a place to find a "rhythm that matches my rhythm. It allows me to relax and just sort of open up to different perspectives." Women leaders expressed that they regarded nature as a home or refuge and that mindfulness in nature alleviates stress. The participants felt a sense of harmony and renewal because they practiced nature-based mindfulness.

Analogously, Manzanita described how nature-based mindfulness is vital for her mental health and shared how it replenishes her. She explained how the benefits of nature-based mindfulness "can calm my mind. It can create more spaciousness." In the interview with French Cashew, she described how the practices of mindfulness in nature help her deal with stress and feel "a little bit more calm if a stressful situation arises." Both Manzanita and French Cashew know that nature-based mindfulness practices help them step back and pause to find calm. The practice provides more of an opportunity for clarity and "approach [stressful situations] from a different perspective to see how it's gonna work" (French Cashew). Overall, the participants

navigate mental health with nature-based mindfulness and as a resource to support physical and spiritual health.

Almond, for example, who began practicing mindfulness to help heal a back injury, expressed, "Sometimes, when I think everything else is looking totally chaotic, I'll go outside, and it just rebalances and resets; also, my hobbies, my interest majority of them are nature-based or mindfulness-based." Although Almond did not start practicing mindfulness until helping to heal a back injury, she found nature-based mindfulness helpful in dealing with stress. The fusion of nature and mindfulness supported physical and mental health for Almond.

Another participant, Banyan, defined the importance of the connection to nature as beneficial from a "spiritual perspective" and a "mental health perspective." Banyan spoke of the benefits of nature-based mindfulness, stating that it "calms me down, and that brings down my cortisol levels." Similarly, Poplar revealed a story about dealing with her stress and the stress of her students by teaching a visualization of nature-based mindfulness to solicit calm. Poplar described intentionally bringing in calm and peace through "picturing clear skies and sunshine, and just chill, imagining myself relaxing on a beach," while the students are in chaos around her. She also shared, "if I'm not calm, then I can't calm them down." Participants use visualization and symbols as a way to connect to their nature-based mindfulness practice.

Comparably, Grandmother Piñon illustrated the advantages of her nature-based mindfulness practice in symbols rather than visualization. She said, "I'm going to say braiding but interweaving my spiritual life with my physical and emotional life, and basically my emotional life." She goes out into nature to find a symbol and shares that the braided branches she found on the shore of a lake "represents the intertwining of a spiritual and the physical."

Visualization and symbols in nature or in an artificial setting is another way participants practiced nature-based mindfulness.

The participants all expressed the benefits of nature-based mindfulness and shared how their well-being is improved through finding peace and calm and improved mental and physical health in an otherwise feverish world. Thus, the findings reveal the benefits of combining nature and mindfulness as increased overall health and well-being in the participants.

Strong Connection to Community and the Earth

Most participants discussed their relationship with nature with the notion that there is "this connection with nature that makes you feel that you are connected to something bigger" (Willow). The two participants who did not mention this connection had powerful formative experiences with nature. The two women described how family and friends cultivated and supported their relationship with nature. Both taught and spoke of connecting with their students, albeit without using specific words but rather descriptions. Conversely, Willow described the connection between mindfulness and nature in depth, detailing her walks in the woods, mountains, and on the beach. Willow explained how it is "important to disconnect in order to connect, to reconnect with myself." Willow's connection to nature and to herself helped her feel a sense of awareness and happiness that comes from being "in touch with nature and in direct contact with nature." Willow voiced, "I'm happy, and I feel I'm part of something bigger than myself. It's kind of everything makes sense." In essence, having a direct connection in nature enables the women in this study to feel grounded and connected to something more.

Another participant, Peach, explained her deep sense of interconnection with being mindful in nature. Peach communicated, "I think I feel more connected with the world. I feel more connected with the environment." She explained further that nature-based mindfulness is

"a benefit just in terms of awareness about what's going on with our climate." Considering the

relevance of climate change, several participants connected nature-based mindfulness and the

environment. For example, Almond shared her research on her thesis and discovered the link

between mindfulness, nature connection, and climate action. She asserted, "So I got involved…

and started working with the [climate action group]". Almond wants to inspire people through

nature-based mindfulness to "get people to look at climate action through nature, connection, and

mindfulness." Most of the participants shared that they felt connected to nature or the planet

because of their nature-based mindfulness practices.

Correspondingly, Aspen professed her depiction of the critical connection between

nature-based mindfulness and the earth and proclaimed, "this planet was created for all of us, and

I'm doing my best to try to learn how to live on this planet." Aspen is thankful and described

finding a "balanced, conscientious way to live on the planet." She wants to help people find a

balanced way to live and "be more intentional about earth and not take it for granted." Aspen

described that she does not want to "prioritize man-made concepts" but rather be more aware of

what is most "important instead." Nature-based mindfulness opens the participants' awareness of

their connection to the natural world as an ecosystem that provides lessons for women leaders in

the workplace.

Another participant spoke to this importance through her understanding of connection

and systems thinking. Banyan stated, "staying connected to myself, staying connected to the

overall planet that I live in. Seeing the world as the microcosm of the light and the

macrocosm…it's a systems point of view." Banyan further described her belief in "an

ecosystem's point of view" and explained she studied "systems theory with Fritjof Capra."

Banyan expressed how this theory aligns with her biological way of thinking as she conveyed, "I

love that you can take it down to that little without ever forgetting that it is inside of some system that's bigger." Like her fellow participants, Banyan is reminded that when practicing nature-based mindfulness she can always "step back in and into that present, into that observation… always seeing and looking for both the ecosystem as well as the individual development." Additionally, Banyan described how she is afforded "space" to have the ability to "see things through many different lenses simultaneously, and so going back to the nature connection from a biological perspective." Practicing nature-based mindfulness enables these women leaders to have multiple perspectives.

Another participant shared a practice of nature-based mindfulness that helps her feel connected to the earth. Grandmother Piñon portrayed a day when she was out on her land lying on the ground with over 20 ravens flying overhead, circling and playing as they rode a thermal wave above. They were making a "caw, caw, caw" sound, and Grandmother Piñon suggested "that's the kind of life I needed" and saw it as "a symbol for me." As she shared her symbolism, Grandmother Piñon described the moment as "Gaia talking to me." Describing crows was one way to practice nature-based mindfulness. Grandmother Piñon revealed how the practice of lying under the crows works for her; she admitted, it "makes me feel connected." Nature-based mindfulness practices, such as Grandmother Piñon's practice with crows, encourage the participants to sense an interdependence and connection to self and the biosphere.

Another participant emphasized the importance of connection to self and the world for a fulfilling life of longevity. River Birch shared that her grandmother and women on her mom's side of the family lived to be over 99 years old. She attributes the longevity of her family to being deeply connected to nature and the surroundings. River Birch emphasized, "I really hope that my connection allows me to thrive and live a happy, fulfilling life as long as they did." River

Birch uses her grandmother's age as an example of how to stay connected to the outdoors and the "place of where you live and kind [of] nurture yourself through nurturing the world around you." River Birch expounded further on her practices of connecting to the earth: "When I go to the garden [it] definitely gives back. I try to give [back] by conserving and caretaking it, and it gives back just as much." The participants in this study share the overall health benefits through their connection and meditative practices with nature and mindfulness.

Dogwood detailed the importance of connecting with nature through nature-based practices as being meditative and connecting. Dogwood explained that she has always felt a connection to nature which has led to a sense of calm when she is connecting mindfulness and nature and feeling "a part of me connecting to me when I'm connected to nature." Dogwood continued her description of nature, stating, "when I think about [what] my favorite points and experience with nature is, I don't know how to describe it." Dogwood described what could be a sense of awe and then continued to expound on her sense of interconnectedness. Dogwood suggested, "almost like the atoms of what things are made of connecting. There's this oneness I feel like when I get it, and it's not very often that I get to that final touch with nature." She describes this interconnection with reference to "the whole salmon in the trees… it's all interconnected." As expressed by many of the participants, the practices of nature-based mindfulness stimulate transcendence or a deep interconnection that enables these women leaders to thrive.

The thread of connection that arises from nature-based mindfulness practices is a common strand with the participants in the way of their connection to themselves and the community at large. For example, Manzanita said, "I think for me, the nature practices will always be a place of refuge and replenishment and connection, and joy." Similarly, Palm Tree

expressed how all her life experiences in nature, specifically on her sailboat, have helped her feel "this complete connection." The participants shared various benefits of nature-based mindfulness and how the practices help connect them to the world at large. Moreover, the participants expressed reverence for simply being in nature. The next section details the challenges of nature-based mindfulness.

Challenges of Nature-Based Mindfulness Practice

This theme refers to the challenges that all participants faced in nature-based mindfulness and leadership. Subthemes show challenges of (1) access to nature and (2) challenges in leadership roles. The overall barriers are situations that have inhibited participants from practicing nature-based mindfulness to the capacity that they would like to have more consistency. Inhibited access to nature could be by location to green spaces or inclement weather, or conditions that can pose a challenge being in nature to practice mindfulness. One participant had recent and past experiences in nature that were "terrifying" and "scary." Aspen explained two ways that she almost drowned; one was this year while rafting and the other was surfing when she was a teenager. She described both as "terrifying and scary" yet displayed calm and curiosity as she shared about nearly drowning this year:

> as soon as I was pulled out of the river into a boat, as soon as my body was out of the water, everything, my airway opened up again, and I asked somebody. I'm like, what was that, why did that happen?

Aspen shared the details and fear of her near drownings with levity, calm, and vivid descriptions. Aspen survived in these moments and may have accessed her cultivated mindfulness practices to endure her near drowning with calm and curiosity.

The challenges with nature-based mindfulness, such as fear of wild animals or the fear of the unknown, the possibility of drowning or inclement weather conditions, can limit access to nature. Specifically, most participants cited cold or inclement weather as a factor in not being able to go out into nature. Participants described the weather as "uncomfortable" (Aspen). Peach exclaimed that "bad weather" is a challenge. However, she has "gained an appreciation of leaning into the seasons". Similarly, Grandmother Piñon commented on the bad weather from a southwestern point of view, describing the high winds and sub-zero temperatures. In the same way as Peach's "leaning in," "you make adjustments just like nature makes adjustments" (Grandmother Piñon). The participants' challenges with weather and environmental conditions can inhibit their access to nature, including staying in the present moment and not getting lost in thought or worry.

Admittedly, a few participants discussed being challenged by staying in the present moment. For example, Willow said, "[staying] here in the present moment and now, that's a big challenge because it's so easy to go somewhere else to go to your worries in the past or the future. I, meanwhile, you're practicing or while it's so easy to [be unfocused]." Parallel to the present moment, Palm Tree described the challenge of practicing mindfulness while in nature. The difficulty of practicing nature-based mindfulness, she explained, as mind jumping "here, there, and everywhere." She further describes being able to focus on "sitting and paying attention to the sounds of the water, the sounds of the forest, the sounds of your breath." A challenge then is that "one-pointed awareness is work, and it's an opening, and it's a rest in place." Palm Tree questioned whether the mind wandering stemmed from genetics or "social, cultural programming." The challenge of mindfulness is balancing the wandering mind with the ability to notice when it is happening and focus on the breath or some other concentration point.

One of the participants explained that finding the balance between challenges and the benefits of nature-based mindfulness is the work. Banyan explained that the challenge of practicing nature-based mindfulness was that she recognized "that we are nature, and everything named is nature around us." The challenge for Banyan was the expectations and definitions in describing nature-based mindfulness, which can cause confusion and inconsistencies in practicing and teaching. Additionally, expectations can add to the difficulties of nature-based mindfulness because they can prevent individuals from noticing the present moment. The following section details the difficulties participants shared about their access to nature.

Challenges to Access Nature

This subtheme aims to discuss the challenges that participants face when engaging in nature-based mindfulness practices. Weather conditions, bugs, urban areas with fewer green spaces than rural areas, and the lack of time to practice mindfulness or travel to nature posed challenges to accessing nature. Most participants cited inclement weather as the greatest challenge to accessing nature for mindfulness practice.

Many participants could not spend as much time in nature as they wanted due to extreme weather, such as freezing temperatures or heavy rain. After moving from the south to the north, Peach expressed her feelings: "I hate winter. It's cold, there's snow, there's ice, it's limiting, and I don't like it." Participants shared their challenges with cold winter weather, snow, and ice as barriers to practicing outdoors. Many adapted to adverse conditions by finding alternative ways to practice nature-based mindfulness.

Despite sub-zero temperatures, Poplar shared a nature-based mindfulness practice despite the challenge. As Poplar described, she adjusts to the frigid temperatures, even if only for a few moments, to practice using her senses. One of Poplar's favorite times is "at daybreak when the

sun is coming up" during a sub-zero morning between negative 30 and negative 50 degrees in

absolute silence "because there's nothing moving; there's no bird song, nothing. You can't smell

anything because it's so cold." Poplar explained how the cold makes all her senses unavailable

except sight. For Poplar, the cold makes all her senses unavailable except sight, through which

she was able to see the most magnificent sunrise.

Poplar continued her explanation of the subzero sunrise stating that she can only watch

the sunrise once or twice per winter as it "gets a little old" but that it is worth it and magnificent.

Poplar detailed:

>the sun comes up over the horizon and painting everything just beautiful colors of pink
>
>and blue because everything is snow-covered right just everything's pink and blue from
>
>the sky to the snow. And it's so much it's only what you see like every other sense has
>
>been cut off. So, being in that and seeing that sunrise is just absolutely amazing. I don't
>
>think you can get that experience any other way because the other senses will weigh in.

The weather was a challenge for many participants, especially winter and rain. Most of the

participants mentioned time as a factor that challenged their nature-based mindfulness practice.

Another challenge to accessing nature is the environmental conditions, such as insects. A

few participants mentioned bugs. Poplar described how bad the mosquitoes are where she lives

and how it makes accessing nature a challenge. She shared, "there's nothing like trying to be

present in the moment on a nature hike with beautiful scenery when you're getting eaten alive, so

that's for sure the biggest challenge for nature-based mindfulness." Correspondingly, another

participant found challenges with people near her or joining her on an outing into nature being

reactive to bugs or snakes in a panicked way. The anxiety that other people have toward

organisms in nature is a challenge for a few participants. Inclement weather and bugs challenged

the participants to practice nature-based mindfulness, and how other people react in nature can challenge some participants.

Participants living in a large city had more challenges frequently accessing nature than participants in rural areas. Participants in large urban centers found that the increase in population at parks made it challenging or uncomfortable to access city parks and green spaces. Additionally, time and distance constrained participants from accessing the less populated green spaces and parks outside the city. Participants in rural areas expressed gratitude for being surrounded by nature and quickly finding quiet spaces alone. Those living in more populated areas detailed the difficulty of not being closer to green spaces. For instance, Manzanita spoke of a good friend who lives in an area surrounded by nature and can practice nature-based mindfulness every morning. She affirmed, "I don't have that, so I wish I had more access to [nature]." Manzanita explained that nature is near the city, "but it's like you have to drive at least thirty minutes to get to any of it, and it's kind of crowded." In Manzanita's case, the distance and time cause a lack of access. She admitted that she wanted to go to the beach at least once a week or more, but then "a month will pass, and I haven't gone to the beach" because of "the busyness of life that overtakes me." Participants living in the city found access to more open green space and wilderness was limiting. Moreover, finding time to access nature was challenging for participants residing in metropolitan areas versus rural regions.

Manzanita lives in a major west coast city while French Cashew resides in a major east coast city, yet both have similar challenges accessing nature. French Cashew specified how "living in [an east coast city], you hardly have the green spaces, and then when you do go to the green space, it's like everybody wants to be there." Like Manzanita, French Cashew explained how the areas are generally crowded and distracting with noise and activity and declared there

"is not enough of a green space. Everybody comes there. So, your peace sometimes gets interrupted." However, French Cashew shared how she adapted by going earlier or later in the day or finding unpopular days. French Cashew described how this helps her "miss the hustle and the bustle of everybody deciding to come out at a specific time." French Cashew accepted that if she could not go to the park at off times, then her peace may be disrupted.

Finally, participants' most common challenge to access nature to practice nature-based mindfulness was time to be in nature; for those in the city, it was time to get to nature. However, many participants found ways to adapt to this challenge by finding places around their homes to practice, such as gardening, having house plants, or enjoying the birds and trees in their neighborhoods on walks or looking through the windows. The challenges of nature-based mindfulness on leadership were minimal; however, the participants shared that a lack of time superimposed both nature-based mindfulness and their leadership role as a common disadvantage. The women expressed their need for more time to practice nature-based mindfulness with their workload. The following section highlights shared challenges in leadership roles.

Challenge in Leadership Roles

This subtheme highlighted the challenge in leadership roles that women revealed as it may relate to nature-based mindfulness. The challenges of nature-based mindfulness on leadership were minimal, however, time was a factor as it related to both leadership roles and nature-based mindfulness for the need to assist in work life balance. The participants in this study stated that time and work-life were common challenges in their leadership roles. The time and work-life balance challenges interfere with work and well-being and thus cause stress in the leadership role. Practicing nature-based mindfulness for the participants is interwoven into their

personal and professional life. Many participants equated the idea of having more time to practice nature-based mindfulness with balancing the stress of work to be beneficial. Time was an interrelated issue with nature-based mindfulness and participants' leadership role because of a need to have more time to practice nature-based mindfulness to balance work stressors. Many participants stated that work-life balance was a challenge to find the time to balance their personal and professional lives. Each participant felt they were a leader in their current roles at work and in their community. Some women had specific examples of the challenges they faced in their leadership roles as a woman, and one was the need to have time to practice nature-based mindfulness during the workday. Another challenge that Banyan discussed was how the intersection of leadership and the expectations and definitions of nature-based mindfulness related to her work as a coach and teacher. The challenge is the variousness of the benefits, purpose, and definitions of nature-based mindfulness on an individual, particularly in leadership.

A full schedule and time to practice nature-based mindfulness was a limiting factor and a specific issue for all the participants. For example, River Birch commented, "finding the time right, because my life is just very busy." Additionally, River Birch expressed that she faced a challenging start to 2022 as her "personal life [was] in chaos." She described how the death of her father-in-law and unexpected death of a co-worker, and the ailing health of her mother-in-law, were struggles throughout the winter. She stated that, just like in nature, winter could be brutal. The "tragedies" expressed by River Birch in her personal life have amplified her connection to people and nature and emphasized the necessity of time to connect with nature. River Birch explained, "I've just seen [nature] as such a part of my necessities to living." River Birch ascribed that nature is "where I gather my strength, I guess, is by having some calm outdoor time." She clarified that if she cannot cope with the stressors and cannot get outdoors, "I

can't be there for anyone else, and I just, I can't." Having time in nature helps these women leaders balance their busy schedules with mental, physical, and spiritual well-being.

