Closing the Sustainability Values-Action Gap

Development of Interdisciplinary Training for Emerging Corporate Leaders

In Support of MASD Thesis Review
Fall 2023

Sarah Hashiguchi

Thesis Advisor
Denise DeLuca

Committee Members
Trisha Bauman
Deann Garcia

Committee Chair
Dawn Keene

Abstract

Humanity has reached a critical time for decision-making as ecosystem tipping points approach that will determine the future livability of planet Earth. American corporations are major contributors to the climate crisis, driving high rates of emissions and pursuing unsustainable growth for capital gains, rather than working towards a life-centered economy that prioritizes the health of all people and the planet. This thesis addresses the need for emerging corporate leaders who value sustainability, to act in alignment with those beliefs when it comes to taking action in the corporate sector. Using design for behavior change, this thesis developed a training program built around an in-person retreat. The material covered uses the combined disciplines of sustainability, design, and mindfulness to equip participants with the knowledge, skills, and understanding needed to have the capabilities to act in their respective workplaces in accordance with their sustainability values, especially as new opportunities arise when they step into more powerful leadership positions within their corporations. Supported by a new network of like-minded change-makers, participants of the program have the potential to steer the American economy toward a life-centered future and inspire greater global action to follow suit.

Table of Contents

Project Introduction

problem | challenge | thesis | idea | strategy | impact | scope | goals | insights

"There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all...The choices and actions implemented in this decade will have impacts now and for thousands of years."[1] –2023 IPCC Report

Problem Statement

Emerging U.S. corporate leaders* residing in the U.S. who exhibit sustainability behaviors in their personal lives, are experiencing a sustainability values-action gap at work,[2] hindering progress towards achieving a life-centered economy.[3]

problem

Sustainability Challenge

The **Fortune 500 companies** are estimated to be responsible for around **27% of global emissions**,[4] however, despite American corporations acknowledging that action needs to be taken, **the super majority of corporate sustainability initiatives are currently vastly inadequate to mitigate devastating ecosystem and social tipping points** around the world as current business strategy continues to pursue growth at the expense of social equity and our ecosystem health.[5]

Emerging corporate leaders, mostly categorized by age as millennials, are one of the first generations to indicate they are **unsatisfied with business as usual** and would rather pursue their sustainability values to push for systemic change.[2]

Despite **90% making an effort to reduce their environmental impact**, these millennials still have **trouble acting on these values at work**.[2] While **84% of millennials believe their employers are not strongly committed to fighting climate change**, only 43% say they have put some pressure on their employer to take action.[2] While these statistics are based on global millennial data, conservative extrapolation could infer that similar numbers also apply to the target demographic of this thesis.

It is also important to note that U.S. **"Millennials have significantly more student debt, lower levels of homeownership, and less net worth than previous generations,"**[6] and therefore are likely to face increased personal risks to their financial security if they challenge priorities and practices in their workplaces.

Only 52% of global millennials feel empowered to drive change within their organizations, and many have requested employers make it a **top priority to commit to visible climate actions**, including providing **training** to help people make better environmental decisions.[2] Again, while data was collected from a global audience, extrapolation could infer that similar numbers also apply to U.S. millennials working in fortune 500 companies.

Thesis Statement

Training that integrates design, mindfulness, and sustainability can equip emerging U.S. corporate leaders who reside in the U.S. and work for U.S. fortune 500 companies, with the knowledge, skills, and understanding needed to align their sustainability-focused values with their professional actions, enabling behavior change at an individual level to ultimately contribute to significant progress on an organization scale towards achieving a life-centered economy.

thesis

Idea

The initial idea behind this thesis work is to help professionals who are on track to step into U.S. corporate leadership positions, to identify and address disconnections that are creating a **sustainability values-action gap in the workplace**.

By examining **core values** and exploring **inner development work**, emerging leaders will expand their leadership capacities, better preparing them to influence their organizations towards achieving a **life-centered economy.**

Emerging U.S. corporate leaders will enroll in a training that will cover the **integration of design thinking , sustainability frameworks, and mindfulness** to effectively achieve the **behavior change** needed to redirect the trajectory of a traditional leadership path and guide participants to becoming **evolving leaders** (as labeled for the purpose of this thesis).

The training will contain information and practice activities to slowly introduce new perspectives and strategies, while ultimately culminating in the creation of a **personal action plan** for sustained change and accountability beyond the duration of the programmed material.

While there are innumerable paths that lead to the types of leader that would contribute to a life-centered economy, **this thesis work offers one possible solution** that deviates from the traditional path.

idea

Strategy

Implementation

The proposed training will be available to **self-selecting participants** regardless of their industry and independent of internal company development offerings. This will ensure that attendees are **motivated to achieve the objectives** of the training and allow them to connect with other like-minded individuals from outside their organization. This new network not only further engenders personal integration of the training, but also cultivates a **community of support and accountability** for emerging leaders to lean on as they advance in their careers.
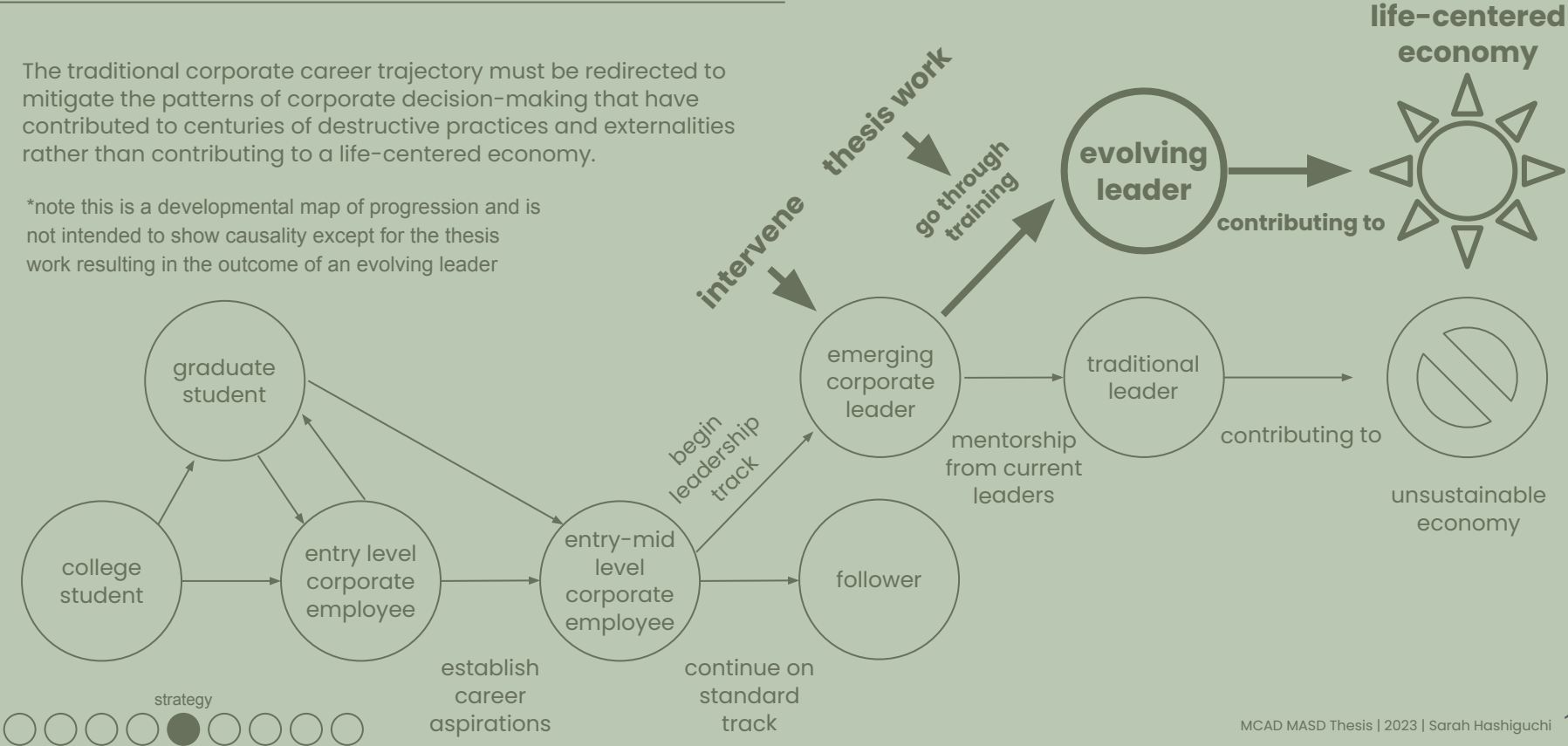
Getting There

Further research will need to be conducted to better understand the **barriers and the systematic factors** contributing to the sustainability values-action gap in the workplace and how best to integrate frameworks in a way that aligns with the selected behavior change model. **Research insights will inform how the training is structured** including the schedule, activity formats, learning styles, and amount of content included as to be useful rather than overwhelming. The formal business plan, including the 'go-to-market' strategy, are missing components in this document, but would need to be addressed if this work continues beyond this thesis project.

strategy

Professional Journey Map

The traditional corporate career trajectory must be redirected to mitigate the patterns of corporate decision-making that have contributed to centuries of destructive practices and externalities rather than contributing to a life-centered economy.

*note this is a developmental map of progression and is not intended to show causality except for the thesis work resulting in the outcome of an evolving leader

thesis work

intervene

go through training

life-centered economy

evolving leader

contributing to

emerging corporate leader

traditional leader

begin leadership track

mentorship from current leaders

contributing to

graduate student

college student

entry level corporate employee

entry-mid level corporate employee

follower

unsustainable economy

establish career aspirations

continue on standard track

strategy

Potential Impact

This thesis work has the potential to impact about a million emerging corporate leaders within the U.S. Participants that have moved through the program and stepped into leadership roles have the potential to act on their values to reduce nearly a third of the global GHG emissions that their American corporations produce.

