MINDFULNESS IN SUSTAINABILITY EDUCATION

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Mindfulness in Sustainability Education

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Approved by the following Committee on 06/03/2024

Chair: Dr. Paula DeHart

Dr. Marcus Lewis

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Abstract

This study was about a university course, *Mindfulness & Sustainability* (GC495), that I designed, instructed, and assessed. Twenty-one students and I went on a mindful learning journey; together we cultivated a community of Transformative Sustainability Learning (TSL). I used *The Work that Reconnects* (WTR) to teach mindfulness in Sustainability Education (SE). This was an exploratory qualitative study that utilized two narrative end of semester questions, one assignment and the Sustainability Mindset Indicator (SMI) pre- post- questionnaire to collect and analyze course impact. The study showed that Sustainability Mindsets were strengthened for students who took GC495.
Author’s Note

On the last day of class, one of my lovely students gifted me with the book, *How to Smile* by Hanh (2023) and bookmarked the following passage.

Mindful Classroom, Mindful Society

Many people have enormous suffering and do not know how to handle it. Often it starts at a very young age. If a student is suffering greatly, they cannot concentrate and learn. Schools should be places where children can learn to be happy, loving, and understanding, where teachers nourish their students with their own insights and happiness. Very few school programs teach young people how to live–how to deal with anger, reconcile conflicts, how to breathe, smile, and transform difficult feelings. We can transform our classroom into a family where a good relationship can be established between teacher and students. For a child who has difficulties at home, such a teacher and classroom are a second chance. Together we have to create the kinds of public institutions we need for our collective awakening.
Acknowledgments

First, I acknowledge and pay respect to the Anishinaabe Three Fires Confederacy: past, present, and future, as the traditional keepers of the land on which I conducted this research. As Indigenous people across Turtle Island continue their struggle for cultural revitalization and justice, on a land that was taken from them, I acknowledge that many of the central themes of this study, such as ecological worldview, mindfulness, community, and the interconnectivity of life, are traditional Indigenous wisdom teachings. It is my hope that this study embodies respect and support for continued Indigenous cultural revitalization across Turtle Island.

A special thanks to my committee: My Chair, Dr. Paula DeHart, who has been with me from the beginning, guiding and supporting me with the perfect mix of encouragement and critique. I deeply appreciate the time and energy you put into me and this study. Thank you, Dr. Marcus Lewis, for your insights and constructive criticism, which greatly improved this work. Finally, gratitude to Ms. Mutima Imani for believing in me and keeping me grounded in an inclusive approach to the Work that Reconnects.

Much gratitude for the program in Educational Sustainability at UWSP at large. Thank you to all my instructors over the past few years and various other academic supports. A special thanks to Dr. Erin Redman for her guidance of this program. Thank you to Jennifer White and Dr. St. Maurice for thorough editing support. Thank you to Dr. Kym Buchanan, whose Adaptive Mindsets course was a turning point of insight into how best to teach GC495. Finally, thank you to my fellow colleagues in cohort five and other cohorts too, I appreciate your friendship.

Deep gratitude to Northern Michigan University and the Earth, Environmental and Geographical Sciences department for believing in me and this non-traditional course. A special
thanks to Dr. Susy Ziegler, department head, and the whole academic department, who not only supported GC495 being offered but also paid for all my students to take the SMI.

Thank you to my students in GC495. What a magical learning experience we had, and I hope you all know how special you are. Knowing you are out there working in this Great Turning of our time gives me hope. I will never forget you and I am forever grateful for your openness to learn with your whole selves: mind, body, soul, and Earth.

Thank you to the SMI team, Dr. Isabel Rimenoczy and Beate Klingenberg for their support in utilizing the SMI and interpreting its results.

Many thanks to my family and friends for a lifetime of love and support. My daughters, Maureen and Kaia, and my mother, have been my best friends throughout this process. My dad, stepmom, brothers, sister-in-law, aunts, uncles, and cousins, I love you all, and your support means more than you know. To my grandparents in spirit too, for your support throughout life. A special thanks to my paternal grandfather, whose energy of encouragement was felt and appreciated throughout this academic endeavor. Thanks to my two sweet pups, one of which I lost halfway through this journey, I so appreciate your companionship and how you always remind me to get out into the woods and savor the natural splendor of each new day.

Finally, thank you to God, my Guru, Paramahamsa Yogananda and the enlightened masters who guide me. God, Mother Earth, Spirit Divine, you are my dearest friend and beloved source of love, and I pray that my life and this work serve as an instrument for your peace on Earth. Dear Guru, thank you for your acceptance, love, and guidance and I love you. To my spiritual communities as well, thank you for sharing the power of meditation with me.
Dedication

To my children, and ...

To all the children
To the children who swim beneath
The waves of the sea, to those who live in
The soils of the Earth, to the children of the flowers
In the meadows and the trees in the forest, to

All those children who roam over the land
And the winged ones who fly with the winds,
To the human children too, that all the children

May go together into the future ....

—Thomas Berry
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Chapter 1. Introduction

The socio-ecological problems of our day, from crumbling mental health and systemic racism to climate change and mass extinction, are all rooted in a false story of dualism. This false dualism, which asserts that human beings are separate rather than part of nature, fuels destructive disconnections within self, community, and with the Earth (Mitchell, 2018). There are many efforts to heal our disconnected world. The environmental movement is among these efforts and is the largest social movement on Earth, with the entire academic field of Sustainability Education (SE) designed to support this work (Hawken, 2007).

Since its inception, SE has called for transformative learning capable of shifting values, away from the dualistic worldview that industrial society was built on, and towards an ecological worldview that turns again to the Earth in interconnected relational awareness (Sterling, 2001). Orr (2004), a key voice in SE has called for not just any education but a “certain kind of education” (p. 8) that rethinks the meaning of learning with six guiding principles that call the traditional dualistic worldview into question with notions of interconnectivity like, “all education is environmental education” (p. 12). Orr’s (2004) call has helped to spark research in SE that attempts to replace the “myths” (p. 8) of modern educational dualistic discourse, with more relationally dynamic and multi-sensory place (Earth)-based learning (Singleton, 2015). We are Earth and to re-learn that in modern society, we need to be taught a systems view of life that awakens mind (head), body (hands), and soul (heart) to our interconnected and wondrous world.

Mindfulness in definition and evidence-based practice is a method of bringing heightened awareness to self and life, and, as such, holds potential for the values exploration and
multi-sensory learning SE seeks (Kabat-Zinn, 2013). Exploring subjective values can be a sen-
sitive terrain to navigate in the secular realm of education, however, with the collapsing state
of the planet we are finding that an education without values is detrimental to the wellbeing of
all (Ives et al., 2020). A growing body of research on mindfulness in education provides a
respected pathway into inner ways of knowing and being that SE has been searching for (Ergas,
2019; Wamsler et al., 2018). Furthermore, Transformative Sustainability Learning (TSL) as
outlined by Sipos et al., (2008), provides a model to nest these necessary values into SE (see
Figure 2).

Statement of the Problem

Despite scholars in SE articulating the need for an ecological worldview, and the in-
crease in place-based learning (Sobel, 2004), SE still focuses most of its efforts on what Mead-
ows (1999) first identified as “weak leverage points.” These weak leverage points (i.e., new
technologies, recycling programs) albeit part of the solution, provide easier and quicker ave-
nues for surface level change but ultimately fail at getting to the root of our ecological prob-
lems. SE espouses the need for a pedagogy that teaches to this deepest leverage point of mind-
set (Meadows, 1999) but continues to leave out the essential heart-based learning practices to
engage students with their values at this level.

Figure 1 illustrates that the deepest leverage points to intervene or bring about the great-
est impact is at the base of the system, at the level of intent with goals, mindset, and paradigm
change. Conversely, the effects of focusing on surface level aspects of educational discourse
and solutions (i.e., parameters such as subsidies and material flows) means that despite the
environmental movement being the largest in the world, humanity remains on an unsustainable
course (Abson et al., 2017). According to Naess (1995) shallow ecological discourse, education, and solutions will never be enough; rather, he advocates for a deep ecology capable of shifting actual values. We are running out of time with dangerous ecological collapse in many areas (i.e., climate, nitrogen and biodiversity) threatening the safety threshold for health and flourishing of life on Earth (Raworth, 2017). Many SE scholars recognize the need for a pedagogy capable of penetrating to the roots of our dualistic crisis but beyond experiential field trips are unsure how to do this.

Figure 1. Leverage Points in a System

With this study, I sought to connect with and inspire students at that deepest leverage point possible with an approach to education for sustainability that is engaged with the relational nature of life (self, others, Earth) at the level of intent (Meadows, 1999). Field trips, as active engagement with nature and the essential community context (hands) along with fact-based and critical thinking (head) were foundational components to me teaching students about the interconnected nature of life. However, what was unique about this course is the various
methods of mindfulness used to engage students in exploring mindset/worldview/values (heart). Furthermore, this complete head, hands, and heart combination provided a more holistic experience with the right ingredients for Transformative Sustainability Learning to take place.

Mindset, as a deep leverage point, when thoughtfully reflected upon can shed light on the stories and values we live by and provide the essential component of heart into learning needed for a full transformative experience.

**Theoretical Framework**

In this study I used the three intersecting frameworks of Transformative Sustainability Learning (TSL), The Work that Reconnects (WTR), and mindsets and mindfulness.

**Transformative Sustainability Learning (TSL)**

Redman & Larson (2011) found that declarative (head-based) knowledge is least effective in promoting pro-environmental behavior change. Ultimately, educating only the head is a “weak leverage point” with little potential for transformation. Transformative Sustainability Learning (TSL) is a method for expanding conventional declarative knowledge transfer to a more multi-sensory learning experience with a three-pronged approach to SE that includes bringing heart (enablement) together with head (engagement) and hands (enactment) (Sipos, et., al, 2008).

I used the TSL model of head, hands, and heart as depicted in Figure 2 to design the course at the heart of this research, *Mindfulness & Sustainability* (GC495). In Figure 2, Singleton (2015) presents TSL with explanations for head, hands and heart and the centrality of place needed for this holistic group learning to be engaged. In this study, the head was engaged with various facts about the state of the planet, sustainability, mindfulness, community, and
mindsets. The hands were engaged with field trips to a farm, lake, forest, and town, along with mindfulness practices that engage the body such as yoga, walking, and qi gong. Finally, the heart was engaged with various individual and group mindfulness practices that enable personal engagement of sustainability with the practices of meditation, storytelling, futures thinking, value exploration, and creative expression with overall personal and group reflections on relationship to self, others, and Earth.

Figure 2. TSL

Note: TSL model utilized in GC495, Singleton (2015)

The Work that Reconnects

I used the Work that Reconnects (WTR) facilitation method, which is designed to reconnect people to themselves (mind, body, soul), to humanity (social justice), and to the Earth (ecological worldview). Furthermore, this method is designed to empower people to personally engage in the transition to a life sustaining society by spiraling through the four steps of; coming from gratitude, honoring your pain for the world, seeing with new eyes, and finally being empowered to go forth (Macy & Brown, 2014). WTR is typically used as a group work model for environmentalists (people with some basic Eco-literacy) to work through their concerns for
our world by better processing their own emotions, understanding others and collectively “going forth” empowered to work for this Great Turning of our time. In this study, I will primarily be working with sustainability majors, so an ideal audience of environmentalists that can benefit from a more mindful approach to solving our socio-ecological crisis.

Within WTR is a useful framework in and of itself, called “the three stories of our time.” The centrality and significance of this is that stories are formed at the deepest leverage point. Therefore, teaching to, and exploring the realm of story takes learning into that deepest leverage point sought after in SE. Macy & Brown (2014) defined the three stories of our time, as follows:

Business as Usual is the story of modern industrial society. This is a story of relentless faith in economic growth at all costs. In this story humans are separate from, and above nature and problems are solved with technology and tinkering with coefficients with no real systemic change. Patriarchy and systemic racism are embedded in this story. For example, this story refuses to see systemic racism and instead wants things to stay the same with no talk of seeking justice, or exploring hidden biases within individuals, cultures, or systems.

The Great Unraveling is the story of social and ecological collapse that we hear from environmentalists and social activists. It calls out “business as usual” for the multifaceted ‘wicked problems’ it’s creating and is overwhelmingly a story of doom and gloom. An example of this story predominates in many SE curricula that spend much of their time laying out the story of ecological destruction with little room for personal empowerment. This leaves many people feeling overwhelmed, hopeless, and even nihilistic in the face of such dire circumstances. We do need to be educated on the great unraveling, but in order not to get trapped in apathy or
hopelessness, it is essential to follow this story up with a story that is active and capable of healing.

The Great Turning is the story of healing, hope, and creative empowerment we hear from those who see the first two stories and do not want to get stuck in either of them. This story reflects the need to go one step further from the great unraveling to not only name the problem but also to identify the heart-based solutions. The great turning has three components: holding actions to slow the destruction of the Earth, creating new and sustainable structures, and finally, shifting values towards an ecological paradigm. An example of this story would be the work of social justice movements that use mindfulness as a tool to uncover and dismantle oppression. Leading social justice advocate Magee (2019) speaks to this great turning with her focus on the inner mindful work of racial justice. According to Magee “As we continue to learn and to practice mindfulness and compassion every day and everywhere, we deepen our capacity to live in the presence of all things and to imagine a way of being in the world that supports us in the ongoing work of making the world a bit more fair and just for all of us.”

**Mindsets & Mindfulness**

I designed GC495 to explore mindset in the context of relating to self, others, and Earth. There are various mindsets such as strengths (Buchanan, 2023) growth (Duchi et al., 2020) indigenous (Mitchell, 2018) and sustainability (Rimanoczy & Kingenberg, 2021) and in this course I introduced these, and others that are most pertinent to sustainability. For example, Duchi et al. (2020) found that a growth mindset (belief in ability to grow and change) is associated with more hopeful attitudes at mitigating climate change, whereas a fixed mindset (belief that mind, intelligence, life does not change much), not surprisingly, held people hostage to fewer hopeful attitudes that we humans are capable of change. I used the Sustainability
Mindset pictured in Figure 3 to structure the content and guiding principles of GC495, with special attention on the principle of Mindfulness within Spiritual Intelligence to serve as a conduit for deeper learning in all 12 principles.

Figure 3. Sustainability Mindset Principles

Note: Rimanoczy (2021)

The sustainability mindset was developed through the research of Rimanoczy (2014) and Rimanoczy & Klingenberg (2021) and can be defined as “a way of thinking and being, that results from a broad understanding of the ecosystem’s manifestations, from social sensitivity, as well as introspective focus on one’s personal values and higher self and finds its expression in actions for the greater good of the whole” (Rimanoczy, & Klingenberg, p. 2). Development of the Sustainability Mindset originally comes from the Rimanoczy (2014) qualitative exploratory study with sixteen leaders in sustainability business that sought to understand their sustainability-driven “business as unusual mindsets.” The results from these sustainability minded business leaders form the foundation for the development of the Sustainability Mindset along with additional research to fully develop the framework (Rimanoczy & Klingenberg, 2021).
There are four components of a Sustainability Mindset and 12 principles. The component of Ecological Worldview refers to a value system based on an understanding of socio-ecological issues of our day (Eco-Literacy) and a personal relationship with and responsibility to protect nature (My Contribution). The Systems Perspective component is about how everything in our world connects (Long-Term Thinking, Flow in Cycles, Both/And Thinking, Interconnectedness). Emotional Intelligence considers the importance of inter and intra intelligence and collaboration (Creative Innovation, Reflection, and Self-Awareness). Finally, Spiritual Intelligence brings in an essential deep value-system mindset (Purpose, Oneness with Nature, Mindfulness). It is important to note that Mindfulness was identified as a key principle in the Sustainability Mindset, which further supports the benefits of its integration into SE. The whole of a Sustainability Mindset can be seen, understood and used to better understand the components of the Ecological Worldview (mindset) SE seeks to support.

Methods for contemplation such as mindfulness are emerging as a means for expanding SE to include an exploration of the underlying values fueling our global social-ecological crisis (Thiermann & Sheate, 2020; Wamsler et al., 2018). The emergent practices being utilized to explore TSL, and mindfulness provide SE with an avenue to better understand how to inspire the shift towards an ecological worldview that integrates the all-important and often missing component of heart-based values into learning.

Mindfulness has the potential to extend sustainability learning to hands and heart by expanding personal awareness around the information the head is learning with an exploration into the many ways personal and planetary healing are interconnected (Ives et al., 2020; Walmsler, 2019). A system's view of life shows us that everything on Earth is interconnected. A growing body of quantum physics science now supports this perennial truth of universal
interconnectivity, as long taught by Indigenous Knowledge and Eastern philosophies (Lange, 2018). This means that humans are the Earth, and what is good and healthy for one, is good and healthy for the other (Hanh, 2020). A good example of this is the food we eat. Growing some of our own fruits and vegetables without chemicals is good for the Earth and our personal health (Figure 4).

Practicing mindfulness creates the space to bring greater awareness to self and life, and that increased awareness helps to clarify intention and purpose around how best to relate to self, others, and Earth (Figure 4). Mindfulness has several slightly varied definitions and practices but for the purposes of this research, I am concerned with the broad concept of mindfulness as the practice of bringing compassionate awareness to the present moment, mind, body, soul, others, and earth.

Figure 4. Mindfulness & Sustainability

Note: Wamsler (2018)

In addition to the implications of TSL empowering people at the level of mindset with an ability to construct their own lives of sustainable wellbeing, there lies a Constructivist theory
of reality. Constructivism posits that knowledge is ‘constructed’ through the subjective (and sometimes collective) lived and learned experiences of accumulated knowledge and is an iterative process open to growing and changing (Campbell et al., 2020). This theory of Constructivism helps to explain why engaging students at the level of head, hands, and heart holds the potential to transform and awaken them to new ways of understanding and being in the world. Pedagogies with Constructivism at their core tend to engage students with a lot of active and reflective learning with the belief that education is not transmitted in fixed terms from the teacher to the student, but rather, learning outcomes are placed at the center of the learning experience for people to then integrate into their reality subjectively (and sometimes collectively). With a Constructivist lens, mindsets can be reflected on and changed or further ‘constructed’ with new knowledge, engagement, and heart-based reflection.

Constructivism is in alignment with my design process of Understanding by Design (UBD) (Wiggins et al., 2005), which places the enduring understandings and essential questions of the course at the center of learning to gather everyone (teacher included) around for each person to construct into their reality (Campbell et al., 2020). At the heart of Constructivism, mindfulness, sustainability, social justice/inclusion, and mindset is the premise that there are multiple ways of knowing and being in the world that need to be acknowledged and integrated into the whole.

This research utilizes underlying group work of various scholars of Constructivism. Most notably, my teaching is influenced by Freire (1968) with his ideas around learning that fosters conscientization or the ability to empower individuals to change consciousness both individually and collectively. The WTR methods I employ, align with conscientization with the belief in a power with rather than power over philosophy so that students are empowered
with me not below me, to tap into their inner strength and cooperative insights through a learning process that is free to, as Leopold (1949) said “evolve in the minds of the thinking community” (Leopold, p. 263; Macy & Johnstone, 2012, p. 101-115). I believe in this type of freedom of exploration in the university classroom and the innate wisdom that lies within each one of my students. I intentionally work to create a safe and inclusive learning space so that students feel comfortable enough to be guided down pathways of conscientization. To reach and teach students at these deeper levels of thought and values, I lead with love, or what Noddings (1988) called, an ethic of care, which seeks to nurture students to their full moral potential.

There is a need to develop courses at the university level that have the courage to step outside of the typical bounds of positivist teaching at students with fixed facts that speak solely to the head and begin designing with new pedagogies that engage students with head, hands and heart for an empowered Constructivist learning experience that lifts all voices up (Hooks, 2014; Zajonc, 2013). There are some emerging TSL courses (Sipos et al., 2008; Wamsler et al., 2018) but, by and large, the SE curriculum continues to overemphasize declarative knowledge (Redman & Larson, 2011) with some increasing integration of place-based learning. The goal now is to extend learning one step deeper to involve the heart as well. Integrating the heart into learning does not imply a lack of importance for the head and hands but rather that there is a need to add heart so transformative, whole-self learning can take place.

Purpose Statement

The purpose of this study was to design a college-level course, GC495, with the following four enduring understandings at its core:
All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same (the indivisibility of justice).

The story lens and collaborative skill set of the Great Turning inspires a sustainability mindset that is focused on healing people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview. Mindfulness is a needed skill set for sustainability that anyone can learn and practice. Mindset/worldview/story must be reflected upon and understood to make the shift towards a sustainable way of living in our world (the Great Turning of our time).

I will use the TSL model of engaging head (theory and readings in mindfulness & sustainability), hands (field experiences to integrate theory to real life applications) and heart (mindfulness, contemplative practices and the WTR to awaken and inspire people to their core) in developing course activities and assignments and will collect assessment data on the impact of my curriculum on students. It is particularly important to determine if mindfulness in SE (GC495) can serve as a Constructivist catalyst for the values/mindset understandings and essential personal empowerment needed to engage and transform students at the deepest leverage point for change (Sustainability Mindset).

Research Question

What impact does a Mindfulness & Sustainability course have on the Sustainability Mindset of university students?

Significance of the Study

Designing the GC495 course within a university SE curriculum was immediately and practically meaningful for the students who took this class and the TSL growth opportunities pertaining to a Sustainability Mindset it offered them. Additionally, this course can support
improved pedagogy within the SE department it’s offered at, and ideally, will lead to improved pedagogical practice in university SE departments at large. Teaching mindfulness to students in conjunction with sustainability will offer new insights into how to engage people at the level of values, which has been a long standing yet largely unactualized goal of SE.

Mindfulness and sustainability are respectively growing and respected areas of research that hold clarifying potential for transformative action when considered together (Figure 4). Research combining mindfulness and sustainability is relatively new (Thiermann & Sheate, 2020; Wamsler, et al., 2018); however, in practice it has been considered and applied for much longer. The work of Macy (2014) and WTR is a community-based group work process in mindfulness-based sustainability that has been developing for the past fifty years and can serve as a method for bringing mindfulness and sustainability together in both teaching and research. My target audience was university students, most majoring in some type of environmental sustainability field. As an instructor in a sustainability department, I have worked with this target group and have found that they crave more holistic approaches to learning that inspire hope and inner transformation rather than a doom and gloom focus on the state of our planet. In fact, it is my current students’ receptivity and hunger for more mindful methods of engagement that inspired me to take my research in this direction.

Research is pointing toward a more holistic approach to teaching for sustainability and in this study, I explore the potential of mindfulness and contemplative WTR practices to inspire learners on a deep enough level to incite TSL. More specifically, with this study, I examined evidence of an impacted sustainability mindset in GC495.
Positionality

It is important to note that as the designer, instructor, and assessor of this course, I am a longtime mindfulness meditation practitioner of twenty years. I’m also a certified meditation teacher and Work that Reconnects facilitator with several years of experience integrating mindfulness-based strategies into my classes both at the university and community level. This lens and experience are important to note because it can be more effective to teach mindfulness if the instructor has a personal practice. There is an authentic and more reflexive approach to teaching mindfulness if the teacher knows the benefits first-hand. There is a plethora of research supporting the benefits of mindfulness and contemplative practices in teaching and learning (Wamsler, 2018; Zajonc, 2013), however, knowing first-hand adds a layer of depth to the transfer of mindfulness-based learning.

I’m not suggesting that to replicate this study it is necessary to be an experienced meditator, however, it is recommended that anyone teaching with mindfulness-based strategies have a first-hand and regular mindfulness practice of their own, even if it is relatively new. Finally, my predilection towards a mindful approach to learning does mean that I have a bias towards inner ways of knowing and being, and I try to intentionally balance this with the inclusion of data and more head-based ways of knowing, as well. Furthermore, the sensitive terrain of leveraging learning at the level of mindsets/values requires a social sensitivity with experience facilitating inclusive group learning (Freire, 1968; Noddings, 1988).

It is also important to note that I am a White presenting multiracial woman, mixed Black and White. I’ve had an awareness from as early as I can remember about social injustice and in particular injustices my grandfather endured in his life, being a Black man in the United States. I was raised, by both sides of my family, to be anti-racist and to love diversity. I am
grateful that for most of my life I lived deeply immersed in a multi-racial/cultural community. I look White, so I’ve gone through life with all the advantages of White privilege, which in large part I have taken for granted. I currently live in a predominantly White community, and GC495 will first be offered to a mostly White student body. It is good practice for me and important to teach social justice to mostly White students, however, I want my SE curriculum to be for all races. Therefore, I am intentionally designing it to be racially and culturally inclusive because it is with all my brothers and sisters of humanity and my cousins and aunts and uncles from other species, that I want to join with, into a flourishing future for all. My goal is what Dr. Martin Luther King called, the “indivisibility of justice,” and it is my destiny, my responsibility, and my passion to continue the work of my ancestors and heroes by weaving social justice into all that I do.

Summary

In this study, I designed, implemented, and assessed a course, *Mindfulness & Sustainability* (GC495), to explore the potential for mindfulness in SE as “a certain kind of education” capable of inspiring students at the level of worldview (mindset) for a Transformative Sustainability Learning (TSL) experience that teaches connection to self, others, and Earth at the level of head, hands, and heart.
Chapter 2. Literature Review

For this study, I collected and analyzed data on GC495, a special topics course within a Sustainability Education (SE) university department. In this chapter, I review literature in three sections. The first section in the literature review will be an overview of Sustainability Education (SE) and its many ethics-based voices advocating for a deeply leveraged heart-based approach. In the second section, I present the theoretical framework at the core of this study as transformative sustainability learning (TSL). In the third section I explore studies on mindfulness, The Work that Reconnects (WTR), and SE.