Another participant, Almond, detailed the dual challenge of making time to practice nature-based mindfulness and the time needed to complete work tasks. Almond described the challenges as an "ongoing journey of carving out time" or "the opportunity just to change the focus of work" as a possible solution to the time to practice and work-life balance issues. She explained that often the time never arrives, which is a challenge. Moreover, Almond described not having time to practice nature-based mindfulness when "I've still got to finish this report, or I'll go in a meeting." Instead, what is needed, according to Almond, is "some mindfulness space." Balancing time for the space to practice nature-based mindfulness is a challenge for the women in this study.

An additional participant discussed time regarding her leadership role as a woman. Palm Tree stated, "You know you always face the challenge of managing your time. You always face the challenge of trying to be the very best at what you do without coming across as being overpowering." Comparably, River Birch emphasized the importance of advocating for work balance initiatives at her university that are beyond a parental role. She advocates "very strongly for spousal caregiving time off for flexibility of work," more time off, and for flexible work schedule during the pandemic, to work from home to protect sick family members. However, an overall emphasis on time is for River Birch to have a flexible work schedule that allows for supporting her health and the health of her husband, mother-in-law, and father-in-law.

Correspondingly, Willow discussed her challenges with work-life balance that led to quitting her leadership role this year. She described how difficult it is for her and stated, "trying to balance personal and professional life. I think that's the hardest thing, especially if you're a

mom." Willow explained being engaged with her work and feeling like she was part of

something bigger and better when describing her job. She explained, "that can lead you to

frustration in family things because you don't give so much to your family because you spend so

much more time at work." With some emotion, Willow described how she did not give as much

space to her family and her children, and her job as a leader was not balanced, so she had to quit

her leadership position. Willow concluded that it is more difficult for women to quit their jobs

than men, especially regarding family. She recalled, "I couldn't find a balance between work and

family." Willow further explained the balance between personal and professional life as very

difficult for women to choose between family and work as a mother. Willow described one of

the "biggest challenges" as when women must choose work over family and feel afterward that it

is hard to forgive themselves for the choice. This researcher could sense Willow's struggle with

the decision to leave her leadership role as she expressed sadness in her eyes and face alluding to

remorse.

Conversely, a challenge that Banyan shared was around women having to prove

themselves before getting into a leadership role. Banyan remarked how women need to prove

themselves by doing more work and earning more credentials before becoming leaders; what she

declared is "the difference between male leaders that I have around me and myself." Banyan

continued and explained that men are given the benefit of the doubt if they "have the capability

of being a leader, where if you're female, you have to prove that you have the capability or that

you earned the capability." From Banyan's depiction, the issue of women proving themselves is

"still ever present." When the researcher asked if there were any challenges as a woman leader,

Banyan had a maniacal laugh and tapped her fingers together, and said, "let me count the ways."

Banyan continued to detail issues such as if a woman makes any mistake, it "gets treated as it's a

fatal mistake, where if a man makes a mistake, it's like he just hiccups, and that still happens."

Several participants said they needed to prove themselves in leadership roles by doing extra work

or earning more certifications. Participants also observed that they thought other women felt the

need to prove and verify their worth as a leader in the same way.

In contrast, Almond shared similar beliefs about proving herself with the need to be more

knowledgeable and more prepared for a leadership role, presentation, or workshop. She declared,

"you'd have to know ten times the amount of information you were going to give, just because

people would kind of say, and what about this?" Moreover, Almond explained that she feels she

is tested differently as a woman to this day.

In contrast, some participants, including Palm Tree, noted that they face few challenges

because of their entrepreneurial status and the creation of their current work environment and

leadership role. Palm Tree's response detailed, "Yoga is unique, that it's primarily white women

and therefore I don't face a lot of the challenges that I would in other fields in my previous

career." Aspen also indicated fewer issues as a woman and felt that her challenges were no

different from a man's challenges in education. Like other participants, Aspen is an entrepreneur

who previously worked as an educator. Participants remarked creating their work environment to

not have gender challenges.

Grandmother Pinon declared, "I have created a life where those challenges don't really

exist anymore. They did early on, and I didn't like being a leader." Grandmother Piñon did not

want to go into detail about being a leader among men stating, "we don't have to get into it." She

found her way as an entrepreneur because she "realized that if I had my own business, I could

run it the way I wanted to, and if it was my idea, I would get acknowledged for it because it was

my idea." Grandmother Piñon alluded to issues of others taking her ideas and claiming them as

theirs; therefore, she is "very cautious" with sharing ideas. She pointed out that "I'm very attuned to our students, and our faculty in having them be acknowledged for what they're doing out there in the world regardless of their gender or their ethnicity." Some of the women leaders in this study shared challenges being acknowledged for their contributions and ideas and finding ease when working for themselves.

Table two shows interview data and highlights the least (0) and most mentions (4) by participants. The theme of transformative life experiences and subsequent theme of consistency in the interpretation of nature-based mindfulness practiced had the most mentions by participants. The benefits of the nature-based mindfulness practice theme had an emphasis on the amplified well-being of the participants because of practicing nature-based mindfulness. The participants' descriptions of the characteristics of leadership styles and how nature-based mindfulness impacts leadership in the participants were another prominent theme. Thus, the following section details participants' characteristics of leadership styles, how nature-based mindfulness influences their leadership, and what leadership style is most prevalent (See Table 2).

Table 2

Shared Experiences

	Participants Identified by Number											
Developed Themes	1	2	3	4	5	6	7	8	9	10	11	12
(1) Transformative Life Experiences	4	4	3	4	3	4	3	3	3	4	4	3
(a) Unplanned Decision to Practice Nature-based Mindfulness (NBM)	3	4	4	3	4	3	3	4	3	3	3	3
(b) Consistency in interpretation and types of NBM Practiced	3	3	3	4	4	4	4	3	4	4	4	4
(c) Unintentional Emergence into Leadership Roles	2	3	3	3	2	2	4	2	3	4	2	3
(d) Mentorship and Empowerment Important Element in Women Leaders	4	3	4	3	2	4	4	3	4	4	4	2
(2) Benefits of NBM Practice	4	4	4	4	4	4	4	4	4	4	4	4
(a) Amplified Well-Being	4	4	4	4	4	4	4	4	4	4	4	4
(b) Connection to Community and Earth	4	3	4	4	3	3	3	3	3	3	3	3
(3) Challenges of NBM Practice	3	1	1	4	3	4	4	2	1	2	4	4
(a) Access to nature (time)	3	1	1	4	3	4	4	3	2	2	4	4
(b) Leadership Roles (work-life balance)	4	1	1	4	2	4	4	1	1	2	4	4
(4) Characteristics of Leadership Style	4	4	4	4	2	4	3	3	3	4	4	4
(a) NBM Influence leadership style	4	4	4	4	3	4	3	3	3	4	4	3
(b) Characteristics align with transformational leadership style	4	3	3	3	2	4	4	2	3	2	2	4

Note. *The following define the quantity assigned to the participant numerical identifier. 0- No mention of the topic, 1- little mention of the topic, 2- some mention of the topic, 3- often mentions topic, and 4- repeatedly mentions topic. Transformational leadership four main aspects are: idealized influence, intellectual stimulation, individual consideration, and inspirational motivation. The attributes of transformational leadership include some: role-model, coach, mentor, supportive, encourage creativity and innovation, inspire, empower through shared vision and trust (Northouse, 2022).*

Characteristics of Leadership Style

The characteristics of leadership style section discusses the attributes of leadership expressed by participants with subthemes of (1) nature-based mindfulness influencing leadership style and (2) characteristics that align most with transformational leadership. Many of the participants expressed their leadership characteristics in a variety of ways, from metaphors to verbal lists. Most participants described collaboration and communication as common features, including curiosity, inspiration, and coaching. Some discussed being slower and more purposeful, softer, or more compassionate, supportive, and resilient. Most of the participants also discussed the big picture and how everything is connected (See Table 2).

One participant, Banyan, asserted the power of female leadership when she said, "I'm a female leader [and it] gives us more room to bring more models of collaboration and of inspiration." Similarly, Peach described her characteristics as collaborative and curious. Peach further explained, "I really like to draw people out with my curiosity and my questions," and she trusts the wisdom of her students. Further, Peach expressed humility by saying:

> I don't see myself as I've got all this knowledge that I have to deposit in the student like a bank, but rather there's this give and take. There's a pulling out the wisdom of the students and bringing forth information and having that sort of dialogical conversational relationships so that all feels integrated.

Likewise, Poplar discussed how she is perceived by faculty and students as intimidating; "I'm gonna say that I'm scary or intimidating when I don't see that at all. But apparently, that's just the perception because I'm not, you know, meeting their stereotypes of being." Poplar continued to describe her leadership style by explaining that she is primarily collaborative. Poplar emphasized that she has "that recognition that you don't have control over the rest of humanity, and I'm a

little bit type A and so I'd really like to have control." The participants shared similar leadership characteristics of collaboration and explained how nature-based mindfulness practices influence their leadership.

Poplar explained that because of her practices of nature-based mindfulness she realizes she cannot control other people or nature. She imagines without that knowledge, "I would probably be pretty authoritarian as a leader and have that lesson learned, ingrained in me that you can't force anyone to do anything." Poplar revealed that she is more motivational and collaborative. She shared that

> both in my teaching and also my leadership, I try to focus more on how can I get people
> to want to do this? Since I have no control to force them and what they want changed if
> they have concerns that they're afraid to bring to me in person and … I encourage them to
> ask questions.

Poplar emphasized that she is not punitive and wants people to bring concerns and questions forward and she appreciates that she has a stereotype at her university of being intimidating.

Another participant who underscored cooperation as a characteristic of their leadership style also stated they had traits of servant leadership. River Birch elaborated more on her leadership style and conveyed that she practices "servant leadership, of getting folks to cooperate together to work together," and that she is "looking for opportunities, those volunteer roles, those collaborative roles that I can kind of bring forward." River Birch shared, "I'm definitely a go-getter." River Birch emphasized that she is compassionate and is motivated by mentoring and community building. Comparably, Aspen is cooperative and explains that this helped her be equal and open. Aspen said that "I have insight, carry curiosity and passion, to want to help others understand and want to connect with others about something meaningful." The

participants focused on cooperative approaches in leadership and the desire to help their community.

Women leaders in this study facilitate cooperative and collaborative approaches to building and strengthening community, focusing on the common goal. One participant metaphorically described her leadership approach as non-hierarchical collaboration; "I try to melt into the bank fish" (Willow). She detailed, "I mean, we're all fish, and I'm one of them that I'm swimming with them towards the same direction." Willow depicted a flow of collaboration and cooperation with a common purpose to build and decide together. Willow further described, "I tried to share responsibilities, and I try to share decisions, not only responsibilities with decisions and to build together." Thus, the demonstration of strength in the women leaders of this study is in a collaborative and cooperative leadership style.

Most participants divulged that communication was an important aspect of their leadership style. One participant detailed how listening was instrumental in leading mentees and the major attribute of her leadership style. Dogwood shared, "I really listen to people, and I think that really helps people, and it's calm because I'm the listener, and letting them talk through." Listening skills in these women leaders facilitate and strengthen mentorship relations and allow for deeper understanding.

Dogwood explained her listening leadership style, describing how sometimes she will not know the issue and the mentee or student will not even understand the issue and how it is essential to allow someone the space to talk it through. Dogwood explained that when people can talk through situations with someone who is listening is helpful, and she likes to provide that for her mentees and students. Listening and allowing others to be heard so they can come to their conclusions is how Dogwood uses her calm listening skills and said she finds the right balance of

listening and probing. She described her approach as only asking essential questions and stating what is vital. Dogwood said, "I really have a lot of confidence in people knowing what it is they need, and they just need to be able to think it through and figure it out themselves." She summed up her leadership style as "listening and calmness and asking the right questions." Dogwood accentuated listening to understand and gave the autonomy of her mentees and students to make their own decisions.

Willow is another participant who discussed communication as a feature in their leadership style and explained how their active listening is key to taking in diverse thinking from various people in their school. Willow shared, "I think that I'm quite good at trying to find a solution in which everybody feels part of it. I mean feel that they fit in the solution and feel comfortable with an event." Willow further described that while working in her leadership position, there were many excellent aspects but that the team did not consider how people felt. She stated, "I could lead in a different way; people have to be taken more into consideration." The importance of listening in leadership allows these women leaders to consider how people feel and look at new ways to model leadership as a woman.

Many participants discussed the double standards between men and women, most notably having feminine qualities. Most identified and addressed the nurturing and compassionate qualities, while a few participants felt they had no more or less advantage than men. Despite not being a fan of taking on a leadership role, Poplar admitted she felt it was important to model being a woman in a leadership position. She said, "we don't have enough women leaders." Poplar admitted that leadership positions are hard work, but she nonetheless accepts roles. She specified the importance of modeling particularly "for our students, for other people, for the stuffy old white guys who don't think that women should be leaders." Poplar added that women are leading

all the time. She emphasized that women are leading well, "So, if I take on a leadership position, I try to make sure that I do it well and thoroughly." Poplar shared her passion for being a model for women in leadership, expressing,

> I know that there's not enough women leaders, so I always feel like I'm trying to not refuse. It sounds horrible, but I'm trying to represent all women and show that we are just as effective leaders as men are every time, I take on leadership position.

Most of the participants expressed that there should be more support for women leaders, more women in role-modeling leadership, and more women in leadership positions to facilitate change.

One participant said that leadership should be "assertive versus aggressive," and yet, "there is politics everywhere" (Palm Tree). Alternatively, Dogwood expressed the importance of embracing change in her leadership position. She further detailed that systemic transformation, such as in a school system, is essential. She stated, "I do think there is a certain amount of leadership that has to do with change, that to be a woman leader you need to elicit change in a system." Dogwood also mentioned that it had taken her a long time to determine what she thinks of as a leader, and " I see more women as leaders now that I wouldn't have seen them before." Many of the women leaders in this study share they are a part of the transformation of an organization, and the feminine traits of empathy and nurturing help facilitate change.

Almond is one of the participants who expressed feminine leadership attributes. She stated, "I think female characteristics of empathy, of being able to read a situation aligned with womanhood; also, the experience of motherhood as part of that as well." Most participants shared that mentoring, supporting, and uplifting other women in leadership and work was essential to their belief system. Almond expressed an example of the benefits of women working

together, stating that it "can be phenomenal, women's groups, women's circles." She continued, "the energy of women together is very powerful, and I think the relationships and the bonds that women have are very lasting and very deep." Almond postulated that the friendships and relationships over the years that worked and were good are "because [the relationship] was female orientated, or women oriented." The participants in this study emphasized the significance of relationships through mentoring, family, and friendships. The following section details how nature-based mindfulness influences participants' leadership styles.

Nature-Based Mindfulness Influencing Leadership Style

This subtheme features how nature-based mindfulness influences the participants' leadership styles. All the participants had a common theme of being influenced by nature-based mindfulness in their lives and expressly in their leadership styles. Grandmother Piñon stated, "as a woman educator, I think it's imperative to bring Gaia with us in, in everything that we do." She explained how nature and mindfulness help her "have a grandmother's soft heart" and expounded that "in a leadership role showing tenderness and strength at the same time, that's so important right now in our world." Grandmother Piñon detailed that she has an open and free leadership style that in "some ways, it represents nature." She described her leadership as fluid and without "a lot of rules and regulations." Participants connect their leadership styles back to nature-based mindfulness.

Grandmother Piñon described her leadership style as collaborative and family-like, meeting together and having fun together; however, she declared "I don't necessarily play leader." Grandmother Piñon described that this collaboration and the way she is as a leader is influenced by nature-based mindfulness, and being a leader is "fluid," "moment by moment," and much like the "weather comes in. The weather goes, it rains, it's windy then it's blue skies."

Nature-based mindfulness helps women leaders understand themselves and their leadership styles with analogies to help describe and understand their leadership roles and styles.

Nature-based mindfulness influences Poplar, and she defined how the practice has helped her leadership with peace and calm in chaotic meetings. Poplar emphasized that nature-based mindfulness helps her recognize that she does not have control over a situation. She pronounced, "in nature, you don't have control over anything but yourself. Like if a squirrel runs across the road, I have no control of this squirrel. Clearly, I have no control of my dogs." Poplar disclosed her lessons from nature-based mindfulness imparted her insight into her "ability to recognize I don't control other people and how they react. I can only control how I react to a situation. I think that's like the nature-based mindfulness has reiterated that." The observations amassed while practicing nature-based mindfulness help these women leaders understand their role as leaders, and they can model their practices to lead a healthy way of being for those around them.

Poplar also explained that it is important to role model and pass on practicing nature-based mindfulness as a leader, modeling a healthy way to deal with stress, specifically for her university students. She shared how her students send her texts letting her know they went for a hike and saying, "Hey, I'm like out in nature, like being mindful, you'd be so proud." She passionately explained that

> passing [practicing nature-based mindfulness] along should be part of that leadership, not
> forcing it. But talking about, hey, this is how I deal with the stress of being in university,
> whether you're at the student side or the faculty side like anything can be very stressful,
> and so what are the coping mechanisms?

Poplar explained that there is more focus on "mindfulness and yoga and all the ways of being mindful" and thinks it is important to see nature-based mindfulness "modeled by someone who's

in front of them, saying, yeah, I do this. Like I went for a walk this morning, or I, you know, went skiing and was so focused on that and not responding to your emails or grading your paper." Poplar shared her belief that role modeling nature-based mindfulness in her role as leader and teacher is essential to exemplify the benefits of practicing nature-based mindfulness.

Poplar continued zealously imparting the importance of modeling nature-based mindfulness as a leader to support a sense of peace and calm in stressful situations. Poplar stated, "I think that's part of the leadership as well as sharing [nature-based mindfulness] with those who we're communicating with." Poplar emphasized that leaders need to role-model their nature-based mindfulness and leadership practices. Many participants used metaphors or analogies from nature to share their experiences.

Most participants communicated their everyday experiences with nature using analogies or metaphors to describe how nature-based mindfulness influences dealing with personal and professional challenges and their leadership. River Birch works at a university as a librarian, and as previously mentioned, experienced a difficult start to the year in 2022. As she shared her story and the need to still go to work and show up despite the difficulties, her resolve to compare personal and professional challenges to the changing seasons seemed to help her cope.

Participants communicated metaphorically how nature-based mindfulness helped them deal with personal struggles and related the analogies to their personal life and leadership role by learning to adapt and be flexible through nature-based mindfulness. River Birch shared about losing her father-in-law a month earlier, her mother-in-law in rehabilitation from a fall, and the loss of a co-worker unexpectedly; she described her emotions like waves that keep crashing. River Birch reacted, "But all right. Also reminded that nature goes through tough seasons." River

Birch found an adaptive perspective and described winter as a challenging season, and then she

associated her current situation with winter. River Birch stated,

> So, resting, taking things off my plate, but a reminder that legit spring is coming outside
>
> here, and I know that this time will pass. This season will pass, and that new things will
>
> be ahead, things will change, it'll evolve, and you know I can kind of handle it.