Total Potential Participants

5% of 21,738,000 = 1,086,900

"A high-potential employee is usually in the top 5% of employees in an organization" [7]

Americans ages 25-34 in management, business, & financial operations[8]

professionals who are on track to step into U.S. corporate leadership positions
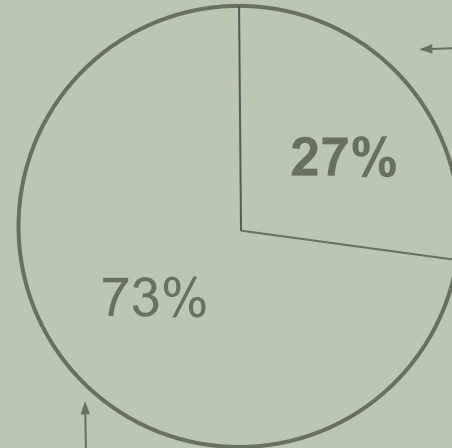
90% of 1,086,900 ≈ **1 Million**

of U.S. millennials practice sustainability at home (based on an inference from global millennial data[2])

professionals who are on track to step into U.S. corporate leadership positions

potential participants

Total Worldwide Greenhouse Gas (GHG) Emissions per Year

27%

73%

everyone else in the world

500 largest companies in the U.S. economy[4]
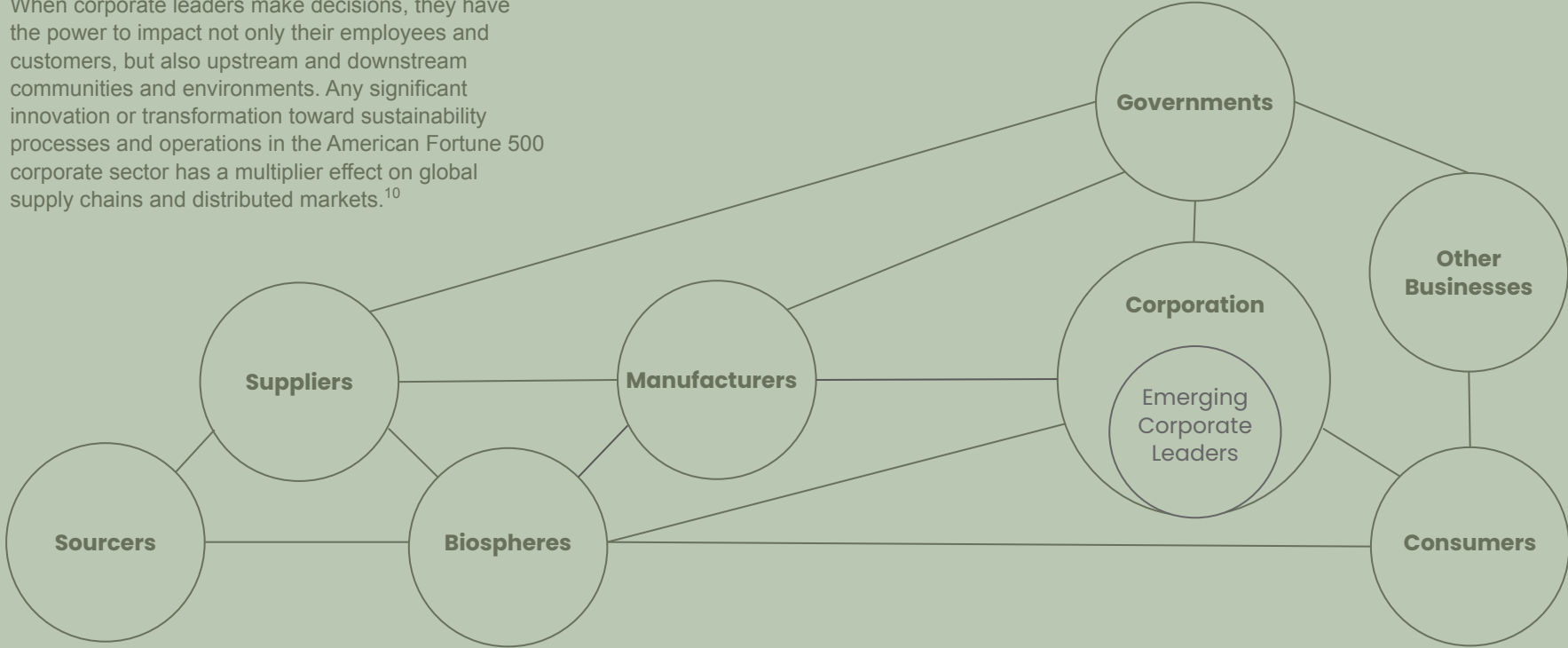
=

13.15 billion tonnes GHG emissions per year[4]

=

GHG emissions from 11,708 coal-fired power plants in a year[9]

impact

Potential Impact

When corporate leaders make decisions, they have the power to impact not only their employees and customers, but also upstream and downstream communities and environments. Any significant innovation or transformation toward sustainability processes and operations in the American Fortune 500 corporate sector has a multiplier effect on global supply chains and distributed markets.[10]

Scope

Corporate America

Target Audience

Emerging Leaders

practice sustainability at home

don't practice sustainability at home

Current Senior Leadership

Small Mom & Pop Shops

Followers

Mid-sized Chains

Entry Level Employees

scope

The scope of this thesis includes the behaviors of emerging leaders bound to step into positions of power in American corporations within the next five years.

This work does not include current senior leadership, nor does it cover emerging leaders who do not already practice sustainability behaviors in their personal lives. While ancient yoga and mindfulness practices have ties to specific religions, this thesis work will focus on secular adaptations.

My Professional Goals

- Effectively communicate design and sustainability concepts to people across various industries

- Improve people's overall wellbeing – share optimism, inspiration, and joy

- Empower individuals with tools to join and stay resilient in the fight against climate change

- Connect different schools of thinking to create innovative ways to approach new problems

- Use personal strengths to impact larger systemic change

goals

Project Introduction Insights

- Many leadership training focus on hard skills, which leaves opportunity for more dynamic trainings[11, 12]

- People must develop self-awareness and cultivate self-regulation skills in order to lead others most effectively[13]

- Creating the journey map proved to be a helpful visual in better understanding the point of intervention and end goal

- A related issue to address in future work would be reconciling personal values with a company's values-action gap when an employer vocally promotes sustainability business values while actively greenwashing or taking no action at all → a different misalignment

- Coming from a background of over two decades worth of practice, intentionally making time for meditation and breathwork before thesis working sessions help ease the stress and overwhelm of the process → walk the walk

insights

Project Execution

(set up) (empathize) (define) (ideate) (prototype) (test) (insights)

☀ = insight reflected in the Project Outcome

"Design is the first signal of human intention."[14]

–William McDonough

architect and co-author of Cradle to Cradle

Project Objectives

- Empower emerging leaders to step into future influential roles equipped with the knowledge, skills, and understanding to demonstrate sustainability values-based leadership

- Integrate frameworks from different disciplines to highlight the emergent theme of deep connection* to create a holistic approach to values-based action

- Show mastery over the understanding and application of select sustainability frameworks

- Use a case study to demonstrate the potential of this work to positively impact future business leadership

- Contribute to efforts to effect the systemic change required to achieve a life-centered economy

set up

*see slide 27 & 28 for "deep connection" definition and context

Proposed Process

Using Design Thinking to work through the thesis development process, it was predicted that ideation would illuminate some gaps in knowledge about the target audience and spark more empathy work, while prototyping may show the need for more ideation.[15] Finally, responding to insights from the first test might require more ideation and prototyping before running again.