Sustainability Education

Sustainability Education (SE) seeks to address our world’s most pressing social and ecological “wicked problems,” from climate change to growing global inequities. In conjunction with SE, in September 2015, the United Nations (UN) developed the seventeen Sustainable Development Goals to address these “wicked problems” on an international level, and tasked SE with serving as the leaders of this charge (Annan-Diab & Molinari, 2017). The fact that SE is concerned with and even charged by the UN with the transformation of our educational pedagogy from the unsustainable to the sustainable is a lofty and necessary challenge. This study will explore how mindfulness can pedagogically support a “certain kind of education” for sustainability (Orr, 2004) with the development, implementation, and assessment of a university course, Mindfulness & Sustainability.
Scholars in SE are calling for an “inside-out” (Ives et al., 2020) approach to learning. In other words, in SE there is a need to go ‘inside’ the individual to the level of mindset (Meadows, 1999) with a “certain kind of education” capable of shifting collective worldview from the individualist and mechanistic to the holistic and ecological (Orr, 2004). According to Orr (2004) education in and of itself is not necessarily good and, in fact, much of the destruction taking place on Earth right now is orchestrated by highly educated people. Therefore, the world
does not just need more education but a “certain kind of education” that fosters sustainable wellbeing for all (Orr, 2004).

Many credit the publication of Rachel Carson’s, *Silent Spring* in 1962, as the beginning of the modern environmental (sustainability) movement (Lotz-Sisitka et al., 2015), and at the heart of this classic work, is a call for a shift in the story we live our lives by. Carson (1962) begins *Silent Spring* with “a fable for tomorrow,” and the story of our ecological collapse that ends with the ominous warning that “no witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves” (p. 3). Indeed, the major environmentalists from Carson to Orr have been trying to tell us that to shift our society from the unsustainable to the sustainable, we need to shift the baseline story of modern industrial society. So long as people live with the mindset that they are separate and superior to nature, the dominant industrial culture will continue to destroy themselves and our world.

Researchers are beginning to explore how inner dimensions play a role in making a societal shift towards sustainability, in other words, rewriting the story about human separateness from nature (Ives et al., 2020; Thiermann & Sheate, 2020). The merely cognitive and declarative-based knowledge approach to educating for sustainability has proven less than effective in bringing about the widespread behavioral change needed today (Redman & Larson, 2011). Therefore, if we are going to manage the large-scale shift towards sustainability needed, then the research is pointing us towards a more heart-based and contemplative approach to education (Orr, 2004; O’Sullivan, 1999; Sipos et al., 2008).

Despite SE’s call for a “certain kind of education” (Orr, 2004) that teaches sustainable ways of thinking, being and relating, most SE research and pedagogy to date have avoided the
deepest leverage point which addresses the inner transformation needed to expand from a dualistic to an ecological worldview (Meadows, 1999). Instead, most of the SE curriculum continues to teach students with a fact-based approach (all head with little to no hands or heart) that has proven to be the least effective at triggering the behavior change needed for sustainability (Redman & Larson, 2011).

Meadows (1999) developed the concept of leverage points in systems thinking to explain that some leverages in a system help bring about large fundamental changes, whereas others make only small, more superficial changes. As Figure 6 illustrates, conscious mental models are identified as the deepest leverage point possible in changing a system. The deepest level of leverage is exactly where this research is situated as it explores new ways of infusing SE with inner transformation that might heal our world through the very values and stories humans live by. In other words, this study will explore the pedagogy of “a certain kind of education” to include how it might work in an actual classroom (i.e., activities, assignments, lessons) to engage students, head, hands, and heart, at this deep leverage point.

Figure 6. More Leverage Points

*Note:* Meadows (1999)
The core sustainability competencies include the necessary ingredients to cultivate the shift in worldviews SE seeks and ‘tip the scale’ for deep leverage impact with; systems thinking, normative competence (values thinking), anticipatory competence (futures thinking), strategic competence, and interpersonal competence (collaboration) as the foundational pillars for SE (Wiek et al., 2011). The pillars require deep re-learning of relational understandings toward self, others, and Earth that cannot be learned by rote memorization of facts and require instruction at that deeper leverage point of mindset (Meadows, 1999).

Figure 7. Core Sustainability Competencies

In Figure 7, the core competencies of sustainability are presented. This course focuses most specifically on the deep leveraging of normative (values thinking), systems-thinking and interpersonal (collaboration) competencies. However, more broadly speaking, there are implications for mindfulness in SE to strengthen learning in all five competencies, as again, it is at its core a practice in bringing heightened awareness to self and life, which could benefit all steps of the learning process.
From the beginning, so much longer than SE scholars, North American First Nations people have understood and practiced what you might call mindfulness-based sustainable living, based on awareness and reverence of the interconnected nature of self and life. Western (colonialist) science is giving increasing attention to Indigenous (First Nation) Knowledge to help solve our ecological crisis (Burgos-Ayala et al., 2020; Magni, 2017). According to Indigenous Knowledge, story lies at the heart of a culture (Kimmerer, 2013; Mitchell, 2018), which aligns perfectly with what SE scholars are discovering, as well (Berry, 1988; Carson, 1962). The story North American Indigenous culture embodies is based on an ecological worldview (Mitchell, 2018), and is the worldview to which SE claims we need to shift our mindset (Berry, 1988; Orr, 2004; Mitchell, 2018; Naess, 1995). Therefore, learning to construct new ways of thinking and being that learn from and in some ways emulate the ecological worldview as taught by Indigenous Knowledge is increasingly informing SE science and pedagogy (Burgos-Ayala et al., 2020; Magni, 2017).

In addition to story, another major lesson from Indigenous Knowledge and its ecological worldview, that SE is integrating into much of its curriculum, is the importance of direct experience with nature (Deringer, 2017). Leopold (1949) also stressed direct experiences with nature and helped set the stage in the academic field of SE for extending ethics to include nature with the claim that “we can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in” (p. 214). Leopold asserts that for our ethics to extend to nature the prerequisite is to love her more fully through direct relational experiences. Leopold, a trained United States forester was taught in the traditional industrial paradigm to view humans as superior to nature (1949). In his life and writings, you can experience some-
thing of a decolonization of the mind and heart at play, so that through Leopold’s direct experiences in nature, he came to know a much more humble and holistic view of the human, which he articulates in his seminal, “land ethic” (Leopold, 1949). Leopold’s divergence from the mechanistic paradigm and embrace of the ecological is a hallmark of SE as a field of study, emerging out of and in antagonistic response to the threats posed by modern industrial society. Therefore, despite SE originating in a mechanistic paradigm, it continues to grow increasingly aligned with indigenous wisdom (Kimmerer, 2013) and an increased focus on place-based pedagogy, to the great benefit of improved learning outcomes that teach to the interconnected nature of life (Deringer, 2017).

According to Leopold (1949) an ethic can never be written, rather it evolves in the minds of a thinking community. In other words, learning to relate to nature must remain a transformative Constructivist experience for each individual and community to explore for themselves, rather than a rote memorization of someone else’s lived experience. The idea of an ethic (mindset/values/worldview) evolving in “the minds of a thinking community” (p. 225), serves as a solid foundation for the theoretical framework in this study, Transformative Sustainability Learning (TSL), which posits that transformation takes place when head, hands and heart are all engaged in the learning process.

SE began and continues its charge to heal the world’s social/ecological crisis by educating the head (declarative facts) about the declining state of the planet (Redman & Larson, 2011). It has, in more recent years, learned from Indigenous Knowledge and leading SE scholars that engaging hands with place-based learning opportunities to love, listen, and learn from nature, is also essential to the SE learning process (Kimmerer, 2013). The third and final component of TSL, is heart, and this is the realm SE pedagogy has long touted as necessary for
effecting change at the deepest level of values (Meadows, 1999), but has yet to be successfully integrated into the curriculum (Redman & Larson, 2011).

The course I developed for this study seeks to leverage mindfulness as that third and final component of the heart, to pair with the head and hands learning already standard in much of SE. I hope that GC495, the course in this study, might serve as an example for ways to integrate head, hands, and heart into SE for a TSL experience capable of healing students and, ultimately, our world from the inside (story/mindset)—out. TSL holds potential to engage the whole person (Sipos et al., 2008) at the deepest leverage point of mindset (Meadows, 1999) for the creation of a new story that leaves behind the destructive dualism of modern industrial society and begins to embrace the collective healing embodied in an ecological worldview (Orr, 2004; Macy & Brown, 2014; Mitchell, 2018).

Transformative Sustainability Learning & Mindset

Transformative Sustainability Learning (TSL) is the theoretical framework underpinning this research. Transformative Learning (TL) was originally developed by Mezirow (1978) and has since that time been expanded upon by Mezirow himself and by many others (Mezirow, 1997; Dirkx, 1998; Cranton, 2002) to be a process of “perspective transformation” that, after an initial “disorienting dilemma,” leads a person through a learning experience that changes some aspect of their perspective on life.

Sustainability comes into relationship with TL because at the root of our ecological crisis, which might be called the ultimate “disorienting dilemma” (Hathaway, 2017), lies our inner world and the stories, we tell ourselves about what has value and meaning in this life (Ives et al., 2020). TL is a way to dive into these inner worlds of knowing and being to make the “perspective transformation” towards heightened ecological awareness required of us today.
(Hathaway, 2017). Indeed, “It might be said that the scale of the sustainability crisis extends from planetary systems to the heart and soul of every human being” (Ives et al., 2020, p. 211). Sipos et al. (2008) uncovered a three-pronged approach to TSL that includes bringing heart (enablement) dimensions into education and practice along with the head (engagement) and hands (enactment) (Figure 8). This model was developed through reflection on three different case study courses where head, hands, and heart “emerged as an obvious planning principle for sustainability education” (Sipos et al., 2008). Sipos et al. began with a pedagogy of “heads-on” and “hands-on,” which is classic to the direction SE has taken to include place-based education (Deringer, 2017). The powerful insight that took SE and TSL one step further, into that highly discussed but rarely breeched world of values and mindset was when Sipos et al. (2008) discovered “certain aspects of course involvement, such as group reflection or individual journaling about the various activities, learning events and internal experiences of the day, helped the instructors to realize that the courses actually had three distinct areas of engagement: heads-on, hands-on, and hearts-on” (p.73).

**Figure 8. Achieving TSL**

*Note: Sipos (2008)*
A body of research continues to build on the original works of Mezirow (1978) and Sipos et al. (2008) to further explore and elaborate on the importance and even necessity of engaging the whole person: mind, body, and spirit for transformative learning to occur (Papas-tamatis et al., 2014). Similarly, explorations pertaining to transformative learning are beginning to explore the need for inner dimensions of learning (Ives et al., 2020; Wamsler et al., 2018). Although this body of work is growing, there is a need for more research in this area, especially that gives examples of classroom learning that engages students with the all-important and often missing component of the heart (spirit). There has been a call for more research that integrates mindfulness into SE, for its ability to explore normative values (Wamsler et al., 2018).

Constructivism can further ground TSL as a process by which learners have the autonomy to continuously reinterpret and make sense of reality (Mehmet, 2018). In other words, the “disorienting dilemma” that sparks a transformative learning experience is something subjectively experienced by the individual learner and oftentimes in the context of group learning (Lange, 2009). The intent of this research is to engage students at the level of mindset to reflect on their relationship with themselves, others, and the world at large, with the belief that each student (and collectively as a group) will construct new understandings and stories of sustainable ways of being and acting in the world. The process of reflection can help to shine a light on hidden biases and mindsets that might be currently constructing a persons’ reality and help them to listen for other ways of knowing and acting with deeper awareness (Freire, 1968).

Mindset

Research shows that mindsets play a foundational role in shaping a person’s life (Dweck, 2016; Primeau, 2021). Thoughts have power, so much so that the power of mindset
has been called “the law of attraction” (Losier, 2007) and the “secret” to cultivating the life of your dreams (Byrne, 2008). Dweck (2016) dove deep into the concepts of a “growth” vs. “fixed” mindset, to understand why some students are more resilient and successful than peers when presented with challenges or failure. What Dweck found is that people vary on a continuum between a ‘growth mindset,’ the belief that intellect is a malleable construction, and a ‘fixed mindset,’ the belief that intellect is innate and unchangeable. Dweck’s work has profound implications for enabling the shift in mindset that is needed in SE as it requires a ‘growth’ rather than a ‘fixed’ mindset. This aligns with what Meadows (1999) uncovered in her research on leverage points, discussed earlier in the chapter, finding that mindset growth is possible, and is, in fact, the deepest seat of transformational change and empowerment possible (See Figures 1 & 6).

To engage learners at the deepest leverage point of mindset, SE must walk learners through a TSL experience capable of engaging them at the level of head, hands, and heart as they explore and co-create a more sustainable paradigm capable of bringing about the real-world change, we so desperately need. In other words, if we are going to heal our disconnected world, we need to go as deep as mindset to reset the code, so to speak, towards a belief in interconnected flourishing rather than the dualistic mindset code modern industrial society is currently set on. This research is concerned with how pedagogically to go as deep as mindset in SE with the contention that mindfulness is a natural vehicle to drive into the depths of mindset/worldview/story/values and begin to reset the story of our time.

TSL recognizes the malleability of personal paradigms (mindset) as the most powerful tool for transformation for sustainability (Ives, et al., 2020) and that this can be achieved through instructional experience (Hathaway, 2017; Sipos et al., 2008; Wamsler et al., 2018). However,
there is a need for further exploration into how to engage students with the inner dimensions (i.e., mindset, values, story) of sustainability (Ives et al., 2020; Wamsler et al., 2018).

For the purposes of this study, including for developing curriculum, I chose “mindfulness” as the instructional practice that can help learners engage with these inner dimensions of sustainability. “Mindfulness in particular” holds great promise for SE (Wamsler et al., 2018) with a burgeoning body of research on its transformative power (Thiermann & Sheat, 2021) and neuroscience (Wamsler & Brink, 2018) that further supports (Dweck, 2016) the idea that, mindsets can be changed. There is, in fact, early research to suggest, “that mindfulness can open new pathways towards achieving sustainability” (Wamsler et al., 2018). Therefore, there is great potential to further research mindfulness as an avenue for exploring mindset and values in SE (Wamsler et al., 2018).

**Mindfulness & WTR in Sustainability Education**

There are various modes of practicing mindfulness (Barbezat & Bush, 2013) that this study seeks to explore as a means of uncovering the most compatible with TSL and engaging the deeper leverage point of mindset. Figure 9 is an overview of contemplative (mindfulness) practices (Barbezat & Bush, 2013) that can be utilized to bring greater awareness to self, others, and life.
Figure 9. The Tree of Contemplative Practices

Note: Contemplativemind.org

Figure 9 can be used as methods of engagement in the SE classroom as that mindful vehicle capable of engaging students with their hearts. Furthermore, with its evidence-based ability to bring heightened awareness to values of the mind (Siegel et al., 2009; Kabat-Zinn, 2013), mindfulness holds great potential to expand SE’s depth of leverage into the realm of conscious mental models. According to Siegel et al., “Mindfulness is not new. It’s part of what makes us human—the capacity to be fully conscious” (p. 17). It is from this secular approach to mindfulness as a practice that is inherently part of being human, that I will teach. In class content, I will share the origins of mindfulness along with various ways to view it and practice it, and for the purposes of this research and course, I am particularly concerned with mindfulness as the practice of bringing compassionate awareness to the present moment, mind, body, soul, others and Earth. This study will utilize mindfulness as a pathway to integrating heart into SE learning by cultivating increased awareness (mind, body, soul, others and Earth) to the
interconnected nature of reality (Abram, 2010) and our greater Ecological Selves (Naess, 1995).

Mindfulness as a pathway to sustainability might be new territory in the field of Western scientific research (Ives et al., 2020; Wamsler et al., 2018), however, mindfulness, as a practice of being “fully conscious” (Siegel et al., 2009) and sustainability as a practice of living in healthy ecological balance (Mitchell, 2018) are as old as human time. There are many indigenous cultures that teach a mindful pathway to sustainable living, and Western science is giving increasing attention to Indigenous Knowledge to help solve our ecological crisis (Lam et al., 2020; Mani, 2017). According to many Indigenous scholars and leaders, story lies at the heart of a culture (Kimmerer, 2013; Mitchell, 2018). The story North American Indigenous culture embodies is based on an ecological worldview (Mitchell, 2018), and is the worldview to which SE claims we need to shift our mindset (Orr, 2004; Mitchell, 2018). Therefore, learning to construct new ways of thinking and being that learn from and in some ways emulate the ecological worldview as taught by Indigenous Knowledge is increasingly informing Western SE science (Lam et al., 2020; Mani, 2017).

Mindfulness can provide sustainability with some personal subjective well-being incentives for igniting behavior change. In fact, the flourishing of people and the planet go together hand in hand (Hanh, 2020) however, this is a message that is often lost when doom and gloom ecological statistics are the predominant means used to ignite change. What if, instead, the change towards sustainability was a message of mutual flourishing. Mindfulness holds the potential to frame sustainability through a positive and heart-based psychological lens.
Wamsler (2020) developed a university course on “Sustainability and Inner Transformation,” that integrated mindfulness and other contemplative practices into teaching for sustainability. Like this study, (Wamsler, 2020) developed a curriculum, implemented, and assessed its effects. Wamsler (2020) sees the need for future research in mindfulness and SE with specific studies that re-orient “towards more experimental, innovative and whole person approaches that challenge the fundamental assumptions of mass education.” This whole person approach Wamsler (2020) calls for is exactly what I attempt to provide with a TSL learning experience that engages at the level of head, hands, and heart with the holistic avenues of fact-based and exploratory cognitive learning (head), place-based learning (hands), and mindfulness (heart).

**The Work that Reconnects**

The Work that Reconnects (WTR) is a group facilitation method for transformative learning designed to expand personal, social, and ecological awareness. The root teacher of WTR is a Buddhist scholar and environmentalist named Joanna Macy, who began to share this method in the 1970s. The Buddhist origins of this method are what you might call a mindfulness-based approach to SE, that translates to activities such as guided meditations and reflections on the interconnectivity of life that exemplify mindfulness. Macy and colleague, Molly Brown, provided their seminal WTR guidebook, *Coming Back to Life* (Macy & Brown, 2014) and a second seminal piece, *Active Hope* (Macy & Johnstone, 2022).

WTR is a global network with workshop opportunities all over the world and online. I participated in a 6-month WTR facilitator training program online with participants from all over the world. We went through several of the activities for engagement as a group which can be accessed online at [https://workthatreconnects.org/](https://workthatreconnects.org/) or in one of the two guidebooks (Macy
& Brown, 2014; Macy & Johnstone, 2022). These resources are free for all to utilize. I went through the training to learn all I possibly could and was deeply moved by the mindfulness-based practices exploring these revolutionary times of emergent sustainability. Three of my all-time favorite WTR activities are the Truth Mandala (Macy & Brown, 2014, p. 119-123), Callings and Resources (p. 200-202), and Bodhisattva Check-in (p. 156-160), all three of which I facilitated in GC495 (among others). Currently, the WTR network is working on expanding the spiral method to be more inclusive. All the activities fall within one of the aspects of the spiral method of WTR which are as follows (the three in bold are a work in progress for the expanded more inclusive model):

- Step 1: Coming from Gratitude
- Step 2: Self-Awareness
- Step 3: Learning about Systemic Oppression
- Step 4: Honoring our Pain for the World
- Step 5: Seeing with New and Ancient Eyes
- Step 6: Liberation
- Step 7: Going Forth

The inclusion of Self-Awareness and Learning about Systemic Oppression early in the spiral has been found to be necessary because when you have typically marginalized individuals, let’s say within a dominant White privilege group, biases and dominant norms can work to silence and harm some of the participants. Furthermore, WTR is a process of ‘lifting up’ all voices, so in an inherently racist structural system, it is necessary to uncover these social injustices at the beginning. At the end of the spiral, the expanded version includes a formal step of Liberation, which means to consider how to set oneself free, in this case, from some form
of societal “business as usual” oppression. Furthermore, with social justice in mind, it is important to connect to an equitable liberation for self, others, and Earth, which means a liberation that is healing for all (indivisibility of justice). This expansion is in the works and new class offerings are rolling out from the WTR network. With the completion of my training, I had the great honor to virtually meet Joanna Macy, herself, and it is she who gave me my Great Turning “vows” (Macy & Johnstone, 2012, p. 200-201).

WTR has typically been shared in more community-based or informal educational settings. It has grown to be a global network with an ability to integrate a more personal and heart-based approach to SE. The methods used for engagement have been transformational for many (Hathaway, 2017) but its application into formal SE has been limited, possibly due to SE’s overemphasis on declarative head-based knowledge (Frisk & Larson, 2011). However, with a growing awareness on the importance of SE to engage people on the personal level (Ives et al., 2020), the time has never been better to explore bringing methods for heart-based learning into the formal university classroom.

Macy & Brown (2014) lay out the cosmological context and need for this work with the so-called three stories of our time, explained in Chapter 1: business as usual, the great unraveling, and the great turning. Understanding these three stories creates a systems thinking lens that helps people to understand the complexities of the modern world today. With this personal expanded understanding comes normative reflection and empowerment to consciously choose the story we want to put our thought, time, and energy into.

For this study, I designed GC495, a course to integrate mindfulness and contemplative WTR practices as a how-to, heart-based approach to SE curriculum. Mindfulness as a pathway into
the values/mindset/heart of students will be paired with head and hands as a complete recipe for TSL.

**Summary**

In this chapter I reviewed literature on the following tenets:

- Sustainability education (SE),
- Transformative sustainability learning (TSL) and mindset, and
- Mindfulness and WTR in SE.

In this study I collected and analyzed data in one course (GC495) in which I sought to implement these tenets.
Chapter 3. Method

In this study, I purposively selected students that enrolled in GC495 and used pre- and post- questionnaires, assignments, and two final open-ended questions to collect and analyze data on the ability of this course to impact students’ Sustainability Mindsets. In the following sections, I describe the participants, setting, design, data collection, exploratory analyses, and measures of quality.

Participants and Setting

Upon approval by both IRBs, (Appendix A), this course was offered Fall semester 2023 at Northern Michigan University (NMU) in the Earth, Environmental, and Geographical Sciences (EEGS) with twenty-one participants. I obtained informed consent from all twenty-one participants and de-identified all data, which will be stored on a password-protected server for seven years.

Design

GC495 was a 15-week semester-long university course that met twice a week for 90-minutes each class. I designed the GC495 course using the 12 Sustainability Mindset principles and four content areas. Furthermore, I intentionally included course content and activities to engage the whole person at the level of head (cognitive), hands (behavioral), and heart (affective) in the hopes that students would have a Transformative Sustainability Learning (TSL) experience. The design method I used to create this course structure, content, and intended outcomes was the Understanding by Design model (Wiggins et al., 2016). Understanding by Design is an intentional curriculum development process that begins with the end in mind by developing core enduring understandings and essential questions that are then woven into each lesson plan. A more detailed accounting of the model for UbD can be found in the 29 lesson
plans (Appendix B). In this section, I will outline how I designed GC495 to teach to and assess student learning in the four sections to this course which match with the four content areas as in the Sustainability Mindset:

- Spiritual Intelligence;
- Emotional Intelligence;
- Ecological Worldview; and
- Systems Thinking.

In addition to explaining how I helped students develop areas of the Sustainability Mindset, I will explain how I fostered TSL in GC495 with the consistent integration of curriculum content, activities, and field trips designed to balance learning at the level of head (cognitive), hands (behavioral), and heart (affective). Finally, it is important to note that interlaced throughout my design is a pedagogy based on Constructivism and an Ethics of Care (as more detailed in chapters one & two) that stives for the highest moral development of my students through a power with model of conscientization that involves less lecture and more discussion and collaborative engagement.

Spiritual Intelligence & Purpose on Planet Earth was the first part of the course. The three principles of a Sustainability Mindset included in Spiritual Intelligence are: Mindfulness, Purpose, and Oneness with nature (Appendix D). In this section, I will explain the importance of the three principles of Spiritual Intelligence and how I shared them with students.

Out of the three principles in Spiritual Intelligence, we spent the most time in this section and throughout the course, learning about the principle of Mindfulness. I thought it was important to begin Mindfulness & Sustainability with a section that introduces and teaches directly to mindfulness. Mindfulness was the crux of the hypothesis that I was testing with this
course, which was how it might serve as an avenue for engaging sustainability students at the deepest leverage point of mindset. The thought being that if I taught students about mindfulness and how to meditate at the beginning of the class then it would be carried throughout the rest of the semester, serving as our conduit for strengthening our Sustainability Mindsets, with mindfulness-based thinking (head), behavior (hands), and value (heart) exploration in sustainability learning. Accordingly, I taught this course with the contention that Mindfulness is the thread that connects all twelve principles of a Sustainability Mindset.