Despite the stress that River Birch faced, she still had to show up at her job. She shared that

"spending time in nature really gives me the grounding to start my day to kind of do what I have

to do." The nature-based mindfulness practice helped River Birch and led her to guide forest

therapy and forest bathing activities. She has brought this knowledge to her job as a leader and

stated, "I saw an opportunity to provide more wellness activities for my colleagues, but also for

faculty, staff, students across the University." The positive impacts of nature-based mindfulness

practices on participants' health led women leaders to want to share their practices with

colleagues and impact their leadership.

> Similarly, Banyan and Aspen described how nature-based mindfulness influenced their

leadership by helping them slow down and respond rather than react in situations. Additionally,

Banyan and Grandmother Piñon declared that nature-based mindfulness made them "softer."

Banyan believed that nature-based mindfulness makes her more curious and allows her to lead

with curiosity rather than judgment. She explained:

> As a leader, I'm able to look at things with a much more even keel, even if it stings for a
>
> minute or even if it's something that would bring up an emotivity for a moment. I'm able
>
> to breathe it through.

Banyan continued by highlighting that the more nature-based mindfulness practice affects her,

the more her perspective changes and drives her ability to have a diverse perspective with more

awareness. The new perspective gives Banyan the ability to see "the bigger picture changes; you're able to look at things from an individual level, all while taking into consideration the ecosystem level." The favorable influences of nature-based mindfulness on the participants' leadership styles also affect how they see the world as a more interconnected system.

Connection was a common attribute of leadership style influenced by nature-based mindfulness. Dogwood stated, "I think that practice of my own helps me with how I treat others." The nature-based mindfulness practice helps Dogwood's ability to connect with herself, self-leadership, and leadership. She explained how it helps her lead by connecting herself enough to understand how she wants to lead. Dogwood declared that people know what to do but need time and space to connect with themselves in reflexivity and reflection to understand how they want to proceed. She verbalized that the answers are in the "whole connection piece, and I think once I started being mindful with nature, I could then help people get themselves to connect." The women leaders realize the value of nature-based mindfulness, connecting them to the ecosystem. They believe it is essential to pass the knowledge on to their colleagues, subordinates, and students.

Dogwood emphasized the need to "pay it forward trying to help other people have that connectiveness with nature and to get the feel of pure joy sometimes you get with nature." Dogwood described the feeling of connectedness as a "whole journey" and detailed that the feeling is "a coming home, I would describe it as a coming home." Analogously, Palm Tree declared that the nature-based mindfulness of walking on the earth "reminds me of my connection to the earth and helps me to remind other students to ground and connect, feel the wind, and feel the sun, and feel the breeze." Similarly, Peach said, "I think [nature-based mindfulness] tunes me into things in my environment." Peach described how her practice of

nature-based mindfulness helps cultivate a deep awareness of her surroundings and all the living beings and landscape within the environment.

The summation of the participants' central leadership attributes aligning with some leadership theories are collaboration, communication, connection, mentoring, coaching, curiosity, growth, mindfulness, awareness, empowering and encouraging influence, and role modeling. The characteristics can mostly align with multiple leadership theories, particularly transformational leadership. The leadership theories identified by some of the participants were authentic, servant, and transformational leadership theories.

A servant leader's intention prioritizes the needs of the people served with a sense of social responsibility to find equity in society (Northouse, 2019). There are ten characteristics of servant leadership; one characteristic is awareness; when leaders practice awareness and reflect on their thinking and behaviors, they can understand other perspectives, which can expound on empathy and compassion in a leader (Northouse, 2019).

Authentic leadership develops over a person's lifetime, possibly triggered by a critical life event (Northouse, 2022; Van Droffelaar, 2021). Authentic leaders focus on intrapersonal and interpersonal development with a foundation of purpose, values, relationships, self-discipline, and compassion (Northouse, 2022; Van Droffelaar, 2021). The four main attributes of authentic leadership are self-awareness, internal moral perspective, balanced processing, and relational transparency (Northouse, 2022; Van Droffelaar, 2021).

The four main factors in transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994; Northouse, 2022). Bass and Steidlmeier (1999) emphasize that "to be truly transformational, leadership must be grounded in moral foundations" (p. 181). Combining authentic and

transformational leadership focuses more in-depth on the morality and ethics of transformational traits (Murari & Mukherjee, 2021). Murari and Mukherjee (2021) identify authentic and transformational qualities of clear concepts, trust, inspired motivation, intellectual stimulation, mentorship and coaching, self-awareness, transparency, cultivating organizations, and having harmonious values (Murari & Mukherjee, 2021).

Like servant leadership, respectful leadership has a genuine interest and concern for others, while social mindfulness is cognitive perspective making (Gerpott et al., 2019). People can purposefully distance themselves from their perspective to see the world through another person's eyes and inquire with curiosity and care about another person's viewpoint (Gerpott et al., 2019; Van Doesum et al., 2018).

Finally, authentic, servant, respectful, and transformational leadership reflect mindfulness in the attribute of self-awareness, which is like emotional intelligence, specifically self-awareness, social awareness, and the ability to influence emotional expression (Arendt et al., 2019; Carleton et al., 2018; Gerpott et al., 2019; Miao et al., 2018; Stedham & Skaar, 2019). The following section details the characteristics that most align with transformational leadership.

Characteristics that Align Most with Transformational Leadership

This subtheme details the participant's leadership characteristics. In this section, the interpretation is influenced by Heidegger's daesin, along with care and leaping ahead related to transformational leadership and care. Most of the participants had qualities that aligned most with transformational leadership, followed by authentic, servant and respectful leadership styles. The attributes the participants had the most in common were authenticity, compassion, collaboration, cooperation, and communication. Although there were various leadership styles and attributes, participants mostly had characteristics that matched transformational leadership,

with most disclosing features such as collaborative, communicative, role model, encouraging, and inspiring. Participants had a few evident descriptions of authentic, servant, and respectful leadership styles. However, the majority possessed the attributes of a transformational leader whose role is to: encourage, empower, influence followers, have a collective purpose, selfless, autonomous, trust, engage and connect with subordinates, and communal traits (Bass & Steidlmeier, 1999; Mencl et al., 2016; Saint-Michel, 2018).

Some participants commented on the specific attributes of their leadership. Poplar openly admitted to a collective approach and said, "I'm probably a lot more collaborative." She continued regarding her leadership style, saying, "it's really more about motivation and collaboration rather than force or retribution or anything punitive." Poplar reflected on her role as a leader as primarily collaborative.

Another participant, Willow, gave an analogy of being a bank fish swimming toward a common goal. She stated, "I mean that this task of sharing it never ends, sharing and listening, and trying to build together what we believe in." Willow described the value of collaboration toward a common purpose and stressed the importance of communication among all parties.

Banyan spoke of systems thinking and models as a female leader. She suggested that leadership should "bring more models into [the workplace] of collaboration and of inspiration." Banyan felt that collaboration and communication were essential in her leadership. The women leaders in this study believed that modeling a collaborative process and nature-based mindfulness help to inspire their subordinates.

Dogwood described her leadership role as a mentor cultivating a "collaborative process." Dogwood described that the foundation of her leadership comes from the knowledge she has gained from being a classroom teacher, understanding equity in the classroom, and being a

leader. Peach, like Dogwood, expressed being curious and asking questions. She said, "I'm collaborative; I believe, I trust the wisdom of my students." River Birch spoke of being a servant leader and explained more of the collaborative aspect of her leadership style. She stated, "It's kind of that servant leadership of getting folks to cooperate to work together. But also, kind of be looking for opportunities. Those volunteer roles, those collaborative roles." River Birch emphasized that in her leadership, she tries to "bring folks up with [her] as much as possible" regarding women subordinates. River Birch felt that lifting all people up is imperative.

Banyan, Dogwood, Grandmother Piñon, River Birch, Peach, Aspen, French Cashew, and Willow all explicitly or metaphorically said they were collaborative. At the same time, Manzanita, Almond, and Palm Tree did not speak of collaborating directly. They alluded to practicing that trait. Manzanita, Almond, Peach, and Grandmother Piñon emphasized the importance of being authentic, mentoring, and leader development.

Peach described her leadership journey and her role as a mentor to help people develop. Peach said her role is "to inspire people irrespective of where they are or in their organization, they can actually develop their own personal leadership, be true to that and still be successful in that field." In reminiscing on her leadership, she continued, "my role as a woman was to inspire and encourage others, and that way other women in particular." The participants felt their role as women leaders is to encourage and mentor other women in developing their leadership as an essential value in their own leadership role and style.

Relatedly, in recalling her journey of leadership, Manzanita stated that her role is really to "empower others to mentor." She exclaimed, "It's this kind of trickle-down thing of helping others to go out and be empowered." Manzanita conveyed a driven desire that her power is an influence to shape her field and positively impact hundreds of people and teachers worldwide.

She finds it to be "immensely rewarding." Manzanita passionately expressed how women are "taught to hold back, and not step into our power, and it's like so [expletive] important that we do." The important message for women is to step into their power and "step in as big as you possibly can because it's like no one else can do it." Manzanita articulated passion in her voice to encourage and empower women to be in command of their situation.

Likewise, Grandmother Piñon talking of leadership, exulted, "my vows as a chaplain was to create a school for people to learn about themselves, and then take it to the streets and help other people empower themselves." Grandmother Piñon encourages and nurtures people to develop themselves. The women leaders practicing nature-based mindfulness exuded an altruistic sense of empowering and encouraging other people, particularly women leaders.

Many participants spoke of influence, inspiration, and motivation while trying to be flexible. Almond described her style: "My leadership style was quite a flexible style… because I do work with things like emotions, well-being. I'm very much the kind of motivator and influencer type." Almond spoke of her enthusiasm and how that was influential to people around her; "people would say, well, how did you get to where you were, or how can I do what you do?" Palm Tree spoke of being direct and listed her important features as a leader, "calm, clarity, inspiration, invigoration, [and] connection and commitment to preservation of the planet." The participants have the transformational attributes of inspiration and motivation and flexibility. Additionally, these women leaders developed authentic leadership traits through many experiences.

There were a few participants who emphasized being transparent and authentic. Manzanita stated, "authenticity is a very important value to me." She speculated that she did not

know why; perhaps because she "went to a hippie school in the seventies." Manzanita continued

to describe her leadership style:

> I'm very transparent, very authentic like I am me. This is what you get. I'm gonna tell
>
> you. Oh, I [explicative]. Yeah, I did. I forgot to do this thing. I'm really sorry that was not
>
> ok, so I try. I'm trying to be extremely personal and not removed from the people.

In a parallel recollection, Peach described her role as a preacher/leader as not resembling the

"boys" and explained that "providing a space for supporting women, and developing their

voices, and to find ways to be authentic in the pulpit." The support Peach explained helps so that

the women "weren't preaching like the men, but they were really finding their own way in their

own voice, in their own expressions, in their own relationality in preaching." The participants

shared the authentic attributes they acquired over time that helped them find their true selves as

well as modeling the trait for their mentees. The authenticity helped the participants empower

themselves and other women leaders to find their voices.

Almond felt that her leadership journey led her to be more authentic. In her current

leadership role, she believes that she needs to maintain her authenticity and align with the right

people who complement where she is in her journey. Almond explained that her authenticity

developed from an accumulation of experiences; she reflected, "I had to learn different

leadership skills along the path. But eventually, coming to a point where I thought, actually, I

can't do that now. I need to be true to who I am." Like Almond, many participants expressed the

cultivation of knowing who they are as a person and a leader. Grandmother Piñon shared her

leadership journey and affirmed, **"**there's a lot of responsibility in being a woman leader" she

explained that leadership is about "being straightforward with who you are, and honest and

authentic." The practice of nature-based mindfulness and leadership has been a journey for women leaders toward knowing themselves and authenticity.

Conclusion

In conclusion, the four themes and subsequent themes developed from the participants' interviews were (1) women leaders' transformative life experiences and followed by, (2) benefits of nature-based mindfulness practices, (3) challenges of women leaders practicing nature-based mindfulness, and (4) characteristics of leadership style.

The first theme, women leaders' transformative life experiences, was composed of four related subthemes and referenced how the women leaders' lives were changed by nature or the combination of nature and mindfulness. These aspects all included a childhood memory or a young adult memory of physical, emotional, or spiritual experiences with nature. Many participants had vivid recollections of their experiences and were influenced throughout their lives because of these experiences. Seeing nature and mindfulness's value in their lives, most participants want to forward the knowledge. The spontaneous decision to practice nature-based mindfulness, the consistency in the interpretation and types of nature-based mindfulness practiced, the similarity between the participants on the unintentional emergence into their leadership roles, and mentorship and empowerment were essential elements in women leaders.

The second theme, benefits of nature-based mindfulness practices, comprised two related subthemes and details how the participants benefit from nature-based mindfulness in their professional and personal lives. The practice of nature-based mindfulness amplified well-being in the participants as a benefit and provided a solid connection to the community and the earth.

The third theme focused on the challenges of women leaders practicing nature-based mindfulness, included two related subthemes, and described the challenges of practicing nature-

based mindfulness concerning access to nature and challenges in leadership roles. The fourth

theme revealed the characteristics of leadership styles and included two related subthemes which

detailed the characteristics of the participants' leadership styles, how nature-based mindfulness

influenced their styles, and the characteristics mostly aligned with transformational leadership.

The lived experience of women leaders practicing nature-based mindfulness was

interpreted using Heideggerian hermeneutic phenomenology. In addition, the conceptual

framework of ecofeminism was used to interpret the findings. Heidegger's philosophy applies to

this research and includes daesin, thrownness, care, temporality, leaping forward, and situated

(Dibley et al., 2020; Heidegger, 1953/2010; Peoples, 2021; Spier, 2019). Heidegger's philosophy

and method of interpretation assist the researcher in understanding the women leaders'

experiences of practicing nature-based mindfulness.

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CHAPTER 5

Discussion, Conclusions, and Recommendations

This final chapter of the dissertation incorporates the synthesis of interpretation and discussion regarding the study's findings. This hermeneutic phenomenological study explored the experiences, challenges, and benefits of women leaders in education who practice nature-based mindfulness and interpreted the meaning of nature-based mindfulness in their shared lived real-world experiences (Yin, 2016). The following central questions guided this study:

1. What are the shared lived experiences of women leaders in education who practice nature-based mindfulness?

   a. What are the benefits experienced by women leaders because of practicing nature-based mindfulness?

   b. What challenges do women encounter because of practicing nature-based mindfulness?

2. How does practicing nature-based mindfulness shape the leadership style of women leaders in education?

This qualitative study aimed to address the knowledge gap in the literature by interpreting the lived experience of women leaders in education who engage in nature-based mindfulness practices such as walking and breathing in the woods, revealing meaning from the participants' perspective. The goal of this study was to provide critical insights into how the experience of nature-based mindfulness practices might influence the leadership styles of women leaders in education.

The meaning of nature-based mindfulness practices among the participants in this hermeneutic phenomenological study was interpreted as experiencing personal and professional

growth through transformative experiences. A comprehensive analysis of twelve in-depth interviews illuminated the constitutive pattern of a connection to something more than oneself. This ambitious and nuanced analysis involved moving back and forth in a hermeneutic circle to interpret the parts of the narrative with the collective whole of the participants' lived experiences.

The constitutive pattern of a connection to something more than oneself or interconnectedness posits that nature-based mindfulness practices positively connect to humanity and the environment (Dibley et al., 2020; Nisbet et al., 2019; Schutte & Malouff, 2018; Wolsko et al., 2013). Within this constitutive pattern of interconnectedness, the participants' experiential and transformative learning resulted in affective emotion, improved health, and spiritual growth, through good behavioral habits that positively impacted overall well-being and leadership style. These factors culminated in developing participants' emphasis on role modeling and mentoring while passing on support to colleagues and subordinates in leadership and nature-based mindfulness.

The purpose of chapter 5 is to interpret and discuss the findings of the research by integrating, summarizing, interpreting, and discussing the results from the researcher's perspective. The following key areas will be addressed: (1) discussion of patterns and themes developed and the connections that run through the findings, in relation to existing literature and integrating them into the larger literature by comparing and contrasting with other findings and attempting to explain the differences, (2) reflection of the researcher's reflections and assumptions, (3) exploration of the contributions and limitations of the study and how the limits could be remedied, (4) practical applications, implications of the study, and suggestions for future research. This chapter concludes the dissertation with a final summary of the study's major conclusions, reflections, and insights from the research process. The following section will

discuss the garnered findings. The discussion will respond to the central question and supporting questions by uniting the data and literature related to the outcomes.

Discussion

The four themes and subsequent patterns identified in this research were developed from the interview transcripts of the twelve participants and help answer the central research question: what are the shared lived experiences of women leaders in education who practice nature-based mindfulness? The text that composed these themes was derived from the lived experiences of the women leaders in education practicing nature-based mindfulness.

This discussion section interprets the shared themes of (1) women leaders' transformative life experiences, (2) the benefits of women leaders practicing nature-based mindfulness practices, (3) the challenges of women leaders practicing nature-based mindfulness, and (4) characteristics of leadership style. Integrated into the interpretation of the research question are the subsequent themes. In this section, the researcher will discuss the developed patterns and themes, highlighting the connections that run through the discoveries in relation to existing peer-reviewed literature from chapter two while integrating them into novel research by comparing them with other findings and explaining the differences and insights. Additionally, the themes provided an exploration of the influence nature-based mindfulness practices have on the participants' leadership style. The following segment highlights the first central question and synthesizes the findings with relevant scholarship.

Women Leaders in Education Who Practice Nature-Based Mindfulness

The central question for this hermeneutic phenomenological study contemplated, what are the shared lived experiences of women leaders in education who practice nature-based mindfulness? The multifaceted findings of women leaders in education and leadership style

related to nature-based mindfulness is an unending interpretation of participants' interpretations. Hermeneutics considers "everything as a matter of interpretation" (Caputo, 2018, p. 5). Thus, the researcher used the Heideggerian philosophy and ecofeminist conceptual framework to interpret the findings and synthesize the discussion.

Ethic of Care

Throughout the discoveries in this study, there was a dynamic of a feminist ethic of care, as referenced in a study by Jax et al. (2018). The ethic of care is from the lens of feminism and an ecological ethic of care which is a lifelong social practice ethic of care in morality and a sense of care (Jax et al., 2018). Once more, ecofeminism considers life in nature as collaborative and caring, based on love, empathy, and morality (Chandra Mondal & Majumder, 2019). The researcher was able to glean the feminist aspect through the lens of ecofeminism and Heidegger's philosophy of care when interpreting the data (Elley-Brown & Pringle, 2019). Care is essential to being human and being in the world (Caputo, 2018; Elley-Brown & Pringle, 2019; Heidegger, 1953/2010; Spier, 2019). The participants did not explicitly state that they were ecofeminists; however, their descriptions of their personal and leadership attributes and experience with nature-based mindfulness revealed similar traits to ecofeminism. The participants shared the expression of care for self, care for society, and care for the environment.