set up
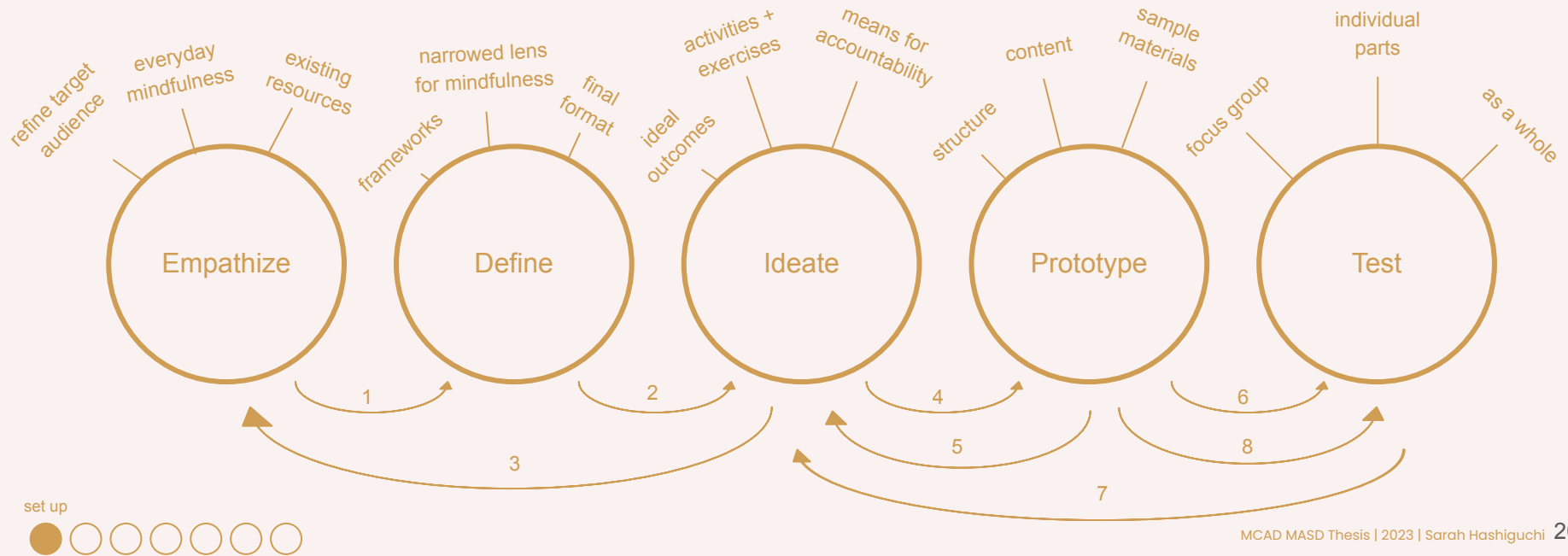
Actual Process

The actual thesis development process spent much more time in the Empathize stage than originally predicted to ensure the root of the problem and target audience were adequately understood. The test also became hypothetical, so there was no additional ideation or prototyping to prepare for a second test.
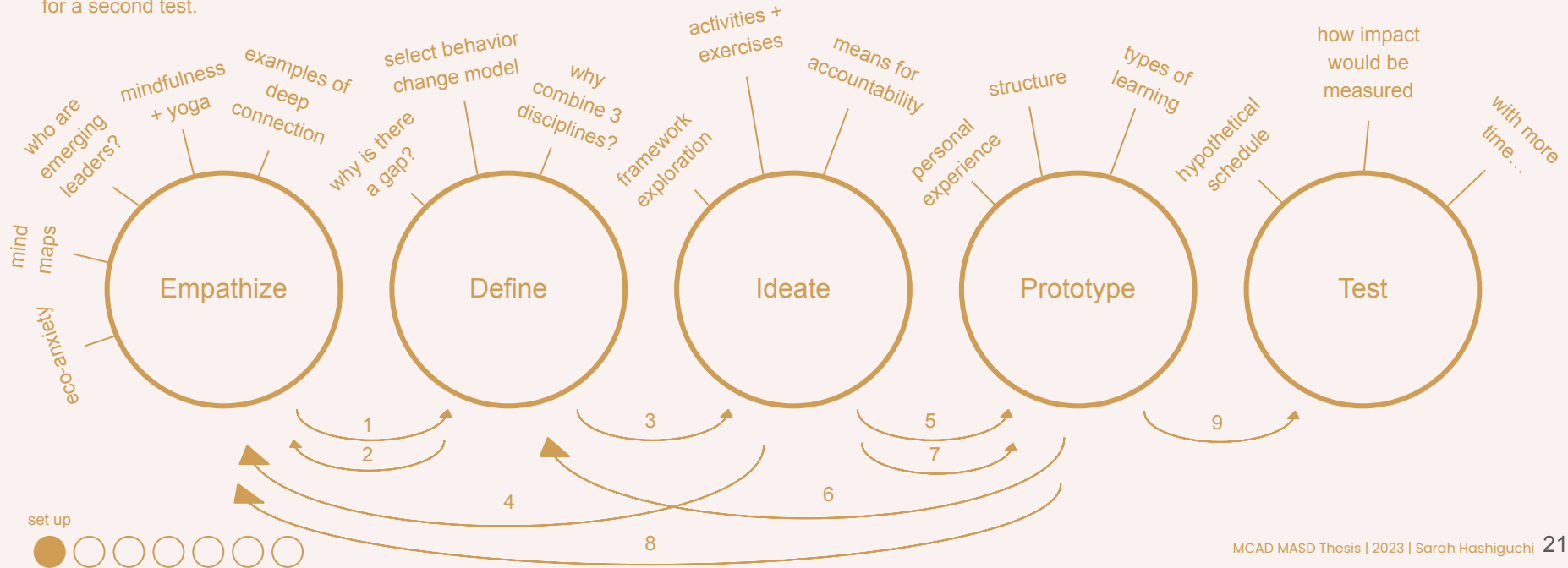
Frameworks for Design Process

This is an overview of the frameworks used to design and develop this thesis work. Each was used to guide research and discovery as the final project began to take form. These frameworks will be revisited in more depth in upcoming sections.

Systems Thinking[16]

What?
A way of understanding complex connections between individual parts whose dynamic relationships and feedback loops influence each other and the whole.

Why?
This framework helped determine significant leverage points that served as places in which to intervene in the larger system; by affecting change at these points, the systems view also gives context for cascading effects of potential impacts of this thesis work on a larger scale.

Design Thinking[15]

What?
A non-linear process that emphasizes a human-centered approach to problem solving and involves working through ideas quickly in order to learn and improve upon each iteration.

Why?
Design thinking for this type of a social issue – which is one of demographic perceptions/values/behaviors – is an approach that prototypes possible 'solutions' in view of a context. Systems thinking allows insight into the systemic factors and drivers within that context.

COM-B Model[17]

What?
A behavior change model that recognizes capability (C), opportunity (O), and motivation (M) as the key factors in enabling behavior (B) change.

Why?
The ultimate goal of this thesis is to redirect the behavior of emerging leaders to support them in closing their sustainability values-action gap in the workplace, which will require knowing where and how to successfully intervene.

set up

*see slide 47 for expanded COM-B definition and context

Frameworks for Training Program

This is an overview of the frameworks used to create the final project outcome of the Training Program. These frameworks, with the addition of Design Thinking, are introduced directly to participants of the training program. [15] Again, these frameworks will be revisited in more depth in upcoming sections.

The Natural Step[18]

What?
A process for envisioning an ideal future, assessing current levels of sustainability of an organization against four sustainability principles, and building a plan to achieve that ideal future.

Why?
The A, B, C, and D steps that guide the overall process include important activities such as backcasting and devising a plan, which can offer both inspiring and actionable steps for emerging leaders.

The Living Principles[19, 20]

What?
A framework that addresses four streams of sustainability – environment, people, economy, and culture – to create an actionable roadmap for leaders to improve sustainability in their organization.

Why?
The framework is simple enough for first time users to understand and apply quickly, but also allows for deeper insights when used to assess more complex projects.

Inner Development Goals[21, 22, 23]

What?
A series of 23 skills across five dimensions that are necessary to address sustainability issues, understand complex problems, and accomplish the UN Sustainable Development Goals.

Why?
These existing goals help confirm specific measures of inner growth to work on and will therefore inform thesis outcome learning objectives.

set up

*see slides 60-62 for expanded definitions and context

EMPATHIZE

Thesis Process

Research to better understand the humans who will have the opportunity to advance the development of corporations' sustainability impact. Who are they now and what are the goals for the future?

- Who Are Emerging Corporate Leaders?
- Who Are They Trying to Become?
- What Will They Feel?
- Deep Connection
- Achieving a Life-Centered Economy

- Pain Points
- Socioeconomic Pressures
- Empathy Maps
- Empathize → Define

empathize

Who Are Emerging Corporate Leaders?

In this thesis, emerging corporate leaders are defined as millennials residing in the U.S. and working in American fortune 500 corporations who will be stepping into higher leadership positions in the next five years. Identifying patterns around this demographic's wants and needs provides background to inform how best to work with and support them on their behavior change journey.

Distressed

"...millennials are deeply worried about the state of the world and are fighting to reconcile their desire for change with the demands and constraints of everyday life"[2]

Empathetic & Adaptable

"Empathy and Adaptability are unique to Millennials compared with all other generations' top five strengths"[24]

Seeking Change

"Millennials are pushing for change in the world — including in the marketplace and the workplace. They don't accept 'that's the way it has always been done' as a viable answer"[24]

Eager to Step Up

"...eagerness to take the torch from those who, in their opinion, are doing too little to improve society and address the issues they care about most"[25]

empathize

Who Are They Trying to Become?

Emerging corporate leaders strive to be effective leaders for sustainable change (referred to in this thesis as evolving leaders).[2, 24, 25] Collections of the qualities necessary to be one of these leaders have been defined by a number of organizations working in a similar space. After exploring the following options, this thesis focuses on the **Inner Development Goals** due to the close alignment with the UN Sustainable Development Goals.

Inner Development Goals [21, 22, 23]
Qualities within the framework of:

- Being – relationship to self
- Thinking – cognitive skills
- Relating – caring for others & the world
- Collaborating – social skills
- Acting – enabling change

AACSB[26]
Emerging Competencies:

- Co-Creation
- Compassion
- Depolarization
- Discernment
- Interconnectivity
- Paradox
- Self-reflexivity

The B Team[27]
From a Letter to Leaders:

"bold and brave leadership, embracing not only purpose, but also the principles of sustainability, equality and accountability"

Soil[28]
Pillars of Inspired Leadership:

- Awareness
- Balance
- Compassion
- Diversity
- Ethics

empathize

What Will They Feel?

As emerging corporate leaders work to become evolving leaders, the goal is for them to embrace the feeling of **deep connection**, most often understood as a knowing of one's place in the universe and the interdependence of life across the planet. They will explore on a somatic level how one's actions have a ripple effect of impact throughout the grand network of biodiversity on Earth.

Deep Connection

How has deep connection been defined? Where else has the concept arisen? Why is it important? Dominant cultural and thought systems that represent Deep Connection include:

Indigenous Wisdom

"Each person, human or no, is bound to every other in a reciprocal relationship. Just as all beings have a duty to me, I have a duty to them. If an animal gives its life to feed me, I am in turn bound to support its life. If I receive a stream's gift of pure water, then I am responsible for returning a gift in kind. An integral part of a human's education is to know those duties and how to perform them."[29]

The Hanover Principles

Principle 3: "Respect relationships between spirit and matter. Consider all aspects of human settlement including community, dwelling, industry and trade in terms of existing and evolving connections between spiritual and material consciousness."[30]

Deep Ecology

"The cornerstones of his [Norwegian philosopher and ecologist Arne Naess] deep ecology perspective include self-realization and biocentric equality. Self-realization is the concept of being connected to other life forces. Biocentric equality means that all species have the intrinsic right to exist. Thus, deep ecology asks us to reexamine our role in the web of life."[30]

The Systems View of Life

"The systems view of life is an ecological view that is grounded, ultimately, in spiritual awareness. Connectedness, relationship, and community are fundamental concepts of ecology; and connectedness, relationship, and belonging are the essence of spiritual experience. Thus it is not surprising that the emerging systematic and ecological paradigm is in harmony with many ideas in spiritual traditions."[31]

empathize

Achieving a Life-Centered Economy

What it might feel like to live in a life-centered economy:

Life-Centered Economy: "places well-being of all lives, social equity, and ecological sustainability at its core, moving beyond traditional growth-focused approaches. By embracing circularity, regenerativity, and inclusivity, it aims to create thriving communities, preserve resources, and distribute wealth and opportunities more equitably."[32]
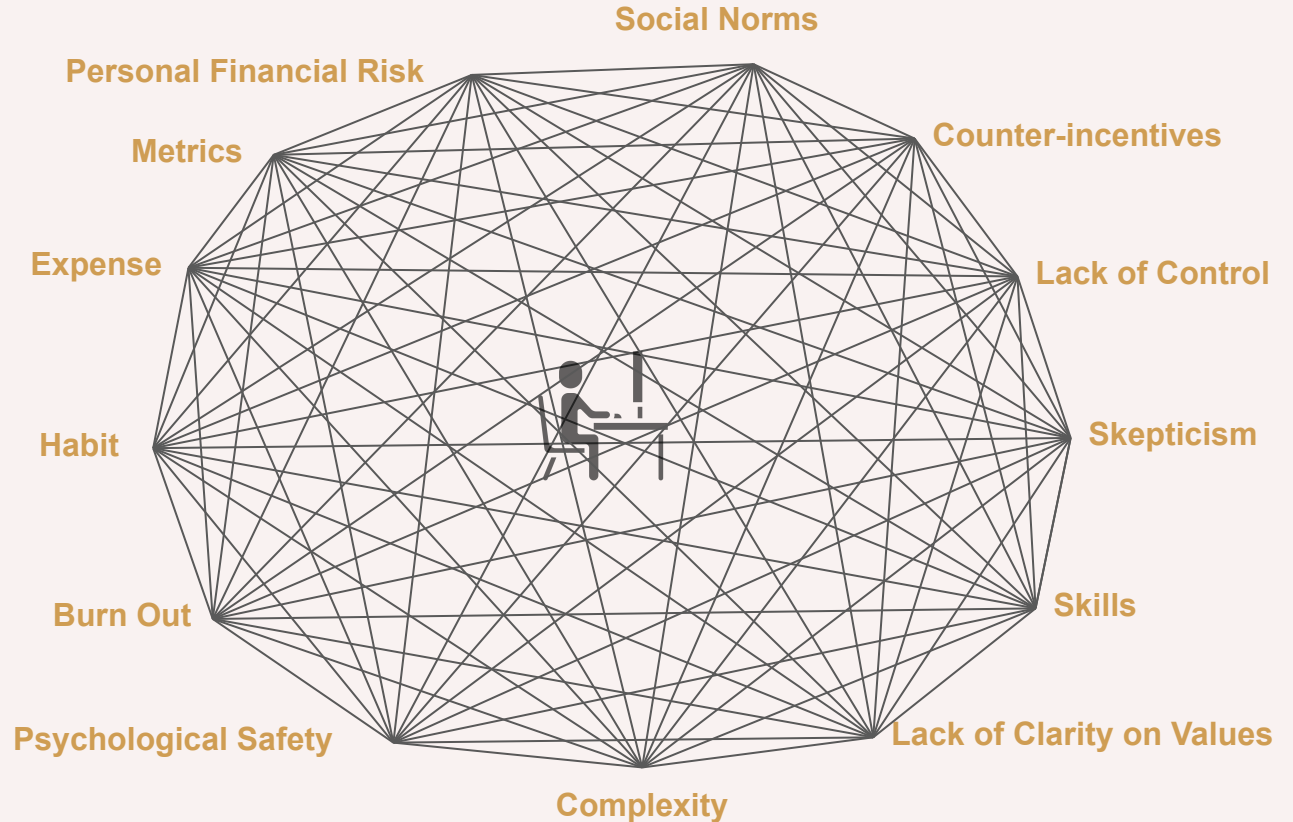
empathize

Pain Points

Why is there a values-action gap?

It's impossible to pinpoint a single reason, and the overlap of risks (which could be perceived as overwhelming barriers) that emerging corporate leaders face in the workplace, increase the challenge of closing the gap.

Research includes reasons behind values-action gaps among broader populations and types of sustainable behavior, following the logic that these pain points are likely shared by emerging corporate leaders trying to enact sustainable influence at work.[33, 34, 35, 36, 37, 38, 39]

"Because people are multifaceted, there are inherent tensions and tradeoffs in the lives of even the most sustainability-minded among us."[39]

empathize

Social Norms

Personal Financial Risk

Counter-incentives

Metrics

Expense

Lack of Control

Skepticism

Habit

Skills

Burn Out

Lack of Clarity on Values

Psychological Safety

Complexity

Socioeconomic Pressures

Examining a broader systems view, the situational conditions of U.S. millennials' (the prominent age demographic of our target audience) existence shaped by the current economy also play an important role in understanding pressures they feel to keep a well-paying corporate job. Regardless of the actual job risk around enacting sustainable influence at work, the perception of risk can be very real and can be a disincentive to closing their values-action gap.

"...the **median net worth** of Millennials aged 35-44 is **20% lower** than that of the Baby Boomers and Gen X at the same age"[40]

"Millennials are seeing their health decline faster than the previous generation as they age," in regards to both physical and mental health, which impacts their **healthcare costs**. [41]

"While data on the amount of **student loan debt per Millennial** graduate varies, the consensus median is somewhere around **$25,000-$30,000 per borrower**."[40]

"**Half** of Gen Zs and millennials say they **live paycheck to paycheck**." [41]

"**Economic uncertainty is causing them to postpone big life decisions** – many say it will become harder or impossible to buy a house, start a family, ask for a promotion, or start a new job if the economy doesn't improve."[41]

The high cost of living is the top societal concern for millenials, ahead of climate change. [42]

empathize

Empathy Maps[43]

Emerging Corporate Leader

Thinks	Feels
• It is hard to act on sustainability values at work due to compounding pain points and a complex macroscape of contextual factors • Not sure where to start • Business cannot continue to go on as usual	• Unease with their organization's negative externalities • Unsupported by leadership • Socioeconomic pressures • Job risk around speaking up • Eco-anxiety, overwhelmed, isolated, cognitive dissonance • A desire to change behavior

Sees	Does
• Alarming climate reports • Opportunities for sustainable decisions getting passed up • Peers with similar values-action gaps • Organizational advancement predominantly favoring those high-potentials achieving/surpassing financial targets • Beginnings of a social movement on the rise	• Conforms to performance objectives and targets as set by senior leadership • Practices sustainable behaviors at home, though does not advocate for sustainability initiatives in their functional departments.

Evolving Leader

Thinks	Feels
• All human systems and the planetary biosphere are interconnected • Thinks in terms of interacting with complex systems • Big changes are possible • It is possible to navigate workplace risks and opportunities to effect positive change	• Embodied connection to their personal values • Deep connection to life and the elements on Earth • Support from community • Socioeconomic pressures • Hopeful for the future

Sees	Does
• A growing shift in company priorities • Ways to support others • Opportunities to collaborate across industries to increase impact • Relationship between risks and alignment	• Capable of verbally expressing their values • Acts in alignment with values in all aspects of personal and professional life • Shares inspiration and information with others • Mentors new emerging leaders • Guides followers towards a life-centered economy

empathize

Empathize → Define

The **Empathize** stage dove into systems thinking and provided a situational analysis to address the complex macroscape of the contextual factors – including socioeconomic pressures – contributing to the incentives and disincentives for emerging corporate leaders to close their values action gap. Work in this stage also acknowledged the active agency of the participants and the dynamic situation of a building social movement towards a new tipping point in corporate America as organizations begin to realize the sustainability-driven changes required to to not only combat environmental and social tipping points, but also attract and retain talent in the coming years, among other factors, which are already impacting markets and business strategy.

The **Define** stage will build on the contextual learnings and keep them at the forefront of project development.

empathize

DEFINE

Thesis Process

Use empathy insights to more accurately and acutely articulate the problem statement. Develop a unique design vision to address the challenge.
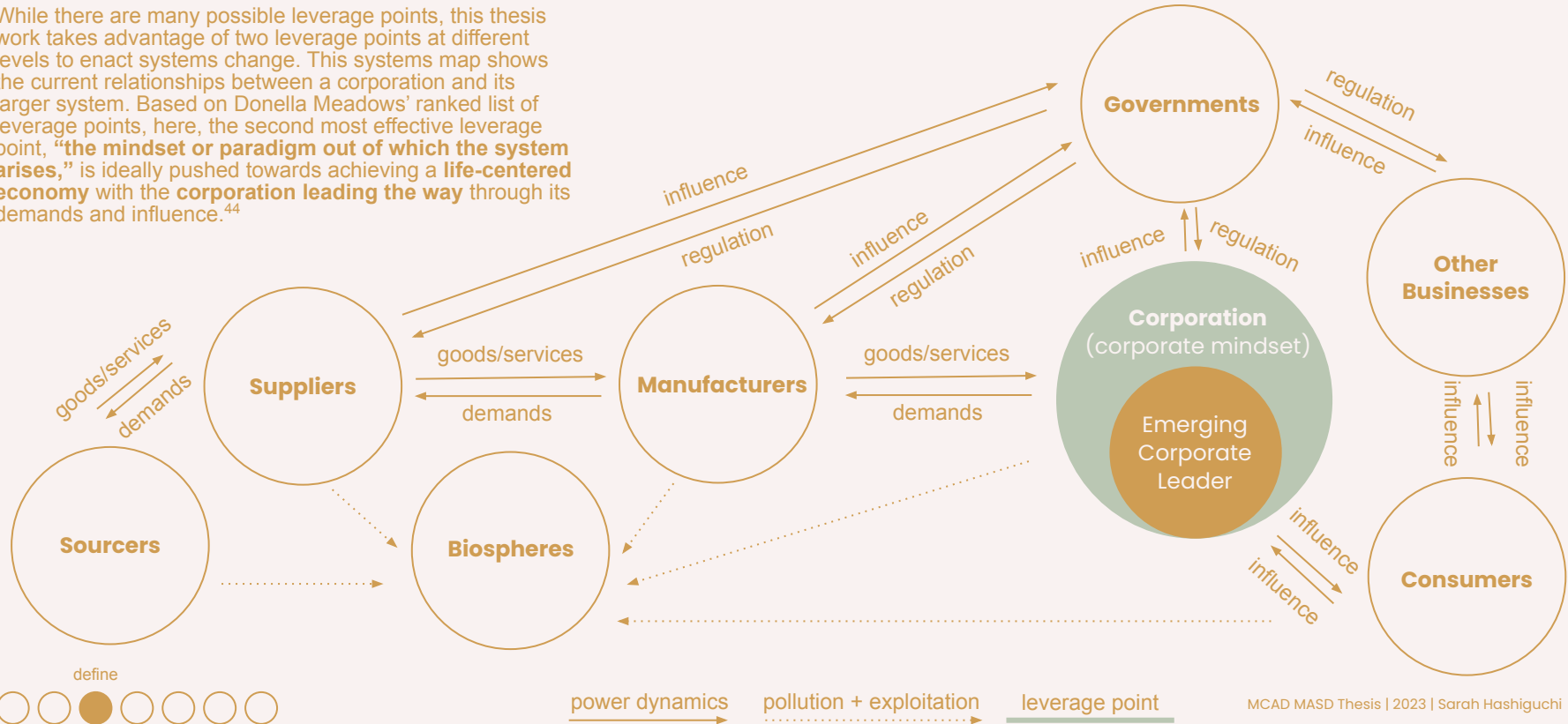
- First Leverage Point
- Second Leverage Point
- Knowledge, Skills, and Understanding
- Sustainability x Design x Mindfulness
- Sustainability x Design
- Design x Mindfulness
- Mindfulness x Sustainability