Purpose is another principle of Spiritual Intelligence and an important leverage for student empowerment in this emergent “Great Turning” story of our time. Purpose is connected to Mindfulness, as mindfulness is required to uncover and align with your highest purpose in life. I believe it is fundamentally important for SE to empower students to find their unique passion and role in the healing of our world and I sought to do this in GC495. I introduced the concept and explored Purpose in this first section, and it continued to be woven throughout the class in various discussions and assignments. Purpose is introduced and considered in the positionality essay, threaded through the three stories of our time & mindset, and exemplified in the final Great Turning project. I find Purpose to be closely related to the Ecological Worldview principle of My Contribution because it asks us to mindfully reflect on our deepest passions (Purpose) and how they might serve to make the world a better place (My Contribution).

Oneness with Nature is the third and final principle of Spiritual Intelligence and a concept and practice that I find to be closely aligned with the Systems Perspective principle of Interconnectedness. As a sustainability educator, perhaps the most important lesson I teach is
that everything is connected. There is oneness within us (mind, body, soul), with all of humanity, and with nature. This concept too, is connected to the principle of Mindfulness, as mindfulness is required to experience Oneness with Nature and life. Nature teaches mindfulness with her natural cycles, rhythms, and in the diversity of life, so that time in nature can help bring us into the present moment with her multi-sensory splendor. This is a concept that I not only frequently reference, but it is something that I intentionally created space for as part of the mindfulness and sustainability learning experience. I dedicated the entire fifth class period to this concept and practice, as I directed students to spend the class period individually feeling their Oneness with Nature on a field trip to a forested trail along a river near campus. After our personal oneness with nature experiences, listening, smelling, feeling, being, with the connection to nature all around us, and within us, we gathered in a group along the riverbank to share. Time in nature was something that I strove for throughout the semester. Sometimes this meant taking our class out into the little field and forest grove right on campus. Other days, it was a field trip and most notably, our Oneness with Nature at Forestville, hands-on sustainability at Rock River Farm, and Ecological Self hike up Sugarloaf Mountain. The Ecological Self lesson plan, although embedded within Emotional Intelligence, aligns with the principle of Oneness with Nature, as Ecological Self is the understanding that part of the individual self, is in fact, our greater oneness with all of nature. Altogether, this principle provides a philosophical underpinning to the place-based emphasis of GC495 and to what SE at large increasingly employs. More specifically, most SE departments utilize a heavily declarative and behavioral approach to place-based learning, whereas with GC495 I sought to include an affective (heart-based) approach to place-based education, as well.
Emotional Intelligence, Mindsets & the Power of Story was the second part of the course. The three principles of a Sustainability Mindset included in Emotional Intelligence are: Reflection, Self-Awareness, and Creative Innovation. After establishing the overall concepts and practices of mindfulness and sustainability and how they intersect, with students, I then decided to take them through a learning process of understanding how mindfulness and sustainability are connected to mindsets and story. In this section, I will explain the centrality of the three principles of Emotional Intelligence and how I shared them with students.

My approach to teaching this section of the course was less overt and more integrated than Spiritual Intelligence was. For Emotional Intelligence, my overarching intent was to introduce the concept of mindsets and story. The principles of Emotional Intelligence aided in this learning. Again, the goal of this course was to explore and hopefully model how mindfulness in sustainability education can impact students at the deepest leverage point of a Sustainability Mindset. Emotional Intelligence seemed the natural home for teaching mindsets and story because of the Reflection and Self-Awareness needed to reveal underlying mindsets, as well as the Creative Innovation required to create more sustainable stories to live by.

Reflection is a principle of Emotional Intelligence and a mindfulness practice, typically fostered through inner reflection, writing, and discussion, and when cultivated leads to heightened Self-Awareness and Creative Innovation (the other two principles in Emotional Intelligence). The necessity for SE curriculum to facilitate Reflection is that if we do not take time to reflect on where we’ve been and where we are now, there is little chance in having the insight needed to harness the Self-Awareness and Creative Innovation necessary to change our trajectory from the unsustainable to the sustainable. I used Reflection and Self-Awareness building to teach the content of mindsets and story within this section and carried into other
sections. I introduced students to various categories of mindsets (i.e., strengths, growth, sustainability, etc.) through lectures, discussion, and self-assessment questionnaires, with the intent to facilitate personal and group reflections on the qualities of our mindsets and how they inform our relationships with our world. I was intentional about strengthening group learning, listening, and conscientization in this section. To complement this reflective work, mindfulness as a practice of present moment self-awareness was cultivated throughout the semester. Finally, Creative Innovation was encouraged in group work and assignments to think outside of the typical “Business as Usual” storyline and intuitively create and imagine in ways that support the “Great Turning” of our time.

Ecological Worldview was the third part of the course. After establishing our mindfulness practice and the power of mindsets to shape our world, we explored Ecological Worldview with a basic overview of the Sustainability Mindset principles of Eco-Literacy and My Contribution. This was the shortest section of the course; however, it was woven throughout learning in all four sections, because like mindfulness, it contained the foundational thread of sustainability essential to learning *Mindfulness & Sustainability.*

Even before Section 3, I introduced Ecological Worldview to students at the beginning of the semester (In the Spiritual Intelligence section), with day three being dedicated to an overview of sustainability. I wanted to clearly establish a foundation in mindfulness and sustainability with students at the start of the semester, and this meant touching on Ecological Worldview, as it holds the foundational essence of sustainability (Eco-Literacy and My Contribution). The thread of Ecological Worldview continued to be woven throughout the course, from field trips that connected Eco-Literacy with My Contribution to many class discussions.
For the specific Ecological Worldview section of our course, we watched a documentary called “Once You Know” which laid out a solid overview of the most pressing socio-ecological issues of our time (“Once you know” the severity of modern industrial collapse, you will never be the same). We followed up the documentary with a reading called “Returning the Gift” by Robin Kimmerer, to gather around, reflect, and discuss the all-important Indigenous Knowledge that sustainability needs to learn from with concepts like gratitude, humility, and respect for all life on Earth. In conjunction, My Contribution was addressed with the role each of us must play in healing our world. This section, albeit short, was again woven throughout the entire class. I believe strongly in personally empowering students with the idea that what they do with their lives matters, and the sustainability revolution needs their voice and actions too.

Systems Thinking & Social Justice was the fourth and final part of the course. This was the longest section of the class and designed to integrate the three prior sections. The principles of a Sustainability Mindset included in Systems Thinking are Interconnectedness, Long-Term Thinking, Flow in Cycles, and Both-and Thinking.

Admittedly, I focused on the Systems Thinking principle of Interconnectedness more than any other. This is because, although all principles of a System's Thinking are important, I see interconnectedness as the container that holds them all. In fact, there is a unique ability for Systems Thinking to fit into multiple data categorizations at once. Central to my hypothesis and the work of SE scholars and Indigenous Knowledge, is the contention that our socio-ecological crisis is predicated on a false story of dualism. Consequently, the only true antidote lies in the mindful self-realization that life on Earth is a web of interconnectedness, within self (mind, body, soul), others (the indivisibility of justice), and with our greater Ecological Selves (Earth).
That being the case, the concept of interconnectedness was a strong thread throughout the course. I used guided meditations, field trips and discussions to develop the concept and feelings of interconnectedness. Since interconnectedness is a container for the other principles here, oftentimes, the principles of Long-Term Thinking, Flow in Cycles, and Both/And Thinking were also seamlessly integrated. For example, in several guided meditations, I encouraged students to think of the deep time of Earth to include our ancestors and future generations (Long-Term Thinking), Flow in Cycles (tapping into the natural rhythms of nature), and Both/And Thinking, as all of humanity and life are held equally in the arms of Mother Earth. Focusing on Systems Thinking in the final section of the course provided an effective way to help students connect their learning from throughout the course. There were five assignments for this final part of the course (designed to help students integrate what they had learned). An example of a significant project that asked students to integrate their learning was a group “Great Turning” project (Appendix B), which asked them to integrate material from all four sections of the course into a project that applied their unique skills (My Contribution, Purpose). The project needed to include a mindfulness component (Spiritual Intelligence), class dialogue/engagement (Emotional Intelligence), sustainability initiative/solution (Ecological Worldview), and group work/collaboration between group members (Systems Perspective and Emotional Intelligence). There was a great deal of Creative innovation and freedom in this assignment. An example of one of the projects that integrated all these requirements was the “Roots for Change Collective.” This group chose to offer a solution for our “Great Turning” in the form of a community workshop (“The Roots for Change Collective”) that went through the full spiral of WTR. All the other students and I took part in their workshop. Each of the
four members of their group did a very nice job integrating their unique purpose/passion/contribution to the “Great Turning.” We began with a “privilege walk” (Honoring Our Pain). Then they had us break up into small groups to discuss and find Gratitude in our pain. Next, the group moved us into Seeing with New Eyes, and we all selected a virtue card (i.e. hope, love, humility) and were asked to reflect and share in small groups what the meaning of this virtue is to our lives/story. Finally, to Go Forth, empowered to use our gifts to heal the world, we had a class barter (prior to this class, this group had announced well in advance that we would be having a class barter so to bring in something homemade to exchange). The barter activity was fun and enlightening, and it provided us with an opportunity to take part in a sustainable form of economics with Creative Innovation.

As discussed in Chapter 1, researchers have found that focusing only on declarative learning is the least effective way to promote pro-environmental behavior change (Redman & Larson, 2011). To encourage Transformative Sustainability Learning (TSL) in my lessons, I purposefully utilized methods that engaged students’ heads, hands and hearts. For every lesson plan, I utilized the UbD template to organize the enduring understandings and skills I wanted my students to learn from that class period. Within my lesson plan, I always included how head (cognitive), hands (behavioral), and heart (affective) were engaged (Appendix B). Not all class periods included all three, although, I did strive for this level of balance needed to incite TSL. In fact, utilizing UbD helped me to recognize if I was a bit out of balance and not including one of the three aspects of TSL enough. More than once, I adjusted to integrate more head, hands or heart into the learning process. As discussed in the previous two chapters TSL is my philosophical foundation and approach to ensuring that students are en-
gaged cognitively, behaviorally, and affectively, as a recipe for TSL capable of impacting students with their whole self, at the deepest leverage point of mindset. In other words, this study is predicated on a hypothesis that TSL is a powerful enough mobilizer to impact student Sustainability Mindsets with mindfulness being the heart-based leverage in the recipe.

Utilizing UbD helped me to be aware of and more intentional with behavioral learning (hands), and we did have quite a few field trips and even just class periods outside. Not to mention that meditation and mindfulness practices are affective and behavioral. It was important to me that I weave a strong sense of the cognitive (head) throughout GC495, as well. Teaching to the head is what students are used to in a university setting, and I too sought to strengthen their critical thinking and fact-based knowledge. I wanted students to understand that mindfulness and sustainability together does not just feel right affectively and behaviorally, but there are solid facts to back the importance of this intersection, along with the essential critical thinking involved.

**Head**

For the head (cognitive) engagement in GC495, students read articles and the required course book, *Active Hope*. I always followed readings up with critical thinking, class discussions and sometimes writing. Occasionally, I included lectures with PowerPoint, that shared some declarative facts about what we were reading/learning about. Additionally, some of our class activities were tailored to head engagement such as, while exploring our purpose on planet Earth, students filled out and discussed the Personal and Social Identity Wheels to critically reflect on personal and social identity both individually and in groups. Furthermore, most field trips provided students with some practical knowledge around mindfulness and sustaina-
bility, such as farming, sustainable living, yoga, and meditation. Finally, the four journal entries over the semester were designed to connect head and heart to learning the practice of mindfulness in a group of peers. All this cognitive-based learning was connected to and supported by the engagement of hands and heart, as well.

**Hands**

Hands (behavioral) engagement is foundational to the way I approached teaching GC495. To begin with, the research supporting the benefits of mindfulness is overwhelming and yet knowing about it can give you none of the benefits without practicing it. One of my biggest goals with students in GC495 was to support them in either the establishment of a regular meditation/mindfulness practice and/or the strengthening of the one they already had. In fact, my third learning goal/enduring understanding for the class was that: Mindfulness is a needed skill set for sustainability that anyone can learn and practice. Although, I shared the fact-based benefits and background of mindfulness, it is experientially, a behavioral (hands) and affective (heart) based practice in compassionate present-moment awareness. What’s more, it is this compassionate present-moment awareness that I hypothesize can help students to become more conscious of the relational depth of life and further inspire their actions towards the interconnected healing of both people and planet.

In addition to our regular mindfulness practice as a group (and individually), all our field trips had a hands (behavioral) component, from the perfectly embodied Spiritual Intelligence and Ecological Worldview interplay of Mindfulness, Purpose, Oneness with Nature, Eco-Literacy and My Contribution, at Rock River Farm, to the community of spiritual support found at Meditate Marquette. Finally, a few more fun ways hands were engaged was for our creative arts assignment (The Three Stories of our Time and Mindsets), class potluck, and class
barter, all three of which required students to utilize their hands to create something of artistic and/or practical value to share with the group (Appendix B).

**Heart**

The heart was particularly pronounced in GC495, as mindfulness served as the heart-based conduit for sustainability learning. In GC495, we swam around in the value laden waters of the deepest leverage point for change: mindset and story. Foundational to GC495 was students learning and regularly practicing mindfulness, both formally with mediation, and informally with everyday living and learning that cultivates heightened awareness. Every class began with a guided meditation. Additionally, various WTR and other mindfulness and contemplative learning practices were integrated into lesson plans. For example, for the lesson plan Planet Earth, Positionality and Purpose, the heart was engaged with a WTR scripted Bodhisattva meditation, which guides people to tap into their highest purpose in life. All the field trips throughout the course engaged the heart in learning what mindfulness and sustainability feels like in the real world. For example, our field trip to both the yoga studio and meditation group gave students first-hand experiences with heart-based community groups that come together to nurture spiritual intelligence in one another. With the field trips in this class, I didn’t put much expectation other than to be present and engaged. I wanted students to be able to freely experience at the level of the heart without worrying about memorizing facts or concepts. Finally, the four journal entries over the semester were designed to connect head and heart to learning the practice of mindfulness in a group of peers.

**Data Collection**

In this exploratory qualitative study of GC495, I collected data from two open-ended essay questions, an assignment, and pre- and post- Sustainability Mindset Indicator (SMI)
questionnaires. The narrative data collected from two items on the students' final exams, were as follows:

- What was a powerful group insight/solution we came up with as a class to heal our socio-ecological crises? Why do you think this solution stuck with you and how will you carry it forward after this class ends?
- What impact has the GC495 course had on you? Did you learn what you thought you would in this class? If yes, explain what you expected to learn that you did, if no, explain what you learned that you did not expect to.

Additionally, data was collected from the Three Stories of our Time and Mindsets assignment. Finally, I collected data from administered pre- and post-SMI questionnaires on the third day of classes and then again on the twenty fourth day of classes. SMI is a questionnaire designed to measure an individuals’ Sustainability Mindset (Remanoczy & Kilingberg, 2021). This questionnaire allowed me to collect information about individual students’ Sustainability Mindset principles pre- and post-course to assess impacts on learning. The questionnaire includes 36 bipolar (Conventional vs. Sustainability Mindset) statements to explore the cognitive, behavioral, and affective aspects of a person’s mindset on a continuum from a Conventional (non-sustainable) to a Sustainable Mindset. It is important to note, that in the research development of the SMI it was determined, in alignment with TSL, that understanding at the level of mindset requires engagement at the level of cognitive (head), behavioral (hands) and affective (heart). Therefore, embedded in the assessment of the Sustainability Mindset is the level of understanding at these three levels so that a perfect score in one of the 12 Sustainability Mindset principles would also embody a perfect engagement of the whole person at the level of head, hands and heart. The SMI provides participants with extensive personalized reports
that highlight where they are in their Sustainability versus Conventional Mindset, cognitively, behaviorally, and affectively, along with questions for reflection to grow. For example, the SMI provides feedback about where a person might be balanced (head, hands & heart) lopsided (i.e., heavily cognitive), or in need of strengthening (cognitively, behaviorally, and/or affectively) in relation to a particular SMI principle.

As the instructor/researcher, I received student Sustainability Mindset Indicator (SMI) results both pre- and post- course. Although I received both pre- and post- survey results, my students could only receive results for one of these. I chose to give students their post-results, so each of them could leave the course with a report detailing their Sustainability Mindsets reflecting expanded self-awareness. I was also hoping this would give them confidence in their strengths and inspire them to continue to “go forth” and grow. I wanted them to be inspired with greater knowledge of their mindsets and how these affect their inner and outer lives. The SMI costs $45 per student, and my university generously agreed to pay for this. A week prior to when the students took the pre-questionnaire, I sent a list of students with their emails to the SMI team, and they then sent each student a personal email with the questionnaire a day before it was administered in class. This process was explained to the students and their consent obtained on the first day of the course. All twenty-one students gave their consent. Using pre- and post- data, graphs were created to measure the course impact pertaining to the 12 principles of a Sustainability Mindset.

My aim with this exploratory qualitative study was to test a hypothesis that student Sustainability Mindsets would be strengthened through GC495 (i.e. mindfulness in SE) content and intentional head, hands, and heart (TSL) pedagogy. I determined that collecting data from
the pre- and post-SMI questionnaires, a mid-semester Mindsets assignment, and the two narrative questions at the end of the semester would give me ample data and insight necessary to answer my research question. Furthermore, the heavy dialogue-based nature of the course added an additional layer to student voice, so that they were comfortable openly and honestly expressing themselves. In the final essay questions, the responses given by students were consistent with comments they had already communicated openly in class, and I did not see topics or sentiments expressed in class that were missing in essay questions (Appendix B). Therefore, I felt adding an additional focus group or interview would have been redundant.

Data Analysis

In this study, I used deductive (researcher driven) coding to locate how students' Sustainability Mindsets were impacted by GC495. I sorted student comments about course impact into the four content areas of a Sustainability Mindset: Spiritual Intelligence, Emotional Intelligence, Ecological Worldview and Systems Thinking, which aligned with the four content areas of my class curriculum. In this first part of the coding process, I used the preset code words of the 12 principles of a Sustainability Mindset, which are embedded in the four components to pull out vivo coding (direct quotes). In this initial round, I had a ‘fifth’ possible option that a quote did not fit into any of the four preset themes to provide space for another theme to emerge (other than the four components of a sustainability mindset). Once every sentence was placed into one of the themes, I continued to work through the narrative data to identify more codes (keywords/phrases) to support inter-rater reliability. After this first phase of coding, I then took the student comments, now confidently within one of the four themes, and further honed each student quote into one of the 12 principles within the four themes. This process allowed me to more specifically discern if and how students narratively expressed
individual principles of a sustainability mindset impacting them. The codebook is provided in Appendix C.

**Measures of Quality**

I used a purposive sample of students that enrolled in GC495 in the fall of 2023 at Northern Michigan University. I explained the study to them on the first day of class and shared consent forms (Appendix A), which all students signed on the first day of class. This was an exploratory qualitative study, where I was concerned with what impact integrating mindfulness into sustainability would have on the Sustainability Mindsets (deep leverage point) of students who took the course. I took measures to ensure quality with organized and thoughtful course design, collection of qualitative data, and a coding system that provided inter-rater reliability.

**Summary**

To answer my research question, in the Fall of 2023, I designed and instructed GC495 in the Earth, Environmental, and Geographical Sciences (EEGS) department at Northern Michigan University (NMU) with the intent to use mindfulness as a heart-based (affective) method to support the head (cognitive) and hands (behavioral) in impacting students at the deepest leverage point for change, that of mindset. I looked for evidence of course impact on the Sustainability Mindsets of the twenty-one students enrolled in GC495 through my analyses of data from two final exam essay questions, a mid-semester assignment and a pre- and post- SMI questionnaire.
Chapter 4. Findings

In this study, I designed, taught, and assessed a Mindfulness & Sustainability (GC495) university course with Transformative Sustainability Learning (TSL). As discussed in chapters one and two, previous research studies and, most notably (Sipos, et al., 2008) and Rimanoczy & Klingenberg (2021), found that transformed Sustainability Mindset understandings require the engagement of the whole person (cognitively/head, behaviorally/hands and affectively/heart). Furthermore, it is my hypothesis that mindfulness can serve as a unifying Constructivist conduit for TSL. With these reasonings, I engaged students’ heads, hands, and hearts with mindfulness in Sustainability Education (SE), as a hypothesized model of “a certain kind of education” capable of strengthening the Sustainability Mindset (deepest leverage point) of students. GC495 had four sections to the course which are the same four components of a Sustainability Mindset:

- Spiritual Intelligence;
- Emotional Intelligence;
- Ecological Worldview; and
- Systems Thinking.

Throughout all four sections of the course, I used a mindfulness-based sustainability facilitation method called The Work that Reconnects (WTR) to answer the following research question: What impact does a Mindfulness & Sustainability course have on the Sustainability Mindset of university students?

My findings indicate that students in GC495 were impacted, to varying degrees, across all four components and 12 principles of a Sustainability Mindset. In this section, I will present
the qualitative findings to explore the impact of GC495 in each of the four preset themes: Spiritual Intelligence, Emotional Intelligence, Ecological Worldview, and Systems Thinking. The themes are presented in this chapter in the same order they were introduced in GC495. For further clarification, see the syllabus (Appendix B). For each principle, I will present and describe the data collected from the two final essay questions coupled with students’ growth in the principle from a conventional to a sustainability mindset, and their relative balance cognitively, behaviorally, and affectively in engaging with the principle, as indicated by the SMI results. The data collected from the mid-semester Mindsets assignment is presented and discussed in the component of Emotional Intelligence (the section of the class it was collected in). Finally, in the last section of this chapter, I will share two graphs with some supporting findings from the SMI.

**Spiritual Intelligence**

Spiritual Intelligence was the first part of the course and includes the three principles of Mindfulness, Oneness with Nature, and Purpose. Overall, there were 48 student comments coded into the theme of Spiritual Intelligence.

**Mindfulness**

Student comments highlighted that one of their biggest takeaways from the class was learning to meditate (formal mindfulness). As presented in chapter one, Mindfulness is the practice of bringing compassionate awareness to the present moment, mind, body, soul, others, and earth, and student impact with this was extensive, with 27 student comments coded into this principle. In the words of one student:
This course has had a great impact on me. I’m now into daily formal and informal mindfulness practices that have helped me sleep better and reduced some of my anxiety. The things I have learned have allowed me to be more present and aware of my emotions, as well as inspired me for the future work that I will do in sustainability.

Another student reflected, “I learned how important mindfulness and mindset are in sustainability. I also learned how to meditate, which was nice. I enjoyed learning and practicing various ways to meditate. My favorites would be breathing awareness and mantra. Thank you!” A third student shared this perspective on mindfulness, “I also learned [to] love more intentionally and be in the world in a more heart-led and mindful way.” Finally, I close this principle with a student comment illustrating the power of mindfulness to support the deep work of sustainability, as, “I learned community is important not only in sustainability but also in mindfulness. As environmentalists, it is so easy to burn out if we do not take time for ourselves.”

My findings from the SMI support the impact students expressed with overall class growth in Mindfulness from a Conventional to a Sustainability Mindset. Furthermore, the SMI showed the cognitive, behavioral, and affective components of learning were relatively balanced, with the affective being slightly less developed. What this denotes is that students intellectually and behaviorally formed a solid understanding and application of Mindfulness, with some room to grow in connecting affectively to feelings of this mindset.

**Oneness with Nature**

There were limited student comments related to the Sustainability Mindset principle of Oneness with Nature. A couple students commented on the positive impact of class “field trips,” such as “I was pleasantly surprised by the amount of ‘field trips,’ outdoor instruction, and hands-on education. I’ve learned that there is a community of people close to home that
share my values, which has given me a sense of belonging.” Another student reflected, “I will carry forward slowing down/getting outside more by practicing doing exactly that because it helps me to stay grounded.” Finally, one student proclaimed a newfound sense of Oneness with nature as, “This course has opened me right up to the world.”

My SMI findings indicate that students’ experienced growth in Oneness with nature from a Conventional to a Sustainability Mindset. However, other than a few references to field trips, outdoor learning experiences, and a broad philosophical sense of being ‘opened up to the world,’ the students did not identify exactly what brought this about during the course. The SMI showed the cognitive, behavioral and affective components of Oneness with nature comprehension were relatively balanced, with the behavioral being slightly less developed, which may suggest that students intellectually understood and affectively felt their connection to nature but could improve some in their behavioral enactment of this mindset.

Purpose

Purpose is the passion people feel to do their part to make the world a better place. Student comments in this area seemed to express a strong sense of Purpose at the course’s end. In fact, narratively, 19 quotes were coded to Purpose. Students wrote comments like, “I go forth with a blazing passion to pour my time and energy into healing and change for the benefit of all beings everywhere,” and “This class helped me to identify and have confidence in leading with my strengths and to uplift the light in others every day.” These statements seem to reflect a strong sense of purpose on the part of students, and a final quote ties this sense of purpose to the impact mindfulness-based learning of the class, “I didn’t expect to learn so many methods for meditation nor did I expect to better understand my personal role in healing the world.”
The principle of Purpose was woven throughout GC495 from the first section to the last. Narratively, students expressed deep impacts on their Sustainability Mindsets around Purpose.