The ethic of care from a Heideggerian perspective is derived from the word sorge and has two ways of being in the world, besorgen and fursorge (Heidegger, 1953/2010; Tomkins & Simpson, 2015). According to Heidegger (1953/2010), besorge is the "taking care," (p. 43) and fursorge is "concern" (p. 43). In a recent study by Elley-Brown and Pringle (2019), the researchers conducted a hermeneutic phenomenology study of 15 women educators through the lens of Heideggerian ethic of care as "fundamental to human being" (p. 23). The researchers

emphasized that using Heidegger's ethic of care in their study "resists the temptation to essentialize and constrain the care ethic to empathy, niceness, and kindness" (Elley-Brown & Pringle, 2019, p. 33). In comparison to the abovementioned study, a few of the participants in this study referred to their leadership as nurturing and feminine while a couple of other participants did not believe their leadership could be described as feminine however, they did describe communal and agentic characteristics.

However, the Heideggerian ethic of care approach does not emphasize empathy; rather it comprises autonomy and self-management for a person or a cause (Elley-Brown & Pringle, 2019). Specifically, Elley-Brown and Pringle (2019) postulated that an individual who shows Heideggerian care "notices, pays attention to another and responds in ways to empower and enable" (p. 23). The study by Jax et al. (2018) mentioned the human relationship with nature through the lens of Indigenous and traditional aspects related to conservation biology and environmental ethics, ecofeminism, and focusing on care for nature. In this manner, the participants in this study all displayed an ethic of care in their being and thinking explicitly through mentorship, stewardship, connection to nature, teaching, and leading. The following section features elements of Heidegger's thinking.

Heidegger Thinking

Heidegger's thinking is multilayered and involves meditative and calculative thinking (Brito et al., 2021; Malloy et al., 2014). The research on Heidegger's thinking is complimentary to the phenomena of nature-based mindfulness and the relationship to the participants and their approach to work-life balance. The meditative thinking finds meaning and is contemplative and reflective; conversely, calculative thinking or technical enframing is continually moving forward to the next problem controlling to solve, such as science and engineering (Brito et al., 2021;

Malloy et al., 2014). The participants did express meditative thinking as well as calculative

thinking in their description of nature-based mindfulness practices and leadership attributes.

Calculative thinking does not slow down to reflect, thus, finding the balance between the

two is essential and practicing nature-based mindfulness is a way to facilitate the balance. As

such, Gibbs (2020) speaks to this equanimity through the Heidegger term of releasement and

stated, "releasement seeks equanimity that allows technology into our lives yet also resists it" (p.

1319). Gibbs (2020) discussed Heidegger's thinking, comparing it to the Confusion and Tao

philosophies of authentic and inauthentic ways of thinking. Gibbs alleged that meditative

thinking is the thinking of being to understand being human and the calculative thinking results

in viewing humans, objects, and nature as resources. Heidegger's meditative thinking (Gibbs

2020) and Merleau-Ponty's philosophy of nature describe an ecological ethic that pertains to

nature rather than the environment, emphasizing the being of nature and the being of humans and

the relation between the two (Toadvine, 2009). Heidegger and Merleau-Pony's philosophies

match nature-based mindfulness practices with human meditative thinking and being in relation

to nature. To this end, Gibbs contended that thinking is an openness to the unfolding of wonder

rather than control. Thinking of being is at the core of understanding being. Gibbs aligns Taoist

philosophy with authentic thinking and thanking. Participants in this study described their

experiences in nature practicing mindfulness in a way that was open and experiencing the

wonder around them.

Conversely, Purino (2020) discussed Heidegger's thinking as thanking, comparing it to

the Zen philosophy of non-rationality open to the amassed silence open to the oneness of being.

The openness to the unfolding of wonder is, according to Gibbs (2020), the hermeneutic circle.

The openness of *meditative thinking* allows for noticing and awe in nature and a thanking of this

thinking (Büssing, 2021; Gibbs, 2020). The participants in this study shared their thoughts on nature-based mindfulness practices and the researcher interpreted the transcripts to be Heideggerian meditative thinking balanced with some calculative thinking and yet go beyond calculative thinking, or the default mind as compared to multiple research studies (Brito et al., 2021; Büssing, 2021; Gibbs, 2020; Purino, 2020). Permitting meditative thinking to develop or unfold deepens thought and is a transformative way of thinking of transdisciplinary approaches and altering thinking and being (Brito et al., 2021; Büssing, 2021; Gibbs, 2020). Thus, compared to this study's nature-based mindfulness, the participants shared meditative thinking that supported transformative reflection through a multiplicity of approaches and practices of nature-based mindfulness. The succeeding portion features transformative experiences.

Transformative Experiences

The transformative life experiences shared by the participants in this study were detailed around nature-based mindfulness. All participants recalled stories across time that influenced their connection to nature and mindfulness and thus their lives. Participants appeared to describe their transformative experiences from a meditative thinking attitude. Most of the participants had childhood recollections of a transformative nature experience that influenced their ongoing relationship with nature and how it related to mindfulness. The shared transformative experiences of the participants were ascertained through analysis. This study's literature review attempted to reveal research associated with nature-based mindfulness yet did not uncover all the details brought to attention through the data analysis. The life experiences that the participants shared were in response to either their relationship to nature or how they accessed nature. In most instances, the participants referred to their experiences as a lesson that informed how they were as a leader or how they developed as a person. Many of the themes loosely overlap one

another and are interconnected. Hence, each related theme will be integrated into answering the

central research question while acknowledging their connection.

Considering nature-based mindfulness and women leaders, participants in this study

share transformative experiences and the aesthetics of those experiences, similar to several

research studies on transformative experiences related to aesthetics and nature (Büssing, 2021;

Gadamer, 2000; Kellert & Wilson, 1993). A study on time spent in the wilderness and public

land revealed that humans had a transformation in thought and behavior (Ewert et al., 2011).

Likewise, the literature review from this dissertation reported transformative experiences in

nature resultant of ecopedagogy. The transformational learning or experiential learning theories

(Ewert et al., 2011; O'Brien & Allin, 2021) were not covered in the previous chapters. However,

in reviewing current literature, the definition of transformative experiences contains mindfulness,

meditation, nature, and awe as some of the factors that solicit such transformative experiences

(Büssing, 2021; Ewert et al., 2011). Thus, the findings of this study show that the culmination of

nature and mindfulness encourages affective mood and aesthetics, supporting participants in

recalling powerful life experiences. The researcher will disclose theories from current and

relevant literature that correspond most closely with nature-based mindfulness education and

leadership with the underpinning of Heidegger and ecofeminist frameworks.

Most of the participants in this dissertation have expressed teaching or learning

experientially and transformative experiences in nature, which is comparable to multiple research

discoveries (Cincera et al., 2020; Ewert et al., 2011; O'Brien & Allin, 2021). Transformative

experiences can entail experiential learning theory or transformative learning theory or both in

either formal or informal teaching and learning. Transformative learning theory, developed by

Jack Mezirow (2018), concerns profound, beneficial, and constructive learning, defined by

having time for reflection on what was perceived (Ewert et al., 2011; Mezirow, 2018; O'Brien &

Allin, 2021). Time in nature can be a transformative experience but needs to have support and

reflection on the experience (Ewert et al., 2011; O'Brien & Allin, 2021).

Transformative experiences can change a person's perspective and have more self-

development, spirituality, healing, and restorative effects (Büssing, 2021; Ewert et al., 2011;

Thompson, 2022; Welch et al., 2021). Several studies show that the theories of Attention

Restoration Theory (ART), Psycho-Evolutionary Theory (PET), and biophilia are ways to

describe how individuals reflexively connect to nature (Ewert et al., 2011; Kellert & Wilson,

1993; Welch et al., 2021) and align with the experiences of this study's participants. According

to research conducted by Ewert et al. (2011), purposefully designed activities with active

approaches can improve health results when engaged in a wilderness or public land setting. The

participants in this study shared that they engaged in active approaches that led to transformative

experiences and improved well-being. The theories that closely correlate with the participants'

shared experiences in this study are experiential and transformative learning theories (Ewert et

al., 2011).

The latest research studies show there are positive benefits of childhood experiences in

nature, from learning to outdoor adventures (Baird et al., 2022; van Heezik et al., 2021). The

experiences can take place in green or blues spaces (aquatic environments) and have substantial

impacts, though more research is needed on the impact of adult experiences, specifically learning

in nature (Baird et al., 2022; van Heezik et al., 2021). Comparatively, the findings in this study

indicate that the positive effect of the participants' stories of mindful nature connection and the

impact nature has had on their lifespan is evident in their descriptions. A few participants

described being in their natural locations and practicing mindfulness as "coming home"

(Dogwood). In contrast, hearing the story of two participants explain their unpleasant experiences in nature, drowning and being attacked by humans, did not deter them from continuing to seek out time in nature. The participants in this study who shared their unsavory experiences did not indicate that their experiences changed how nature impacts their lives. All the participants cultivated an understanding of their surroundings and an increased reverence for the natural world. Most of the participants in this study recalled their childhood experiences in nature as instrumental in their continued relationship with nature and mindfulness, supported by Prévot et al. (2016) study. The research by Prévot et al. (2016) suggested that childhood nature experiences significantly influence decisions, life directions, and identity while decreasing a nature deficit.

All participants discussed their childhood experiences in nature and some with mindfulness. A couple of participants described challenging events in nature as transformative to identify with nature. In chapter four, the reflection of Almond's traumatic experience of being attacked on a beach is an example of a moment when her mindfulness and nature connection practices were accessible to her to find a solution in the moment of danger, which she found to be transformative. Almond's description accentuates the internal and external transformative experiences of nature-based mindfulness.

In emerging research, Fougères et al. (2022) emphasize the complexity of transformation regarding the human relationship with nature and consider a multifaceted approach that entails a systems pedagogy and inner transformation. Mindfulness can facilitate inner transformation through connecting to oneself and self-discovery, thus increasing awareness, compassion, and self-compassion (Fougères et al., 2022; Scafuto, 2021; Wells, 2015). And nature can facilitate external transformation through open monitoring, movement, observations, and awareness. As

earlier highlighted in chapter two, the human-nature connection positively affects a sense of self

and ecological behavior (Deringer et al., 2020). The literature shows that many attributes arise

from the human and nature connection through mindfulness such as compassion, resilience,

stress reduction, and increased ecological identity and pro-environmental behavior and attitudes

(Lumber et al., 2017; Mitten, 2017; Nisbet et al., 2019; Wells, 2015; Zabaniotou, 2020). The

following section details the participants shared nature-based mindfulness practices.

Nature-Based Mindfulness Practices

As previously stated, most participants came to practicing nature-based mindfulness as a

serendipitous unfolding. The women in the study spoke of being connected with nature prior to

beginning their mindfulness practices in nature. The participants had the nature connection first

and throughout their life span, which is supported by the notion of Wilson's biophilia hypothesis

of an innate desire to connect with nature, the human, and the more-than-human world (Barbiero

& Berto, 2021; Gunderson, 2014; Mitten, 2017; Wilson, 1984; Yin et al., 2019).

As stated early and emphasized again, mindful awareness practices in nature are not new

and have a long history in Indigenous cultures over many generations (Ewert et al., 2011; Chinn,

2015; Kurth et al., 2020; Rickard & White, 2021). Nature-based mindfulness is novel in research

despite the practices dating back thousands of years (Ewert et al., 2011; Chinn, 2015; Kurth et

al., 2020; Rickard & White, 2021). There are many ways to practice nature-based mindfulness.

Conversely, because nature-based mindfulness is an emerging research phenomenon, no one

definition can fully describe nature or mindfulness separately, let alone collectively or as a

practice. The participants in this study brought their definitions by describing the many ways

they understand and engage with nature-based mindfulness practices. Despite various definitions,

participants had consistencies in their interpretations and types of nature-based mindfulness practiced.

The participants in this study defined being mindful in nature as paying attention to each moment while using all their sensory abilities, slowing down or "disconnecting to reconnect" (Willow), and viewing themselves as nature, including seeing their dog as nature when walking outdoors. The most popular informal practices among the participants were walking, breathing, meditation, sitting, sensory observations, gardening, and hiking. While the most prevalent formal practices were intentional concentration using meditation and sitting in nature. The participants in this study mainly practiced informal mindfulness practices in nature. The less predominant practices among the women were formal mindfulness practices in nature. The commonality of the participants with informal versus formal nature-based mindfulness practices was intentionality. Less often, participants were more intentional when practicing formal nature-based mindfulness; however, the informal practice was frequent and not always intentional and generally due to a lack of time, which Macaulay et al. (2022) uncovered as a deterrent in practicing mindfulness.

Research suggests that there are many ways to practice nature-based mindfulness (Nisbet et al., 2019; Timko Olson et al., 2020; Zylstra et al., 2019). Comparably, participants in this study discussed the many practices they considered nature-based mindfulness, including forest bathing, dog walking, gardening, mindful walking, hiking, skiing, sailing, labyrinth, sitting, and breathing while in nature. The participants in this study mostly spoke of informal mindfulness practices in nature that comprised of walking their dog or walking and noticing seasonal changes, walking on trails or on the beach. The nature-based mindfulness activities participants in this study shared had similarities with various research studies (Clarke et al., 2021; Nisbet et

al., 2019; Timko Olson et al., 2020; Zylstra et al., 2019). All participants detailed how they used

their senses to be aware in nature with a wide variety of activities including walking.

As mentioned in chapter two, mindful walking and breathing are practices of slowing

down the pace to pay attention to how the body moves in the environment (Clarke et al., 2021).

Several participants in this study attributed their nature-based mindfulness practices to slowing

their pace in everyday life. The slowing down helped participants in this study express how they

use their senses to observe their environment. Further, participants shared about using their

sensory skills in nature when walking and breathing, and the literature review supported the

experience the women shared. With the addition of mindfulness to walking and breathing in

nature, a person has an awareness of sensations within the body and sensory input from the

environment, such as temperature, wind, light, and sounds (Gotink et al., 2016; Kabat-Zinn,

2016; Kotera et al., 2020).

A study on the latest meta-analysis and systematic review by Djernis et al. (2019)

revealed that nature-based mindfulness is comparatively exceptional compared to mindfulness

executed in indoor spaces or without natural influences. The popularity of informal practices

could be due to the ease of accessibility at any moment and are more in line with open

monitoring, which prompts state mindfulness to observe and adjust to the changing conditions, to

take in the scenery with all their senses (Djernis et al., 2019). In contrast, formal mindfulness

takes more time as it focuses on the more concentrated and inward-focusing practice and can

build trait mindfulness (Djernis et al., 2019).

Additionally, though participants in this study did not share practicing mindful self-

compassion, their nature-based mindfulness practice outcomes conveyed the effects of self-

compassion practice. Researchers define the practice as a person compassionately contemplating

themselves individually, their surroundings, other people, and the more-than-human entities (Germer & Neff, 2019; Kemper & Khirallah, 2015). Self-compassion practice elicits a sense of interconnectedness that participants share of having with other people and the planet. The following segment focuses on the participants' connection to the community and the earth.

Strong Connection to Community and the Earth

A nature connection is the closeness one feels to nature that positively influences ecological behavior and intention (Nisbet et al., 2019; Otto & Pensini, 2017). The women leaders in this study all spoke of a connection to nature, other people, and "something bigger than" (Willow) themselves. A few participants described a sense of interconnectedness and one of interdependence. Ultimately all the participants in this study described using their senses to embody and connect when practicing nature-based mindfulness. When participants described their experiences, they detailed vivid colors and how their senses experienced the moment. None of the women expressed that they were experiencing awe but, in some cases, would say, "I don't even know how to describe it" (French Cashew); still, their descriptions and presentation displayed joy and reverence. The researcher of this study interpreted and solicited a sense of awe from the interview descriptions and emotions.

Reviewing the literature supports this conclusion that nature fosters a sense of awe. Researchers described ways to elicit awe in studies such as reflecting on and reading about personal awe experiences and other people's experiences or regular contemplative practices (Büssing, 2021; Thompson, 2022). For example, mindful awareness practices in nature or experiencing beauty in nature can provoke awe (Büssing, 2021; Thompson, 2022). According to Thompson (2022), awe relates closely to resilience and emotions of happiness, wonder, astonishment, and joy. Thompson explained that the feeling of self-transcendence connects to

humanity, nature, or the universe, and this connection is closely associated with awe. Thompson related the link between awe, self-transcendence, and resilience as an innovative practice and skill to develop in the wake of the pandemic moving forward to support one's mental health and overall well-being. The research supports the qualities that the participants described in their interviews as awe.

Büssing's (2021) empirical study used an awe gratitude scale to explore the perception of the sacred life that included "mindful awareness of nature, others, and self, to compassion, meaning in life, and emotional well-being" (p.1). Büssing (2021) associated awe with gratitude and concluded that their findings revealed a perception of awe and gratitude which were correlated with life meaning and prosocial behavior (Büssing, 2021). Büssing described awe as a resource for overcoming challenges such as the pandemic. The participants in this study expressed overcoming challenges and mindful awareness of nature as they recollected beginning their practice and how it has influenced their leadership styles.

Conversely, the participants of this nature-based mindfulness study recalled childhood participation in nature-based activities and some with mindfulness; additionally, participants continue now as adults practicing nature-based mindfulness. Further, four of the participants were in the 60 to 70 age range and had accessibility to green and blue spaces. A couple of participants shared their safety concerns regarding weather, such as cold and ice or wind, preventing access to nature to practice mindfulness. Despite the weather and physical ability challenges, the participants found ways to add nature-based mindfulness into their daily or weekly routines. One participant lamented not being able to do as much as she once did because of aging knees. Another participant waited for ideal weather to go to the park. Nonetheless, the

women's perceptions were unwavering when finding time in nature, and they adapted to find moments to practice nature-based mindfulness.

In a study on the well-being of 65- to 85-year-old residents in Vancouver, Canada, Finlay et al. (2015) posited that landscapes in green and blue spaces embed natural therapeutic qualities. These spaces embed parks, gardens, street greenery, lakes, and the ocean. Individuals' interactions can be physical, social, or mental health (Finlay et al., 2015). However, the researchers noted that there are issues of safety, accessibility, and personal perceptions that can complicate the relationship with an aging population that is critical to have daily nature contact (Finlay et al., 2015). The study's findings support how green and blue spaces impact physical, mental, and social impacts on health later in life. Finlay et al. (2015) postulated that the green and blue space promotes well-being and motivates aging adults to get out into their natural surroundings with movement and joy. The feeling of nature evokes a sense of renewal and rejuvenation, restoration, and spiritual connectedness (Finlay et al., 2015). Similarly, many of the participants in this study shared their experience of time in nature practicing mindfulness as rejuvenating, resetting, relaxing, restoring, and renewing.

Research from Van Heezik et al. (2021) suggested that nature exposure during childhood can lead to a habitual behavior that leads to greater nature exposure as an adult. The study investigated the relationship between childhood and nature experiences and time spent in nature and found that even if there was a nature deficit in childhood, adults could alleviate the deficit with a positive commitment to spending time in green and blues spaces and reap the benefits (Van Heezik et al., 2021). The researchers posited that exposure is an indirect pathway to improved mental and physical well-being and increased attention to pro-environmental behaviors.