- Other Values Action Gaps
- Similar Existing Solutions
- Behavior Change Model Exploration
- COM-B
- Define → Ideate

define

First Leverage Point

While there are many possible leverage points, this thesis work takes advantage of two leverage points at different levels to enact systems change. This systems map shows the current relationships between a corporation and its larger system. Based on Donella Meadows' ranked list of leverage points, here, the second most effective leverage point, **"the mindset or paradigm out of which the system arises,"** is ideally pushed towards achieving a **life-centered economy** with the **corporation leading the way** through its demands and influence.[44]

Governments

regulation

influence

influence

regulation

influence

regulation

influence

regulation

Other Businesses

influence

influence

goods/services

goods/services

goods/services

Corporation
(corporate mindset)

demands

demands

demands

Suppliers

Manufacturers

Emerging Corporate Leader

goods/services

demands

Sourcers

Biospheres

influence

influence

Consumers

define

power dynamics   pollution + exploitation   leverage point

Second Leverage Point

Honing in on emerging corporate leaders as the change-makers, this thesis uses **personal values as the second leverage point**, tapping into the most effective place to intervene in a system: **"the power to transcend paradigms."**[44]

"Inner dimensions as leverage points for transformation put[s] emphasis on the role of the individual, while not ignoring the necessity for collective and systems change."[45]

"An expansion of individual agency, awareness and broadening of perspectives, is likely to facilitate the emergence of a new paradigm or worldview, which is **considering wider circles of care and impact from individual human action to a broader consideration of human and non-human life**."[45]

This systems map illustrates the extent of impact the emerging corporate leader has, capturing the interface of their personal values with their role in the corporate context inside the boundary line, while continuing to acknowledge external pressures.

define

system boundary   influence   pressure   leverage point

Knowledge, Skills, Understanding

While pain points are ever moving and evolving, **knowledge**, **skills**, and **understanding** help people to step outside the problem and start to break down the complexity. All three levels (also referred to as head, hands, and heart) work together "**balancing cognitive, psychomotor and affective domains**… [sustainability education] programs and courses meeting these learning objectives exhibit an emergent property," which has been termed **transformative sustainability learning** (TSL).[46]

Since "...both, scholars and practitioners increasingly highlight that the techno-scientific (**outward**) focus of sustainability transformations and transitions needs to be complemented with psychological, cultural, artistic and spiritual dimensions of human life (**inward** focus) and its future possibilities... inner dimensions like consciousness, **values**, worldviews, beliefs, spirituality and **human–nature-connectednes**s are seen as **inevitably important for sustainability transformation** at both the individual and societal plane."[47]

"Sustainability is an emotionally charged theme of study and people often have difficulty in grappling with its complexity," therefore it is particularly **necessary to address all three levels of learning**.[48] To achieve TSL, this thesis work teaches knowledge, skills, and understanding through the lens of **sustainability, design, and mindfulness** disciplines.
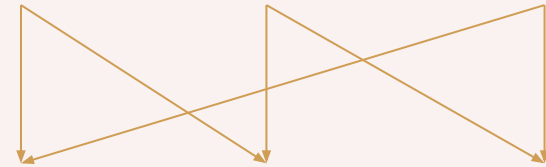
Teaching Pedagogy:

Knowledge   Skills   Understanding

Pillars of Thesis:

Sustainability   Design   Mindfulness

define

Transformative Sustainability Learning

Sustainability, **design**, and **mindfulness** have coexisted in different combinations that have provided a multitude of benefits to the practitioners, including support for acting on sustainability values.

While combining two disciplines at a time provides some benefits, there continues to be a **lack of ultimate synergy without all three**. Only then, do the emergent properties arise that will enable transformative sustainability learning (**TSL**).[46]
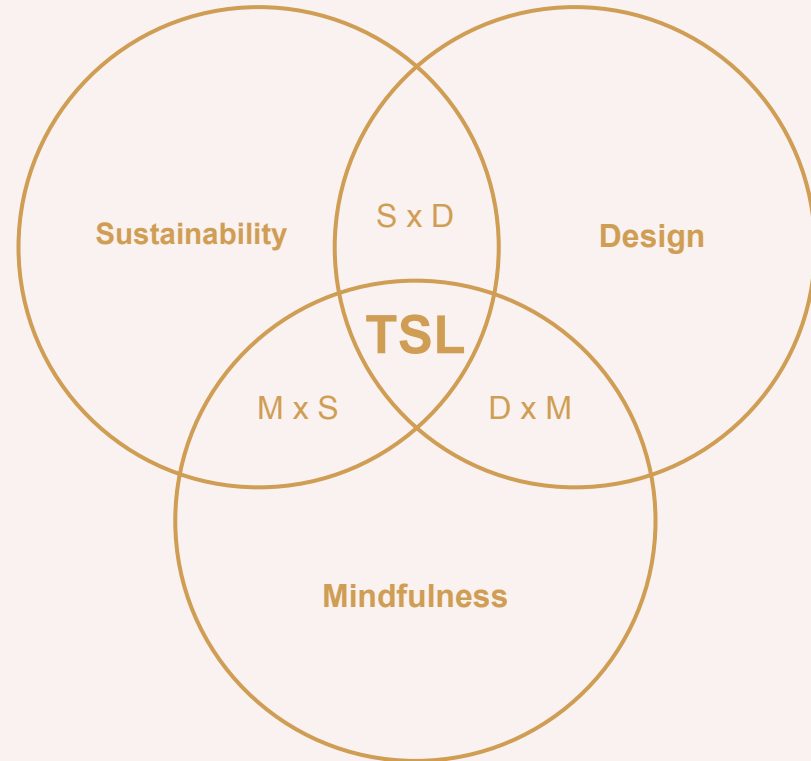
Sustainability x Design

Sustainability and design have become so intertwined in some areas of practice, that the combination has resulted in fields such as green design, ecodesign, emotionally durable design, design for sustainable behavior, Cradle to Cradle, biomimicry, and Design for Sustainability (DfS).[49]

What can both disciplines achieve together?

- **Life-Cycle Thinking:** Consideration of the entire life cycle of a product or system, from raw material extraction to disposal, to identify opportunities for sustainability improvements.[49]

- **Circularity and Regeneration**: Frameworks and processes to support closed loop material flows, industrial ecology principles, and earth-positive strategies.[49]

- **Long-Term Viability:** Solutions that are economically viable and have a positive impact on the environment and society over the long term.[49]

- **Innovation:** Development of eco-friendly materials, energy-efficient technologies, creative problem-solving, and the potential for sustainable behavior change.[49, 50]

- **Community Engagement:** Work with communities to ensure their needs and values are considered in local initiatives, including creating safer, cleaner biospheres around factories.[49]

What might still be missing?

- **Emotional Intelligence:** Mindfulness often enhances emotional intelligence, which is essential for understanding and effectively managing emotions in leadership roles. The absence of mindfulness may result in challenges in handling stress, conflicts, and employee well-being in the face of uncertainty, such as that which arises with the process innovative design.[51]

- **Decision-Making Clarity:** Mindfulness helps leaders make clearer, more informed decisions. The absence of mindfulness may lead to less mindful, reactive, or impulsive decision-making.[51]

- **Resilience:** Mindfulness practices increase resilience, enabling leaders to bounce back from setbacks and adapt to change. The absence of mindfulness may result in lower resilience and adaptability in the face of challenges.[52, 53]

- **Self-Awareness:** Mindfulness deepens self-awareness, which is essential for effective leadership. Without mindfulness, leaders may have limited awareness of their strengths, weaknesses, and their impact on others.[51]

define

Design x Mindfulness

Design and mindfulness share a human-centered approach that can be thoughtful and creative. Since inner awareness is essential for designers, some research argues mindfulness should be made explicit in design education.[54]

What can both disciplines achieve together?

- **Innovative Problem-Solving:** The fusion of mindfulness and design can empower corporate leaders with innovative problem-solving techniques to address complex challenges.— Designers have also noted when mindful design is applied to products, it can be related to behavior change.[55]

- **Human-Centered Leadership:** Mindfulness fosters empathy and self-awareness, allowing corporate leaders to adopt a more human-centered leadership approach, understanding and responding to the needs of both employees and customers.[53]

- **Ethical Decision-Making:** By integrating mindfulness, corporate leaders can make more sustainable and ethical decisions, considering the environmental and social implications of their design choices.[56]

- **Enhanced Team Collaboration:** Mindful leadership can improve team collaboration, communication, active listening, and co-design, creating a harmonious work culture that promotes productivity and well-being.[54, 57]

What might still be missing?

- **Sustainability Alignment:** Without sustainability knowledge and frameworks, corporate leaders may struggle to align their business practices with broader sustainability goals and principles, impeding the development of sustainability strategies, clear targets, and progress reports.

- **Environmental Impact Mitigation:** Lack of sustainability knowledge may hinder leaders from effectively identifying and mitigating their organization's environmental impact, potentially resulting in missed opportunities for resource efficiency and environmental conservation.

- **Global Perspective:** Sustainability knowledge could provide a broader, global perspective on the interconnectedness of environmental, social, and economic issues, which can be critical in making informed decisions in an increasingly globalized world.

- **Resource Efficiency Optimization:** The absence of sustainability knowledge may prevent leaders from optimizing resource efficiency, potentially leading to wasted resources and missed cost-saving opportunities.

define

Mindfulness x Sustainability

Mindfulness and sustainability offer insight into connection and alignment with nature, while there may be a lack of process, experimentation, and result without the factor of design.

What can both disciplines achieve together?

- **Disruption of Unsustainable Habits:** The combination of mindfulness and sustainability has been shown to increase "subjective well-being, pro-social behaviours, and awareness of one's intrinsic values," which coupled with emotional awareness and self-regulation could disrupt unsustainable habits.[58, 60]

- **Stress Management:** Mindfulness practices enhance resilience and stress management, crucial for corporate leaders dealing with the challenges and uncertainties of sustainability initiatives.[59, 60]

- **Empathetic Leadership:** Mindfulness nurtures empathy, which is essential for understanding the needs of employees, stakeholders, and communities impacted by sustainability initiatives, promoting more inclusive and ethical leadership.[53, 60]

- **Environmental Stewardship:** Mindfulness promotes a deeper connection to the environment, encouraging corporate leaders to become better stewards of the planet and adopt environmentally responsible practices within their organizations.[60]

What might still be missing?

- **Creative Problem-Solving:** Design thinking techniques are essential for creative problem-solving, which can lead to innovative solutions for sustainability challenges. The absence of design may limit the ability to generate novel ideas and approaches.