My findings from the SMI support the impact students expressed with overall class growth in Purpose from a Conventional to a Sustainability Mindset. Furthermore, the SMI showed the cognitive, behavioral, and affective components of learning were nearly perfectly balanced, which may suggest that students in GC495 reported intellectually understanding, affectively feeling, and behaviorally acting upon their Purpose in this world.

In my findings of Spiritual Intelligence, within the Sustainability Mindset, the principle of Mindfulness demonstrated the most profound gains. The data showed that learning mindfulness (formal/meditation and informal/everything else) and having that be threaded throughout the semester notably impacted students’ Sustainability Mindsets, particularly in Mindfulness and followed closely by Purpose. Oneness with Nature was also impacted but to a lesser extent than Mindfulness and Purpose.

**Emotional Intelligence**

Emotional Intelligence was the second part of the course and includes the three principles of Self-Awareness, Reflection and Creative Innovation. Overall, there were 46 student comments coded into the theme of Emotional Intelligence.

**Self-Awareness**

Students experienced robust impacts on their Sustainability Mindsets in the principle of Self-Awareness with 28 student comments coded under this principle. Self-Awareness clarifies the connections between our inner values (intra-intelligence) and outer community relations and actions (inter-intelligence). In this part of the course, I introduced students to various mindsets (i.e., strengths, growth, sustainability, etc.) through lectures, discussions, and self-
assessment questionnaires. Students expressed appreciation for these mindset exercises in expanding their Self-Awareness. One student remarked, “The results (of strengths and SMI tests) taught me a lot about myself that I can take going forward. The tests also helped me understand my role in the sustainability movement.” Similarly, another student remarked, “This class was my favorite this semester and I learned a lot. I enjoyed taking the strengths-based mindset and SMI test.”

In addition, to learning from assessments, students had a lot to say about their expanded Self-Awareness in relation to our many class discussions with comments like, “I learned how to listen better, hold space, and share more freely,” and “I also learned a lot about the value and importance of community. I feel like I learned so much from my classmates too and felt like they also had so much insight to offer.” This concept of connection/community with peers was so pronounced, it was included as a data-derived codeword for Emotional Intelligence and was particularly affiliated with Self-Awareness. Here, the words of three different students all speak to a similar felt experience around the idea of community: “I expected to learn about community, but I did not expect that we would actually build one in this class. This class has given me 20+ new best friends and I am so beyond thankful for this!” and:

As I have mentioned many times in class, the ability and necessity to hold space for community and open communication really struck me. Learning how to listen and be open to hard conversations is vital if we want to improve our planet for the future.

And finally, “I connected to a strength within myself in this space, through connection with others.” One of the biggest course impacts, as students narratively expressed, was the community of belonging created in the course, which seemed to help support and contribute to
expanded Self-Awareness. The overwhelming insight from this section is that the mindfulness-based community we built as a class taught students about “self” in relation to others.

My findings from the SMI support the impact students expressed with overall class growth in Self-Awareness from a Conventional to a Sustainability Mindset. Furthermore, the SMI showed the cognitive, behavioral, and affective components of learning were nearly perfectly balanced. What this tells us is that students in GC495 reported intellectually understanding, affectively feeling, and behaviorally acting upon their Self-Awareness in this world.

**Reflection**

Reflection is a process of slowing down to consider feelings and inner insights before acting. The narrative support for Reflection was not quite as robust as Self-Awareness, however, it is still present and, as one student remarked, “The things I have learned have allowed me to be more present and aware of my emotions,” which represents a mix of Self-Awareness and Reflection. Another student shared, “I was not quite sure what to expect from this class. I hoped it would be reflective, allowing time to reconnect with our feelings and personal experiences, which it has been.” Specifically, connected to reflections on feelings, students shared how WTR activities on honoring pain helped them to reflect on how they were feeling, and as one student put it, “I have learned how important it is to honor your pain and how I can make a change.”

Another student shared how reflecting on and acknowledging feelings opened a pathway to action for them:

What I didn’t expect to learn is that it’s okay to let things go. The honoring our pain exercise that we did in class was monumental to my journey in going forth with work
[in] the environmental field. I felt that I could finally let things go and see things from a different perspective and actually move forward into action.

The data shows a close connection between Self-Awareness and Reflection as students describe a process of expanding self-awareness through reflecting on personal feelings and sharing and listening for insights within a community of peers.

My findings from the SMI support the impact students expressed with overall class growth in Reflection from a Conventional to a Sustainability Mindset. Furthermore, the SMI showed the cognitive, behavioral, and affective components of learning were relatively balanced, with the behavioral enactment of Reflection still having some room for growth. What this tells us is that at the end of GC495, students reported intellectually understanding and affectively feeling Reflection but could improve some in their behavioral enactment of principle.

**Creative Innovation**

Creative Innovation supports a creative and experimental approach to solving our socio-ecological problems. This principle did not stay relegated to Emotional Intelligence, rather it was found interspersed throughout the four components of a Sustainability Mindset as the creative solutions students came up with in class to solve our socio-ecological crisis. For example, many students lifted food up as a Creative Innovation in sustainability and as one student shares, “One cohesive insight that we continuously discussed as a class was the idea of having power over your own food and where it comes from and what you choose to eat.” As a class, we also behaviorally experienced this innovation and in the words of another student, “[The] potluck was so beautiful because some brought a lot, some brought nothing, and yet all had their full.” Another example of Creative Innovation was from the class barter activity that
everyone took part in, which modeled an alternative form of economics based on creative skill sharing. From this activity, a student commented:

I loved the class barter that (I believe) we all took part in. While it is not historically revolutionary, it felt very hopeful to me. Seeing collective movement of love, sharing, community, and, honestly, bravery, was very healing. I think it stuck with me because it shows how simple and uncomplicated communities can be. It’s demonstrating just how willing and enthusiastic people are to create and share those parts of themselves.

This group demonstrated quite a bit of creativity in response to the “Three Stories of our Time and Mindset” assignment (Appendix B). Figures 10-13 show student art pieces created by four different students and demonstrate creative innovation around one or more of the three stories of our time with an awareness of the mindsets used to create them.

Figure 10. Beach Glass Spiral of The Work that Reconnects
Figure 11. Hand-knit Earth

Figure 12. Reconnect to Circles
The student artwork in Figures 10-13 demonstrates creative ability and even innovation with the explanations behind them. For this assignment, not only did students have to create original art in some form but also present/explain the Creative innovation related to story and mindset behind it. For example, the beach glass of the WTR spiral is not only a colorful nature-based art piece, but it also embodies the Creative Innovation that WTR offers by explaining the four components of the spiral method for reconnecting to ourselves, one another and the Earth, as a group process to utilize while problem solving. The hand knit Earth was part of a skit, where the student told us all a story about Earth, from Business as Usual, then the Great Unraveling, and ending with the innovative solutions of The Great Turning. Finally, the two paintings both have at their core the innovative solution to lead with love to heal ourselves, one another, and the Earth. These pieces were not the only ones shared and this activity was a highlight in demonstrating Creative Innovation for the semester (Appendix B, Lesson #14).

My findings from the SMI did not align with the impact students expressed in the principle of Creative Innovation with no class growth from a Conventional to a Sustainability
Mindset. The SMI showed the cognitive, behavioral and affective components of learning were somewhat unbalanced, with the cognitive understanding of this principle being high and behavioral enactment not far behind, but the affective feelings related to this principle were lacking for the group, which may suggest that by the end of GC495, students reported intellectual understanding of Creative Innovation with some behavioral enactment of this mindset but limited feelings to support this principle.

Regarding the qualitative findings in the theme of Emotional Intelligence, the Sustainability Mindset principle of Self-Awareness in the context of a mindful community had the most notable impact on students’ Sustainability Mindsets. This was followed closely with a strengthening in the principle of Reflection. Students also expressed impact in their Creative Innovation through many of their solutions-based group work, and Mindsets assignment, however, the SMI findings showed no growth in Creative Innovation and a lack in affective (heart) learning for this principle.

**Ecological Worldview**

Ecological Worldview was the third part of the course and includes the two principles of My Contribution and Eco-Literacy. Overall, there were 32 student comments coded into the theme of Ecological Worldview.

**My Contribution**

My Contribution refers to students identifying their unique role in the sustainability movement and how they can have an impact in it. The Constructivist circular power structure of GC495, which was shown to empower students to explore and construct their lives and modes of contribution, was expressed by one student in this way:
I knew I would learn about mindfulness and its connection to sustainability (which I now know is that we need to heal ourselves to heal the world), but what I was not expecting was the profound impact community has on creating change, how collective change cannot happen without individual effort.

Another student shared, “I will carry with me every day the reminder that individual, ideological, and energetic efforts are needed and matter alongside the crucial systemic change.” My Contribution is closely related to the Spiritual Intelligence principle of Purpose, meaning we need to discover our deepest passions (Purpose) to understand how they might serve to make the world a better place (My Contribution). A student expressed the connection between Purpose and Contribution this way, “I didn’t expect this class to provide such beautiful fuel to begin concrete moves towards a healing and sustainable future.”

Comments about My Contribution were often made by students within the context of Ecological Worldview when they discussed the ‘sister principle’ of Eco-literacy. For example, evidence of combining an understanding of My Contribution with concrete actions that can be taken in Eco-Literacy is expressed through comments like, “I really want to get more involved with the community such as through established community gardens and participating in community clean-ups” and “I plan on establishing foraging classes in our area.”

The findings from the SMI support the impact students expressed with overall class growth in My Contribution from a Conventional to a Sustainability Mindset. The SMI showed the cognitive, behavioral and affective components of learning were unbalanced with strong affective and behavioral understandings but a weak cognitive grasp of this mindset principle. This suggests that students in GC495 reported affectively feeling and behaviorally acting on
their Contribution in this world but lack some intellectual (cognitive) understandings of what this means.

*Eco-Literacy*

Eco-Literacy means understanding our socio-ecological crisis, how its many facets are interrelated, and consequently, what some of our most promising solutions are. Narratively in GC495, student understanding of Eco-literacy is expressed most notably in relation to the central role food and environmental education play in solving our socio-ecological crisis. Students in GC495 understood the centrality of food and environmental education in sustainability (two solutions SE regularly teaches) so that in group discussions, these were the solutions students most often raised. This is not to say that these are the only sustainability solutions an Eco-Literate person would come up with but for this group of students these two solutions dominated our Freirean Constructivist dialogues.

An example of a student noting the importance of focusing on food to help solve our socio-ecological crises included the following, “I think it was really inspiring to see so many of my classmates’ taking matters into their own hands and dealing with today’s food crisis by baking their own bread, cultivating their own garden, or shopping locally.” Yet another student said, “I still think about the food collaborative demo we created. With food as my biggest passion in sustainability, I think that a project like this could be incredibly healing to communities everywhere.” The food collaborative demo mentioned in the above quote was included in one of the final Great Turning Projects. This group had the idea that groups of people could hold weekly meetings to learn and discuss issues of sustainability, always with a potluck, and for their whole-class presentation, we did indeed have a bountiful potluck (Appendix B). As evidenced by the comments from this section, it was the inspiration students took from hearing
about their classmates’ actions around sustainable food choices as well as student-led projects that impacted students the most.

Environmental education was another applied sustainability solution that students referenced when asked, ‘What was a powerful group insight/solution we came up with as a class to heal our socio-ecological crisis? Why do you think this solution stuck with you and how will you carry it forward after this class ends?’ One student reflected:

My group presentation was Fear for the Future. We proposed the idea of opening more environmental and ecological education opportunities for children. There are already hundreds of forest schools out there, and there are statistics showing how beneficial this learning style is. I have made it my life goal to open my own forest school.

Another student shared, “Increase in nature-based learning. Children hold the way to the future.” Yet another said, “Nature classes for kids! I think that this idea will inspire new generations to care for our Earth and help each other.” Environmental education came through as an unexpected yet passionately felt impact from GC495 that appears to have helped to strengthen the Eco-literacy mindset of students.

The findings from the SMI support the impact students expressed with overall class growth in Eco-literacy from a Conventional to a Sustainability Mindset. The SMI showed the cognitive, behavioral and affective components of learning were nearly balanced at the level of affective (heart), behavioral (hands) and cognitive (head) learning. What this tells us is that students in GC495 reported affectively feeling, cognitively understanding, and behaviorally acting upon their Eco-literacy mindsets.
Overall, the results for Ecological Worldview highlighted the connection students saw between personal responsibility and empowerment (My Contribution) to issues of sustainability (Eco-Literacy). As one student put it, “I learned how I could find my place in the environmental movement.” More specifically, data showed that many students in GC495 learned that part of their contribution to sustainability was to support sustainable food/agriculture, environmental education, and community connections/resilience. Students expressed expanded insights through learning from peers and the collective wisdom created through class discussions and hands-on group projects.

**Systems Thinking**

The principles in Systems Thinking lend themselves to fitting under more than one category or principle because thinking in systems implies interconnectivity. Therefore, it was no surprise that the findings in Systems Thinking included overlapping principle and component comments, which will be discussed below. Overall, there were 30 coded comments related to Systems Thinking and nearly every one of them was placed under at least two different principles.

**Flow in Cycles**

According to the SMI, Flow in Cycles is an awareness of the cyclical rather than linear nature of life, so that everything flows in cycles of birth, growth, death, and rebirth. Flow in Cycles was narratively expressed by students in their acknowledgement of the importance of mindfulness as a practice that taught them to slow down (aka adopting a more natural flow in cycles pace). “This course taught me to slow down. It has had an enormous impact on my personal growth, as well as professional, by mostly coming from and having gratitude for others and for opportunities that I’m able to experience.” A second student quote embodies the
This course has impacted me a lot. In a stressful, busy college schedule this class felt like a breath of fresh air. I feel like I learned how to slow down a bit more and to be more where my feet are. I learned how to actually meditate – something I’ve done before but never felt like I was fully understanding, being consistent with, and getting benefits from. I think I learned a lot about meditating, slowing down, [and] how mindfulness is important in the sustainability movement.

The data showed that mindfulness supported the experience of Flow in Cycles as an awareness and feeling of slowing down to a more natural flow in life, along with some comprehension of why slowing down is important for the sustainability movement.

SMI Findings: Flow in Cycle. The findings from the SMI support the impact students expressed with overall class growth in Flow in Cycles from a Conventional to a Sustainability Mindset. However, the SMI showed the cognitive, behavioral, and affective components of learning were extremely unbalanced with the cognitive understanding of this principle being strong but the affective and behavioral both weak. There is data to support that students in GC495 reported cognitively understanding but not affectively feeling or behaviorally acting upon their Flow in Cycles mindsets. From this data, we can surmise that perhaps, cognitively grasping the benefits of slowing down to a more natural pace is one thing, but acting upon and feeling into that understanding are not necessarily as easily done in modern society.
Interconnectedness

Interconnectedness is an understanding that we are all different yet connected to a larger whole (Rimanoczy, 2021). Many students expressed a heightened sense of interconnectedness with community with thoughts like, “I learned that even if I ever feel alone in this work, that I am not…. I’m surrounded by support,” and “Remembering and maintaining a sense of connection is necessary for the Great Turning.” Both student comments speak to a holistic perspective that people can be united by a sense of connected belonging in the Great Turning of our time. Another student voiced expanded understandings around diversity that emerged from seeing Interconnectedness as, “I will carry this forward by using food in all its forms to bring diverse viewpoints to the table and find common ground, building bridges and community!”

The findings from the SMI support the impact students expressed with overall class growth in Interconnectedness from a Conventional to a Sustainability Mindset. The SMI showed the cognitive, behavioral, and affective components of learning were unbalanced with the affective and behavioral components of this principle being strong but the cognitive understanding of this principle weak. What this tells us is that students in GC495 reported affectively feeling and behaviorally acting upon their Interconnectedness mindsets but need to expand their cognitive-based understandings of this mindset.

Both-And

According to the SMI, Both-And thinking allows space for paradoxes and differences in perspective which requires creative solutions that are inclusive for all. As with other principles in Systems Thinking, Both-And thinking was found interconnected to other principles in the data. In GC495, everyone’s perspective was valued and not only did students say it was
healing to be able to share publicly, but the sharing helped provide insight into different perspectives and experiences, so that both my perspective and your perspective coexist, are real and of value (Appendix B, Lesson #12).

In this principle, most impact on students seemed to come from class discussions, which made it possible for students to practice Both-And thinking by both sharing their perspective and listening to others as a process of learning to work together. Students made comments such as, “[I learned] the importance of working together from this class,” and “I loved how we worked with everyone individually and were able to all share ideas.” Additionally, a student reflects Both-And thinking with its quintessential understanding that all voices need to be valued and inclusively respected through this comment, “I think I will take this with me after class to feel more like I have a voice and to speak out when injustice is occurring.”

SMI Findings: Both-And. The findings from the SMI support the impact students expressed with overall class growth in Both/And thinking from a Conventional to a Sustainability Mindset. The SMI showed the cognitive, behavioral, and affective components of Both/And learning were nearly perfectly balanced. What this tells us is that students in GC495 reported affectively feeling, cognitively understanding, and behaviorally acting upon their Both/And thinking mindsets. While this principle saw some growth, it remained relatively low on the SMI for students. This seems notable because social justice and considering diverse perspectives are key tenants of sustainability education.
**Long-Term Thinking**

Long-Term Thinking is understanding that oftentimes, our actions have long-term rather than immediate effects that are important to consider. There were only a few student comments to “Long-Term Thinking.” The impact students expressed with this principle was found connected to class concepts such as:

I saw the deep-rooted connection between being mindful and being sustainable. I did not expect to learn about the stories of our time and the spiral, but I am so very glad I did. This is because I have never learned or heard about those ideas before. They are so fundamental to this great turning.

Another student expressed an expansive sense of Long-term thinking as, “Now I can see how my actions/efforts play into the big picture.” The limited student comments in the mindset of Long-Term Thinking suggests that there was not much impact in this mindset principle.

Despite limited student comments about impact in this area, findings from the SMI illustrate class growth in Long-Term Thinking from a Conventional to a Sustainability Mindset. The SMI showed the cognitive, behavioral, and affective components of Long-term thinking were nearly perfectly balanced. What this tells us is that students in GC495 reported affectively feeling, cognitively understanding, and behaviorally acting upon their Long-term thinking mindsets.

Student narrative and the SMI findings were helpful in uncovering how students were impacted in the Sustainability Mindset component of Systems Thinking. All four principles in this component showed growth as illustrated in student comments and the qualitative results.
of the SMI. In particular, the data showed some emerging understandings pertaining to community (learning from diverse perspectives) and slowing down (mindfulness).

**SMI Results**

The pre- and post- Sustainability Mindset Indicator (SMI) questionnaire was a useful tool that complemented the narrative accounts of students and helped to answer my research question on course impact on students’ Sustainability Mindsets. I did not use the numbers in my analysis due to the lack of statistical significance with my small class of 21 students, however, a graph of the findings is provided below as a reference to the SMI indicators of growth narratively described in each principle.

Figure 14. SMI Impact

![Comparison Pre/Post](image)

The 12 principles of a Sustainability Mindset are presented showing the aggregated pre- and post- SMI scores for students in GC495. The graph shows the highest possible points and where the students are on the continuum from a Conventional (0 points) to a Sustainability
Mindset (60 points) pre- and post-course. The only principle on the SMI results that did not show a gain was Creative Innovation, which remained the same across pre- and post-course scores. One student did not take the pre-questionnaire so the impact of the course on their Sustainability Mindset can only be explored narratively from the end of semester assessment questions.

The SMI also looks at the impact on Sustainability Mindsets holistically at the level of cognitive (head), behavioral (hands) and affective (heart), which the below graph illustrates. As discussed throughout this chapter, part of my analysis was to include how students were grasping learning in each of the three aspects necessary for TSL.

Figure 15. Balance of TSL

Figure 15 shows the aggregate impact over all 12 principles of a Sustainability Mindset in relation to head, hands, and heart. The graph shows that students were engaged cognitively, behaviorally and affectively in GC495. Hands-based learning was most pronounced, followed by heart and finally, head. Looking from a bird’s eye view of the aggregate scores, the post-
SMI scores show that students have grown and were a bit more balanced in their understanding of the 12 principles at the level of head, hands, and heart at the end of the course. It is important to note that the SMI assesses cognitive, behavioral, and affective engagement in separate questions for each principle, so when looking at specific students or specific principles, as we did in this chapter, the balance can be more variable.

**Summary**

I intentionally designed GC495 with UbD to engage students at the level of head, hands, and heart in the hopes that my students would have a Transformative Sustainability Learning (TSL) experience capable of impacting their Sustainability Mindsets. In analyzing the qualitative findings from two end of semester student narrative impact questions, a Mindsets assignment, and from pre- and post- SMI questionnaires, it appears TSL occurred for students with a strengthened Sustainability Mindset in all 12 principles. Overall, it appears Spiritual Intelligence experienced the greatest impact from GC495, followed closely by Emotional Intelligence, then Ecological Worldview and finally, Systems Thinking.
Chapter 5. Discussion, Conclusions, & Recommendations

Both ...

Tell me the story...the story of where we are and how we got here and the characters and roles that we play. Tell me a story, a story that will be my story as well as the story of everyone and everything about me...a story that brings the human community with every living being in the valley, a story the brings us together under the arc of the great blue sky in the day and the starry heavens at night (Berry, 1988, p. 123).

… and tell me many embedded and diverse stories too, so that,

Beloved community is formed not by the eradication of difference but by its affirmation, by each of us claiming the identities and cultural legacies that shape who we are and how we live in the world (Bell Hooks, 2012)

I designed Mindfulness & Sustainability (GC495) to engage students at the deepest leverage point for change, the level of mindset, where stories about the meaning of life and the values to live it well are formed. If we are going to save humanity and Earth from the extensive socio-ecological crises threatening our very survival (The Great Unraveling), we must change our story. We must abandon the false story of modern industrial society that hierarchically separates and simultaneously homogenizes (Business as Usual) and shift to a new story capable of both unifying and diversifying (The Great Turning). I organized the course into four sections, which are the same four components of a Sustainability Mindset (Spiritual Intelligence, Emotional Intelligence, Ecological Worldview, and Systems Thinking); Mindfulness (formal meditation and informal Work that Reconnects (WTR) activities and content); and a Constructivist circular power structure based on acceptance, respect and a growth mindset were the foundational anchors in GC495.
In this final chapter, I will discuss the relevance and contribution of this study through my TSL theoretical lens and scholarly predecessors. I will provide my conclusions from the data and their implications for mindfulness in SE. I will provide recommendations for instructors/departments interested in incorporating mindfulness into SE as I have done in GC495. I will provide evaluations and suggestions for building on the research I have conducted in this study. I will also share limitations of utilizing mindfulness in SE and conclude with some final thoughts.

**Discussion**

The theoretical framework of this study is based on the work of Sipos, et al. (2008) and the three-pronged (head, hands & heart) approach regarding the impact of a Transformative Sustainability Learning (TSL) experience. TSL is the foundational theory guiding this study with the presumption that impacting people at the deepest leverage point for change, that of mindset, requires transformative learning that teaches to the whole person (head, hands & heart) with enough impact to change a person's mindset/values. Likewise, the SMI recognizes that to impact a person’s Sustainability Mindset, you need a multi-sensory approach to learning and an assessment that measures impact at the level of cognitive (head), behavioral (hands) and affective (heart). The data from chapter four, including narrative accounts of how students believed themselves to be impacted and their pre- and post- SMI responses, illustrated that students who took GC495 experienced TSL (cognitive, behavioral and affective holistic impact) towards strengthened Sustainability Mindsets.
In Figure 16, I took my theoretical framework of Transformative Sustainability Learning (TSL) and its three components of head, hands and heart, as outlined by Sipos, et al. (2008) and overlayed parts of my curriculum along with some qualitative data into the model to further illustrate the story of TSL in GC495. It is important to note that GC495 was aligned to the model of TSL with one emergent contribution to deepen the work, which is that this study found that mindfulness supports relational meaning making in community.

**Head, Hands & Heart**

All the instructional strategies used in the course were chosen with the intent to ensure that students had opportunities to engage with course material cognitively, behaviorally, and affectively. To summarize this intent, the head was engaged with readings, lectures, and critical
thinking activities; the heart with meditation, mindfulness and WTR activities; and the hands with meditation, various field trips, and skill-based assignments (i.e. Mindsets assignment and Great Turning Project). All these components provided a learning environment supportive of TSL. Refer to chapter three for a thorough explanation of how I designed my curriculum and instruction to support cognitive, affective, and behavioral learning.

**Mindfulness Supports Meaning Making in Place-Based Community**

It is key to highlight what Sipos, et al. (2008) called “place” and this study uncovered as “community,” both speak to the necessary context for this whole-person engagement to be explored and meaningfully integrated. Sipos, et al., (2008) led with two premises: first that “students’ localized places of study, work and recreation are the centers of their experiences that help teach them how the world works and how they fit into that world” (p. 70) and second, “that colleges and universities can take an active role as centers in both inquiry and action in local, regional, and global spaces” (p. 70). All three aspects of TSL learning: cognitive, behavioral, and affective require the place-based context to grow. Furthermore, Singleton (2015) elaborated on the TSL model to further explain that it is in the domain of heart that the development of relational knowing in the context of place/community is explored and developed.