Pro-environmental manners relate to ecofeminist thinking that inspires connection with nature. Mondal and Majumder (2019) suggest ecofeminist thinking and organizing encourage interconnectedness to the overall community. Ecofeminism sees human beings as part of nature, not separate but connected. Connecting the women and dominated people with nature in unity allows for acknowledging and responding to environmental and social injustices (Mondal & Majumder, 2019).

Participants in this study were aligned with ecopedagogy and ecofeminism. Ecopedagogy, as mentioned in the literature review, is a humanistic approach grounded in Freire's (1973/2000) concept of planetary ideology, biophilia, and sustainability (Freire, 1973/2000; Zocher & Hougham, 2020). Participants in this study did not directly state the practices of ecopedagogy, ecoliteracy, or ecofeminism. However, some participants taught outdoor or environmental education, including mindfulness, meditation, and yoga, and described their experiences with similar concepts, including several participants considering themselves and their dogs as being nature.

This study's literature review details some aspects of ecological literacy or ecoliteracy. Research by Hilmi et al. (2021) explained that ecoliteracy has multiple intelligences of intellectual, spiritual, social, and emotional, including science that supports attitudes and behaviors that facilitate action and care for a more sustainable society. Participants in this study shared evidence of the attributes of ecoliteracy in their interview narratives by describing their interconnectedness and connection with nature and their belief that nature supports life, corresponding to a recent research study (Hilmi et al., 2021). Specifically, in another research study, the participants were connected aesthetically with emotions and cognition of nature

(Fadjarajani & As'ari, 2021). The following section will further highlight the shared experience of the women in this study who shared their benefits of practicing nature-based mindfulness.

Benefits of Practicing Nature-Based Mindfulness

The next topic to discuss is the supporting question: What are the benefits experienced by women leaders because of practicing nature-based mindfulness? In addition, questions from the interview protocol asked participants about the benefits of leadership they experienced with and without regard to nature-based mindfulness. The participants clearly articulated the benefits they experienced from practicing nature-based mindfulness. The literature review in this study supports the findings from the questions above, disclosing the benefits of nature-based mindfulness, time in nature, and the practices previously described. Further, participants in this study shared that they could maintain their well-being with nature-based mindfulness practices, specifically reducing stress and increasing emotional regulation.

Nature-based mindfulness benefits amplified the well-being of participants in this study. As stated in earlier chapters, research on the individual and combined elements of nature-based mindfulness reveals an increase in health benefits and general enhanced well-being in individuals (Capaldi et al., 2014; Djernis et al., 2019; Fabjański & Brymer, 2017; Klingbeil & Renshaw, 2018; Nisbet et al., 2019; Zarate et al., 2019). The fusion of nature and mindfulness supported physical and mental health for the participants in this study, specifically stress. Research supports this evidence in the work of Menardo et al. (2022), who claimed nature-based mindfulness practices are more beneficial than separate in responding to stressful situations. Explicitly, emerging research points to nature-based mindfulness as positively affecting psychological, physical, and social conditions, leading to overall health improvement (Djernis et al., 2019; Holt et al., 2019; Jimenez et al., 2021).

As previously mentioned, the participants in this study mostly shared about practicing informal mindfulness techniques in activities in nature. Participants expressed the range of their activities from being in nature daily to more intentional outings weekly, and research confirms that as little as a couple of hours per week improves the overall health of an individual (Coventry et al., 2021; Robbins, 2020). As stated in chapter two, nature-based interventions, including "gardening, green exercise, and nature-based therapy" (p. 1), effectively improve mental health effects in adults (Coventry et al., 2021). The women in the study described the physical and mental benefits of informal nature-based mindfulness practice in the natural environment. Current research suggests that combining informal mindfulness practices in a wilderness setting may more positively influence health outcomes versus mindfulness on its own or in artificial settings or constrained nature (Djernis et al., 2019; Macaulay et al., 2022).

Researchers propose a need for additional investigations into the types of nature settings used with the diverse varieties of mindfulness practices (Djernis et al., 2019; Macaulay et al., 2022). Nonetheless, the research suggests that health benefits are increased in nature (Djernis et al., 2019; Macaulay et al., 2022; Menardo et al., 2022). A meta-analysis and systematic review by Djernis et al. (2019) revealed that nature-based mindfulness had positively affected individuals' psychological, physical, and social conditions. Nature settings are restorative and help individuals find a state of calm (Menardo et al., 2022). The connection to nature or nature-relatedness can increase pro-environmental behavior and overall well-being (Lumber et al., 2017). The findings in this study divulged that the women leaders self-reported having an increase in wellness and some pro-environmental behavior that current research from this study's literature review supports (Lumber et al., 2017). The findings from the recent study by Lumber et al. (2017), discussed the multiple pathways that improve nature connection and summon

emotions, such as compassion and an appreciation of the beauty in nature which supported what the participants in this study shared about their nature-based mindfulness experiences. Finally, recent research suggests that nature and mindfulness are complementary practices, each enhancing the other (Djernis et al., 2019; Menardo et al., 2022).

Additionally, the literature review in this study represented what the participants disclosed about their nature-based mindfulness practices. Participants who applied an embodied awareness in activities in nature close to their homes indicated improved overall well-being and connection, which recent research supports (Holt et al., 2019; Jimenez et al., 2021; Shanahan et al., 2019). Some participants in this study shared that being in nature was necessary for their quality of life. The research identified in chapter two backed what the participants in this study conveyed about their nature-based mindfulness (NBM) practices and time spent in nature. As a result of NBM and time in nature, the women experienced an overall improved mental, social, and physical state of health which current research reinforces (Djernis et al., 2019; Macaulay et al., 2022; Menardo et al., 2022; Sayrak, 2019; Shanahan et al., 2019).

Current research supports the findings in this study of nature-based mindfulness supporting overall health and well-being (Chavaly & Naachimuthu, 2020). This study's participants' geographical locations were representative of central Europe and the four compass directions, east, west, north, and south, in the United States, including rural and urban areas. Participants indicated that their connection to nature and mindfulness helped their overall health and well-being no matter their location. Recent research found that people with more time and access to natural spaces reported a positive increase in their psychological and emotional health (Capaldi et al., 2015; Nisbet et al., 2019; Nisbet & Zelenski, 2013). Participants in this study living in rural areas communicated gratitude for their natural surroundings and the ease of

accessing nature compared to their urban counterparts, who identified their living area as a

challenge to access nature. The urban participants in this study understood the value of practicing

nature-based mindfulness. They prioritized having time in nature outside of the city to the beach,

woods, or mountains at a minimum weekly; time and distance were their challenges. The

participants in the study shared that their overall emotional and physical health correlates to time

practicing nature-based mindfulness. Evidence suggests a correlation between increased

emotional health, such as happiness, and joy in nature improves longevity and immune response

(Capaldi et al., 2015; Nisbet et al., 2019; Nisbet & Zelenski, 2013; Wolsko et al., 2019).

Challenges of Practicing Nature-Based Mindfulness

The following research topic to discuss is the supporting question: What are the

challenges experienced by women leaders because of practicing nature-based mindfulness? In

addition, questions from the interview protocol asked participants about the challenges in

leadership they experienced with and without reference to nature-based mindfulness. Many

participants in the study did not have challenges practicing nature-based mindfulness in their

leadership. However, a few women stated that time was a challenge to their leadership.

The inconsistent definition and terminology of nature-based mindfulness challenged the

process of teaching and leading nature-based mindfulness for some participants. Next, the formal

versus informal mindfulness practices were not a challenge for participants but a way to navigate

practicing. For instance, an informal mindfulness practice might be taking time to observe and

notice the breath. In contrast, a formal practice would be intentionally placing focus or

concentration on the breath while sitting or walking in nature. Participants challenged by time

would implement informal practices and "steal little moments" (French Cashew), as one

participant shared in her interview.

The participants emphasized that their biggest challenge in practicing nature-based mindfulness, specifically formal practices, was not having enough time. The challenge of time was corroborated as a limitation in formal mindfulness practices in a study by Birtwell et al. (2018). They highlighted that time and routine are components of maintaining mindfulness practice. Similarly, according to participants in this study, nature-based mindfulness can be supported by putting aside the resource of time and routine.

The most consistent challenge for participants in this study for practicing nature-based mindfulness was having the time to practice and the ability to access nature. All participants cited cold or inclement weather as a factor in accessing nature. In a novel literature review, the researchers cogitated over the *constrained nature spaces* that they defined as less restorative and busy urban green spaces (Macaulay et al., 2022). The researchers explored existing literature to identify three critical elements of perceptual sensitivity, decentering, and non-reactivity due to "mindful engagement in nature" (Macaulay et al., 2022, p. 1). The new framework by Macaulay et al. (2022) pinpoints the ability to examine how individuals are engaging mindfully in constrained nature to study how "self-regulatory mechanisms of mindful engagement have a more direct role in supporting outcomes" (Macaulay et al., 2022, p. 1). The researchers referred to mindful engagement as open monitoring of sensory and mental experiences externally and internally using continuous awareness (Cardaciotto et al., 2008; Macaulay et al., 2022).

Another challenge expressed by some participants in this study was the concern over the commercialism or trendy aspect of nature-based mindfulness, including the nascent surge in practices since the pandemic. This posed a challenge for a few of the participants, likening nature-based mindfulness to the commodification of mindfulness, referred to as McMindfulness (Kristensen, 2017). Some participants felt like the term nature-based mindfulness was trying to

create something new that has been in practice for many years. Participants who expressed this concern felt like nature-based mindfulness has been a practice in their everyday lives for many years or have referred to NBM in different ways, such as nature connection or mindfulness in nature. The commercialization of nature-based mindfulness was an apparent concern for several of the women in this study. One participant voiced apprehension over the popularization of the offerings of NBM among organizations marketing nature-based mindfulness courses and classes for a fee, making the market saturated and challenging for one to make a living in the profession of nature-based mindfulness.

The participants in this study conveyed the challenge of accessing more open space or unconstrained nature due to lack of time or nature access close to home; participants in urban areas adapted to constrained nature within or near their homes. One participant shared how they would access nature by looking out the window at the plants or noticing the birds. Another participant stated, "I'm the kind of a person that can find nature in walking on a city street and seeing the moss that's growing between the sidewalk cracks" (Banyan). Though the constrained nature spaces in busy urban areas challenge the women in this study, the participants noticed and connected to nature in those urban areas, adapting their practice to connect to nature and describing some restorative qualities. The Macaulay et al. (2022) study provides suggestions for future research parallel to this study.

Table three reveals participant data that had the most focus on attributes of transformational leadership regarding supporting and encouraging followers' intellectual stimulation and many aspects of individualized consideration. There was a lack of references by participants in the idealized influence category. The following section emphasizes the ways nature-based mindfulness influenced the participants' leadership styles (See Table 3).

Table 3

Comparison of Transformational Leadership (TL) Attributes to Self-Described Leadership and Style Traits

TL Leadership Attributes	Participants											
	1	2	3	4	5	6	7	8	9	10	11	12
Idealized influence (charismatic)												
Inspired vision & mission	2	1	2	2	1	2	1	1	1	2	1	2
Respect and trust followers	2	3	3	2	1	4	4	1	4	2	2	2
Strong moral and ethical values	1	1	3	1	1	1	2	1	3	2	2	1
Influential role models for followers	4	3	3	4	1	2	4	2	3	3	3	2
Inspirational motivation												
Communicate high expectations of shared goals and vision	2	1	1	2	2	3	3	1	3	3	2	2
Inspire team spirit and concern for subordinates and organization's success	3	3	2	3	2	3	4	2	3	3	1	2
Focus on team, collaboration, and cooperation	2	3	2	3	2	3	2	1	3	3	2	4
Motivates through encouragement and clear communication	3	3	3	2	1	3	3	2	2	3	3	3
Intellectual stimulation												
Stimulate innovation and creativity	2	4	2	1	1	4	1	2	1	3	1	1
Challenge followers, organization and leaders' beliefs, values, and status quo	1	2	4	1	1	2	3	2	3	3	1	3
Supports and encourages followers' curiosity, communication, and engaging in their own problem-solving, growth, and ideas	3	4	4	4	3	3	3	3	3	3	3	2
Individualized consideration												
Care, nurture, compassion, empathy. supportive climate	3	2	2	2	2	3	3	2	3	2	3	2
Careful listening for follower needs	2	3	4	4	2	4	4	3	3	3	1	3
Leaders are coaches, advisors, and mentors	4	4	4	4	2	3	4	3	4	3	3	1
Empower followers reach their full potential	1	3	4	4	3	3	3	3	3	4	4	1
Go above and beyond expectations building culture	3	2	2	3	2	4	4	2	4	2	3	3
Transcend own self-interest for the good of the group or organization	2	2	3	3	2	3	4	3	4	4	4	4
Strong interpersonal skills highly collaborative	4	3	4	4	2	4	4	2	4	4	4	3
Leader self-awareness and awareness	4	4	4	4	4	4	4	4	4	4	4	4
Sense of meaningfulness in work: knowledge sharing, decision-making and improve self-confidence	3	3	4	3	2	2	2	2	2	2	3	4
Trusting and equitable environment with passion innovation long-term vision, equity ethics and values	2	3	3	3	1	3	4	1	4	1	3	2
Inspire student self-efficacy	2	3	3	3	3	2	3	3	3	3	3	4
Emotional intelligence	4	1	1	1	1	1	1	1	1	1	1	1
Connection and interconnectedness	4	3	4	4	2	4	4	3	3	2	3	4

Note. The following defines the quantity assigned to the participants' numerical identifier. 0- No mention of the topic, 1- no mention of the topic, but alludes to the topic, 2- mentions the topic, 3- mentions topic often, and 4- mentions topic frequently. (Bass & Avolio, 1994; Bass & Steidlmeier, 1999; Berkovich, 2017; Bin Bakr & Alfayez, 2021; Francisco, 2019; Hyseni Duraku & Hoxha, 2021; MORA, 2012; Murari & Mukherjee, 2021; Northouse, 2022; Saint-Michel, 2018; Thomas et al., 2018; Wang, 2019; Wang et al., 2020; Yang, 2014).

Nature-Based Mindfulness and Influence on Leadership Style

The following research question to discuss asked: How does practicing nature-based mindfulness shape the leadership style of women leaders in education? The twelve participants in this study described resounding examples of how nature-based mindfulness helped shape their leadership style as well as their personal growth. The most common aspect of nature-based mindfulness shaping participants' leadership styles was their communication, specifically listening skills, active listening, listening to understand, and facilitating problem-solving (See Table 3). The common traits align with Bass & Steidlmeier's (1999) and Northouse's (2022) description of intellectual stimulation, one of four main attributes in transformational leadership. Creativity and innovation stimulate curiosity and communication in problem-solving, growth, and generating creative solutions in an organization (Northouse, 2022). Further, in a longitudinal study of transformational leaders in higher education researchers discovered student motivation increased creativity, engagement, and task performance because of increased trust within the teacher (Pachler et al, 2019).

Research shows that successful leaders recognize the importance of acknowledging and expressing emotions and the importance of emotional intelligence as a leader (Goleman, 2006; Johnson & Hackman, 2018). The next aspect shaping leadership was emotional regulation through nature-based mindfulness practices. One participant specifically mentioned her emotional intelligence in leadership. The remaining participants alluded to emotional intelligence, describing how she attributes her practice of nature-based mindfulness to calming her anger and slowing down enough to breathe and calmly respond in a way that does not try to control the outcome. This same participant emphasizes that she cannot control other people, only herself, and learned this through nature-based mindfulness practices. This participant was an

example of emotional regulation and attributes of emotional intelligence and self-awareness (See Table 3).

The research supports the purposes in chapter two and findings in chapter four, identifying a connection between mindfulness-based practices and increased emotional intelligence (Goleman, 2006). However, emotional intelligence or intrapersonal development is more associated with authentic leadership or the servant leadership traits of awareness (Northouse, 2019; Northouse, 2022; Van Droffelaar, 2021). Recent studies found a positive correlation between transformational leadership and mindfulness and demonstrate that mindfulness practices are essential for developing a leader's emotional intelligence and improving overall leadership (Kaoun, 2019; Lange et al., 2018). The ever-changing state of our uncertain world is fluctuating with the current global pandemic, social justice, climate justice, and human rights (Hougaard et al., 2020). Research points to a humanistic leadership approach based on awareness, emotional intelligence, inclusivity, interconnectedness, and system thinking attributes (Hougaard et al., 2020; Mitten, 2017; Zabaniotou, 2020).

Johnson and Hackman (2018) posited that analytical and emotional knowledge is essential. According to Johnson and Hackman, this knowledge is the basis of an effective and skillful person and leader with the ability to integrate thinking and feeling. The participants in this study expressed respectful leadership with a genuine interest and concern for their peers, students, and followers through their desire to ensure mentoring and role modeling, an approach supported by research findings by Gerpott et al. (2019). Participants in this study shared some about having concern for other people and taking on different perspectives, which aligned with research by Gerpott et al. (2019) and Van Doesum et al. (2018). Respectful leadership considers genuine interest and concern which is a fundamental quality in transformational leadership's

idealized influence of respect and trust toward followers (Bass & Avolio, 1994; Bass &

Steidlmeier, 1999; Northouse, 2022; See Table 3).

Northouse (2022) describes the complexity of leadership as having many components

and ways to conceptualize the intricacy. The researcher in this study posits that leadership, like

nature-based mindfulness, is likewise complicated. The transformational leadership trait of

inspired influence has leaders communicate a shared vision and mission. The 12 women leaders

in this study shared their lived leadership experiences regarding nature-based mindfulness

impacts. The participants described how their listening and speaking guide outcomes and

influence peers and followers toward a common goal which is supported by the research of

Johnson and Hackman (2018), Nazim and Mahmood (2018), and Northouse (2022). A case study

emphasizes how transformational leadership can implement school improvements through

communication to discover problems, find solutions, and build a shared vision promoting

successful outcomes (Yang, 2014) and school improvement (Francisco, 2019).

Comparably, Eagly (2007) declared that leadership styles are not fixed behaviors but

actions that align with specific situations and functions within a leader's particular style. Some

theorists have suggested that leadership is evolving beyond the masculine agentic standard to

include feminine relational styles of leadership (Nash & Moore, 2018; Post et al., 2019). This

study acknowledges that there is not a comparison group included in the research. The

combination of agentic and communal trait development was evident in most of the narratives of

the participants in this study. Some participants self-described feminine leadership attributes

while a few said their traits were not feminine. The women in this study had a deep commitment

to mentoring, role modeling, and uplifting their peers and followers to leadership roles, showing

communal and relational traits as supported by individualized stimulation of empowering followers to reach their full potential as leaders, coaches, mentors, and advisors (See Table 3).

Essentially, these women may develop as leader examples for women coming after them, eventually having an impact to change the number of women in formal leadership roles. The findings demonstrate elements of the role modeling and motivating qualities of transformational leadership as well as the relational characteristics of authentic leadership. Additionally, Bierema (2016) described that classic leadership rarely had women leaders as examples. Many women in this study revealed ways they were the leaders and mentors they never had when first starting in their careers and the desire to be a mentor for new aspiring leaders.