- **Visual Communication:** Design can help visualize complex sustainability data, playing a significant role in visual communication. The lack of design may hinder leaders' ability to effectively communicate sustainability initiatives and progress to internal and external stakeholders.

- **Systemic Thinking:** Design often promotes a systemic perspective. Without design, leaders may struggle to see the interconnections between various sustainability elements, potentially leading to less effective strategies.

- **Prototyping and Testing:** Design involves prototyping and testing, allowing leaders to refine sustainability solutions. Without design, corporate leaders may miss opportunities to test and improve sustainable initiatives.

define

Sustainability x Design x Mindfulness

While sustainability and design are necessary and frequently used tools in the pursuit of sustainable behavior change, the addition of mindfulness provides access to the creative leadership qualities and skills required for transformational evolution.

Sustainability

Design

S x D

TSL

M x S

D x M

Mindfulness
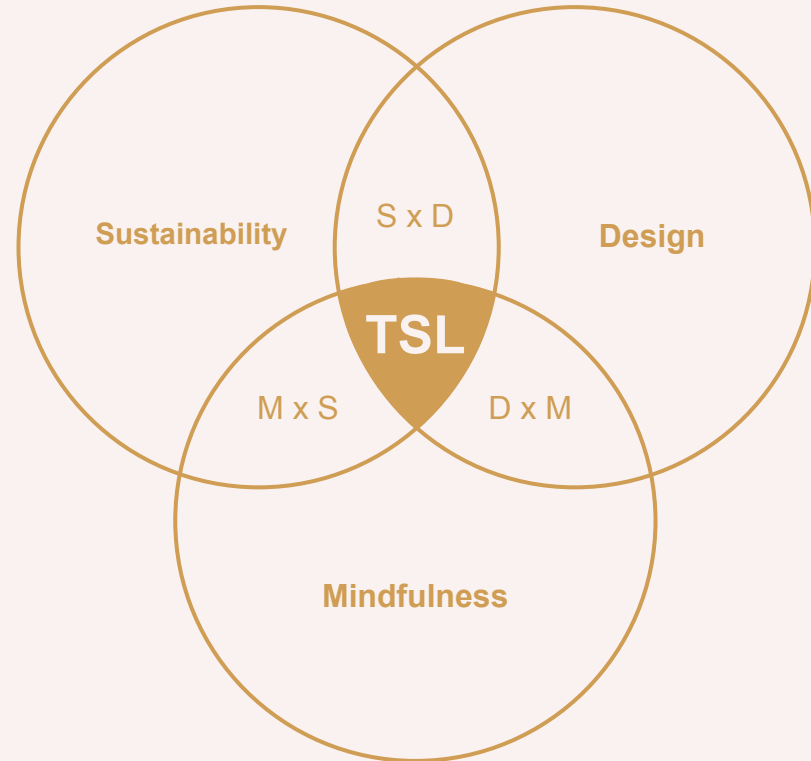
define

Other Values Action Gaps

Where else might people be experiencing values-action gaps? What do these all have in common? These all happen to be examples of cognitive dissonance.

Valuing **health + fitness**, but failing to exercise regularly or maintain a healthy diet

Valuing **financial responsibility**, but overspending and failing to create a budget or plan for the future

Valuing **time management**, but consistently procrastinating, not prioritizing tasks, or wasting time scrolling through social media

Valuing **conflict resolution**, but using confrontational reactionary dialog, while not seeking or practicing forms of nonviolent communication

Valuing **work-life balance**, but voluntarily working overtime, neglecting personal time, or failing to set boundaries

Valuing **community involvement**, but not volunteering, participating in community events, or supporting local causes

define

Similar Existing Solutions

How have other values-action gaps been addressed? Research on closing values-action gaps in other contexts point to specific keys for success:

Link goals + routines

☀ "abstract personal values have to be transformed into **specific goals and linked to behavioral routines** before they can initiate goal-directed action"[61]

Be introspective

☀ "the theory of planned behaviour should more clearly acknowledge the importance of **internalized norms and self-expectations** in the development of one's motivation to adopt a given behaviour"[62]

Use values-based indicators

☀ "design and use of **values-based indicators**—statements that link generic or specific 'values vocabulary' to specific real-world referents such as behaviours or perceptions"[63]

define

☀ insight reflected in the Project

Similar Existing Solutions

How do existing options compare to the outcomes achieved by this training program? This chart shows topics definitely and possibly covered by other programs.

	Knowledge of Sustainability Frameworks	Value-Action Alignment	Interdisciplinary Skill Set	Deepened Connection	Sustainable Problem-Solving	Community for Accountability	Leadership in Corporate Sustainability	Effective Communication	Ethical Decision-Making
Natural Step Training[64]	✓	Ø	Ø	Ø	✓	Ø	X	?	✓
IDEO U Design Thinking[65]	Ø	Ø	?	Ø	?	Ø	Ø	✓	Ø
Global Leadership for Sustainable Development[66]	✓	✓	?	✓	✓	?	Ø	?	✓
Institute for Mindful Leadership[67]	Ø	?	?	✓	Ø	✓	Ø	Ø	?
UN Free Resources[68]	Ø	?	Ø	Ø	✓	Ø	Ø	Ø	Ø
All We Can Save – Climate Wayfinding[69]	✓	✓	Ø	✓	Ø	✓	Ø	✓	✓
Inner Green Deal[70]	?	✓	?	✓	✓	Ø	✓	?	Ø

define

Behavior Change Model Exploration

A common theme in values-action gap research, as well as a missing element of other existing trainings is the explicit use of a behavior change model. Multiple models were considered for this work, however, **only COM-B was chosen to use moving forward** due to its simplicity and relevance to behavior intervention in industry leaders.

Self-Determination Theory

Self-Determination Theory (SDT) is a psychological framework developed by Deci and Ryan in the 1980s. SDT helps explain why people do what they do by emphasizing the importance of meeting innate psychological needs for **autonomy**, **competence**, and **relatedness**. It suggests that when these needs are satisfied, individuals are more likely to be intrinsically motivated and experience greater well-being. "Formally, SDT comprises **six mini-theories**, each of which was developed to explain a set of motivationally based phenomena that emerged from laboratory and field research."[71]

B-MAP / Fogg Behavior Model

The B-MAP (Behavior Model for Adaptive Persuasion) is a behavior change model developed in 2009 by Dr. B.J. Fogg, a renowned psychologist and expert in persuasive technology. When an individual has the **motivation** and **ability** to perform the behavior, and they receive an appropriate **prompt**, they are more likely to engage in the desired action. It is often applied in the design of **digital products, websites, or applications** to make them more persuasive and effective in encouraging specific behaviors.[72, 73, 74]

COM-B

The COM-B Model was developed by Michie, Stralen, and West in 2011. "Designed by behavioral scientists for policy makers and **industry leaders**, these summaries of cutting edge decision-making insights are essential for applying research in the public and private spheres…This makes it possible for complex, theoretical insights about how people think and act to make their way into the practices of organizations across every industry and environment."[75]

"The COM-B model is particularly important when considering intervention methods, as interveners need to ensure the sustainability of learned behavior."[17]

define

COM-B

This behavior change model is used as an overarching structure to create the training program as to ensure the success of achieving and maintaining the behavior change of closing the sustainability values-action gap.

"The COM-B model of behavior change proposes that to engage in a behaviour (B) at any given moment, a person must be physically and psychologically able (C) and have the opportunity (O) to exhibit the behavior, as well as the want or need to demonstrate the behaviour at that moment (M)"[17]

Capability   +

Capability refers to whether someone has the **knowledge, skills and abilities** (including mental state) to engage in a behavior.[17]

Emerging corporate leaders are **missing the capabilities** to close their values-action gaps. Building these capabilities will be the main focus of the training program.

Opportunity   +

Opportunity refers to **external factors that make execution of a behavior possible**, such as physical opportunity, opportunities provided by the environment, social opportunity, and the positive outcome of a professional cost-benefit analysis.[17]

Emerging corporate leaders **need small opportunities to practice in a safe environment** before they step into larger leadership roles where they will have an abundance of opportunities to act on their values.

Motivation   =

Motivation refers to the **internal processes that influence decision making and behavior**, including reflective motivation and automatic motivation.[17]

Emerging corporate leaders who are practicing sustainability behaviors at home and want to attend this training will **have the motivation required,** driven by their **personal values** to achieve behavior change.

Behavior Change

An individual's behavior will change if **all the previous factors are successfully met**.[17]

Participants of the training program will work to build their capabilities, which they will practice during curated opportunities, in preparation for real world opportunities, meanwhile continuing to strengthen their motivation.

define

Define → Ideate

The **Define** stage used systems thinking as a lens for addressing two leverage points for change: a paradigm shift and personal values. Transformative sustainability learning showed the necessity of multiple levels of learning known as head, hands, and heart, which will be addressed in this thesis through sustainability, design, and mindfulness. The behavior change model COM-B will be used to better support the success of the training program.

The **Ideate** stage will generate ideas around how to apply the chosen behavior change model, and integrate it with sustainability, design, and mindfulness content.

define

IDEATE

Thesis Process

Brainstorm what knowledge, exercises, and
practices could benefit emerging leaders in their
journey of behavior change. How might these
activities be cohesively programmed together
into one offering?

- Brainstorm of Outcomes
- Key Learnings From Each Discipline
- Possible Activities
- Framework Exploration
- Journey of a Participant
- Accountability
- [summary slide]

ideate

Brainstorm of Outcomes

This brainstorm of possible outcomes for participants who have completed the training program helped guide the process of how to achieve these goals.

- Understand and articulate personal values, especially around sustainability

- Identify ideal scenario of values-led personal and professional life

- Name barriers and their relative significance currently causing the values-action gap at work

- Cultivate tools to support mitigating and, in some cases, overcoming those barriers that are feasible and scalable

- Unlock a deeper understanding of one's place within interconnected systems in the biosphere and in socioeconomic contexts.