This study took the significance of place one step further and found that mindfulness, within the heart-based domain, was able to connect all three aspects of TSL and both strengthen and support relational meaning making within place-based community learning. Students had a lot to say about the impact of mindfulness and heart-based learning, and I found that it was this thread of mindfulness that nurtured a safe learning space for students to engage at all levels of being. Both the student's narrative accounts and the SMI findings show that mindfulness within the context of community supported this whole person learning capable of impacting
them at the deepest level of mindset. Therefore, the community context must not be overlooked as a salient piece to the TSL model and what happened in GC495.

The Scholarly Community of this Study

I found that student comments and the Cognitive (head), Behavioral (hands) and Affective (heart) (CBA) findings from the SMI show that students’ understandings of sustainability principles are actively balanced, which supports my intentional instructional design, to include all three. This intentional design for TSL confirms and strengthens the work of Sipos, et.al., (2008), Redman & Larson (2011) and Rimanoczy & Klingenberg (2021), who have proposed that a holistic head, hands, and heart approach to deep learning is effective for TSL. Furthermore, this study builds on the important foundational work of Meadows (1999) and Orr (2004) who found teaching to the deepest level of mindset is a necessity in SE. This study provides an example of a university course capable of accessing deep leverage points in SE for transformed Sustainability Mindsets. Additionally, this study supports and is consistent with the work of others engaged in the important intersection of mindfulness and SE, such as Wamsler (2018) and Ives (2020), in that it illustrates the power of mindfulness in supporting mindset learning for sustainability.

Finally, this study supports expanding the work of WTR into higher education because it demonstrates that these mindfulness-based methods for group sustainability learning can be effectively applied, not only at the community level but also in the university classroom. WTR network provides a directory of scholarly-based research, which is predominantly community-based, such as (Brown, 2020) that used a phenomenological inquiry on the benefits men receive from WTR and (Chesnut, 2022) who interviewed WTR facilitators to understand how
WTR is used to work through the difficult emotions that come with our ecological crises. Furthermore, institutions of higher education, such as Napora University, Schumacher College, and the California Institute of Integral Studies, are beginning to integrate WTR. Therefore, this study expands the discussion of WTR in higher education literature, which can serve to support its continued growth in academia.

Conclusions

In analyzing the data, I was able to answer my research question, which was: What impact does a *Mindfulness & Sustainability* course have on the Sustainability Mindset of university students?

In my discussion of the three most significant findings from this study below, I will explain the impact mindfulness had on my students’ Sustainability Mindsets. Mindfulness in Sustainability Education (SE) can strengthen Sustainability Mindsets, particularly with the WTR facilitation method. Community within the classroom and in the broader place-based context is the foundation for meaning making and skill-building capable of impacting Sustainability Mindsets.

The Sustainability Mindset Indicator (SMI) is a useful tool in Sustainability Education (SE) to measure and understand how the curriculum and instruction we implement can impact students' mindsets. The exploratory qualitative findings presented in chapter four showed students who took *Mindfulness & Sustainability* (GC495) moved from a conventional to a sustainability mindset in all 12 principles of a Sustainability Mindset, to varying degrees. Mindfulness was woven threadlike throughout the course as a mindfulness-based approach to Transformative Sustainability Learning (TSL). Every class involved both formal (meditation) and
informal (i.e., WTR mindful activities, reflection, active listening, etc.) mindfulness techniques. This focus on meditation and mindfulness impacted students’ Sustainability Mindsets, particularly throughout the category of Spiritual Intelligence in the principle of Self-Awareness in the category of Emotional Intelligence, and My Contribution in the category of Ecological Worldview. In the subsections below, I will first address mindfulness in SE and how it was shown to strengthen mindsets and then I will address how WTR supports this.

Mindfulness in SE Can Strengthen Sustainability Mindsets. This study found that mindfulness in SE can strengthen Sustainability Mindsets. More specifically, it was uncovered that mindfulness served as a catalyst for safe relational exploration of mindsets within the context of a community of sustainability learners. The results from this study pertaining to the ability for mindfulness to provide a connection between personal, community, and planetary well-being builds on and strengthens the literature in chapter two on mindfulness in SE and particularly the work of Wamsler (2018). This connection between personal and planetary well-being was lush in the data. Additionally, this research supports Rimanoczy & Klingenberg (2021) in identifying Mindfulness as one of the principles of a Sustainability Mindset and provides some insight around the potential for this principle to impact other principles as well.

In addition to measuring pre- and post- impact on the 12 principles, the SMI examines the three components of whole person learning: cognitive (head), behavioral (hands), and affective (heart). It is notable that the affective and behavioral components were slightly more impacted than the cognitive component, which demonstrates the potential for mindfulness to support TSL and balance the heavy cognitive emphasis in traditional instruction. The contention of this research is that engaging only the head, or even just head and hands, is not enough to create the TSL needed to impact a person at their deepest leverage point for change, mindset.
Therefore, the results show that a desired goal of implementing this mindfulness curriculum, which was to impact students Sustainability Mindsets with relatively equal amounts of head, heart, and hands engagement, was achieved.

WTR provides useful methods for facilitating Mindfulness in SE. As discussed throughout this study, The Work that Reconnects (WTR) is a mindfulness-based facilitation method designed to reconnect people to themselves, others, and Earth. I am a WTR facilitator, and I used many of the methods/activities from this body of work along with its guiding principles to teach mindfulness in SE. I found the WTR concepts of power with rather than power over, the three stories of our time, and activities involving some or all aspects of the spiral method of engagement (gratitude, honoring our pain, seeing with new eyes and going forth) particularly important (I also included aspects of the expanded spiral: self-awareness, understanding oppression and liberation). I engaged these practices to be key leverages in impacting student mindsets and the results show that the WTR foundational frameworks of group work empowerment had the impact that the TSL literature calls for.

Much of the student narrative from chapter four references how the students felt particularly impacted by the methods and activities of WTR. Ultimately, WTR is a rich resource and complement to formal mindfulness meditation with the integration of the informal aspects of mindfulness (i.e., active listening, collaboration, deep time visioning, connecting to nature, understanding and exploring the power of story/mindset). The required text for the class was a WTR classic, Active Hope, and in it the key concepts and group work processes of WTR are explained. This could be a helpful tool for instructors that would like to incorporate mindfulness into SE but do not know where to start.
Community within the classroom and in the broader place-based context was the foundation for meaning making and skill-building capable of impacting Sustainability Mindsets.

Community belonging was important to students and impacted their mindsets through the process of mindfulness-based conscientization (critical consciousness), which entails students reflecting, sharing, listening, and working together to form collective sustainability insights with actionable agendas. There is evidence from this study that mindfulness can strengthen the core sustainability competency of collaboration, through its compassionate approach to bringing awareness to self, others, and Earth, which is essential to creating community.

Community belonging was important to students and impacted their mindsets. Just as I believe mindfulness to have played an essential role in strengthening mindsets across all principles, I also found community to be an essential relational container for the deep meaning making necessary for impacting a Sustainability Mindset. The literature supports the importance of community context in sustainability learning with both TSL and the sustainability competencies holding community collaboration as foundational to the learning process (Singleton, 2015; Sipos, et.al., 2008; Weik et.al., 2011). In my analysis of the results and the supporting literature, I found mindfulness-based community collaboration provides a safe and authentic context for exploring the deepest realm of values and affecting impact at the level of mindset skills and dispositions.
Figure 17 shows the original four components of a Sustainability Mindset, in blue, with the 12 principles italicized just outside of their associated component and derived from the research of Rinanoczy & Klingenberg (2021). The head, hands, and heart are at the center of the learning process. Additionally, this figure shows community of belonging (at the center of learning) and Mindfulness, represented as both an existing principle of Spiritual Intelligence, and threaded throughout all four components. In my analysis of the data, I found references to this idea of a mindfulness-based community that was narratively foundational throughout all four components and multiple principles.

Community of belonging can facilitate meaning making. The results indicate a community of belonging facilitates meaning making throughout all components of a Sustainability
Mindset and this was supported in the literature, pedagogical approaches and affirmed through student comments. GC495 was designed intentionally with baseline philosophies such as Freire (1968) conscientization (non-banking education) and Noddings (1988) ethics of care, and likewise WTR is very much a group mindfulness-based sustainability process that embodies this authentic and inclusive type of learning. The results demonstrate the impactful learning that took place in GC495 was largely due to how my students and I created a mindful community. According to one student, “I looked forward to coming to class every day and there was a strong sense of community that you do not find in many other class settings.”

One of Leopold’s (1949) big insights into how as a society we make the shift ethically to embrace all of nature was the concept of community. Leopold (1949) stated, “All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts (p. 203).” At the end of the land ethic Leopold instructed his readers to go forth in the cultivation of the extension of ethics “as a product of social evolution because nothing so important as an ethic is ever ‘written’ rather, “it evolve[s] in the minds of a thinking community” (p. 225). GC495 was an example of ethics (Sustainability Mindsets) evolving in the minds (hands and hearts) of a thinking community.

In addition to the community created within our classroom (whether indoors or outdoors), the findings indicate that a community of belonging can extend beyond the classroom context with impactful results. For example, it felt like an authentic TSL experience on the farm field trip, where after walking the farmer’s property with him, we harvested squash and sunshine, as we were connected to the land (literally on our hands and knees harvesting) and connected to a real community member with ecological ethics, knowledge, and skills to share.
with us. Similar experiences of community to the farm visit were had at the music festival we attended, the local meditation group, the yoga studio, and the forest.

The SMI proved to be a useful tool in uncovering the pre- and post- Sustainability Mindsets of students in this study. The SMI qualitative findings, along with the narrative data provided in student comments, helped me to answer my research question and determine course impact on Sustainability Mindsets. The SMI also provided a useful tool for measuring the impact of instruction. The SMI provided more insight into how the 12 principles in a Sustainability Mindset were impacted by my course instruction of mindfulness in SE. It was helpful in GC495 to use the SMI to see where students were most competent and where there was room for growth. Therefore, I see potential for SE departments and possibly across college disciplines, to use the SMI to gauge the degree to which the curriculum and instructional strategies they are implementing are teaching their students the skills and mindset qualities needed to address issues of sustainability.

The SMI results can be helpful for affirming the use of certain instructional approaches when the post-scores are higher or notably higher than pre-scores, especially if impact on specific principles is desired. In my own study, it was clear that the mindfulness instructional strategies I utilized had a strong impact on student mindsets. This was particularly true in Spiritual Intelligence, which was overall the most impacted component and includes the principles of Mindfulness, Purpose, and Oneness with Nature.

The analysis of the data also showed that GC495 instructional practices notably impacted Self-awareness in the component of Emotional Intelligence and My Contribution in the component of Ecological Worldview. I see it as no coincidence with Mindfulness as a practice of cultivating heightened awareness to self and life, that the principle of Self-Awareness saw
notable gains, and this is something that the SMI was helpful in affirming. The results also showed impressive gains in the principle of My Contribution, which aligns with Mindfulness and Purpose, in that it often leads to inspired contribution. The fact that the SMI results were so helpful in illuminating the impact of mindfulness instructional practice on my students’ Sustainability Mindsets tells me that the SMI is a versatile tool that can be used by other instructors and programs to assess their own instructional practices in sustainability.

The SMI can help identify which mindsets have the most room for growth. The SMI can be used to identify which mindsets/principles score low and/or are not impacted by instruction. For this study, it is important to take note that the three lowest scoring principles both pre- and post-SMI were Both-And, Flow in Cycles, and Interconnectedness. Notably, all of those were in the component of Systems Thinking. Because Systems Thinking is a core understanding of Sustainability Education, the low pre-SMI scores in a class of sustainability majors indicates the need for greater emphasis on Systems Thinking in the Sustainability Education program. However, a larger-scale application of the SMI for all SE majors would help illustrate how well the department is teaching these principles.

Although the post-SMI scores in Systems Thinking were the lowest of all four categories in the study, the results still showed that the mindfulness curriculum supported growth in Systems Thinking. The identification of strong and weak areas within Sustainability Mindsets can help instructors and administrators study impacts across students, classes, and programs. The SMI results may also help to identify where there is a misalignment with the way SE teaches mindsets like Systems Thinking and the way the SMI measures it.
Implications and Recommendations

This study produced three recommendations, which have implications for mindfulness in SE and the utilization of the SMI in as follows:

Mindfulness should continue to be utilized to positively impact Sustainability Mindsets in SE. Practitioners must build community to successfully teach mindfulness in SE. More research into the application of the SMI for instructional purposes and support is needed for effective implementation. Mindfulness should continue to be utilized to positively impact Sustainability Mindsets in SE.

The findings of my study indicate that integrating mindfulness into sustainability curriculum can positively impact students’ Sustainability Mindsets. While the impact of mindfulness varied across Sustainability Mindset categories and principles, all 12 principles were positively impacted in GC495. Therefore, I recommend that mindfulness continue to be utilized to positively impact Sustainability Mindsets in SE. Practicing mindfulness in a community of sustainability learners is best done both with formal mindfulness practices (meditation) and informal mindfulness practices (e.g., active listening, deep reflection, embodied learning, etc.).

I recommend beginning each class with meditation, as we did in GC495. Students look forward to it, learn to expect it, and it sets the stage for informal mindfulness-based sustainability work to come after. Mindfulness in SE, as taught in GC495, showed the power of heart when combined with head and hands. Truly, there is no way into that deepest leverage point of mindsets if the head, hands, and heart are not included in learning. As outlined in this study, mindfulness practices can engage the whole person in learning for TSL capable of impacting Sustainability Mindsets, and as such should continue to be utilized in SE.
The Work that Reconnects (WTR) is a fully developed framework that can help instructors implement mindfulness in SE. WTR provides great potential for improving SE pedagogy with a rich body of activities and resources to engage groups in mindfulness-based sustainability (free online and in books). There are also many WTR courses that vary from a one-time 3-hour workshop to a 6-month course, usually for a fee. For those interested in using the WTR framework, I recommend taking a class that offers a full spiral of experience (coming from gratitude, honoring your pain, seeing with new eyes, and going forth). Participating in a WTR workshop can offer an experience with the potential transformative power found in these practices that words just cannot do justice. There are two major texts that explain and support WTR. The first is, *Active Hope*, which provides overarching contextual philosophies of WTR/mindfulness-based sustainability and the second is the WTR guidebook, *Coming Back to Life*, which offers an abundance of WTR activities, that ideally students would draw on for projects and class assignments. For those interested in implementing mindfulness and WTR, I recommend the use of both texts.

Practitioners must build community to successfully teach mindfulness in SE. Students need a safe environment for getting to the deepest leverage point of affecting mindsets. The qualitative findings particularly emphasize that when mindfulness is taught, it is important to create a safe and inclusive community so that students feel comfortable and accepted exploring and sharing their thoughts, feelings and values. WTR along with the many other Constructivist pedagogies referenced in the literature review can be helpful in facilitating a safe community environment for mindfulness-based learning in sustainability.

The inclusive practices and open sharing that occur within a safe community (in and beyond the classroom) are key to the collaborative meaning-making that can occur related to
Sustainability Mindsets. Furthermore, as this study demonstrated, it is in the context of a thinking and inclusive community that the cultivation of ethical/values/mindset exploration and growth takes place (conscientization). This study provides examples of extending community beyond the classroom to include place-based settings in the local community. The possibilities for community engagement are vast and need not be prescribed, and, in fact, I would suggest looking into local happenings to identify possible community experiences for mindfulness-based sustainability classes (which is what happened with the music festival in my course). If possible, I recommend including a potluck with a mindfulness in sustainability class because foods and the ways we eat are so central to personal, community and planetary healing, not to mention fun!

This course should be offered again with a similar research question and pre- and post- SMI, but this time have students in another sustainability class and perhaps another class outside of sustainability take the same pre- and post- questionnaire. In this way, you would be able to better understand and appreciate the impact Mindfulness & Sustainability has on a Sustainability Mindset in comparison to other classes. Furthermore, there is potential for SE departments to utilize the SMI to gauge what aspects of a Sustainability Mindset their students most need to strengthen and from this develop new courses.

More research, both qualitative and quantitative, is needed to identify how the SMI results can help instructors develop and revise sustainability instruction and how to identify desired score and growth goals to indicate targeted sustainability learning. As an instrument for assessing mindset growth, it has complexity, which can be good, but for the typical instructor, it may be difficult to interpret results in a way that would be helpful for developing and revising their own curriculum and instruction. More research also needs to be done to highlight
how the SMI might be used to assess individual students, courses, and programs. There is potential for SE to explore how best to leverage TSL and mindsets with the help of a well-developed and perfectly aligned tool like the SMI. I think there is great potential for researchers in SE to continue to use the SMI to study where learners are with their Sustainability Mindsets and how best to strengthen the 12 principles (cognitively, behaviorally, and affectively).

**Limitations**

This study has limitations for continued use and expansion. First, SE operates within the modern industrial paradigm with a propensity for a lopsided cognitive based “banking system” approach to education. This paradigm will not work to teach mindfulness in SE because mindfulness is inherently a heart-based approach to learning that requires the engagement of the whole person, so beyond just the cognitive. Related to this, is the lack of mindfulness-based experience among SE professionals. SE touts the need to go as deep as values but rarely ever does.

Second, it is also important to note that harm can be inflicted if students are asked to share values and mindsets, without the thoughtful creation and facilitation of a safe learning community. Therefore, another limitation, connected to the “banking system” of education is that many instructors are not properly trained to facilitate this type of collaborative group learning. Without proper training, SE educators will lack the necessary understanding of mindfulness in SE and how to effectively and safely integrate it. This study supports the findings of WTR, that inclusive learning practices are essential to safely facilitating WTR, and when not facilitated with inclusive care, harm can be caused. As discussed in chapter two, WTR is expanding the spiral to be more inclusive. This research was conducted with the original unex-
panded spiral (as the beginning plans for expansion and the offering of this course were happening simultaneously). However, I was aware of this, and I also hold a pedagogical passion for inclusive learning that I’ve discussed throughout this work, most specifically with influences from Freire, Hooks, and Noddings. Additionally, WTR social justice leader was a guest speaker in GC495 and discussed and facilitated the importance of the spiral's expansion. The expanded spiral includes locating self and social awareness at the beginning of the spiral process to hold space for all voices, with an emphasis on acknowledging the marginalized, global majority and connected to this understanding and discussions on oppression within “Business as Usual.” Then at the end, before “Going Forth,” the concept of “Liberation” is brought into the spiral to consider what this means for us individually and as an inclusive and equitable whole. With this, it is important to take special notice of the inclusive learning practices embedded within this study as essential to creating a safe learning environment for TSL to take place.

**Summary**

The world needs mindfulness in Sustainability Education (SE) to continue to expand in teaching and research. The results from this study are promising because it was found to support a “certain kind of education” capable of impacting students at the deepest leverage point possible, for a strengthened Sustainability Mindset. The task before SE is to dismantle the delusion of dualism and heal our interconnected selves (mind, body, soul), communities, and Earth. Likewise, I hope that this study serves as an inspiration and pedagogical guide to engaging the whole person in mindfulness and community-based learning for a healed people and planet.
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https://doi.org/10.1177/1541344618786452


https://archium.ateneo.edu/jmgs/vol2/iss1/6


Appendix A. Approvals, & Consents

University of Wisconsin-Stevens Point Institutional Review Board - Exempt Protocol Approval

Date 8/29/2023

Principal Investigator: Paula DeHart

Co-Principal Investigator: Angela Miller-Porter

Protocol Number: 2023-47

Protocol Title: Environmental ethics and mindfulness: A transformative sustainability learning curriculum

Protocol Approval Date: 8/29/2023

Protocol Expiration Date: 8/28/2028

Review Category: 2

UWSP FWA: 00017591

Dear Paula,

The above-referenced human-subjects research project has been approved by the University of Wisconsin-Stevens Point Institutional Review Board (IRB) Committee. This approval is limited to the activities described in the approved protocol, and extends to the performance of these activities at each applicable site identified in the application for IRB review. In accordance with this approval, the specific conditions for the conduct of this research are listed below, and informed consent from subjects must be obtained as indicated. Additional conditions for the general conduct of human-subjects research may be detailed below.

Additional Conditions:

All individuals engaged in human-subjects research are responsible for compliance with all applicable UWSP Research Policies. The Principal Investigator is responsible for assuring all protocol personnel review and adhere to applicable policies for the conduct of human-subjects research.

The IRB maintains an official protocol file for each study to meet the University’s regulatory obligations for record keeping. Principal Investigators are responsible for maintaining all records related to the protocol, and are required to share with the IRB. The IRB is not responsible for maintaining study documents for researchers.
Your project approval expiration date is listed above. Exempt protocols have an automatic 5-year approval period. As a courtesy to you, and to reduce administrative burden, the IRB will request an annual update from the Principal Investigator on the status of this study. It is your responsibility to inform the IRB if the project is complete or still in operation. If the study needs to remain open after year 5, you must submit a new protocol.

Lapses in approval should be avoided to protect the safety and welfare of enrolled subjects. When you plan to close your study, submit a Protocol Closure Form to irb@uwsp.edu.

No changes are to be made to the approved protocol or study documents (i.e., consent forms, surveys, etc…) without prior review and approval of the IRB. To modify an existing protocol, complete the Protocol Modification Form and submit to irb@uwsp.edu.

If there are any injuries, problems, or complaints from participants, you must notify the IRB at irb@uwsp.edu within 24 hours.

If you have any questions, please contact me. Good luck with your project.

Sincerely,

David Barry, Ph.D.

IRB Chair
August 10, 2023
IRB Proposal HS23-1392
“Mindfulness in Sustainability Education” IRB Approval Date: 8/10/2023
Proposed Project Dates: 8/28/2023 – 12/18/2023

Your proposal “Mindfulness in Sustainability Education” has been approved by the Northern Michigan University Institutional Review Board. Please include your proposal number (HS23-1392) on all research materials and on any correspondence regarding this project.

If you find that modifications of investigators, methods, or procedures are necessary, you must submit a Project Modification Form for Research Involving Human Subjects before collecting data. Any changes or revisions to your approved research plan must be approved by the IRB prior to implementation.

All forms can be found at the NMU Human Subjects Research webpage.
Appendix B. Syllabus, Curriculum, & Lesson Plans

Syllabus: GC 495 Special Topics: Mindfulness & Sustainability

Northern Michigan University, Fall 2023, Tuesdays & Thursdays from 5-6:40pm

Instructor: Angela Miller-Porter

Email: amillerp@nmu.edu

Office hours: Thursdays from 4-5 or by appointment

Cell phone: 906-869-0566

Course Description:

Sustainability is an academic field and a social movement (the largest in the world) working to bring awareness to, solve, and collectively heal from the world's “wicked problems” (i.e., climate change, mass extinction, poverty, injustice). To get to the root of these “wicked problems” many environmentalists call for a “different kind of education” (Orr, 2004), that goes as deep as values and mindset to ignite the deep and healing transformation our world needs.

Mindfulness might just be that deep leverage point sustainability is looking for … Mindfulness is a healing/well-being practice of awareness centering on the inner self (mind, body, soul, emotion) and your outer self (relationships/actions) with other people and our animate (living) world. Mindfulness has ancient eastern spiritual origins and now a growing body of research evidencing the healing benefits of this transformative practice. Mindfulness can be practiced formally (meditation) and informally (aka stopping to smell the flowers).

In this class you will learn to practice mindfulness both formally and informally, all while engaging in a journey towards sustainability. The hope is that you will understand mindfulness and sustainability as interconnected movements of healing our inner and outer world and that you yourself will be inspired to heal while identifying new ways to engage in this great turning of our time.

The class is divided into four parts:

Part I: Spiritual Intelligence & Purpose on Planet Earth,

Part II: Emotional Intelligence, Mindsets & the Power of Story,

Part III: Ecological Worldview, and

Course Goals:

Learners will understand that ...