According to recent research, the average features associated with women leaders are communal and, for men, agentic; all genders can have one or both traits to be androgynous, combing agentic and communal qualities (Fjendbo, 2021; Kulich et al., 2021). Further, exemplary leadership combines communal and agentic attributes (Keck, 2019). Once again, the researcher of this study acknowledges that the research did not include a comparison group. Eagly (2007) describes the transformational characteristics closely aligning with feminine or communal traits. The participants in this study generally spoke of communal qualities in their leadership as collaborative, cooperative, compassionate, democratic, nurturing, relational, and mentoring, which align with research on women leaders by Eagly (2007) and Post et al. (2019). Most participants described being collaborative, cooperative, coaching, and mentoring, while several mentioned nurturing or relational characteristics. However, participants' descriptions of leadership implied having several of the above attributes if they were not explicitly identified.

Conversely, only one participant in this study described her leadership style as emotionally intelligent. While another participant detailed being a servant leader, several women

leaders described their leadership styles as authentic or transformational, and the remaining women described attributes of their leadership styles. Nature-based mindfulness may have increased participants' emotional intelligence as evaluated through the dialogue of rich text in this study and described in the literature review. This researcher can only speculate that participants have heightened emotional intelligence.

Leadership Attributes of Participants Related to the Literature

The participants in this study stated the attributes of their leadership style, with only a few identifying a specific theory or style. Though there were several identifying leadership styles, the most prominent, when the researcher analyzed all the data, was transformational. Three participants indicated to having a transformational leadership style, one defined their leadership as a servant leadership style, and three more specified authenticity as a trait in their leadership. The characteristics shared by the participants were motivating, inspiring, leading with trust, leading by example, being a role model, mentoring, cooperating, collaborating, and leading with compassion and respect. However, in addition to transformational leadership, authentic transformational leadership is a leadership style that aligns with this study's findings. Authentic leadership is multidimensional and can encompass transformational, charismatic, servant, spiritual, or other forms of leadership styles such as mindfulness and ethics (Malik & Mehmood, 2022).

According to Bass and Steidlmeier (1999), for a leader to be genuinely transformational, they must possess a moral foundation. Authentic leadership has similar attributes to emotional intelligence, specifically self-awareness, self-regulation, and influence of emotional expression (Arendt et al., 2019; Carleton et al., 2018; Miao et al., 2018). Participants in this study implied their ability to know themselves to align their actions with their values when in the company of

other people. The participants in this study all shared their characteristics of strong self-awareness, self-regulation, and social management, aligning with emotional intelligence as expressed in research by Goleman (2006) and Northouse (2022).

Research by Northouse (2022) and Van Droffelaar (2021) complements this study's findings of sharing authentic leadership attributes, purpose, values, relationships, self-discipline, and compassion. Authentic leadership develops over a person's lifetime and focuses on intrapersonal and interpersonal development, which is nurtured and emerges throughout their lives, possibly triggered by a critical life event (Northouse, 2022; Van Droffelaar, 2021). The previously mentioned research aligns with the authentic leadership style and the transformative theory mentioned earlier in this chapter. The four main components of authentic leadership are self-awareness, internalized moral perspective, balanced processing, and relational transparency (Northouse, 2022; Van Droffelaar, 2021).

Most participants often mentioned their leadership styles' compassion, care, and nurturing qualities. Additionally, all the participants revealed awareness practices; these traits included participants' mentions of interpersonal, intrapersonal, and relational qualities, which align with authentic and transformational leadership (See Table 3). Concerning cultivating a safe and just school climate, transformational leaders will shape a caring, trusting, and accessible environment that considers passion, innovation, long-term vision, and equity ethics and values issues (Wang, 2019). Participants did not explicitly cite care and morality from the ethic of care and lens of ecofeminism (Jax et al., 2018). However, the implication of attributes that impacted leadership styles was evident in the participants' shared experiences (Jax et al., 2018). Specifically, the ecofeminist attributes life in nature as collaborative and caring, based on love, empathy, and morality aligned with many of the participants' shared traits (Chandra Mondal & Majumder,

2019). Participants shared the expression of care for self, care for society, and care for the

environment and the impact it has on their leadership styles.

The women leaders in this study desired to inspire, influence, and support their followers

and students by mentoring, establishing relationships, innovation, and taking on opportunities.

Much like several research studies on transformational leadership emphasizing the

transformational leader's influence on student and teacher efficacy and self-directed motivation,

a study identified a significant positive correlation between teacher's transformational leadership

and student self-efficacy, with a positive effect on employability and student problem-based

learning (Wang et al., 2020). A different study described the positive effects transformational

leadership had on teachers' self-directed motivation and their motivation for complementary

tasks and student evaluations (Hyseni Duraku & Hoxha, 2021). Similarly, another study found

that a principal's transformational leadership positively influenced first-year teachers' job

intrinsic motivation mindset, self-efficacy, and job satisfaction (Thomas et al., 2018).

The participants stressed that it was essential to lead in a way that emphasized mentoring,

uplifting, respect, and compassion. A recent study by Lange et al. (2018) found a positive

relationship between transformation and mindfulness in leadership and a negative connection

between mindfulness and *destructive leadership*. Lange et al. (2018) emphasize the importance

to promote and cultivate transformational leadership and develop mindfulness capabilities, which

would support authentic transformational leadership. Conversely, the most shared feature was

the transformational leadership style. Though considering the traits of all the women in this

study, the researcher interpreted that the characteristics most closely align with transformational

leadership. Alternatively, authentic transformational leadership is another possibility as it is

hypothesized as a concern for the collective good and associated with overall ethical conditions

to support group moral action and decision-making (Northouse, 2022). The subsequent section highlights the challenges and benefits of life events on women leaders in this study.

Women Leaders Challenging and Beneficial Life Events

The study by Smith and Suby-Long (2019) of women leaders highlighted in chapter two discussed the researchers' interpretation that their study's participants were able to cultivate purpose from challenging and beneficial life events. However, the researchers pointed out that the more complicated life events influenced purpose and leadership philosophy (Smith & Suby-Long, 2019). The study by Smith and Suby-Long refers to life events in their leadership. In contrast, the emerging theme of transformative life experiences in nature or nature-based mindfulness unfolded for this study. Which raises the question, what transformative experiences influence a human's life trajectory?

The answer to what transformative experiences influence a human's life trajectory may lie in developing research outlooks and theories such as the *life course perspective model*, a multidisciplinary structure about how humans develop over time, underscoring the significance of social and chronological contexts. In a novel study by Izenstark and Middaugh (2021), the researchers explored how family-based nature activities in frequency and type change over time across the developmental stages from early childhood to adulthood. The researchers emphasized probing into retrospective nature-based paths to examine the relationship between childhood connection to nature and adulthood environmental attitudes and behaviors (Colley et al., 2019; Izenstark & Middaugh, 2021). According to researchers, there are limited investigations examining life courses in leisure and environmental studies (Colley et al., 2019; Izenstark & Middaugh, 2021). Specifically, Izenstark and Middaugh (2021) found demographic distinctions between male and female participants related to their nature and green space activities. The

researchers noted women reported more "family-based" (p. 21) childhood connections with nature through physical activities in blue and green spaces compared to males who reported being more involved in sports (Izenstark & Middaugh, 2021). Thus, this researcher believes there is a need for more research on how the life course perspective theory applies to nature-based mindfulness in women leaders. The following section highlights leadership roles as they relate to the participants and the literature.

Leadership Roles

Much like nature-based mindfulness practices, some participants in this study found themselves in a leadership role through an unconscious serendipitous unfolding, by chance, or through the accumulation of the right experiences, knowledge, and certifications. The interview narratives may have prompted the participants to recognize later that perhaps their leadership positions were more purposeful. The possibility of the women realizing their roles in leadership was more intentional than once believed could solicit more research into why most women described their leadership roles as unplanned. For instance, in a study by Smith and Suby-Long (2019), women leaders recollected their purpose and career through narrative sharing of written and verbal reflections. The reflection process helped participants recognize and identify leadership theory and notice their authenticity when they were purposeful in their decision-making and efforts, even if they did not think so (Smith & Suby-Long, 2019). The process was a tool for participants to use in the future when faced with decisions and leadership choices or dilemmas (Smith & Suby-Long, 2019).

Additionally, most participants in this nature-based mindfulness study spoke about how their leadership roles unfolded, explaining that they needed to do more work to prove themselves in many cases. In the previously stated research review of this study, research shows that there

are increasing advancements and opportunities for women in leadership, yet the hidden barriers

and unconscious biases manifest in various ways (Andersson et al., 2021; Edge, 2019; Gupta et

al., 2018; Murrell, 2018; Northouse, 2022; Phillips & Grandy, 2018; Randell & Yerbury, 2020;

Schwanke, 2013; Van Vugt & Von Rueden, 2020; Yildiz & Vural, 2019). Despite the

advancements, there are still not as many women in senior leadership positions (Charatan, 2020;

Smith & Suby-Long, 2019). From the participants' shared responses in this study, the women

conveyed the need to do more to land a leadership role. In contrast, a couple of participants in

this study said that there was no difference in opportunity for them than their male counterparts.

One participant said she felt she could get away with more as a woman leader, while several

participants said they felt they would be more harshly judged than their male peers. The results

align with the literature review in this study. Despite the intentional efforts to raise equality in

organizations, women are still underrepresented in senior leadership roles across most industries

(Charatan, 2020; Smith & Suby-Long, 2019). Likewise, in this study, several of the participants

commented on noticing more leadership opportunities yet seeing few women in senior leadership

roles in their perspective organizations.

As stated in chapter two, attributes of underrepresentation for women are partially due to

the different societal roles of women and men, with the common view of men as being more

agentic and assertive compared to women, who tend to be more nurturing, communal, and

passive in the workplace (Coleman, 2019). Unconscious gender bias is an assumed hidden

barrier in academia (Skov (2020). In a recent study on how targets of stereotypes are affected by

normalized negative stereotypes in the workplace, Van Laar et al. (2019) describe the recipients

of the bias as passively receiving attitudes and behaviors but are at the same time actively

aspiring toward goals to achieve and belong. The researchers looked at the increase in various

groups such as women, ethnic and cultural minorities, age, mental and physical disabilities, and

LBGTQ+ representation and visibility. Nevertheless, there is still underrepresentation at senior

level positions and concerns for women and cultural and ethnic minorities, including the

previously mentioned. Research shows that stereotypes held by groups sustain inequalities within

the workplace (Van Laar et al., 2019). Van Laar et al. (2019) postulated that recipients seek

belonging and achievement. Moreover, the researchers' insights come from stigma, social

identity, and self-regulation in their study (Van Laar et al., 2019).

According to Van Laar et al. (2019), the key is to understand that stereotypes, prejudice,

and discrimination exist subtly and impact how constituents of stigmatized groups manage. Thus,

the researchers suggested that organizations focus on threats, coping, support, and potential

hidden costs to help explain why diversity efforts may not be successful and keep and hire

members of stigmatized groups to lower barriers in the workplace (Van Laar et al., 2019). The

literature from chapter two discussed barriers for women in leadership. As stated, one barrier is

women generation X leaders under 40 years of age with a "temporal tension between work and

family" (Edge, 2019, p. 5). The work-life balance is a challenge for women in leadership

especially women who are also parents.

Moreover, in this study, the researcher noted that all the participants struggled with work-

life balance, most notably the women with children; this study's leadership work-life challenge

was not limited to generation X leaders as was described in the research by Edge (2019).

Similarly, participants in this nature-based mindfulness study had work-life balance and family

support challenges. The nature-based mindfulness participants primarily spoke of mentorship

and role modeling to help other women and subordinates achieve leadership goals. Mentorship

and empowerment were essential elements in the women leader participants of this study. The

women leaders all felt a duty to pass on knowledge and be supportive as mentors or role models
and take agency over as the role model or mentors which aligns with research previously
reported (Edge, 2019). The following section features the leadership attributes of the participants
as it relates to literature.

Leadership Attributes

This study's findings did not reveal specific characteristics or exactness of distinct
leadership styles. However, participants in this study revealed how they ended up in their
leadership roles and how nature-based mindfulness influenced their leadership style. The
participants were asked to recall the past to present of their nature-based mindfulness and
leadership roles and describe their attributes as a leader. Everyone is unique in their leadership
style and how they came to practice nature-based mindfulness and into their leadership role.

However, in this study, there were leadership style commonalities between participants.
Despite various attributes pointing to a few leadership styles, several women leaders commented
on the stereotypical qualities associated with being feminine or communal in leadership. This
study's participants revealed commonly perceived feminine attributes that aligned with what
research in chapter two outlined as collaborative, cooperative, compassionate, democratic,
nurturing, relational, and mentoring (Eagly, 2007; Post et al., 2019). There were some adaptive
and situational leadership characteristics; the more common attributes were transformational,
authentic, and servant leadership styles.

In a recent study, a researcher explored crisis leadership around COVID-19 and
discovered that Canadian leadership responded in four stages of leadership styles. The four
stages gradually evolved from authentic, servant, and transformational to participative leadership
styles, closely aligning with the authentic transformational leadership style. Researchers

identified six traits associated with authentic transformational leadership as associated with the six universal virtues (Sosik & Cameron, 2010). More specifically, Murari and Mukherjee (2021) point out that authentic transformational leadership is necessary for our current global challenges identifying the traits of clear concepts, trust, inspired motivation, intellectual stimulation, mentorship and coaching, self-awareness, transparency, cultivating organizations, and having harmonious values (Murari & Mukherjee, 2021).

Self-awareness is a foundational aspect of authentic transformational leadership, mindfulness, and emotional intelligence. Mindfulness practices help cultivate self-awareness, social awareness, and communication, increasing emotional intelligence (Arendt et al., 2019; Carleton et al., 2018; Kaoun, 2019; Rogers & Rose, 2019). As mentioned in the literature review of this study, nascent research shows that mindfulness can increase emotional intelligence and self-leadership that complement the attributes of authentic, transformational, and ethical leadership styles (Chesley & Wylson, 2016; Kaoun, 2019; Lange et al., 2018; Nübold et al., 2019; Rupprecht et al., 2019; Stedham & Skaar, 2019; Urrila, 2021). The participants in this study shared many of the attributes of a mindful authentic transformational leader.

The participants' leadership characteristics had qualities that aligned most with authentic transformational leadership. As stated earlier in the section, the various leadership styles and attributes aligned can be encapsulated into authentic transformational leadership as the characteristics of this study's participants complement this leadership style. The women in this study's most commonly shared attributes were collaborative, communicative, role model, mentoring, encouraging, and inspiring. An authentic transformational leader's role is to encourage, empower, influence followers, have a collective purpose, be selfless, have autonomy,

trust, engage, connect with subordinates, and have communal traits (Bass & Steidlmeier, 1999; Mencl et al., 2016; Saint-Michel, 2018).

Further, there is a connection between nature-based mindfulness practices and the impact on the leadership styles of the women leaders in this study. Nature-based mindfulness makes a difference in leadership styles; as revealed in the research studies, there is a positive correlation between individual and collective mindfulness practices and relationship engagement (Curtis et al., 2017; Samul, 2020). Nature-based mindfulness not only connects individuals to themselves, other people, and the environment but also improves human health (Nisbet et al., 2019). Thus, nature-based mindfulness supports overall health, connection, and deep awareness of nature and cultivates ecological identity, which can support solutions to the climate crises (Bai, 2017; Gray & Colucci-Gray, 2018; Mitten, 2017; Nisbet et al., 2019; Pulkki et al., 2021; Thiermann & Sheate, 2020). The convergence of nature-based mindfulness and women leaders in education supports increased nature connection, communication, and compassion (Henriksen et al., 2020; Mitten, 2017; Wamsler, 2018). The subsequent section accentuates the researcher of this study, the reflections, and the assumptions.

Reflections and Assumptions

As a national board-certified science educator, certified mindfulness, and yoga instructor, the researcher believes nature-based mindfulness practices holistically balance mind, body, spirit, and connection to the environment and ultimately help educators and leaders to achieve healthy relations and leadership. The researcher had many preunderstandings and biases. However, by following Heideggerian hermeneutic phenomenology and the conceptual framework of ecofeminism, this female researcher became an active participant within the hermeneutic circle to interpret the text. The hermeneutic circle was achieved by first connecting

with the meanings of the text and then by uncovering what the possible understandings of the texts revealed (Dibley et al., 2020). In this way, this researcher was within the hermeneutic circle by conveying the participants' interpreted meanings of their nature-based mindfulness practice to the best understanding of this researcher.

Assumptions held before initiating this study included ideas that women leaders in education who engage in nature-based mindfulness practices are (a) more introspective, (b) more aware of their leadership, and (c) effectively manage their day-to-day stress. Participants' comments in interviews strongly supported these assumptions. Participants described how their nature-based mindfulness practice made them more self-reflective and how their senses, mind, and body processed stress and responses in nature and their work environment. Moreover, participants described how the practices of nature-based mindfulness assisted in providing insight into being better communicators, and managing stress, and their emotions. Participants in this study consistently conveyed an awareness of their leadership role and connection to peers and subordinates through practicing nature-based mindfulness skills.

Participants relayed stories of being present, accepting that they cannot control others, and communicating through deep active listening. All the participants spoke of how their nature-based mindfulness practices are in the present moment experiencing awareness through their sensory interactions. One participant articulated, "So all five of your senses, all 5 of my senses being present with everything I am experiencing in the moment" (Aspen). Nonetheless, this researcher postulated that nature-based mindfulness would influence women's leadership style, including well-being and increased pro-environmental behavior. This researcher did not foresee how the women would passionately embrace mentorship and role modeling in their community. Moreover, this researcher did not anticipate how impactful nature-based mindfulness was on the

participants' sense of connection toward the community, the earth, and giving back to women in leadership.

Nature-based mindfulness practices appear to impact affective learning and emotion, subsequent influence on developing leadership styles, and their effects on the participants growing sense of pro-environmental behavior (Hanley et al., 2020; Raven et al., 2020). Lastly, this researcher did not foresee how nature-based mindfulness practices would positively impact the sense of connection and affective attitudes among the participants in this study and its beneficial influence on leadership communication. These unforeseen findings underscore the association between transformative experiences in nature and mindfulness among the participants that culminated in their development as women leaders and in cultivating their leadership styles.

Further, the professional growth and leadership style development experienced by the participants in this study were influenced by the participants' ability to connect to their nature-based mindfulness practices consistently over time and in most cases since childhood. The subsequent section accentuates the relevance of this study.

Relevance of the Study

As explained earlier in this dissertation, significant challenges over the last three years have intensified ongoing transformations fueled by a sustained global pandemic, ecological crises, and military crises. The global humanitarian crises of our time urgently signal a need for individuals and societies to change their behaviors and increase global awareness that the interconnectedness of nature and overall human well-being are indistinguishably linked (Gray & Colucci-Gray, 2018; Mirchandani, 2020; Strielkowski et al., 2022). Participants in this study shared that their practice of nature-based mindfulness supported their awareness, sense of

connection, and well-being. The defining characteristics the participants shared show that nature-based mindfulness impacts women leaders and makes a difference in their leadership styles. Thus, this study's findings could be of interest to leaders who support women leaders in education or are interested in the practice of nature-based mindfulness in leadership.