- Develop a personalized action plan to bring teachings beyond the retreat and begin implementing them in day-to-day life

- Establish a community of support and accountability to rely on throughout the journey of sustainable behavior change

- Feel inspired, empowered, and capable to take on positive climate action at work

ideate

Key Learnings From Each Discipline

Brainstorm lists of important takeaways for participants from each area of focus:

SUSTAINABILITY

- Background on climate change
- Intersectional environmentalism
- Successful business case studies (e.g. Interface)
- Sustainable vs. circular vs. regenerative
- Planetary boundaries
- Triple bottom line

DESIGN

- Brainstorming
- Problem solving
- Creativity
- Collaboration
- Imagination
- Innovation
- Process (non-linear)
- Approaching situations w/ empathy + curiosity
- Storytelling + communication

MINDFULNESS

- History/background
- 4 foundations of mindfulness
- Psychology of 52 Mental factors
- Opposing mental factors
- 4 noble truths
- Active physical practice
- Integrate into routines
- Intention + awareness → non-judgemental, curious, kind

ideate

Possible Activities

Brainstorm lists of what could be helpful in moving declarative learning to procedural learning:

SUSTAINABILITY
- Nature walk
- Foraging
- Plant a seed
- Reuse/repurpose a material for a new project
- Make a terrarium
- Make a mini indoor greenhouse
- Recycling activity
- Build a composting station
- Cook with local ingredients
- Label education/game
- Determine personal carbon footprint
- Learn about modern day slavery in supply chains

DESIGN
- Systems map
- Define your creative identity
- Magic circle
- Brainstorming tools
- Empathy mapping
- Persona development
- Customer journey mapping
- Mind mapping
- Paper prototyping
- Role play + simulation
- Collaborative sketching
- Storyboarding
- Rose, thorn bud
- Post-it voting

MINDFULNESS
- Body scan
- Box breathing
- Find 5 examples of __ in the room (e.g. something red)
- Set an intention → continue to check in on it
- Mindful eating
- Nature walk
- Rubbing fingertip together
- Guided meditation
- Sound bath
- Labyrinth walk
- Gratitude reflection
- Tapping

ideate

Framework Exploration

What frameworks might be applicable to teaching sustainability and design to emerging corporate leaders? Frameworks used in the training program **need to be simple to learn and apply** for people with limited sustainability backgrounds coming from diverse industries. They must also **work towards a life-centered economy**, rather than focus on limitations and simply reducing impact.

*note that the Y-axis is largely practitioner dependant

Life-centered (do good)
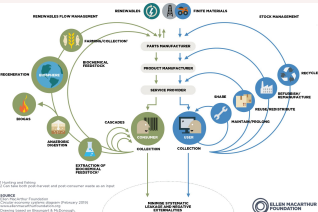
Complicated to Learn + Apply
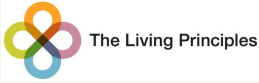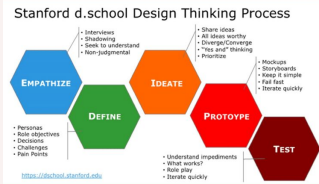
Simple to Learn + Apply
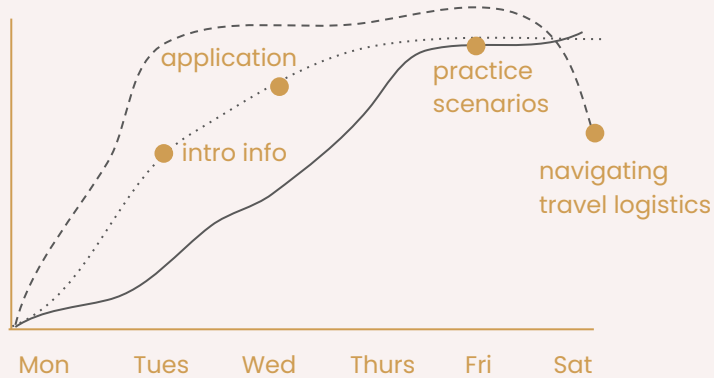
Reduce Impact (do less bad)

ideate

Journey of a Participant

Tracking aspects of a participant's experience both during the retreat as well as over the course of the whole program helps identify the impact of different moments are how to keep participants engaged in the work.
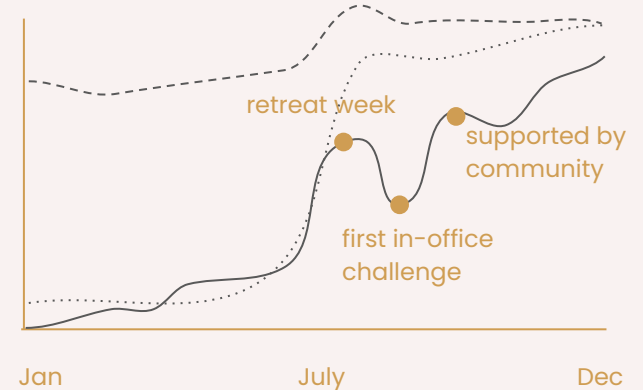
Retreat Week

- - - - - Mindfulness
. . . . . Design + Sustainability
——— Behavior Change

application

practice scenarios

intro info

navigating travel logistics

Mon   Tues   Wed   Thurs   Fri   Sat

Program Year

- - - - - Motivation
. . . . . Capabilities
——— Behavior Change

retreat week

supported by community

first in-office challenge

Jan   July   Dec

ideate

Accountability

☀ Examining the predicted pitfalls in the Journey of a Participant led to a brainstorm around various means for accountability. This initial brainstorm was followed up with research to help confirm which strategies may be helpful to incorporate into the training program.

ACCOUNTABILITY
- **Supportive community**
- Personal contract
- Scheduled self-assessments
- Progress tracking tools
- Journaling/reflection
- **Buddy system**
- **Mentor or coach**
- Public commitment
- **Rewards**/consequences
- Habit streak calendar
- **Goal setting**/check-ins
- Financial accountability
- **Positive feedback**
- **Regularly scheduled check-ins** (with peers?)

"...if you find it too hard going solo, ask a peer or coach to help"[75]

"...recognize yourself immediately after you do your new behavior... This recognition, a la celebration, serves as self-compassion. And it gives you—and your brain—a positive boost, which encourages you to keep doing the behavior."[75]

"need for feedback tools to drive accountability"[77]

"Due to the effort and discipline that is often needed to bring about inner development and change, we encourage you to form groups with colleagues or friends with whom you embark on the journey together. Such a learning context or community is very valuable. Those communities may help to make sense of the experiences that arise. Especially in the case of unexpected events, this can be of great benefit to those who are part of the journey"[23]

"A behavior change goal-setting process allows for mapping out causal pathways and intended outcomes, which can be used to measure the success of social accountability activities"[76]

"If it were not for weekly piano lessons, it is unlikely that students would practice much until just before their recital. The anticipation of the weekly social interactions between the student and the teacher is critically important in holding the student accountable to practice (even if there is no formal accounting of exactly when the student practiced)."[78]

ideate

☀ insight reflected in the Project

Ideate → Prototype

The **Ideate** stage explored goals of a participant's experience, how to reach those goals (through frameworks and activities focused around key learnings from each discipline), and how to support participants through foreseen challenges. This stage identified Design Thinking, Living Principles, Inner Development Goals, and The Natural Step as the frameworks that will be used in the training program.[15, 20, 21, 18]

The **Prototype** stage will put together the frameworks, activities, and strategies for accountability in various ways to compare how best to integrate these learnings into the development of a training program schedule and agenda.

ideate

PROTOTYPE

Thesis Process

Explore multiple concepts with the intent to test in parallel. Gain a deeper understanding of emerging corporate leaders through building out possible solutions.

- Personal Experience
- Framework + Principles Integration
- The Natural Step
- Living Principles
- Inner Development Goals
- Schedule Development
- Possible Retreat Schedule
- Possible Timeline Overview

prototype

Personal Experience

☀ = insight reflected in the Project Outcome

Some of the prototypes explored for this thesis work were existing events that served as learning opportunities for how elements of this training program played out in the real world. These experiences provided insight into what worked well and what could be left behind.

Yoga Teacher Training[79]

A 200 hour training course spread over three months that covered topics including history, philosophy, anatomy, postures, adjustments, language, and creating sequences.

Key Takeaways:
- ☀ It was really helpful to be provided with a journal and given ample opportunities to take notes and reflect along the way
- ☀ Each participant was paired with a buddy to get extra comfortable with and practice outside of scheduled trainings
- ● Frequent feedback was presented as "grows" + "glows" and was essential for balancing encouragement with guidance for improvement
- ● Honest self evaluation was also important
- ● In addition to actively practicing teaching, it was helpful to sit and observe skilled teachers work
- ☀ Even as a teacher, breath is a helpful tool for grounding
- ● Yogis come in at all different levels and it's up to the teacher to give instruction and use language/metaphors to make everyone one feel included and empowered

Spirit Rock Meditation Retreat[80]

A six day on-site retreat with a focus on Indigenous wisdom and healing, hosted at a designated meditation center.

Key Takeaways:
- ☀ Length was perfect to have enough time to get deep into practice, uninterrupted by logistics
- ☀ The natural landscape helped facilitate a deep experience
- ● It's powerful being with a group of people who have collectively chosen to come together united by a deeper purpose/motivation/goal/belief
- ☀ Open Q&A opportunities are essential to aligning teaching intentions with outcomes
- ● Being in deep meditation brings a profound rooted sense of connection and awareness
- ● Reintegration training could be a whole day
- ● Beginning with land acknowledgement felt powerful
- ● Nice to have different kinds of mindfulness
- ☀ meditation formats → sitting (guided + unguided), walking, working
- ● Meditation anchors → helpful for beginners
- ● Challenging to be present while also managing a tight schedule (thinking about the future)

Inner Development Goals Summit[81]

A two day event that brought together "a global community that is co-creating the IDG framework and exploring how to leverage the power of inner development for the challenges we face as humanity," hosted at multiple locations across Stockholm Sweden, as well as online.[81]

Key Takeaways:
- ● Excellent email communication - felt inclusive and built excitement + trust around what to expect
- ● Well-executed accessible options for people who could not attend in person
- ● Provided designated places for collaboration and dialog around different topics
- ● Connecting with other participants was frequently encouraged and made simple
- ● Offered customization to the experience by providing "Tracks" that participants could choose between, which followed a particular topic throughout day 2
- ● Beautiful branding and program materials
- ● Balanced offering of passive and active learning
- ● Very clear on the *why* of the work/summit

prototype

Framework + Principles Integration

As demonstrated in Framework Exploration, the tools selected are **simple to learn and apply** and can also **support individual and social progress toward a life-centered economy**. The Natural Step will be used as the basic outline for a process that participants will engage in during the retreat week because it begins with imagining an ideal future, which can be inspiring and energizing, while ending with a personal action plan to help enable behavior change back in a corporate environment.[18]

The metrics used during backcasting for this training program are different from the four "Sustainability Principles" traditionally used in the Natural Step. [18]

Prototypes were created to explore how best to integrate frameworks + principles to maximize effectiveness of participant absorption and application of the material.