1. All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

2. The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

3. Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

4. Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Required Materials:

## Mindfulness & Sustainability: Weekly Course Schedule

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuesday, August 29</td>
<td>Part I: Spiritual Intelligence &amp; Purpose on Planet Earth</td>
<td>Syllabus</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Introductions, course overview</td>
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<tr>
<td>2</td>
<td>Thursday, August 31</td>
<td>Mindfulness &amp; Sustainability: What are they, where did they come from &amp; how are they connected?</td>
<td>“Mindfulness: what is it? Where did it come from?”</td>
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<tr>
<td>3</td>
<td>Tuesday, September 5</td>
<td>Mindfulness &amp; Sustainability: What are they, where did they come from &amp; how are they connected?</td>
<td>Active Hope (Introduction, pgs., 1-12)</td>
<td>Sustainability Mindset Questionnaire (In-class)</td>
</tr>
<tr>
<td>4</td>
<td>Thursday, September 7</td>
<td>Planet Earth, Positionality &amp; Purpose</td>
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<tr>
<td>5</td>
<td>Tuesday, September 12</td>
<td>Oneness with Nature @ Forestville</td>
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<tr>
<td>6</td>
<td>Thursday, September 14</td>
<td>Hands-on sustainability @ Rock River Farm (longer class)</td>
<td></td>
<td>Journal entry # 1 (due by midnight)</td>
</tr>
<tr>
<td>7</td>
<td>Tuesday, September 19</td>
<td>Yoga with Conor @ Unity Yoga Co-op</td>
<td></td>
<td>Peer responses and Positionality Essay (due by midnight)</td>
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<tr>
<td>8</td>
<td>Thursday, September 21</td>
<td>Part II: Emotional Intelligence, Mindsets &amp; the Power of Story Community Sustainability &amp; its guiding EI/mindsets/story (Meet in-class &amp; walk to Music on Third Street)</td>
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<tr>
<td>9</td>
<td>Tuesday, September 26</td>
<td>Adaptive Mindsets (Thoughts have power!)</td>
<td></td>
<td>Take strengths-based survey in-class</td>
</tr>
<tr>
<td>10</td>
<td>Thursday, September 28</td>
<td>The three stories of our time &amp; their underlying mindsets</td>
<td>Active Hope (pgs. 15-34)</td>
<td></td>
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<tr>
<td>Class</td>
<td>Date</td>
<td>Topic</td>
<td>Reading</td>
<td>Assignment Due</td>
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<tr>
<td>11</td>
<td>Tuesday, October 3</td>
<td>The Work that Reconnects</td>
<td>Active Hope (pgs. 35-54)</td>
<td></td>
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<tr>
<td>12</td>
<td>Thursday, October 5</td>
<td>Honoring our Pain for the World</td>
<td>Active Hope (pgs. 55-79)</td>
<td>Journal entry # 2 (due by midnight)</td>
</tr>
<tr>
<td>13</td>
<td>Tuesday, October 10</td>
<td>Seeing with New Eyes with a Wider Sense of Self</td>
<td>Active Hope (pgs. 83-100)</td>
<td>Peer responses (due by midnight)</td>
</tr>
<tr>
<td>14</td>
<td>Thursday, October 12</td>
<td>Storytelling</td>
<td></td>
<td>Three Stories of our Time &amp; Mindset assignment (due in class)</td>
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<tr>
<td>15</td>
<td>Tuesday, October 17</td>
<td>Part III: Ecological Worldview</td>
<td>“Once You Know” documentary in class</td>
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<tr>
<td>16</td>
<td>Thursday, October 19</td>
<td>Eco-literacy &amp; your contribution</td>
<td>“Returning the Gift” by Robin Kimmerer</td>
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<tr>
<td>17</td>
<td>Tuesday, October 24</td>
<td>Part IV: Systems Thinking &amp; Social Justice</td>
<td>Active Hope (pgs. 101-115 \textit{and} 159-180)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Thursday, October 26</td>
<td>A richer experience of community with TWR full spiral example</td>
<td>Active Hope (pgs. 117-156)</td>
<td>Journal entry # 3 (due by midnight)</td>
</tr>
<tr>
<td>19</td>
<td>Tuesday, October 31</td>
<td>Group work time/outlines</td>
<td></td>
<td>Outlines shared and approved by end of class \textit{and} Peer responses (due by midnight)</td>
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<tr>
<td>20</td>
<td>Thursday, November 2</td>
<td>Group project work time</td>
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<tr>
<td>21</td>
<td>Tuesday, November 7</td>
<td>Great Turning Projects</td>
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<tr>
<td>Class</td>
<td>Date</td>
<td>Topic</td>
<td>Reading</td>
<td>Assignment Due</td>
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<td>22</td>
<td>Thursday, November 9</td>
<td>Great Turning Projects</td>
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<tr>
<td>23</td>
<td>Tuesday, November 14</td>
<td>Building support around you @ Meditate Marquette</td>
<td>Active Hope</td>
<td>Journal entry #4 (due by midnight)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(pgs. 181-210)</td>
<td></td>
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<tr>
<td>24</td>
<td>Thursday, November 16</td>
<td>Great Turning Project (final group to go)</td>
<td>Active Hope</td>
<td>Journal entry #4 (due by midnight)</td>
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<tr>
<td></td>
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<td></td>
<td>(pgs.211-238)</td>
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<td>SMI (in-class)</td>
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<tr>
<td>25</td>
<td>Tuesday, November 21</td>
<td>No class—Thanksgiving Break</td>
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<tr>
<td>26</td>
<td>Thursday, November 23</td>
<td>No class—Thanksgiving Break</td>
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<tr>
<td>27</td>
<td>Tuesday, November 28</td>
<td>Sustainability Mindset</td>
<td>Peer responses</td>
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<td></td>
<td></td>
<td>Makaylee presents (graduate student applications)</td>
<td>(due by midnight)</td>
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<tr>
<td>28</td>
<td>Thursday, November 30</td>
<td>Mutima guest speaker</td>
<td></td>
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<tr>
<td>29</td>
<td>Tuesday, December 5</td>
<td>SMI Reflections</td>
<td>Reflections on post-SMI</td>
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<tr>
<td>30</td>
<td>Thursday, December 7</td>
<td>Potluck</td>
<td></td>
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<tr>
<td>31</td>
<td>Thursday, December 14</td>
<td>Final exam (short answer and essay)</td>
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<td>In-class exit exam</td>
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</tbody>
</table>

Description of Assignments:

1. Pre- and Post- Sustainability Mindset Indicator Survey (2.5 points each, total of 5 points)
   
   You will take this survey in-class to help assess the impact this course has on your sustainability mindset.

2. Journal Activities & Entries (10 points each, total of 40 points)
   
   There will be 4 journal entries, one for each part of the course. The significance of this assignment is the power of reflection. Taking time to reflect helps to deepen the learning process. While learning to meditate and practice mindfulness, it can be helpful to connect with others, and reflect, so this assignment creates a deeper individual experience and more collective learning process. For each journal entry, you will be required to:
   
   - Participate in course material (readings, discussions, activities) (head) (1 point),
   - Engage in the mindfulness practice described for this reflection (hands) (2 points),
· Reflect on the prompted question and/or any other thoughts on course material for that section (heart) (5 points),
· Respond to at least one of your peers’ posts (head & heart) (2 points).

3. Positionality Essay (25 points)
For this assignment, you will reflect on your worldview, values, and major beliefs and where these come from to include an exploration that includes the top three listed (in bold) along with two others of your choosing for a total of 5 aspects that played a role in the formation of your worldview:
1. Heroes/mentors
2. Culture
3. Relationship to nature/Earth
4. Religion/spirituality
5. Family
6. Race
7. Gender
8. Class
9. Geography
10. Education
11. Other

Begin this assignment by referencing the 3-5 top values you hold in life. Try to connect the values you hold most dearly to an originating source of inception from the list above. Write up your positionality in 3-4 pages, double spaced, with approximately half a page (1-2 paragraphs) per aspect and an introduction and conclusion paragraph too. This essay should reflect on and uncover the foundational pillars of your current worldview.

4. Three Stories of our Time & Mindset (15 points)
Here, you will creatively interpret and express one or all of the three stories of our time by utilizing (Two of your mindsets) to create some form of art (poetry, art, music, story, mindfulness practice, etc.) (10 points) and then share it with the class in a story circle (5 points; 2 for sharing & explaining your art, 2 points for sharing & explaining two of your major mindsets and how you used them to create your art, and 1 point for being a mindful/present listener to your peers).
- Strengths-based mindset (strengths-based survey results and/or other personality/mindset quiz)
- A second mindset that you lead with in life.

5. Great Turning Project (20 points)
Group systems thinking project to be worked on in-class periods 15-18 with final group presentation of your groups campaign in class period 20. Each group will share the process of their campaign development and final plan/proposal (10-15 minutes/group).
6. Reflection on Sustainability Mindset Indicator (10 points)
After receiving your post-SMI results take some time to reflect on an area you are strong with, and what this means, and if you agree. Then, reflect on an area you do not have as much balance in and consider why and if you agree (1 page reflection-8 points). Followed up with a one-on-one meeting with instructor (each student will sign up for a 20-minute time slot Tuesday, December 5 or Thursday, December 7 (2 points).

7. Exit exam (20 points)
Short answer & essay to include material covered over the course of the semester.

8. Overall participation & engagement (15 points)

Additional Resources and Information:
If you have a need for disability-related accommodation or services, please inform the Coordinators of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1737 or disability@nmu.edu). Reasonable and effective accommodation and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

It takes time to improve one’s writing skills, and very often, talking to another person who is interested in and good at writing could help one generate ideas, notice errors, or even enjoy writing more. The Writing Center, located in 111G, Harden Hall, is a place where students can go for assistance with writing. The service is free, and no appointment is necessary. The tutors at the Writing Center have experience working with all forms of college writing and all stages of the writing process. Please consider visiting the Writing Center or find them online at http://www.nmu.edu/writingcenter.
Lesson Plans

Mindfulness & Sustainability: Lesson Plan for Class #1

Topic: Course introductions

(Informal lesson plan for the first class)

Goal: Welcome students to the class and begin with introductions to include:

Name, major & preferred pronouns

What is your interest in this course, and

What are you hoping to get from this class? (notes on answers below)

I shared that this was course is part of my research, and shared consent forms (of which all students signed).

*Instructor notes:

Notes (taken after first day of class 8/30/23): Lovely first class! Most of my students know me and/or have had me as an instructor (many from Introduction to Sustainability last Fall). A few from Introduction to Environmental Science a couple years ago. There are 6 or 7 I don’t know at all. I shared a power point to introduce myself, the research, and the class (brief). We began with a brief mindfulness practice. Also, the classroom is awesome with a view of Lake Superior! (I requested this, as I was initially designated to teach this class in a basement room with no windows and I’ve done that before much to the vocal constemation of students).

We went around with whole group introductions and students are interested and hoping to learn; finding connection between mindfulness & sustainability (x3), learn a lot and expand my horizons, to work on own mindfulness practice, self-reflection, how to save the world (less bleak), permaculture, relationship, grow love for mindfulness and sustainability, learn more about mindfulness, how to integrate into my work. Seems like a great group!

Mindfulness & Sustainability: Lesson Plan for Class # 2

Topic: Mindfulness & Sustainability

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth

Lesson Title: Mindfulness & Sustainability (Part I of II): What are they, where did they come from & how are they connected (Part I of II with a focus on mindfulness this class & sustainability next class).

Stage I: Desired Results

Enduring Understandings: Learners will understand that ...

- Mindfulness is a needed skill set for sustainability that anyone can learn and practice.
Essential Questions:

- When/how do you feel fully present and connected to life (mind, body, soul, others & Earth)? Why is this important to you?

Standards/Sustainability Core Competency Addressed:

- Normative Competence (Value awareness & exploration)

Learning Outcomes

- **Knowledge:** Learners will be able to/can ...
  Relate inner dimensions of sustainability (i.e., mindfulness, self-reflection, purpose) with external dimensions of sustainability (i.e., urban design, social justice, slow food, climate action).

- **Skills:** Learners will be able to/can ...
  Practice (trauma informed) mindfulness (formal meditation and informal contemplative practices).

- **Dispositions (Value/Appreciate):** Learners will be able to/can ...
  Be present to themselves, others, and Earth.

Stage 2: Assessment Evidence

- **Goal:** Learn what mindfulness is (and sustainability to a lesser extent, this will be the focus of part II next class), where it came from and how to practice it.

- **Criteria for Success:** Active participation head, hands & heart.

Stage 3: Learning Activities

- **Lesson/Activity 1:**
  Begin with a brief mindful moment, as every class will begin (2-3 minutes).
  Introduce topic for the day/course Mindfulness & Sustainability with some definitions and context. More of focus on mindfulness today, origins, methods, benefits, science, etc. (Power point) (30 minutes) (HEAD)

- **Lesson/Activity 2:**
  Learn to meditate (45 minutes) (HANDS)

- **Lesson/Activity 3:**
  Reflect in journals individually, then with a neighbor, and finally with the whole group. Time for questions. (15 minutes) (HEART)

- **Lesson/Activity 4:**
Homework for the semester! Strive to meditate and practice mindfulness every day. (5 minutes)

*Instructor notes: This class went well, and students seemed to appreciate a thorough how to introduction to mindfulness and how to meditate! It was so important to take the time to do this and it went well and set the stage for the rest of the semester. I taught it just as I have and would an introduction to meditation class.
Mindfulness & Sustainability: Lesson Plan for Class #3

Topic: Mindfulness & Sustainability

SMI Principle: Interconnectedness

TSL Component: Head (lecture & discussion) and Heart (mindfulness practice & discussion)

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth

Lesson Title: Mindfulness & Sustainability (part II of II): What are they, where did they come from & how are they connected (part II of II with a focus on sustainability in this class).

Stage I: Desired Results

Enduring Understandings: Learners will understand that ...

All of life is interconnected so that the health and flourishing of individuals, communities and the Earth are one and the same.

Essential Questions: How do mindfulness and sustainability connect and why do they need each other?

Learning Outcomes:

Knowledge: Learners will be able to/can ...

Relate inner dimensions of sustainability with external dimensions of sustainability.

Dispositions: Learners will be able to/can ...

Describe connections within self (mind, body, soul), community and Earth.

Stage 2: Assessment Evidence

Goal: Take the Sustainability Mindset Indicator (SMI) questionnaire. Learn what sustainability is including components (ecological, social, economic), definitions, varying perspectives, history.

Criteria for Success: Active participation.

Stage 3: Learning Activities

Lesson/Activity 1 (30 minutes):

Begin with a brief mindfulness practice (3-5 minutes) (Heart)

Provide an overview of the day and introduce the SMI and give students 15 minutes to take in class (25 minutes).

Lesson/Activity 2 (30 minutes):

Teach topic for the day (sustainability and mindfulness) with lecture/PowerPoint and wrap up with an overview of the first 12 pages of Active Hope. We will be using Active Hope as a vehicle to explore Mindfulness & Sustainability. Introduce Active Hope, Macy & the Work that Reconnects (TWR) (briefly). Finish up by asking students “what struck/interested you in these first 12 pages?” “Thoughts? questions?” (30 minutes) (Head)

Lesson/Activity 3 (40 minutes):

Individual reflection (using the Wamsler blue diagram) and three components of sustainability. Hand out a blue diagram for each student.

Have each student take a moment to reflect on where they see themselves most prominently entering the field of mindfulness & sustainability. Take out a separate piece of paper and jot down why this is. What life experiences make this your entry point of interest. What connections do you already feel strongly in your life? What connections here might excite or surprise you or you want to explore more? (5 minutes)
Turn to a partner and share (5 minutes)

Have them flip over and draw the three dimensions of sustainability (5 minutes)

Get in small groups and try to place the aspects of the Wamsler diagram into the three components of sustainability. Discuss (15 minutes).

Time for questions and whole group sharing/discussion (10 minutes)
Mindfulness & Sustainability: Lesson Plan for Class #4

Topic/Lesson Title: Planet Earth, Positionality and Purpose
SMI Principle: Purpose, Mindfulness & Interconnectedness
TSL Component: Head (Facts about planet Earth and what positionality is with personal & social identity wheels), Heart (Bodhisattva meditation and reflections on positionality).

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth

Stage I: Desired Results

Enduring Understandings: Learners will understand that...

Mindset/worldview must be reflected upon and understood to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Essential Questions: What is your personal and social identity and how does it prepare you to take part in the healing of our world?

Learning Outcomes:

Knowledge: Learners will be able to/can...

Relate inner dimensions of sustainability with external dimensions of sustainability.

Skills: Learners will be able to/can ...

Practice (trauma informed) mindfulness.

Dispositions: Learners will be able to/can ...

Describe connections within self (mind, body, soul), community and Earth.

Be present to themselves, others and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Connect students on a soul level to their positionality (defining this for them so they can define for themselves), and with this uncovering and/or shedding light on their purpose right now on planet Earth.

Criteria for Success: Active participation in meditation, activities & discussions.

Stage 3: Learning Activities

Lesson/Activity 1 (20 minutes)
Begin with a brief mindfulness practice (3-5 minutes)

Provide an overview of the day and working agreements (10 minutes)

Lesson/Activity 2 (30 minutes)

Personal Identity Wheels
Fill out individually (10 minutes) and then I broke everyone up into 4 groups by saying introverts on one side of the room and extroverts on the other and then task oriented and people oriented. This created four different groups for people to discuss in. I gave everyone time in groups to share one or two things each from personal identity wheels.

Lesson/Activity 3 (20 minutes)

Social Identity Wheels
Fill it out individually (10 minutes) and then find someone who was not in your small group to discuss this with one-on-one (10 minutes).

Lesson/Activity 4 (20 minutes)

Bhodisatva walking meditation (Found in Coming Back to Life, p. 156-159).

Finally, instructions for the next class. Meet me at the vans because we are going to Wetmore (we will be out of the classroom for the next four class periods) (2 minutes).

_INSTRUCTOR NOTES:_
I like all three activities (personal & social identity wheels and Bhodisatva meditation) and think they build on and complement each other. I will certainly do this lesson again, however, there are some serious tweaks, and it did not go as I would’ve hoped, especially the meditation. Love both the personal and social identity wheels, and I think it was very helpful for students to not only expand their own self-awareness but also understand and accept that not everyone experiences the world in the same way. The thing I would change about the way I organized this would be to evenly break students up into smaller groups to discuss because as I divided up one group was very large, two medium and one only had two people (this wasn’t ideal because I wanted everyone to have equal amount of time to share). Furthermore, I would give more time for discussion. As for the Bhodisatva meditation (which I’ve done several times before, seated and love), I tried it as suggested in the book as a moving/walking meditation. However, for this group, the space was too small to work as a moving meditation. Furthermore, I did not share the directions clearly enough and found out after the fact that some students were confused. Therefore,
I do still highly recommend this meditation, but practice seated or outside in an open space and explain the directions very clearly.
Mindfulness & Sustainability: Lesson Plan for Class #5

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth

Topic/Lesson Title: Oneness with nature @ Forestville

SMI Principle: Oneness with nature, Mindfulness, Interconnectedness & Flow in cycles

TSL Component: Hands & Heart (Walking meditation on oneness with nature).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindfulness is a skill set for sustainability that anyone can learn and practice.

Essential Questions: How do you experience oneness with nature?

Learning Outcomes:

Dispositions: Learners will be able to / can ....

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others and Earth.

Stage 2: Assessment of Evidence

Goal: Give students the opportunity and guidance to experience oneness with nature.

Criteria for Success: Students go on this field trip and take the simple instructions seriously.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Drive to Forestville.

Lesson/Activity 2 (10 minutes) (Hands)

Walk down the trail into the woods and stop on the bridge.

Lesson/Activity 3 (10 minutes) (Heart & hands)

Share instructions for everyone to go off (on their own) on a Meandering Meditation through the woods (out of a Field Guide to Nature Meditation, p. 33-35). Encourage them to take a silent leisurely stroll and allow their body, intuition, and curiosity to guide where they end up going and doing. Explain to them the purpose is to freely and intuitively experience their oneness with nature, however, that might express itself to them. Remind them to return regularly to the breath, their bodies, and the sensation of walking on Earth. Listen to nature and let her be your guide. Instruct everyone to meet back at the bridge in 30 minutes.

Lesson/Activity 4 (30 minutes) (Heart & Hands)

Meandering meditation.

Lesson/Activity 5 (10 minutes) (Heart)

Meet back and the bridge and then as a group walk down by the river and stand in a circle to share.

Lesson/Activity 6 (15 minutes) (Heart)

Anyone who wants to share does so now.
Lesson/Activity 7 (15 minutes)
Walk back to the vans and drive back to campus.

*Instructor notes:
Most students leaned into this activity with open hearts and some people shared some very sweet experiences, collecting rocks, with birds, and with the sounds of nature. One student seemed to have a difficult time leading with the heart in this way (as noted by her somewhat cynical attitude and comments about the best part being an interaction with some dogs, we all had on the bridge). It can be difficult for some students to trust a more intuitive process for learning. However, you never know, perhaps she felt more than I detected or at least learned something from the openness of her classmates.

I had a special experience during this activity. My Meandering Meditation led me down to a secluded little spot on the side of a riverbank, where I nestled in almost making myself one with the land. I was very peacefull listening and watching. Then a mother deer and young came walking through the river right towards me. The mother and I made eye contact, but she did not run or seem scared. The interaction felt so different than my usual interactions with deer because I had adopted the pace of nature, I was able to be more mindfully alive and present to this interspecies interaction and it was lovely.

Mindfulness & Sustainability: Lesson Plan for Class #6

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth
Topic/Lesson Title: Hands-on Sustainability @ Rock River Farm (longer class)
SMI Principle: Oneness with nature, Flow in cycles, Mindfulness, Purpose, Eco literacy, My Contribution
TSL Component: Head, Hands & Heart (Learning about a permaculture sustainable farm & then harvesting squash for him & taking some home ourselves).
Stage 1: Desired Results
Enduring Understandings: Learners will understand that ....
All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.
Essential Questions: What does sustainability have to teach us on a small-scale permaculture farm?
Learning Outcomes:
Knowledge: Learners will be able to/can ....
Relate inner (mindfulness, purpose) and outer (food, intentional living) dimensions of sustainability.
Dispositions: Learners will be able to/can ....
Describe connections within self (mind, body, soul), community, and Earth.
Respect and listen for diversity amongst the interconnectivity of life.
Be present to themselves, others and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Visit a local permaculture farm to learn about the operations and the underlying intention/ethics and to do some work for the farmer (harvest squash!)

Criteria for Success: Students go on a field trip to the farm.

Stage 3: Learning Activities

Lesson/Activity 1 (40 minutes)
Drive to Rock River Farm.

Lesson/Activity 2 (20 minutes) (Head & Heart)
Farm tour.

Lesson/Activity 3 (40 minutes) (Heart & hands)
Harvest squash & then everyone gets to take a squash home too!

Lesson/Activity 4 (40 minutes) (Heart & Hands)
Drive back to campus.

*Instructor notes:
What a beautiful class! Students always love a farm visit, and this was no exception and perhaps even better! It was a beautiful sunny day, and everyone really enjoyed getting their hands dirty harvesting squash. I shared some lovely little conversations with students, and so many were inspired to live this type of lifestyle for themselves. So cool everyone was able to take a squash home. A couple of students bought flowers on the farm too. The only downside is that the farm was 40 minutes out of town, so class went longer. I informed students of this beforehand and there were a few students who could not make it (they really missed out and not sure how to get around this in the future).
Mindfulness & Sustainability: Lesson Plan for Class #7

Part I of Course: Spiritual Intelligence & Purpose on Planet Earth
Topic/Lesson Title: Yoga with Conor @ Unity Yoga Co-op
SMI Principle: Oneness with nature, Flow in cycles, mindfulness
TSL Component: Head, Hands & Heart (Learning about mindfulness and practicing yoga with nature-based poses).

Stage 1: Desired Results
Enduring Understandings: Learners will understand that ....
Mindfulness is a needed skill set for sustainability that anyone can learn and practice.
Essential Questions: What can we learn about mindfulness & sustainability from yoga with Connor?
Learning Outcomes:
Knowledge: Learners will be able to/can ....
Relate inner (mindfulness, purpose) and outer (intentional living) dimensions of sustainability.
Skills: Learners will be able/can ....
Practice (trauma informed) mindfulness (formal meditation and yoga)
Dispositions: Learners will be able to/can ....
Be present to themselves, others and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence
Goal: Visit a local yoga studio for a private yoga class that embodies the elements of nature.
Criteria for Success: Students go on a field trip to the yoga studio.

Stage 3: Learning Activities
Lesson/Activity 1 (15 minutes)
Drive to the Yoga Studio
Lesson/Activity 2 (60 minutes) (Head, Hands & Heart)
Connor leads a yoga practice.
Lesson/Activity 3 (15 minutes)
Drive back to campus.

*Instructor notes:
Another beautiful class! The studio space was very comfortable. Once everyone was seated on mats, Connor asked everyone to tell him about mindfulness & sustainability and what that means and why they were in the class. It was very interesting hearing from students and several of my repeat students said it was because they liked me as a teacher (awww melt my heart). Also, exciting to hear students already explaining to someone else what the connection between mindfulness and sustainability is. Connor then shared a bit about his practice with
mindfulness/meditation and explained his overall life journey (so interesting!) This led into a very open discussion and Connor, and I have quite different approaches to mindfulness (mine being more set with disciplined times and his very fluid practice anytime of the day). Students remarked that it was nice for them to see two dedicated and long-time mindfulness practitioners have very different approaches. Then, Connor led us through such a gentle yet invigorating routine to embody the elements of nature. I loved having movements that asked me to embody the elements of nature and I found it very calming and empowering and did feel a sense of oneness with nature from it. Wouldn’t change a thing!
Mindfulness & Sustainability: Lesson Plan for Class #8

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: Community Sustainability & its Guiding Story

SMI Principle: Eco literacy & Mindfulness

TSL Component: Heart (Visioning Simplicity exercise out of Marc Burch Simplicity Exercises) and Hands

(Walk to music on 3rd street and experience community sustainability first-hand).

Stage I: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Essential Questions: What is your vision for sustainability and health?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner (i.e., mindfulness, reflection, purpose) and outer (i.e., urban design, social justice, food) dimensions of sustainability.

Describe the interconnected ecological and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the Great Turning).

Skills: Learners will be able to/can ....

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: Learners will be able to/can ....

Describe connections within self (mind, body, soul), community and Earth.

Be present to themselves, others and Earth. Identify avenues to take part in the “Great Turning” of our time.
Stage 2: Assessment of Evidence

Goal: Engage students with the power of imagination and story in uncovering and cultivating sustainable happiness and health (heart) and then walk down to music on 3rd street to experience first-hand (hands).

Criteria for Success: Students participate in the visualization, walk to music on 3rd street and hand in reflection at the start of the following class period.