Effectively addressing the ecological crises and tending to the relationship with the planet will require voices from all aspects of society, including everyday citizens, local community leaders, and regional and global leaders, to embrace inclusivity, innovation, and interconnectedness (Larson & Hipp, 2022; Ewert et al., 2014; Mirchandani, 2020). The participants in the study were a heterogeneous group from across the United States and Europe who represent voices of education leaders and teachers from pre-kindergarten to university professors, from founders of businesses and schools to coaches and yoga instructors. Education and teachers play a significant role in helping bring awareness to changing the relationship with the earth, beginning with the teachers themselves and their practice of nature-based mindfulness (Albrecht, 2020, pp. 157-177; Ewert et al., 2014; Mirchandani, 2020). The participants expressed a positive relationship with nature that involved concern for the earth. Thus, this study contributed to the literature by increasing the exploration of how nature-based mindfulness practices of women leaders influence leadership and contribute to overall well-being.

This study may be of interest to women leaders who want to explore nature-based mindfulness. As previously stated, the human relationship with nature needs to change to address climate crises. An ethic of care for humanity and the earth is essential for future generations' well-being, current adaptation, and problem-solving skills. The earlier conclusions suggest a need for action. A culture of well-being and connection for women leaders practicing nature-based mindfulness (NBM) is apparent as each participant emphasized in their interview narrative

the importance of nature-based mindfulness to their overall well-being and the association with a

sense of connection. All the participants in this study associated NBM practices with overall

health and well-being and associated a sense of connection to self, nature, and the community.

This study lent credibility to the constructs of nature-based mindfulness, well-being,

women in leadership, and connection that brought shared meaning to how women leaders in this

study practice nature-based mindfulness, including the benefits and challenges, and how they

shaped their leadership styles. The research further amplified the significance of the participants'

mentorship and the women uplifting women to leadership. The following section discusses

implications related to literature based on the findings from this study.

Implications of the Study

This study's findings invite potential next steps for research that could lead to more pro-

environmental behavior or practices of nature-based mindfulness supporting leadership and

individual well-being. Because nature-based mindfulness is complementary and facilitates a

relationship with nature and humanity, the practice can potentially increase pro-environmental

attitudes and behavior. Initiatives that encourage nature-based mindfulness practices may

improve wide-ranging pro-environmental attitudes, behaviors, and interconnectedness, and

increase physical and mental health and overall well-being. The following section considers the

implications of this study.

As previously mentioned, the call for changing humanity's relationship with nature was

recognized in a report by the United Nations Environment Programme (UNEP) and the call to

"make peace with the planet" by Rajesh Mirchandani, the UN foundations Chief

Communications officer (2020, para. 14). The growing body of research on nature-based

mindfulness in education relates to the climate crisis, including the recent report by the U.S.

Department of Education highlighting a plan for school districts to implement climate adaptation

(Holt & Falken, 2021). Part of the apprised plan is changing climate conditions and

communicating to support the impacts on students, families, staff, schools, and the community

(Holt & Falken, 2021). Additionally, the United States Department of Education (US DoED)

Green Ribbon Schools (ED-GRS) encourages the education system toward sustainability

practices to reduce environmental impact, improve overall health and wellness, and provide

environmental and sustainable education (U.S. Department of Education, 2021).

     Consequently, nature-based mindfulness is a resource for supporting the health and

wellness of educational leaders in assisting the well-being of teachers, students, staff, and

indirectly families, schools, and the community. Nature-based practices are a bridge to help bring

awareness to the climate crisis and cultivate a relationship with nature. After establishing nature-

based mindfulness, the benefits can be far-reaching, including awareness of a situation, oneself

and other individuals and their emotions, and ultimately connecting to humanity and the earth

(Ewert et al., 2014; Ewert et al., 2011).

     There is little research on the experience of nature-based mindfulness of women leaders

in education and what the experience represents to them. The practice of nature-based

mindfulness is novel research yet, has the potential to be far-reaching. As the participants in this

study indicated, all they require to practice nature-based mindfulness is time, space in nature,

accessibility to nature, and time to form a habit. In considering policy actions, practical

applications, and theoretical implications, the researcher looked to illuminate the social aspects

of community and individual health outcomes. Some implications that influence nature-based

mindfulness are connected to well-being, relationship to nature, leadership, and pro-

environmental behavior and attitudes.

The first implication is a policy action for communities to provide inclusive accessibility to green and blue spaces structured in neighborhoods and within walking distance from individuals' homes (Colley et al., 2019; Ewert et al., 2014; Izenstark & Middaugh, 2021). The green and blue spaces embed various features such as parks, gardens, street greenery, lakes, streams, rivers, and the ocean into the respective area. The outcomes of time spent in these natural spaces practicing mindfulness include an increased sense of rejuvenation, restoration, and spiritual connectedness (Finlay et al., 2015; Nisbet et al., 2019; Otto & Pensini, 2017). The therapeutic results for individuals and the community are improved physical, social, or mental health (Finlay et al., 2015; Nisbet et al., 2019; Otto & Pensini, 2017). Additionally, the green and blue spaces promote well-being by motivating individuals and aging adults to get out into nature (Finlay et al., 2015).

The second implication is a practical policy for both individuals and organizations for the application by increasing time spent in green and blue spaces practicing mindfulness through various modalities, including the following: (a) doctor prescription to the park or a park prescription intervention program (James et al., 2019; Müller-Riemenschneider et al., 2020), (b) work paid time to be in a green space practicing mindfulness, and (c) support from organizations to facilitate outings and have a nature-based mindfulness training and mentor program.

The various practices of nature-based mindfulness participants in this study used in their daily lives supported their overall well-being and ability to manage work-life balance. Women leaders in this study all had work-life balance and time challenges, specifically, the desire to have more time in nature to practice nature-based mindfulness. The implications could be that with external support to practice nature-based mindfulness, individuals could attain the benefits of awe, gratitude, and a sacred life supported by a "mindful awareness of nature, others, and self,

to compassion, meaning in life, and emotional well-being" (Büssing 2021, p. 1). This sacred life and awe result in prosocial behavior and becomes a resource for overcoming challenges (Büssing, 2021).

The third implication is another practical application that could be a foundational practice to incorporate into all the other implications. The nature-based mindfulness practice emphasizes using the senses to observe natural beauty, such as a sunset or sunrise, flowers, or birds. The outcomes of nature-based mindfulness practices in aesthetic beauty are a closeness to nature that can positively impassion ecological or pro-environmental behavior and attitudes, and intention (Nisbet et al., 2019; Otto & Pensini, 2017), awe, interconnectedness, and self-transcendence (Büssing, 2021; Thompson, 2022). In this study, the women leader participants shared their connection to nature, other people, and "something bigger than" (Willow) themselves. Several participants spoke about how nature-based mindfulness is a way of life. All the participants described using their senses to embody and connect when practicing nature-based mindfulness, aesthetically describing the vivid accounts of a beautiful moment in nature. Implications of practicing nature-based mindfulness could increase awe and the emotions related to awe, resilience, and self-transcendence, including happiness, wonder, astonishment, and joy (Thompson, 2022).

The fourth implication is a policy that could be for leaders in organizations and schools who want to explore nature-based mindfulness practices. The implications to leadership entail several recommendations:

- Recommend implementing leader and educator development training in nature-based mindfulness for personal, professional, mentorship, and leadership growth. Professional development can be in the form of a workshop, course, or retreat.

- Higher education and leadership programs could consider strategies to introduce nature-based mindfulness practices to leaders, teachers, students, and staff. Nature-based mindfulness could help facilitate positive stress management and well-being approaches by either threading nature-based mindfulness practices throughout their program courses or organization-wide (Albrecht, 2020, pp. 157-177).

- Education leaders could implement nature-based mindfulness into teaching and leading by integrating health and wellness concepts into the curriculum with nature-based mindfulness practice as a course to focus on self-care and linking its application to leading and teaching. The class format could consist of a theoretical and practical training component. The theoretical component could include transformative learning theory (O'Brien & Allin, 2021) and nature-based mindfulness education emphasizing the concepts of emotional self-regulation, self-compassion, emotional intelligence, and presence in nature.

- Recommend that nature-based mindfulness as an everyday practice in small doses of nature and mindfulness in green spaces to wilderness mountains or beaches that apply informal or formal practices with implications for overall well-being (Lankenau, 2018).

- Recommend that leadership development consider and approach nature-based mindfulness with a theoretical method of a Heideggerian and ecofeminist ethic of care emphasizing paying attention and noticing when communicating to have responses that are foundational in compassion, care, motivation, and empowerment (Elley-Brown & Pringle, 2019). The nature-based mindfulness curriculum could have a foundation of an ethic of care in practice, in being and thinking explicitly through nature-based mindfulness, mentorship, stewardship, teaching, and leading.

The researcher proposes that the above are assumed implications based on the researcher's interpretation of the findings and literature review to address the results of this study and suggest important implications for women leaders in education that could be of interest to women leaders who practice nature-based mindfulness, women leaders who may want to explore the practices of nature-based mindfulness in leadership or all leaders who have an interest in supporting women in leadership.

The sixth implication is the contextualization of nature-based mindfulness definitions and practices. Nature-based mindfulness is an evolving research phenomenon; thus far, no one definition can fully describe nature or mindfulness separately or collectively. There are many ways to practice nature-based mindfulness. The participants in this study conveyed their definitions by describing the various ways they understand and engage with nature-based mindfulness practices. Participants had similarities in their interpretations and types of nature-based mindfulness practiced during this study. However, several participants had challenges with nature-based mindfulness definitions and practices and exactly how nature-based mindfulness is defined. The implications of having an operational definition for the practices and concepts of nature-based mindfulness will potentially help individuals have fewer challenges.

Finally, the seventh implication reveals that ecofeminist theory can be a conceptual framework for analysis and action to uncover global, social, and political problems. Moreover, applying the intersectional principles of ecofeminism can help dialogue and progress within systems of oppression to become a more equitable system honoring humanity, more-than-human and earth.

The insights gained from this study may guide women leaders interested in supporting women leaders who practice nature-based mindfulness, women leaders who want to explore

nature-based mindfulness practices or all leaders who want to support women leaders. The

community members and leaders can provide supportive student-centered learning environments

that cultivate self-care and well-being by teaching students and staff how to effectively manage

stress and model professional expectations that can transfer into their leadership and daily lives.

In managing stress better, nature-based mindfulness practices can help achieve improved well-

being, connection, reverence, and improved communication skills in an educational or

organizational setting. The following section highlights the contributions and limitations of the

study.

Contributions and Limitations

There are several contributions and limitations to this study. One contribution of the

study was the rich descriptions of twelve women leaders in education from various locations

across the United States and Europe engaging in nature-based mindfulness practices. The

findings revealed that participants shared a sense of connection to something bigger than

themselves, the importance of uplifting and supporting other women, and the well-being afforded

by their practices. Another contribution of this study is that it addresses the gap in the literature

in interpreting the lived experiences of women leaders in education practicing nature-based

mindfulness. The contribution of this study's findings illuminated how increased self-awareness

positively improves overall well-being and emotional intelligence effectiveness in leadership.

Further, the study discusses gendered leadership and educational leadership discourse and

contributes to the nascent research of nature-based mindfulness practices among women leaders.

There are several limitations to this study. Although small compared to the subject

matter, the limited sample size was appropriate for a hermeneutic phenomenological study. The

characteristics of the participants mostly aligned with the selection criteria. The population of 12

participants was geographically heterogeneous, with nine different women leaders across the field of education and three women from central and southwest Europe. The sample size did not represent all women leaders in education worldwide across the United States, Canada, Europe, or education programs.

Additionally, the participants were not all in a leading position at a formal education institution and were in different education sectors. Seven participants were entrepreneurs; four were coaches and mindfulness teachers; one taught yoga, and the other was preschool. The rest of the participants were at the university or high school. Two of the participants recently left their positions, one to retirement and the other to work-life balance issues. The important demographic data about the participants' race, sexual orientation, and class are also missing in this study. A more direct exploration of the intersectionality of the elements mentioned above of social identity in the interview process is missing. Future research must account for the intersectional nature of gender and how it relates to women leaders' experiences practicing nature-based mindfulness in education.

Notably, this study is limited by the researchers' selection to examine women's experiences as leaders practicing nature-based mindfulness solely through their narratives. The researcher's bias was a limitation in this study during data collection, analysis, and interpretation because they identified with many participants. However, reflexivity kept the researcher aware that an individual cannot be completely unbiased. Another limitation was that there was only one interview for each participant. Future research can improve by increasing the number of interviews. Nonetheless, the researcher attempted to demonstrate an open and reflective awareness of assumptions throughout the study (Creswell & Creswell Báez, 2021). Additionally, a quantitative or mixed methods study could improve upon the study by providing a better

understanding of the phenomenon. A quantitative study could measure state and trait

mindfulness and nature connectedness. Combining quantitative and qualitative studies could

yield complete evidence and various ways of knowing. Finally, to improve upon this study

having a comparison group to compare and contrast the findings and longitudinal data could

provide more complete conclusions to the research. The following section discusses future

recommendations.

Recommendations for Future Research

This study has contributed to understanding nature-based mindfulness (NBM) and the

benefits and challenges women leaders in education face while practicing NBM. As the study

progressed, several areas emerged as suggested areas for future research. Recommendations for

further study of nature-based mindfulness and women leaders include the following. Foremost,

due to the qualitative nature of this study, it is not possible to deduce the causality of the

findings. A longitudinal study is recommended to expound on the components of nature-

relatedness, mindfulness compared to well-being, and transformative experience theory. Another

suggested longitudinal study is to expand on the relationship between nature-based mindfulness

and leadership styles in women associated with life course perspective theory and transformative

experience theory.

While this research addressed a gap in the literature, the study's findings indicate further

research is needed in the recently developing study of nature-based mindfulness. Future research

should consider tool development on relational themes found in this study: valued benefits,

interconnectedness, self-care, informal and formal mindfulness, time in nature, and evolving

leadership development.

More research is needed to investigate the effects of mindfulness interventions practiced in a nature setting. Additional research is needed to explore the various mindfulness practices, and what types of nature settings are most beneficial to overall health and well-being (Djernis et al., 2019; Macaulay et al., 2022). The study should look for positive and negative effects on health and well-being in relation to practicing nature-based mindfulness. Similarly, investigations are needed to understand the most promising mindfulness practices that complement nature-based settings and vice versa.

A complete perspective of women leaders in education practicing nature-based mindfulness could include adding men's voices and nonbinary representation in future research. Further, research that brings to light perspectives of men in education practicing nature-based mindfulness and masculinity in leadership styles is needed to create a broader understanding of women leaders in education and nature-based mindfulness.

In addition, to increase the understanding of how nature-based mindfulness is practiced by individuals, research needs to look explicitly at nature-based mindfulness training programs and individual practices, including how nature-based mindfulness is implemented throughout a school or organization-wide. Researchers described studies that found ways to elicit and explore awe (Büssing, 2021; Thompson, 2022).

Future studies could look at the relationship between nature-based mindfulness practices and the effects of awe and self-transcendence on well-being, leadership development, and its influence on leadership styles. The final recommendation for future research is to compare Heidegger's ethic of care and ecofeminist ethic of care and the relationship the theories have compared to nature (Welch et al., 2021).

Conclusion

This hermeneutic phenomenological study aimed to interpret the lived experiences of women leaders in education engaged in nature-based mindfulness practices and reveal the shared meaning from a woman leader's perspective. The findings of this study contributed to gaining critical insights into understanding the Western experience of nature-based mindfulness practices and their influence on leadership styles. Through in-depth interviews and iterative hermeneutic analysis, the constitutive pattern of connection was interpreted as promoting personal and professional communication skills and positively impacting stress management, emotional regulation, autonomy, and overall well-being through the lens of ecofeminist and Heideggerian ethic of care.

This study brings attention to women leaders' experience of nature-based mindfulness practices, as little is understood about this experience in women leaders. Though little scholarly research exists, the study findings yielded a rich understanding of the meaning and impact of nature-based mindfulness practices among women leaders in education. The scholarship and findings could be of interest to women leaders who practice nature-based mindfulness, women leaders who want to explore nature-based mindfulness practices, and all leaders who have an interest in supporting women leaders.

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APPENDICES

Appendix A

Recruitment Flyer

Are you a women leader in education who practices nature-based mindfulness? Are you willing to share your experiences to help inform others?

An organizational leadership doctoral candidate at Northwest University in Washington state, United States is conducting a research study exploring nature-based mindfulness practices of women leaders in education. The information from this study is intended to be used to educate other members of education and leadership professions and add to the leadership and nature-based mindfulness research.

The research will be conducted online through Zoom Video Communications. Involvement in the study will be limited to 1 interview up to 60-minutes long and possibly 1-2 short phone calls for clarification.

Confidentiality will be strictly maintained throughout the study and distribution of the findings. Participants will receive an electronic thank you note and a nominal amount on an electronic gift certificate as gratitude for participation.

If you are a woman leader in education who practices nature-based mindfulness and are willing to share your experiences so that educators and leaders better understand the practices of nature-based mindfulness, please contact Debbee A. Maraglio-Lynn XXX-XXX-XXXX (cell) debbee.lynn19@northwestu.edu (email).

Appendix B

E-mail of Inquiry to CEO

Email of Inquiry to CEO/Instructor of a Nature-based training program to recruit participants

Email correspondence or social media/professional forum post

Dear [CEO/Instructor Name]:

As a doctoral candidate at Northwest University in Kirkland, Washington, I am conducting a study for my dissertation to understand and interpret the lived experience of nature-based mindfulness practices, such as mindful walking in nature, among women leaders in the education field. {Insert one or two lines for the personalization of the email. For instance: experiences I have that are relevant to the organization}

Mindfulness practices and nature connection have been effective in reducing stress and anxiety. However, there is a lack of qualitative research in understanding the meaning of nature-based mindfulness practices from the perspective of women leaders in education.

I am hoping the Zoom Video Communications interviews from this qualitative research may provide critical insights into how the experience of nature-based mindfulness practices may impact leaders in education specifically in leadership styles and their connectedness to others and the natural world. These insights may assist in developing leader, educator, and student curricula that integrates connection to nature with mindfulness. Further, the practices in education could be implemented throughout a person's development to help foster well-being and a sense of interconnectedness. The results should be of interest and value to leaders in education, educators, students, educational institutions, and the education profession.

Once the Northwest University Institutional Review Board has approved this study as one with minimum risk, I can begin recruiting. I will then submit a request for your assistance to post or distribute an electronic invitation to leaders in education who identify as women and practice nature-based mindfulness during the spring of 2022. If you have any questions or concerns, please do not hesitate to contact me.

My sincere gratitude for your assistance with this research project.

Sincerely,
Debbee A. Maraglio-Lynn
Principal Researcher
xxx-xxx-xxxx (cell) debbee.lynn19@northwestu.edu

Appendix C

Screening Questions

Thank you kindly for being interested in this research. The questions are to help determine if you meet the requirements to participate in this study. Refer to the definitions of the criteria for clarification. Additionally, please feel free to ask any questions for information or further clarification about the study or the requirements. Thank you once again for your consideration.

Criteria to Participate:
1. Please indicate your age range:
    (30 – 39) _____, (40 – 49) _____, (50 – 59) _____, (60 – 70) _____, or prefer not to answer_____.
    Note: If you are between the ages of 30 and 70 you qualify for this study. If you are younger than 30 or older than 70 you do not qualify to continue with the study. Thank you for your time.
2. Please indicate your gender:
    Female_____, Male_____, or prefer not to answer_____.
    Note: If you identify as a woman you qualify for this study. If you do not identify as a woman, then you do not qualify to continue with the study. Thank you for your time.
3. Do you practice nature-based mindfulness or mindfulness in nature? How many years? _
        Yes_____   or No_____
4. Do you spend time in nature? How many years? _____ How often? _____ per week
        Yes_____   or No_____
5. Do you practice mindfulness? How many years? _____ How often? _____ per week
        Yes_____   or No_____
6. Do you have at least one year in a formal leadership role in the field of education?
        Yes_____   or No_____ How many years? _____
7. Are you able and willing to reflect and describe on your experiences in a one-on-one interview about nature-based mindfulness, your leadership style, and identifying as a woman leader?
        Yes_____   or No_____

Criteria are met: Thank you. You have met all the criteria to take part in this study. I look forward to scheduling a time to meet for an interview. I will send a Calendly link for you to schedule a date. Meanwhile, I will send you an e-mailed copy of the informed consent form and a Google form link containing the consent form so that you can read, review and sign. Please note that at the beginning of our Zoom meeting, we will go over consent together and ask any questions you may have at that time. Thank you so much for your interest, I appreciate your time and look forward to meeting with you.

Criteria are not met: Thank you so much for taking the time to answer the questions. Unfortunately, the research requires that the criteria (write in missing criteria) be met in all my participants. I appreciate you reaching out and being willing to participate. Please feel free to share the post of the project to anyone you know who may be interested in taking part, and they can contact me as well. Thank you so much, take care.

My sincere gratitude for your time filling out this form.

Screening Question Definitions

- **Nature-based mindfulness** is the practice of mindful awareness in a natural space in nature or a green space, local or deep in the woods, even with imagery or pictures such as an urban park or in the woods (Ambrose-Oji, 2013; Barton & Rogerson, 2017; Browning et al., 2020; Djernis et al., 2019).

- *Nature-based* means that an activity is taking place in nature

- *Mindfulness* is the noticing of each moment with moment-to-moment attention as it unfolds while observing with open awareness, non-judgment, and compassion to the internal emotions, feelings, and sensations in the body and externally to the surrounding environment (Gibson, 2019; Kabat-Zinn, 2011; Kabat-Zinn, 2019).

- **Formal leadership role** in this study is an appointed or assigned position within a school or organization where the leader is assigned tasks that influence, coordinate, and communicate to one or more individuals who are subordinates or are influenced by the leadership role (Northouse, 2022).

Appendix D

Letter to Participants

Date: _____

Subject: Nature-based Mindfulness Doctoral Research Study

Dear _____,

My name is Debbee Maraglio-Lynn, and I am an Organizational Leadership doctoral candidate at
Northwest University, Center for Leadership Studies in Kirkland, WA.

{Insert one or two lines for the personalization of the email. For instance: I may have met virtually, in person, or have common acquaintances with potential participants}

My dissertation research explores the question: What *are the shared lived experiences of women leaders in education who practice nature-based mindfulness?* I am focusing on women leaders in the field of education who are practicing and or teaching nature-based mindfulness. My research purpose is to capture how women leaders have personally experienced mindfulness in the natural world.

As a woman leader in the field of education, would you be willing and available (before March 30, 2022) to be a participant in my doctoral research? If you are interested in participation, then please complete the attached informed consent form which is also accessible on a Google Form link. I would like to schedule an interview through Zoom Video Communications with you at your earliest convenience. The interview would be approximately sixty (60) minutes in length and electronically recorded for later transcription. In the interview, I will ask you to talk about some of your personal experiences of when and how you experience nature-based mindfulness. At the end of the interview, you will be invited to participate in a nature-based activity with instructions. Please pick the date or dates that best work for you on the *Calendly* link. Once the interview is complete and transcribed verbatim, I will send you a copy through email to verify accuracy and if you agree to the content. If further clarification is needed by you or me then one or two short meetings by phone may occur.

It is my hope that through the process of interviewing you and other women leaders we will broaden the understanding of nature-based mindfulness. In addition to your consideration of being a participant in my study, are there other women leaders you would recommend I contact? I look forward to hearing from you.

With gratitude and kind regards,
Debbee A. Maraglio-Lynn
Doctoral Candidate Cell phone: xxx-xxx-xxxx
Organizational Leadership Debbee.lynn19@northwestu.edu
Northwest University, Center for Leadership Studies, Kirkland, WA.

Appendix E

Informed Consent for Participant

Women Leaders in Education Practicing Nature-based Mindfulness
Northwest University
Center for Leadership Studies

Welcome to nature-based mindfulness, a research study that will look at the lived experiences of women leaders in the field of education who practice nature-based mindfulness. This study is being conducted by Debbee A. Maraglio-Lynn a doctoral candidate and principal researcher at Northwest University.

To qualify for participation, you must be between the ages of 30 and 70. Completion of this study typically takes approximately 60 minutes and is confidential. The study will involve semi-structured open interviews through Zoom Video Communications. With your permission the interview will be digitally voice recorded and transcribed. Your responses will be treated confidentially and will not be linked to any identifying information about you or your organization. If you agree to participate in this study, you will complete a questionnaire of study criteria regarding your demographic and professional information (1) Age between 30 and 70 years of age (2) A leader in the education field for a minimum of 1 year (3) Identify as a woman, and (4) Currently practice nature-based mindfulness on a regular basis for a minimum of 1 year. All data collection and submitted demographic information will be password protected and encrypted and stored on the researcher's password protected personal computer and a password protected SanDisk portable external drive in a locked cabinet in their home office. Consent forms will be stored in a separate password protected file on the researcher's personal computer and a password protected SanDisk portable external drive. All data forms, coded data, and information will be destroyed by June 30, 2023.

The Northwest University Institutional Review Board has approved the study. No deception is involved, and participation in this study poses minimal risk to participants, although it is possible some participants may experience emotional distress when reflecting on interview questions of their lived experiences of nature-based mindfulness. If the content of this interview causes you significant distress, please contact the United for Global Mental Health at unitedgmh.org/mental-health-support or National Alliance on Mental Illness helpline at +1- 800-950-6264 or the crisis text line NAMI at 741-741. Participation in this study is strictly voluntary, and you may elect to discontinue the interview at any time and for any reason. You may print this consent form for your records. If you meet the study criteria and agree to participate in the interview process through the signed informed consent, then you are giving permission to use your responses in this research study.

The results from this study will be used for the dissertation, publication or conference and may be presented within a variety of educational forums (formal and informal).

If you have any questions about this study, please contact the principal researcher, Debbee A. Maraglio-Lynn at debbee.lynn19@northwestu.edu. If you have further questions,

please contact my faculty advisor Dr. Ben Thomas at ben.thomas@northwestu.edu. You may also contact the Chair of the Northwest University IRB, Professor Cheri Goit at cheri.goit@northwestu.edu or 425-889-5762.

Please read this informed consent form in full. If you understand all information contained in this form and agree to freely participate in this study, please click the "I Agree" button. You may exit the study at any time.

Thank you for considering participation in this study.

Sincerely,

Debbee A. Maraglio-Lynn
Doctoral candidate
Debbee.lynn19@northwestu.edu

Appendix F

Signed Consent Acknowledgment

I have been asked to give consent to participate in this research study which will involve completing one 60-minute interview with possible one to two follow-up phone calls for clarification of transcripts. I have been informed that there are minimal risks to participation. I am aware that there may be little to no benefit to me and that I will not be compensated beyond a thank you note and $10 electronic gift certificate. I have been provided with the name of the researcher who can be easily contacted using their number and email provided in the consent form. I have had the opportunity to ask questions about the consent form and any questions that I have asked, have been answered to my satisfaction. I voluntarily consent to participate in this study and understand that I have the right to withdraw from the study at any time for any reason.

Signature _____

Date _____

Appendix G

Interview Protocol

Hermeneutic interviewing focuses on the lived experience of participants and the meaning-making of that experience while focusing on human experiences, making them the center of attention (Lauterbach, 2018; Seidman, 2006). There are alternatives to this three-part structure; it is essential to have a beginning, middle, and end to the interview for the interview structure to work and allow interviewees to make sense of themselves and the interviewer and vice versa (Seidman, 2006). Qualitative research relies on language and influences the ability to listen and formulate questions as a researcher is vital in dialogue and understanding the interviewee. Active listening, reframing, and probes help interviewees detail more of their experiences (Seidman, 2006). The interview will begin with questions that build rapport and establish consent. A few observational field notes may be taken during the interview, such as noticing body language, facial expressions, or emotional responses (Lauterbach, 2018; Seidman, 2006).

Phenomenological Interview		
Beginning	**Life History**	How did you get here?
Middle	**The Actual phenomena**	What is it like to be you?
End	**Reflection – Make meaning**	What sense or meaning do you make of the experience?

Interview

Date _____ Time _____ Place_____

Interviewer: _____ Interviewee (pseudonym): _____

Recording and storage information about interviewee: _____

Prior to beginning the interview, the informed consent signature will be complete. I will ask if the interviewee has any questions and define any terms necessary.

Purpose of the study and Warm-Up – The focus of this study is to explore the experiences of women leaders practicing nature-based mindfulness. Additionally, I wonder how NBM may shape women's leadership styles. To begin with, I invite you to think generally about what comes up for you when you think about what it's like to be a woman leader in education practicing nature-based mindfulness (NBM). Is there anything that arises or stands out for you that you might want to share in this moment?

Introduction
In this interview I will ask you about nature-based mindfulness, leadership, and leadership style. I am interested in hearing stories about your experiences with nature-based mindfulness and how it has shaped your leadership style. As we go through the questions, please feel free to share anything you are reminded about, and think is relevant. Please remember you do not have to answer any question you do not feel comfortable answering and can stop the interview process at any time to take a break or end the interview.

Questions and Sub-Questions
1. Can you tell me how you came to practice mindfulness?
   a. How have you experienced mindfulness practices?
   b. How have you accessed mindfulness practices?
2. Can you tell me how you came to practice nature-based mindfulness?
   a. How have you experienced nature?
   b. How have you accessed nature?
   c. Tell me about your relationship with nature as it relates to mindfulness?
3. Tell me what does your practice of nature-based mindfulness look like?
   a. Can you walk me through an experience of NBM?
   b. What are the different mindful practices and experiences you have had in nature?
   c. What are your daily practices of NBM?
4. Can you tell me how you became a leader in education?
   a. What are your day-to-day experiences in this leadership role?
   b. What challenges do you face as a woman leader?
   c. What benefits do you have as a woman leader?

5. What benefits do you experience practicing nature-based mindfulness?
   a. Can you tell me if NBM benefits your leadership style in anyway?
6. What challenges do you experience practicing nature-based mindfulness?
   a. Can you tell me if NBM challenges your leadership style in anyway?
7. How has the experience of nature-based mindfulness shaped your leadership style?
   a. Can you share an event or an example where NBM influenced your leadership style?
   b. Tell me about your leadership style?
      i. Is there an event that shaped your leadership style?
   c. As you consider your life journey, what does it mean to be a woman leader?
      i. As you consider your life journey, what does it mean for you to practice nature-based mindfulness?
8. Is there anything else you would like to share that is meaningful to practicing nature-based mindfulness as a woman leader in education that we did not cover today?

Closing Instructions

- Thank you again for meeting with me and for your time and participation.
- Please know your anonymity will be protected and your name and your organization will not be mentioned in the dissertation or any presentations.

- I will send the verbatim transcripts by email for member checking to ensure the transcript is to the participant's satisfaction and will have an option of one to two phone calls for clarification of the transcripts. Further, the email will provide information on how the interviewee can receive the study results.

Scope:	Probes and Prompts:
Participant's lived experience practicing nature-based mindfulness (NBM)	• Tell me more…? • Please explain…? • Please describe what you mean by…? • What does it mean for you to be…? • What does it mean to you…?
Participants experiences being a woman leader in education	• How does it feel to you…? • What sensations or emotions do you notice when…? • Please describe where you felt connected to…? • What is _____ like? • Please describe…? • Where do you notice…?

Appendix H

Transcript of Nature-based Mindfulness Practice Recording

By Debbee A. Maraglio-Lynn

Welcome to this nature-based mindfulness practice. This practice can be listened to on a small electronic device in your favorite green space, hiking trail or a backyard. The location should be a familiar place where you will be safe to walk and pause with minimal distraction.

Please walk onto a path or open space that you may find, whether you are practicing in a green space near your home, a local park, or a wilderness area notice yourself taking a slower pace, opening your senses to fully embody the experience and connect with nature. Once you are comfortable, we will begin with a choice of slow walking, standing, or sitting for a breathing practice. Once you decide, notice your breath.

Simply noticing the inhale and exhale of your breath. Are you inhaling through the nose or the mouth? How are you exhaling? What is the quality of your breath? Is it shallow and rapid or expansive and slow? Can you slow the breathing and sense your feet rooting into the earth? Notice how you are feeling. Now I invite you to draw in three deep breaths, inhaling through the nose and exhaling through the mouth. What do you notice in this moment?

For the breathing exercise we will inhale for maybe 4 seconds, then pause for 4 seconds, notice all the nature and sound around you in the pause. Then exhale for 4 seconds, pause, relax, and again notice all the nature and sound around you in the pause. If you find you need to adjust the timing or the breath, do what is best for you and your body in the moment. I will guide you a few rounds, and then you will repeat a few rounds.

Inhale for maybe 4 seconds, then pause for 4 seconds, notice all the nature and sound around you in the pause. Then exhale for 4 seconds, pause, relax, and again notice all the nature and sound around you in the pause (repeat 3 more times).

Now follow your active inhale followed by your pause and noticing followed by active releasing with an exhale. Repeating this for as many times that feels right for you. (Silent for about 1-2 minutes).

Notice how you feel now in your body and breath. Now I invite you to find a nearby tree, bush, plant, fern, even grass. Once you are near the plant you have chosen, notice in detail all the colors, sounds, smells, temperature, air, wind, anything that arises, notice. In this moment, we will begin to practice breathing with the plant or tree. It begins by having the plant in front of you noticing all its characteristics, then knowing when you inhale, you are receiving oxygen from this plant/tree, imagining this plant is giving you the breath, and then when you exhale imaging you are gifting a breath of carbon dioxide to the tree. Giving and receiving the breath, inhaling oxygen from the trees and plants, and exhaling carbon dioxide to the trees and plants. The waste released by one organism is life for the other and vice versa. Continue this gifting and receiving of the breaths and notice all that arises. Perhaps get close to the plant if that is right for the plant, you, and the space.

Appendix I

Instructions for Nature-Based Mindfulness Practice and Reflection Activity

Date: _____

Dear _____,

Thank you for taking the time to participate in this short nature-based mindfulness recording practice in nature. The following are the instructions to help guide you for this practice followed by a reflection practice.

1. The recorded link can be found on a private SoundCloud link _____.

2. The link can be listened to from your choice of portable electronic device.

3. Find a safe familiar place in nature such as your backyard, neighborhood park or green space, state, or national park where you can find a quiet space.

4. Follow along with the practice, once the recording is complete and you are ready, take down any notes to help you reflect on the experience (Consider thoughts, feelings, emotions that arise in relation to your physical surroundings and the practice).

5. Reflecting on the nature-based mindfulness practice either in the location you chose or back at your desk, please write, voice record, draw, write poetry, or another way to express your reflection of the nature-based practice.

6. Please email the reflection back to me at your earliest convenience. The reflection activity is supplemental data in the research and will not disqualify your interview data if you cannot participate.

Thank you once again for your participation.

With gratitude and kind regards,

Debbee

P.S. You can reach me by cell: (xxx) xxx-xxxx and/or email: Debbee.lynn19@northwestu.edu.

Appendix J

Follow-Up Letter and Interview Transcript to Participants

Date: _____

Dear _____,

Thanks again for being willing to participate in my dissertation research. Attached you will find a verbatim transcript of the interview. As part of the validity or trustworthiness of my findings/interpretations of the interviews, I'm asking each interview participant to provide feedback at my initial stage of analysis. This research process is called "member-checking". Basically, you as a co-researcher can read through your interview to verify, correct, and add to your responses. Also, it is an opportunity for us to have some dialog on the interpretation of your experience. The member-checking process provides for greater clarity of your responses and subsequent interpretations of meaning.

What I'm finding is that the OVERALL THEME of your interview is: _____.

SUMMARY OF THEME:
I kindly ask for your comments, questions, clarifications, etc. regarding the overall theme I'm finding. I want to make sure you feel I'm going in the right direction and representing your experiences correctly.
• Any additions or corrections to your experiences from the interview?
• Any additional experiences you would like to share?
• Anything in the interview you would prefer I do not share in my final dissertation?

If it would be easier, I would be happy to call you for a short phone interview for these follow-up questions. If so, would there be a good time in the next couple of weeks for a phone call? Your interview was wonderful. _____, I appreciate you taking the time out of your busy schedule to participate.
I look forward to hearing from you soon.

With gratitude and kind regards,

Debbee

P.S. You can reach me by cell: (xxx) xxx-xxxx and/or email: Debbee.lynn19@northwestu.edu.

Appendix K

Thank You Note to Participants and CEOs

Date: _____

Dear _____,

Dear [Participant],

Thank you again for your willingness to participate in my study on nature-based mindfulness. I appreciate your willingness to meet with me for an interview and to share your insights about your experiences, which were extremely informative and helpful.

I deeply value your participation in this research study and your willingness to share about your experience. Enjoy the electronic gift certificate as a gift of gratitude for your participation. If you have any questions or concerns, please do not hesitate to contact me. Thank you once again for your time and effort which made this research study possible.

With gratitude and kind regards,

Debbee

P.S. You can reach me by cell: (xxx) xxx-xxxx and/or email: Debbee.lynn19@northwestu.edu.

Date: _____

Dear _____,

Dear [CEO],

Thank you again for your willingness to assist in my study on nature-based mindfulness. I deeply appreciate your willingness to grant permission for this research study to recruit participants from your organization. If you have any questions or concerns, please do not hesitate to contact me. Thank you once again for your time and consideration which made this research study possible.

With gratitude and kind regards,

Debbee

P.S. You can reach me by cell: (xxx) xxx-xxxx and/or email: Debbee.lynn19@northwestu.edu.