Stage 3: Learning Activities

Lesson/Activity 1 (35 minutes)

Mindful moment (1-2 minutes) (Heart & hands)

Overview of our new course section: Emotional Intelligence, Mindsets & the Power of Story and plan for class today and next week (8 minutes) (Head)

Visioning Simplicity guided mindfulness practice (https://countercurrents.org/burch020912.htm, p. 200) with time for written reflection and opportunity to share in small groups and then out to whole class (20 minutes)

Give students additional reflection questions to write on their paper and answer after experiencing 3rd street music (bring to class next week Tuesday and we will begin with small group sharing)

Throughout your walk and time at 3rd street music mindfully remind yourself to be present to yourself, others and Earth.

Question 1: What aspects of your experience walking to and participating in 3rd street were similar to your vision of sustainability?

Question 2: What aspects of your experience do you see our community can improve upon? (rooftop gardens, etc.)
Question 3: What aspects that you experienced at 3rd street music might you like to add to your ideal vision (that you did not originally think of in the guided visualization)?

Question 4: How did you experience connections within self (mind, body, heart), community and Earth during your 3rd street music experience?

Question 5: Did this experience help you to identify any new avenues for taking part in the Great Turning of our time? (ask this at the start of the next class, not here)

Lesson/Activity 2 (25 minutes)

Walk to 3rd street music

Lesson/Activity 3 (TBD by each student)

Enjoy, embody, experience 3rd street music and your Marquette community.

*Instructor notes:

After simplicity exercise and small group reflections, brought it to whole group and collective shared vision which included: Slower pace, no instant food, gardens, green space (the wild kind, not lawns), living with less, and more community connections & reliance on each other.

Then we walked to 3rd street, and I have to say it was wonderful. I kept running into students, most of whom broke up into groups of two to hang out. One downside/mistake is one of my students emailed to ask if she could meet us there and I said yes (I think she told this to a few others and none of them ever showed). Furthermore, they missed out on the group visioning activity and walk. Too bad, because they really missed out. I need to do a better job of creating negative consequences for missing field trips because students really miss out when they skip these.
Mindfulness & Sustainability: Lesson Plan for Class #9

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: Adaptive Mindsets (Thoughts have power!)

SMI Principle: Mindfulness, Self-awareness & Creative innovation

TSL Component: Head (Lecture on mindsets) and Hands & Heart (activity & discussion).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

Mindset/worldview must be reflected upon and understood to make the shift towards a sustainable way of living in our world (the Great Turning of our Time).

Essential Questions: How do your mindsets guide your life?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the Great Turning).

Skills: Learners will be able to/can ....

Identify and communicate the role of story in creating our world at the individual, community and global levels.

Dispositions: Learners will be able to/can ....

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others and Earth.

Stage 2: Assessment of Evidence

Goal: Teach and inspire students about the facts on the power of mindset (Head & heart) and engage them with their own experiences (Hands & heart).

Criteria for Success: Students hand in their homework and in-class activity.
Stage 3: Learning Activities

Lesson/Activity 1 (5 minutes)

Guided meditation with music (We shall be known Great Turning song) (Heart)

Lesson/Activity 2 (10 minutes) (Heart, Head, Hands)

Small group reflection, sharing on community sustainability insights (3rd street music) and then hand in papers.

Lesson/Activity 3 (60 minutes) (Head & Hands)

Class updates, Introduction to this new section and Adaptive mindset lecture with PowerPoint.

Lesson/Activity 4 (25 minutes) (Head & Hands)

Take strengths-based mindset quiz and share with a partner. Then a few whole group reflections.

Homework: Read Active Hope, 15-34 for Thursday. The Three Stories of our Time.

*Instructor notes:

I spent quite a bit of time preparing for this head-based lecture. The past several classes have been very hands and heart-based experiential so needed a nice solid cognitive learning day to support/compliment. I’m very happy with the PowerPoint/lecture introducing mindsets and worldview. Students gave great examples as to how each mindset introduced could be applied to/as the mindset needed for sustainability. It was very important that I present each mindset and then ask how it is beneficial to sustainability* (I didn’t have this planned until in the class). Everyone took the strengths-based survey, and it seemed people had fun considering their strengths.
Reminded people at the start of the lecture that our next major assignment will involve defining and using two of their mindsets, so pay attention, take notes and consider which mindsets most resonate with you.
Mindfulness & Sustainability: Lesson Plan for Class #10

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: The Three Stories of our Time (& their underlying mindsets)

SMI Principle: Creative innovation, Reflection, Self-awareness, Long-term thinking

TSL Component: Head (state of the planet), Heart (story)

Stage I: Desired Results

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning inspires a sustainability mindset that is focused on healing people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindset/worldview must be reflected upon and understood to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Essential Questions: How do you experience the three stories of our time?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Explain the three stories of our time and be able to identify which story someone or something is functioning in.

Describe the interconnected ecological story and mutual flourishing of self, community and Earth as a lens for communicating with and healing our world (the Great Turning).

Skills: Learners will be able to/can ....

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: Learners will be able to/can ....

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Engage students with the power of story to explore and further understand the three stories of our time
with a special emphasis on understanding the great turning. Also define and understand the significance of colonization and decolonization.

Criteria for Success:

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Mindful moment, where I guide them to settle into the present moment and accept themselves just as they are. Whatever the emotional tone, be present to it. Then have everyone consider their top strength (as they learned about last class) and apply this strength of yours to this present moment. Allow this strength of yours to wash through your body. Consider your 2nd and 3rd top strengths and use these as a compliment now to perhaps bring greater clarity, peace, inspiration or comfort to this moment. Meditate. Then overview of the class for this evening.

Lesson/Activity 2 (45 minutes)

Watch “The danger of a single story,” a ted talk by Chimamanda Adichie. Then, share a bit of my story and how difficult it’s to box me in (just as you cannot box anyone in). Present the definitions of colonization and decolonization and introduce the three stories of our time with PowerPoint (head).

Lesson/Activity 3 (20 minutes) Go outside for this second part of class

Open sentences on the great turning …. 

Lesson/Activity 4 (20 minutes)
Free-write about your story, noticing aspects of your life that might be in one of the three different stories (or perhaps another story altogether?). What are the underlying mindsets you have at play when you are engaged in these three stories? Then turn to a partner and share. Finished up with some whole group reflection/discussion.

*Instructor notes:
Lesson plan went well and as planned, however, with more student input and rich discussion integrated than anticipated.
Mindfulness & Sustainability: Lesson Plan for Class # 11

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: The Work that Reconnects & Coming from Gratitude

SMI Principle: Reflection & Self-awareness

TSL Component: Head (The work that reconnects method and understanding the power of gratitude as a subversive act to the machine), Heart (feeling into our gratitude as this subversive act), Hands (class is outside, cafe style so moving into different circles of deep conversation)

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Essential Questions (3 cafe questions): What role does gratitude play in the Great Turning?

How do your mindfulness and gratitude practices in life intersect/connect?

Have you experienced gratitude as a subversive/revolutionary/liberating act?

What are some individual and collective steps we might take to embed an ethic of gratitude into the Great Turning of our time (holding actions, creating new structures and shifts in consciousness)?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing and dialogue.

Dispositions: Learners will be able to/can ....

Identify avenues to take part in the Great Turning of our time.

Stage 2: Assessment of Evidence
Goal: Engage students with gratitude as a subversive power capable of dismantling “the machine” and the destructive myth that consumer society tells us something is always lacking with us so we need to buy something more to be complete. The subversiveness of gratitude is to embody an awareness of contentment and joy for the simple yet profound joys of life (aka spending time with people you love, good food, birds singing, a sunrise).

Criteria for Success:

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Meditation practice on gratitude that includes “Basic Call to Consciousness” (p. 49 of Active Hope).

Lesson/Activity 2 (10 minutes)

Overview of day/week and explain “community cafe” and how class is going to work and go over the working agreements we came up with as a class

Respect & kindness

Presence

Understanding & support

Use “I” statements

Open Mindedness (all viewpoints welcome)

Confidentiality

Step up, step back (make sure all voices are heard) *I added this one because I thought there was a need for it.

Lesson/Activity 3 (40 minutes)
3 rounds of community cafe questions on gratitude. See essential questions. Ask students to form small groups of 4-6 and I pose the first question. Let them know I will raise my hand and everyone to follow when it is time to switch. Then just finish that thought and get up to create a whole new group with 4-6 different people.

Lesson/Activity 4 (25 minutes) Let students out 15 minutes early today because I had a class to get to.

The “harvest” aka collective wisdom from the cafe discussions is gathered in a whole group.

Harvest reflections were captured as follows:

Appreciate the little things
Growing your own food is subversive
Fast fashion is big in our society and it is subversive to patch up clothes, thrift and simplify.
Greenwashing companies beware
No car weekend to simplify and lower carbon footprint
Stress & the hurried life of business as usual
Ability to choose is a privilege to resist the fast pace
Choose a different story
Grateful for what you’ve been through
Being grateful for what you have
Expression of gratitude is healing (can’t just practice in isolation but the power of opening up and sharing this for people/community to see; making part of tradition/ritual
Systems change is necessary
Celebrate and meet people where they’re at
Getting in the Gap (Wayne Dyer)
Connections & people are what really matter. We are social animals take risks for new connections
Mindfulness is a powerful tool to expand compassion and gratitude
Hope for future; live for today
The power of thinking of death

*Instructor notes:
Right away one of my students (Annie) raises hand and asks if we can have class outside. I hesitated because I had plans to use the board, but it was beautiful, and everyone wanted to, so we did, and I adjusted. So, so happy we had class outside and made the whole cafe style class so much lovelier than we had been in the classroom. It was one of the last warm days and we sat in the shade under some trees. Students in circles of 4-6 people for the three different rounds of discussion and then we ended in a whole group circle. Instead of writing the harvest on the board, I just took notes. The breeze was amazing! Funny story, two deer ran past us right at the end of class and we were all like “oooooohhh” then a dog ran past chasing them and we were like “ohhhhh”. Eventually the owner came over and got his dogs and the deer were fine :)}
Mindfulness & Sustainability: Lesson Plan for Class # 12

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: Honoring Our Pain for the World

SMI Principle: Interconnectedness, Reflection, Self-awareness

TSL Component: Head (problems we’re facing/dire state of the planet), Heart (Truth Mandala, WTR sacred circle ceremony), Hands (Organizing the pain that arose in us into groups and then everyone writes their name under the section of pain they feel most deeply and want to work on a great turning project to heal).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Essential Questions: What is your pain for our world? (How do you hear the sounds of Mother Earth crying within you?)

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Describe the harmful effects the industrial growth story has on us at the individual, community, and planetary levels, and that whatever befalls the Earth, befalls us Earthlings too (we are nature).

Skills: Learners will be able to/can ....

Practice (trauma informed) mindfulness (formal meditation and informal contemplative practices).

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Explain the full spiral (gratitude, honoring our pain for the world, seeing with new eyes, and going forth).

Dispositions: Learners will be able to/can ....

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Engage students with honoring their pain for the world as part of the spiral of TWR. We are reading Active Hope and students were to have read the section on honoring pain for today’s class. “The Vietnamese Zen master Thich Nhat Hanh was once asked what we need to do to save our world. “What we most need to do,” he replied, “is to hear within us the sounds of the Earth crying.” The goal of this class is to intuitively listen to the sounds of the Earth crying within us, step into the center of our sacred circle and share (Truth Mandala). Also, after listening to our pain, we will categorize our pain and form groups that we will then work on great turning projects in.

Criteria for Success: Students openly and authentically participate (sharing and listening) in the Truth Mandala ceremony and select a group to work in.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes) *Form one big tight circle of chairs for class (no tables)

Meditation practice using breath as an anchor to the present moment (a bit longer silence, less talking/guiding this time).

Lesson/Activity 2 (10 minutes)

Ask everyone how their formal and informal mindfulness practice is going. A bit of sharing ensues. Then give an overview of the day. Draw out the spiral on the board and explain we will be entering the second section of honoring our pain for the world. Explain how the Truth Mandala works and step into the center of the circle where I placed the rock (used a student’s marble because I left the rock in another bag), dry leaves, empty bowl,
stick and cloth and explain what each thing represents. Use further instructions from “Coming Back to Life” to guide students through the process.

Lesson/Activity 3 (30 minutes)

Open up the Truth Mandala.

*Instructor notes:
This was a beautiful class. Very powerful. I really appreciated the authenticity everyone brought and that is what made it so special. Chris (the older woman auditing) had a bit of trouble with this activity, as some people do have trouble holding the pain. She kept wanting to step in with almost ‘advice.’ Her concerns when she stepped into the center were on how much pain young people put on themselves (I came close to reminding her that this is not a time to lecture but speak for your own personal pain). She saved herself just enough by saying it is her pain to see the declining mental health of people and especially young ones. Everyone else held their pain for self and group very well. Lots of deep feelings arose from pain/anger at the voices left out of sustainability to anger at future generations and the mess they’ve left, to sorrow for everything that’s already been lost and anger at the system and political inaction. Climate change was brought up a lot so leads me to believe they are very educated with this.

Lesson/Activity 4 (20 minutes)

Reflection on process. One student was nearly in tears the whole time and came into the circle more than once (as a few students did) she thanked me for holding a space like this and went on to say that she learns so much about the pain in the world but then is never given time to express how these lives inside her. She especially loved how after coming into the circle everyone says, “I hear you” I realize this is a very important piece to the activity for participants to hear everyone say, “I hear you.” Revisit the spiral and explain the importance and difficulty of holding pain.
Lesson/Activity 5 (30 minutes)

Break our pain down into groups/categories which ended up being:

Sadness/degree of suffering & disconnection/emptiness (four students)

Systems in the present that force people into business as usual (one student)

Sorrow for what has been lost/anger towards those who caused that (one student)

Anger sustainability movement is not accessible to all & some do not choose it/social justice (four students)

Fear of future (five students)

Mindsets & its effects (two students)

Hopelessness (one student)

Plants & animals & inhumane treatment (one student)

After breaking up into groups, share briefly the intent to use our pain as a source of power to be transformed into a love project/proposal for the great turning of our time. The last thing students did then was to add their name to their deepest source of pain that they want to work towards healing for our world.

*As shared above, beautiful and powerful class. I wouldn’t change a thing. It is so important to facilitate this activity clearly and I came close to having to remind someone not to give advice but to speak from personal experience.
Stage 1: Desired Results

Enduring Understandings: *Learners will understand that ...*

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindset/worldview must be reflected upon and understood to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Essential Questions: How have you most profoundly experienced a wider sense of self; your Ecological Self?

Learning Outcomes:

Knowledge: *Learners will be able to/can ...*

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the Great Turning).

Skills: *Learners will be able to/can ...*

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: *Learners will be able to/can ...*

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Stage 2: Assessment of Evidence
Goal: Engage students with the interconnected nature of reality and help them to experience and more deeply embody their greater Ecological Selves.

Criteria for Success: Students hike up Sugarloaf and engage in the “widening circles” meditation and activity.

Stage 3: Learning Activities

Lesson/Activity 1 (40 minutes)

Meet at vans and drive over to Sugarloaf and hike up to the top.

Lesson/Activity 2 (20 minutes)

Reference Active Hope reading on ecological self/widening circles and then read out of Sacred Instructions (p. 8-9, ecological self) then opening to whole group sharing by posing the essential question of the day: How have you most profoundly experienced a wider sense of self; your Ecological Self?

Lesson/Activity 4 (35 minutes)

Hike back down and drive back to campus.

*Instructor notes:

Only 12 students were in class tonight, so we all fit in one van (unfortunate but tend to have more skippers on field trip days). Perfect timing to drive to Sugar Loaf, hike up and we had a good 30 minutes at the top. Once at the top, the first 8 minutes people walked around themselves and took the view all in. Then, I found a lovely little place to circle up under a tree with a view of Lake Superior and the colors and a bit off trail so no one else (a few other people were on the mountain) was looking at us.
When we got together, I began with a brief meditation. I did not really guide or talk, we just sat in the beauty of it all and there was a nice breeze. I instructed them to then open their eyes and listen as I read Sherri Mitchell’s big aha Ecological Self moment. Prefaced at start of class today was all about our greater ecological selves. Then I posed the essential question of today, “what is your most profound experience with your ecological self?” Opened for discussion and a few things shared: In the garden, swimming in Lake Superior, as a kid with fireflies, stars, power of nature, and one student said in class with me last Fall when we were meditating on the beach at Wetmore and then opened our eyes and saw a double rainbow! (a few others present for that, chimed in, myself included about how special that moment was) Then we hiked back down. I got a nice picture of everyone on the way up.
Mindfulness & Sustainability: Lesson Plan for Class #14

Part II of Course: Emotional Intelligence, Mindsets & the Power of Story

Topic/Lesson Title: Storytelling (Three Stories of Our Time & Mindset Assignment)

SMI Principle: Creative Innovation & Self-awareness

TSL Component: Head, Hands & Heart (Students create some form of art with their head, hands & heart to bring in and share with the class).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the Great Turning of our time).

Essential Questions: How do you creatively express the three stories of our time?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Explain the three stories of our time and be able to identify which story someone or something is functioning in.

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue. Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: Learners will be able to/can ....

Respect and listen for diversity amongst the interconnectedness of life.

Be present to themselves, others, and Earth.

Stage 2: Assessment of Evidence
Goal: Have students creatively engage in the three stories of our time by creating something unique to their passion/calling that utilizes at least two of their mindsets and represents 1, 2 or all 3 of the stories of our time. Come to class with this and share in the three stories of our time sacred sharing circle.

Criteria for Success: Students create something to share with the class that utilizes two of their mindsets to create something that represents 1, 2 or all 3 of the stories of our time.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Native American flute and guitar music playing when they enter class.

Create a circle, brief meditation and introduction/reading to begin the storytelling sharing.

Lesson/Activity 2 (75 minutes)

Group sharing of their storytelling art.

Followed with an overview/update for what’s to come next week.

*Instructor notes:

Amazing class! Perhaps best yet and all because I have such an amazing group of students. Their three stories art pieces were truly special from homemade bread and pesto to poetry to paintings and play (knitted Earth being ripped apart (great unraveling) and needing everyone to take role in Great Turning to begin repairing (knitting) the pain (This student stitched the Earth back up and brought it to our class barter, which she exchanged to me for a homemade bowl I brought in). Halfway through class, Intermission to eat! Four people brought in four different kinds of homemade bread. Everyone was happy, respectful and deep/thoughtful in their projects.

Mindfulness & Sustainability: Lesson Plan for Class #15
Part III of Course: Ecological Worldview

Topic/Lesson Title: “Once You Know” (documentary viewing in class)

SMI Principle: Eco literacy, My contribution & Long-term thinking

TSL Component: Head & Heart (students watch a documentary to improve Eco literacy and understanding of our socio-ecological crisis).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Essential Questions: What is the state of our socio-ecological collapse?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Describe the harmful effects the industrial growth story has on us at the individual, community, and planetary levels, and that whatever befalls the Earth, befalls us Earthlings too (we are nature).

Skills: Learners will be able to/can ....

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: Learners will be able to/can ....

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Provide students with the facts and evidence of our socio-ecological collapse.

Criteria for Success: Students watch the documentary, “Once You Know” and pose one question and/or comment to bring to class discussion for next class.
Stage 3: Learning Activities

Lesson/Activity 1 (1 hr.44 minutes-whole class)

Watch the documentary for the entire class. Propose for students to stay mindfully in tune with themselves (mind, body, soul) throughout the documentary and ask them to at some point jot down a major takeaway in the form of a question and/or comment.

*Instructor notes:
I was deeply moved by the documentary (naturally, I had viewed it once before but still to watch again and in a group was moving). It was painful and inspiring to be actively involved in this great revolutionary turning. A few most notable moments “we are nature protecting itself” (holding actions) what we need is new structural systems to be ready and operating because the collapse of current system is unavoidable (new Gaian structures) and it is in coming together in solidarity, cooperation and community that we will find our sustainable way forward (small-scale local democracy). We will discuss the next class period. Heavy into Climate Change/crisis and the foundational book/work “Limits to Growth” (same author as deep leverage insights, central to this study, Donella Meadows).
Mindfulness & Sustainability: Lesson Plan for Class # 16

Part III of Course: Ecological Worldview

Topic/Lesson Title: Eco-literacy & your contribution

SMI Principle: Eco literacy & My contribution

TSL Component: Head, Heart & Hands (Students meditate (heart & hands), engage in reflections on “Once You Know” (head & heart) and the WTR activity, Callings & Resources (head, heart & hands).

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindset/worldview must be reflected upon and understood to make the shift towards a just and sustainable way of living in our world (the great turning).

Essential Questions: If you knew you could not fail, what would you most want to do for the healing of our world? /What can I give in return for the gifts of the Earth? /What is your gift?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Describe the harmful effects the industrial growth society has on us at the individual, community, and planetary levels, and that whatever befalls the Earth, befalls us Earthlings too (we are nature).

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Identify and communicate the role of story in creating our world at the individual, community, and global levels.
Dispositions: *Learners will be able to/can* ....

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Provide students with time to personally and collectively reflect on our socio-ecological crisis/collapse and dive into what their contribution to our world’s healing and also listen to/understand other students’ contributions (plurality of healing niches in the great turning). Come to class having read, “Returning the Gift.”

Criteria for Success: Students reflect on documentary and work through their own personal responses (contribution) in the activity “Callings & Resources” and then have time to share with a small group and then the whole group.

Stage 3: Learning Activities

Lesson/Activity 1 (15 minutes)

Guided meditation based off of web of life meditation. Guide them through the interconnectivity of life meditation.

Lesson/Activity 2 (5 minutes)

Overview for upcoming classes and the day.

Lesson/Activity 3 (15 minutes)

Student sharing of 3 stories projects for those 3 students who missed last week.
Lesson/Activity 4 (20 minutes)

Group reflections on “Once You Know.” Turn to a partner to share your question/comment from the documentary. Open up to the whole group after. Draw 3 aspects of great turning and open up moving into empowering ourselves to take action for the healing of our world.

Lesson/Activity 5 (5 minutes)

https://www.youtube.com/watch?v=oVSTKpJbq-8

Watch Michael Jr. Breaktime Amazing Grace. To illustrate the importance of knowing your why before diving into various what’s for engaging in your work for this great turning of our time.

Lesson/Activity 6 (40 minutes)

Callings & Resources (out of Coming Back to Life, p.200-201). Walk students through this activity individually and then create “small fires” (groups) determined by standing around the room by birthdate and then grouping with the people nearest your same birthday.

*Instructor notes:

Great class. Lesson plan and activities worked out perfectly. Students were inspired by Callings and Resources.
Mindfulness & Sustainability: Lesson Plan for Class # 17

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: A different kind of power (Defining a vision)

SMI Principle: Interconnectedness and Both-and

TSL Component:

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structure, and shifting towards an ecological worldview.

Essential Questions: What is your vision for the future and how does it align with others?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner dimensions of sustainability (i.e., mindfulness, self-reflection, purpose) with external dimensions of sustainability (i.e., urban design, social justice, food, policy).

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Dispositions: Learners will be able to/can ....

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence
Goal: Provide time and direction for students to draw their visions for the future and collaborate with one another to create a shared vision.

Criteria for Success: Students create their personal visions (individual power/gift for the betterment of the whole) and collaborate to integrate this into a vision for the whole.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)
Guided meditation.

Lesson/Activity 2 (20 minutes)
Overview of day and brief lesson on power, vision, great turning with PowerPoint.

Lesson/Activity 3 (65 minutes)
Break up into groups (as determined by your pain/passion/gift) (5-10 minutes)
Everyone in the group gets one sheet of paper and access to colored markers and begins individually by drawing their vision for a sustainable future and related to their individual passion project of concern. This is intentionally left vague, to allow participants to define the scope of the vision (max. 15 minutes for drawing).
Everyone stands in a circle and has a max of 2 mins to present and talk about their drawing. While this is happening a group facilitator takes notes on post-its capturing the highlights of what people say (10 minutes).
Once everyone has presented all images are posted on the wall together and ask participants what similarities they see looking at all the images and hearing from the descriptions. These should be the big picture themes related to the long-term vision rather than specific tactics (15 minutes).
From discussion identify biggest themes and write as statements that describe the long-term vision for the project. Keep this for the next stage in group work (15 minutes).

*Instructor notes:
Great class! Thoughtful conversation on Power over vs. Power with. Guided by PowerPoint but lots of student input so this took longer than expected (45 minutes). Before this at the very start of class, it was raining heavily, and we had our longest meditation yet (15 minutes). I didn’t say too much except to listen to rain and let that center you calmly in the present moment. After all this, students broke up into groups, so we got that all figured out and students drew their visions (I did too). They wanted longer so I just decided we would continue Thursday and they can share with the group then.
Mindfulness & Sustainability: Lesson Plan for Class # 18

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Community & Deep Time with TWR

SMI Principle: Long-term thinking, Interconnectedness & Mindfulness

TSL Component: Head (Community & time lecture), Heart & Hands (TWR seeing with new eyes/The Seventh Generation)

Stage 1: Desired Results

Enduring Understandings: *Learners will understand that ....*

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning of our time).

Essential Questions: What do we have to learn from our ancestors and from future beings that will currently serve us in the healing of our world?

Learning Outcomes:

Knowledge: *Learners will be able to/can ....*

Relate inner and outer dimensions of sustainability.

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: *Learners will be able to/can ....*

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Explain the full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: *Learners will be able to/can ....*

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.
Be present to themselves, others, and Earth.

Stage 2: Assessment of Evidence

Goal: Walk students through an example of a 45-minute group presentation and facilitate deep time learning and the power of community.

Criteria for Success: Students understand what is expected of them with their group projects and students have a full spiral experience of community through deep time.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Coming from Gratitude

Say, the first part of this class is an example for how to facilitate group projects/presentations (45 minutes total). TWR spiral is our guide for facilitation. We will begin with a guided meditation through deep time (Coming from gratitude).

Lesson/Activity 2 (10 minutes)

Honoring our Pain for the World

Part of my pain for the world lies in our lack of deep time community connections (7th generation thinking/introduce deep time). My project proposal is to offer TWR classes at the university and community-based level that open people up to deep time (Share proposal/calling). My work/calling most closely aligns with shifts in consciousness. Today is a short sample/example of a community-based lesson on community through deep
Lesson/Activity 3 (15 minutes)

*Seeing with New Eyes & Going Forth*

A Letter from the Seventh Generation.

Lesson/Activity 4 (10 minutes)

Turn to a partner and share ….

What wisdom/insight did you gain from the seventh generation and how will you integrate it into your work for the great turning?

Lesson/Activity 5 (30 minutes)

Get in groups. Hand out rubrics and go over what is expected of group projects. Break down what I did following the rubric. Group work time all of next week and then full spiral workshops/proposals the following week (so for the next two weeks this is what workshops/proposals the following week (so for the next two weeks this is what we are working on). Group project outlines are due by the end of class next Tuesday.

*Instructor notes:*

I was choppy with my presentation example, but I did still like the “letter from the seventh generation” WTR activity.

Mindfulness & Sustainability: Lesson Plan for Class # 19

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Group work time/outlines

SMI Principle: Creative innovation, Both/And, Purpose
TSL Component: Head, hands & heart (planning group great turning project)

Stage 1: Desired Results

Enduring Understandings: *Learners will understand that* ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Essential Questions: What role are you called to play in the Great Turning?

Learning Outcomes:

Knowledge: *Learners will be able to/can* ....

Relate inner and outer dimensions of sustainability

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: *Learners will be able to/can* ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Explain the full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: *Learners will be able to/can* ....

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Provide students time to innovatively work in their groups on great turning projects that integrate their own personal “callings & resources.”

Criteria for Success: Students work together in their groups and are able to provide me with an outline by the end of class.

Stage 3: Learning Activities
Lesson/Activity 1 (5 minutes)

Qigong mindfulness practice.

Lesson/Activity 2 (10 minutes)

Overview of group project and expectations with examples.

Lesson/Activity 3 (remainder of time ….)

Time to work in groups and share with me an outline/proposal by the end of class.

*Instructor notes:

I rotated around and met with all five groups. 4 out of 5 needed a bit of redirection with their projects. One group was solid (food hub/new Gaian structures). I like the direction of all 5 groups now. Four groups will go the following week (2 per class) and then the mindsets group will go the following Thursday (b/c following Tuesday we are going on a field trip to meditate Marquette). It was a very important class tonight and I feel much more organized with groups now. I really pushed the point to not just pick some random project but something in line with students “callings and resources” and personal skills people have for this great turning of our time.
Mindfulness & Sustainability: Lesson Plan for Class # 20

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Group work time for Great Turning projects

SMI Principle: Creative innovation, Both/And, Purpose

TSL Component: Head, hands & heart (planning group great turning project)

Stage I: Desired Results

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Essential Questions: What role are you called to play in the Great Turning?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Explain the full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: Learners will be able to/can ....

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Provide students time to innovatively work in their groups on great turning projects that integrate their own personal “callings & resources.”
Criteria for Success: Students work together in their groups and are able to organize their WTR group learning/engagement experience for their great turning project.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Guided meditation on the great turning of our time.

Lesson/Activity 2 (remainder of time …..)

Time to work in groups and share with me a final plan with a time slot to facilitate as a group.

*Instructor notes: Great class and all groups have a solid direction. I encouraged group 3 to take the protest route (holding actions) and glad I did because they were a bit uninspired with their ideas and that seemed to get them excited.
Mindfulness & Sustainability: Lesson Plans for Classes # 21 & 22

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Great Turning Projects (groups 1-4, with 5 going at a later date)

SMI Principle: My contribution, Purpose, Interconnectedness, Creative innovation

TSL Component: Head, hands & heart (embodied in facilitation of projects)

Stage 1: Desired Results:
Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Essential Questions: What role are you called to play in the Great Turning?

Learning Outcomes:

Knowledge: Learners will be able to/can ....
Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....
Practice (trauma informed) mindfulness (formal meditation and informal contemplative practice).
Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.
Explain the full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: Learners will be able to/can ....
Respect and listen for the diversity amongst the interconnectivity of life.
Be present to themselves, others, and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Students facilitate engaging great turning projects that help them to practice leadership skills for the great
Criteria for Success: All aspects of the rubric for this project are met so that I see students have learned material from this course and see ways it can be applied in the real world revolution (shifts in consciousness, new structures and holding actions). The full spiral is used and everyone is engaged and having fun.

Stage 3: Learning Activities

Lesson/Activity 1 (50 minutes)

(Day 1) Group 1 facilitates/(Day 2) Group 3 facilitates

Lesson/Activity 2 (50 minutes)

(Day 1) Group 2 facilitates/(Day 2) Group 4 facilitates

*Instructor notes: Amazing presentations!
Mindfulness & Sustainability: Lesson Plan for Class # 23

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Building support around you @ Meditate Marquette

SMI Principle: Interconnectedness, Flow in cycles, Mindfulness

TSL Component: Head (Read pgs. 181-210 in Active Hope), Hands & Heart (Meditate with local meditation group)

Stage 1: Desired Results:

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning).

Essential Questions: How will you build support around you to maintain mindfulness in this great turning of our time?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Skills: Learners will be able to/can ....

Practice (trauma informed) mindfulness.

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Dispositions: Learners will be able to/can ....

Describe connections between self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.
Stage 2: Assessment of Evidence

Goal: Students will learn about the importance of a network of support for the interconnected practices of mindfulness and sustainability and as a class we will experience the potential for this support with a field trip to a local meditation group.

Criteria for Success: Students read the assigned chapter and attend class to meditate and participate in reflective discussion with Meditate Marquette members and one another.

Stage 3: Learning Activities

Lesson/Activity 1

Field trip to Meditate Marquette where we will practice informal (reflection/discussion) and formal (meditate) mindfulness. *Read pages 181-210 prior to class.

*Instructor notes: Loved this class! Everything I’d hoped would be even better than expected meditating with the local group. My only regret is that not all the students got the experience as I had a few skippers and a couple sick. Deb began by sharing her journey in mindfulness which I found inspiring, and I think students did too. For the meditation 3 other regular attendees showed up and they seemed so pleased to have this large group of young meditating college students. One of the local members also shared her journey, which was inspiring and encouraging. The guided meditation was just lovely! I felt very relaxed and at peace in my body and in the community of energy I felt in the room too. Special evening.
Mindfulness & Sustainability: Lesson Plan for Class # 24

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Great Turning Project 5 and post SMI questionnaire

SMI Principle: All 12 principles

TSL Component: Head, hands, & heart (embodied in facilitation of group 5 project and taking post-SMI)

Stage 1: Desired Results:

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Essential Questions: What role are you called to play in the Great Turning and what is your Sustainability Mindset?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Practice (trauma informed) mindfulness (formal meditation and informal contemplative practice). Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue. Explain the full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: Learners will be able to/can ....

Respect and listen for the diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence
Goal: Students will take the post-SMI questionnaire (and this time receive their full report!). Final group Great Turning Project will facilitate group learning on the topic of mindsets (shifts in consciousness) to help them practice leadership skills for the great turning and widening perspectives on the great turning for fellow classmates.

Criteria for Success: All students take the post-SMI questionnaire and receive their full report (which they have final assignment on to reflect on its results). For the final group presentation, all aspects of the rubric are met so that I see students have learned material from this course and see ways it can be applied in the real world revolution (shifts in consciousness, new structures, and holding actions). The full spiral is used and everyone is engaged and having fun.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Guided meditation

Lesson/Activity 2 (30 minutes)

Students take the post-SMI questionnaire

Lesson/Activity 3 (50 minutes)

Group 5 facilitates

*Instructor notes: Group 5 was all set to go first so I took just a couple minutes to help everyone fully arrive, center in breath and present to self, others, and Earth. Told them plan for class and then handed it over to group 5. Group 5 did a great job hosting a community workshop. It was a bit more disjointed than the other groups but more personally/gift/passion driven. It began with a ‘privilege walk,’ then honoring pain, then seeing with new
eyes and virtue cards and finally with a handmade class barter (going forth). The barter class was special and so many people really took the time to bring in something homemade and nice. I brought in a dish my daughter made and swapped it for the hand knit Earth a student presented with earlier in the semester, which I’m on cloud 9 about!
Mindfulness & Sustainability: Lesson Plan for Class # 25

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: The Sustainability Mindset

SMI Principle: All 12 principles

TSL Component: Head, hands & heart (overview, engagement, and reflection on 12 principles and our questionnaire) and Makaylee shares masters’ research and how she is integrating a sustainability mindset and the work that reconnects.

Stage 1: Desired Results:

Enduring Understandings: Learners will understand that ....

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning of our time).

Essential Questions: What role are you called to play in the Great Turning and how does your mindset support this work?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Explain TWR full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: Learners will be able to/can ....

Describe connections within self (mind, body, soul), community, and Earth.
Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Students review the 12 principles of a sustainability mindset (PowerPoint; head) with interactive case study (MARESA) that utilizes this mindset and overall reflection on applications to “wicked problems” (head, hands & heart). Then Makaylee presents her sustainability mindset for her work in her masters’ research.

Criteria for Success: Students engage in mini case studies that activate their sustainability mindset and share out with the whole class and engage with Makaylee’s research/presentation.

Stage 3: Learning Activities

Lesson/Activity 1 (15 minutes)

Guided meditation (out of Meditation as Contemplative Inquiry pgs. 116-118)

Lesson/Activity 2 (45 minutes)

Begin with an overview of the day and what to expect for the rest of the course including due dates for assignments. Power point interactive presentation/discussion on applying the sustainability mindset to real-world “wicked problems”

Case study activity (small group work)

Lesson/Activity 3 (30 minutes)
Makaylee shares masters’ research with TWR and sustainability mindset.

*Instructor notes: Another very thoughtful class with deep reflections and excellent engagement. After the guided meditation, I asked for any updates people wanted to share on their meditation/mindfulness practice and I had two students share. I went into some overviews/updates which was necessary (lots of clarification was needed). I really liked my power point for this lesson, and it seemed students were interested in taking notes and engaged/commenting throughout. We had a great conversation about work/economics/capitalism from the “wicked problems” diagram. The graduate student in my class then presented how she was integrating our class material into her research and her presentation was excellent. She did such a good job integrating course material into her research! And engaging the class too!
Mindfulness & Sustainability: Lesson Plan for Class #26

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: The Work that Reconnects and the Inclusive Work of Expanding the Spiral

SMI Principle: Both-and & Interconnectedness

TSL Component: Head, hands & heart (Guest speaker Mutima Imani, leader in WTR). Meditate and prepare questions for her at the beginning.

Stage 1: Desired Results

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning).

Essential Questions: What questions do you have about implementing the Work that Reconnects going forth?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Dispositions: Learners will be able to/can ....

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.
Be present to themselves, others, and Earth.
Identify avenues to take part in the “Great Turning” of our time

Stage 2: Assessment of Evidence

Goal: Students learn about the actions and multiple facets of the worldwide work that reconnects movement by one of its leaders including the exciting and essential new work of integrating social justice (expanding the spiral).

Criteria for Success: Students listen to and discuss with Mutima about TWR.

Stage 3: Learning Activities

Lesson/Activity 1 (10 minutes)

Guided meditation

Lesson/Activity 2 (15 minutes)

Prepare questions for Mutima

Lesson/Activity 3 (60 minutes)

Learn from TWR leader, Mutima

Lesson/Activity 4 (15 minutes)

Reflect on experience
*Instructor notes: Change of plans: class was held via zoom from 5:30-6:40. This worked out so well because everyone’s face was on screen up close with Mutima and she was able to put us into workgroups. I did a brief introduction and very brief guided meditation. So interesting because I asked everyone to consider The Work that Reconnects and, in this moment, connect to self, others, and Earth. Mutima expanded and deepened this in such a beautiful way. She had us write in chat which of 3 most want need to reconnect with now self, others or Earth. Then we got into breakouts to discuss. A second breakout later and very thoughtful discussions. Mutima also shared the expansion of TWR to include self-awareness, social awareness, location on Earth. Asked students what they will take with them and loved to hear social justice, self-care insights. In 2nd breakout the topic was what is breaking your heart now? I said disconnection between people and the students in my breakout and I had a deep conversation about the conflict in the middle east (one of my students was Jewish so added another layer of sensitivity). Mutima also prompted us to begin with pain and then move into gratitude (we forgot to move into gratitude).
Mindfulness & Sustainability: Lesson Plan for Class # 27

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Sustainability Mindset Reflections

SMI Principle: All 12 principles

TSL Component: Review SMI (head), share some of our reflections (heart) and how to apply to real-world situations (hands).

Stage 1: Desired Results:

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning of our time).

Essential Questions: How does your sustainability mindset play out in your life?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Dispositions: Learners will be able to/can ....

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Students will receive an overview of the SMI and reflect in small and large groups on their SMI results. Then we will use a case study scenario to apply the 12 principles or aspects of them to solving real world socio-ecological problems.

Criteria for Success: Students participate in the learning process, share, listen, and critically reflect. Each group will give an overview of their case study and share how they used the SMI to solve it.

Stage 3: Learning Activities

Lesson/Activity 1 (5 minutes)
Guided meditation

Lesson/Activity 2 (5 minutes)
Overview of Sustainability Mindset

Lesson/Activity 3 (20 minutes)
Small group sharing of SMI

Lesson/Activity 4 (40 minutes)
Get in small groups and hand out case studies which students work in groups to “solve” using their sustainability mindset.

Lesson/Activity 5 (30 minutes)

Each group shares an overview of case study and how they applied their sustainability mindsets.

*Instructor notes: This went well! Great critical thinking with applications to apply learning. I should do more of this.
Mindfulness & Sustainability: Lesson Plan for Class # 28

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Mindfulness & Sustainability Highlights & Takeaways Potluck

SMI Principle: Mindfulness, reflection, self-awareness & interconnectedness

TSL Component: Head, heart & hands stationed reflections/activities/games to include all 4 enduring understandings with potluck

Stage 1: Desired Results:

Enduring Understandings: *Learners will understand that* ....

*All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.*

*The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.*

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

*Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning of our time).*

Essential Questions: What have been your greatest learning experiences and takeaways from this class?

Learning Outcomes:

Knowledge: *Learners will be able to/can ....*

*Relate inner and outer dimensions of sustainability.*

*Explain the three stories of our time and be able to identify which story someone or something is functioning in.*

Skills: *Learners will be able to/can ....*

*Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.*

*Explain TWR full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).*

Dispositions: *Learners will be able to/can ....*

*Describe connections within self (mind, body, soul), community, and Earth.*

*Respect and listen for diversity amongst the interconnectivity of life.*
Be present to themselves, others, and Earth.
Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: Come together as a joyful community and reflect on our best moments from this class and biggest takeaways.

Criteria for Success: Students are engaged, having fun, eating good food, and writing down answers to questions (for me to collect as data), and discussing with one another and the whole group.

Stage 3: Learning Activities

Lesson/Activity 1 (5 minutes)

Guided meditation (prayer of sorts before eating—Coming from gratitude)

Lesson/Activity 2 (30 minutes)

Get food, eat, discuss (Coming from Gratitude cont.—along with self and social awareness)

On the board:

What are you grateful for during this “season” of your life?
What are 3 songs that define you as a person and why?
What has this class helped you learn more about yourself, others, and Earth?

Lesson/Activity 3 (15 minutes)
On the board:

Honoring your pain for the world (one word or one sentence responses)

How do you experience the mindset of business as usual?

How do you experience the mindset of the great unraveling?

How do you experience the mindset of the great turning (sustainability)?

On the board:

Seeing with new eyes (one word or one sentence responses)

What experience in this class helped you most to see with new eyes? Write on board and put check marks next to others if the same.

Lesson/Activity 4 (30 minutes)

Going forth

Go back to your seats and write down answers to the following questions (give 15 minutes for this) and then open up to the whole group to share and reflect out loud.

What were your top learning experiences from this class?

Did you learn something from this class that you will take with you going forth?

What have you learned about mindfulness (meditation) & sustainability and the connection between our inner and outer world?

How has your mindfulness practice evolved this semester?

What have you learned about yourself?

What can I do to improve this class going forth?

Lesson/Activity 5 (10 minutes)

Take vows created by Joanna Macy to go forth into this great work of our time:
I vow to myself and to each of you:

To commit myself daily to the healing of our world

and the welfare of all beings.

To live on Earth more lightly and less violently

in the food, products, and energy I consume.

To draw strength and guidance from the living Earth,

the ancestors, the future generations,

and my siblings of all species.

To support others in their work for the world

and to ask for help when I need it.

And to pursue a daily practice

that clarifies my mind, strengthens my heart,

and supports me in observing these vows.
*Instructor notes: Lovely potluck and I received good feedback from students: loved Meditate MQT (wish could've gone more), loved community involvement, when attending field trip stick to time, more guest speakers, more outside, respect for others and safe container and like the way I encouraged us to talk to each other, loved the truth mandala.
Mindfulness & Sustainability: Lesson Plan for Class # 29

Part IV of Course: Systems Thinking & Social Justice

Topic/Lesson Title: Final Exam

SMI Principle: Eco-literacy, Mindfulness, Interconnectedness, Reflection, and Self-awareness

TSL Component: Hands & heart (begin with guided meditation), Head & heart (Written short answer clarifying and reflective questions to determine course take-aways for each student).

Stage 1: Desired Results:

Enduring Understandings: Learners will understand that ....

All of life is interconnected so that the health and flourishing of individuals, communities, and the Earth are one and the same.

The story lens and collaborative skill set of the Great Turning is an opportunity to heal people and the planet with its three components of holding actions, creating new structures, and shifting towards an ecological worldview.

Mindfulness is a needed skill set for sustainability that anyone can learn and practice.

Mindset/worldview must be reflected upon and understood in order to make the shift towards a just and sustainable way of living in our world (the great turning of our time).

Essential Questions: What did you learn in this class?

Learning Outcomes:

Knowledge: Learners will be able to/can ....

Relate inner and outer dimensions of sustainability.

Explain the three stories of our time and be able to identify which story someone or something is functioning in.

Describe the harmful effects the industrial growth society has on us at the individual, community, and planetary levels, and that whatever befalls the Earth, befalls us Earthlings too (we are nature).

Describe the interconnected ecological story and mutual flourishing of self, community, and Earth as a lens for communicating with and healing our world (the great turning).

Skills: Learners will be able to/can ....

Practice (trauma informed) mindfulness (formal and informal contemplative practices)
Demonstrate interpersonal collaboration skills such as active listening, paraphrasing, and dialogue.

Identify and communicate the role of story in creating our world at the individual, community, and global levels.

Explain TWR full spiral (gratitude, honoring pain, seeing with new eyes, and going forth).

Dispositions: *Learners will be able to/can ...*

Describe connections within self (mind, body, soul), community, and Earth.

Respect and listen for diversity amongst the interconnectivity of life.

Be present to themselves, others, and Earth.

Identify avenues to take part in the “Great Turning” of our time.

Stage 2: Assessment of Evidence

Goal: For students to be able to articulate the enduring understandings and learning outcomes of this course.

Criteria for Success: All students take the final exam and answer questions in a way that shows both factual knowledge and creative insight around course content.

Stage 3: Learning Activities

Lesson/Activity 1 (20 minutes)

Guided Bodhisattva meditation.

Lesson/Activity 2 (remainder of class)

Written final exam (short answer and essay)
Mindfulness & Sustainability

Final Exam

20 points

What are two (evidence-based) benefits to practicing both formal and informal mindfulness? (2pts)

What is your inspiration for practicing mindfulness and do you plan to continue to practice after this class ends? (1 pt)

Share one of your mindsets that you learned about in this class and how it informs and inspires your work for the healing of our world (sustainability). (2 pt)

Label each story. What are the three stories of our time? (3 pts)

A transition town has just opened up in your community to offer resilient living support and community networking with regular potlucks, gardening and cooking classes, skill swap days, book clubs, community service days, and weekly meditations. This is an example of which story ....

________________________________________________________________________

You woke up this morning and turned on the news to a barrage of war, racism, the reversal of women’s rights, melting ice caps, and mental health calamities and found out the last of your favorite butterfly went extinct. You feel overwhelmed and brokenhearted. This is an example of which story

________________________________________________________________________

The schools in your community teach children inside with little time for free-play, nature-based activities, or social-emotional heart-based engagement. Children sit at their desks and memorize for most of the day. This is how it’s been done for years and the school board believes the way they’ve always done it is the right way to continue doing it (even though many of the children are not learning and do not seem happy) This is an example of which story ....

________________________________________________________________________

How does mindfulness support sustainability and sustainability support mindfulness? (2 pts)
What are the four aspects of the Work that Reconnects spiral we learned about and give an example (activity/practice) of how each one can be used to engage and empower groups of people for the revolutionary shift to a life sustaining society? (4 pts)

Describe the harmful effects the industrial growth society has on us at the individual, community, and planetary levels. (2 pts)

What was a powerful group insight/solution we came up with as a class to heal our socio-ecological crises?

Why do you think this solution stuck with you and how will you carry that forward after this class ends? (2 pts)

What impact has “Mindfulness & Sustainability” had on you? Did you learn what you thought you would or something different? (2 pts)

*Instructor notes: I offered the final exam twice (a second time for those who couldn’t make the on Thurs.) I got so emotional both times (I mean close to tears choked up) saying goodbye to my students. One student made me earrings, a beautiful card and gifted me the painting she made for our mindset’s assignment. Another student bought me a book “How to Smile” by Thay and bookmarked “Mindful Classroom, Mindful Society.” Another student made me a card thanking me (also gave me her artwork form mindsets assignment), and I had the hand knit earth from the class barter from yet another student. Students had such kind words for me and lots of love exchanged in our goodbyes. I truly and deeply love this group of students and I’m so grateful for this opportunity to learn and grow and love with them.
Appendix C. Codebook

Qualitative Coding System for Mindfulness & Sustainability

The 4 Components of a Sustainability Mindset/4 sections of the course are the four preset themes:

- Spiritual Intelligence;
- Emotional Intelligence;
- Ecological Worldview; and
- Systems Thinking.

In the first round of coding, final exam questions 6 & 8 to be color coded into one of the 4 preset themes. Bolded keywords are from the 12 principles of a sustainability mindset, directly from Rimanoczy & Klingenberg (2021) and deductively coded (researcher driven). Un-bolded keywords were inductively (data driven) from the data. The definitions associated with each component of the sustainability mindset are provided to support coding. Specifics of community-based solutions, (e.g., food, education, work) would be an ecological worldview because it shows that the students understand what sustainability looks like in practice (Eco literacy) and how they can engage with it (my contribution). In the second round of coding, all comments were then placed more specifically into the 12 principles of a Sustainability Mindset.

![Diagram showing the components of a sustainability mindset]

Spiritual Intelligence (orange): Thoughts that people have about being connected to and compassionate for their “highest self” with a purpose and passion to make a positive difference in the well-being of others and Earth.

Key words: Purpose, oneness with nature, mindfulness, meditation, hopeful, community of love, empowering to make an individual difference, inspired, slowing down, religion, personal healing, gratitude.
Emotional Intelligence (purple): “The ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions.” (Direct quote from, The Sustainability Mindset Principles, p. 111)

Key words: Creative innovation, reflection, self-awareness, empowerment to collaborate with community, community discussion, listening, sharing, and connection/community with peers, honoring pain for the world, community of belonging.

Ecological Worldview (green): Values based on a sound ecological science and a personal relationship with Mother Earth, that understands humans and nature to be inextricably interconnected in the web of life.

Key words: Eco literacy, my contribution, values, community sustainability, personally engaged with sustainability, sustainable mindset, connection between collective change and individual effort in sustainability, the great turning, the Work that Reconnects.

*Applied community sustainability such as food and education

Systems Perspective (yellow): A holistic approach to understanding our world that thrives on honoring diversity, and at the same time, the larger perspectives that unite us all.

Key words: Long-term thinking, both+and thinking, flow in cycles, interconnectedness, the “big picture,” open and connected to the world.

Blue other (not sure where to put something)
Appendix D. Definitions

Spiritual Intelligence: Thoughts that people have about being connected to and compassionate for their “highest self” with a purpose and passion to make a positive difference in the well-being of others and Earth.

Emotional Intelligence: “The ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions.” (Direct quote from, The Sustainability Mindset Principles, p. 111)

Ecological Worldview: Values based on a sound ecological science and a personal relationship with Mother Earth, that understands humans and nature to be inextricably interconnected in the web of life.

Systems Perspective: A holistic approach to understanding our world that thrives on honoring diversity, and the larger perspectives that unite us all.