Basic Outline for Process[18]

(ABCD process)

Metrics for Outer Change[19, 20]

The Living Principles

Metrics for Inner Change[21]

INNER DEVELOPMENT GOALS
Transformational Skills for Sustainable Development

Tool for Creative Solutions[15]

prototype
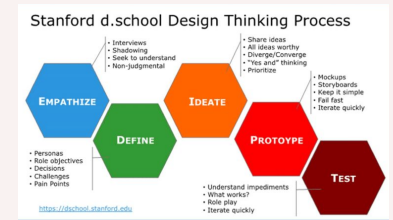
The Natural Step

Developed by Swedish oncologist Sr. Karl-Henrik Robért and physicist Dr. John Holmberg in the early 1990s, The Natural Step uses a systems view to identify how to help organizations become more sustainable. The original framework uses four "Sustainability Principles" as the metrics to analyze the gap between an ideal future and the current baseline, however, these are not very approachable nor applicable for the target audience of this thesis work, so they will be substituted out while the main ABCD process remains the same.[18]

Sustainability Principles (Original Metrics)

1. concentrations of substances from the earth's crust (such as fossil CO2, heavy metals and minerals)

2. concentrations of substances produced by society (such as antibiotics and endocrine disruptors)

3. degradation by physical means (such as deforestation and draining of groundwater tables)

4. And in that society there are no structural obstacles to people's health, influence, competence, impartiality and meaning

Sustainability Principles will be substituted for alternative metrics:
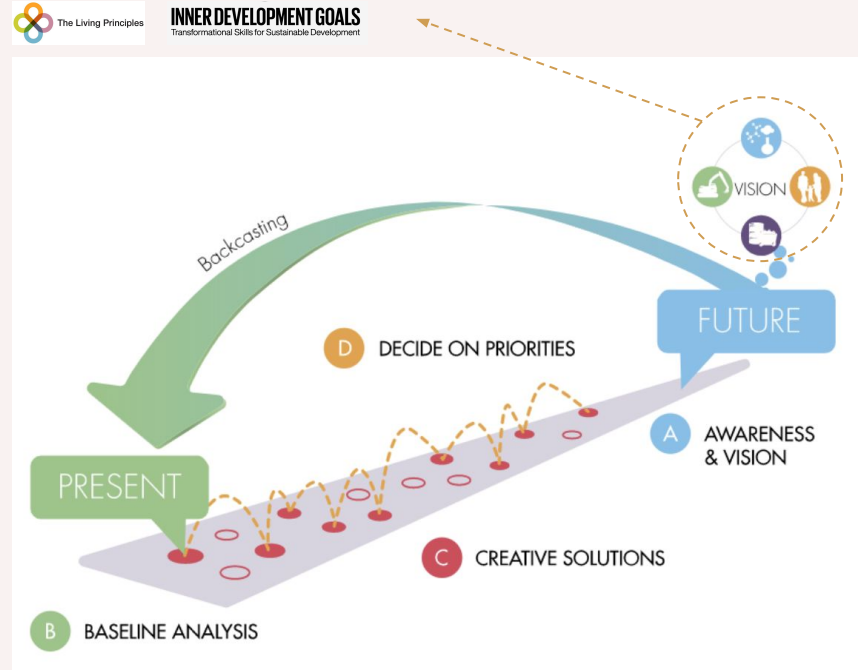

prototype

Living Principles

The Living Principles for Design were developed in 2009 with the goal "to distill the collective wisdom found in decades of sustainability theories and make it accessible to a broad audience of design practitioners and their clients."[19]

"The Living Principles for Design framework is a catalyst for driving positive cultural change. It distills the four streams of sustainability—environment, people, economy, and culture—into a roadmap that is understandable, integrated, and most importantly, actionable. Designers, business leaders, and educators can use The Living Principles to guide every decision, every day."[19]

The Living Principles framework is also accompanied by a scorecard, which will be used by training program participants during the backcasting step of the ABCD process adapted from The Natural Step. The scorecard provides a straightforward way for participants to rank the subcategories within each Stream of Integrated Sustainability for the ideal state and the present state of their corporation.[19]
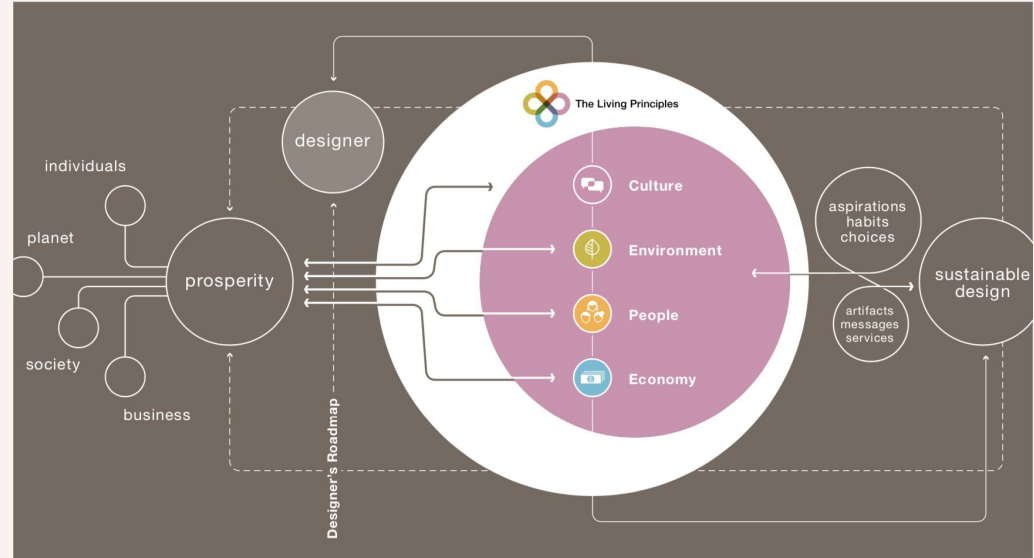
Four Streams of Integrated Sustainability[19]

Environment
Actions and issues that affect natural systems, including climate change, preservation, carbon footprint and restoration of natural resources.

People
Actions and issues that affect all aspects of society, including poverty, violence, injustice, education, healthcare, safe housing, labor and human rights.

Economy
Actions and issues that affect how people and organizations meet their basic needs, evolve and define economic success and growth.

Culture
Actions and issues that affect how communities manifest identity, preserve and cultivate traditions, and develop belief systems and commonly accepted values.

prototype

Inner Development Goals

"The Inner Development Goals (IDGs) were officially founded in 2020 by Ekskäret Foundation, The New Division and 29k Foundation together with a group of researchers, experts and practitioners in leadership development and sustainability."[21] While this initiative is still in development with Phase 3 starting in 2023, it has already produced a toolkit, training experience, and two global summits.

"The IDG framework of skills and qualities relate to what is needed in order to successfully work with complex societal issues, in particular those identified in UN's Agenda 2030 and the 17 Sustainable Development Goals"[22]

"The argument is that we talk far more about what ought to be done to resolve the problems out in the world, than we talk about how to build skillfulness among the actors who are in a position to make the visions happen."[22]

There are 23 skills within the five dimensions which will be used by training program participants during the backcasting step of the ABCD process adapted from The Natural Step.[22] Participants will rank their ideal and current competencies of each skill on a scale of 1-5.

The reflection questions and IDG Toolkit developed in Phase 2, could also be used for additional activities.[23]

**INNER DEVELOPMENT GOALS**
Transformational Skills for Sustainable Development

1 Being
Relationship to Self

Inner Compass

Integrity and Authenticity

Openness and Learning Mindset

Self-awareness

Presence

2 Thinking
Cognitive Skills

Critical Thinking

Complexity Awareness

Perspective Skills

Sense-making

Long-term Orientation and Visioning

3 Relating
Caring for Others and the World

Appreciation

Connectedness

Humility

Empathy and Compassion

4 Collaborating
Social Skills

Communication Skills

Co-Creation Skills

Inclusive Mindset and Intercultural Competence

Trust

Mobilisation Skills

5 Acting
Enabling Change

Courage

Creativity

Optimism

Perseverance

prototype

Schedule Development

One Day Workshop

Initially the training began as a one day workshop filled to the brim with content broken up with only one designated break time in the middle of the day.

While this format helped highlight important content, it did not provide a learning schedule conducive to adult learning. This version also failed to accommodate the timeline necessary to foster behavior change and build community among participants.

The logistics of traveling potentially across the country for a single day event could also be prohibitive for prospective participants.

ideate

Schedule Development

Responding to the necessity of additional time, the one day workshop evolved into an immersive onsite retreat.

Possible Retreat Formats

1
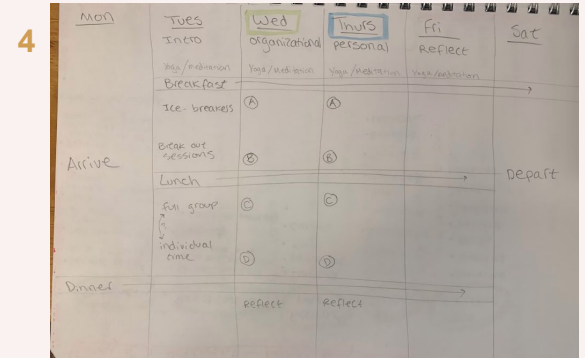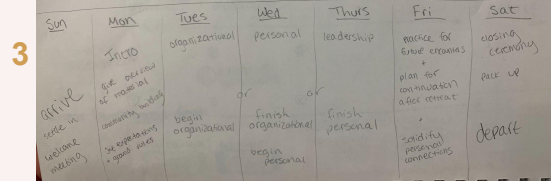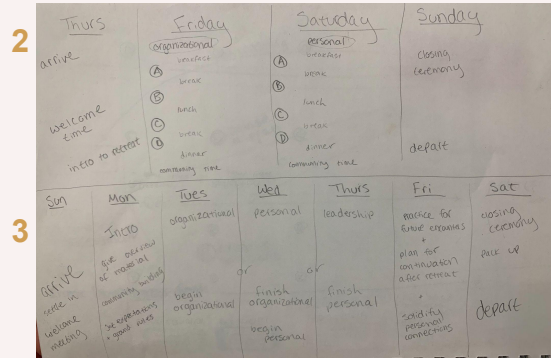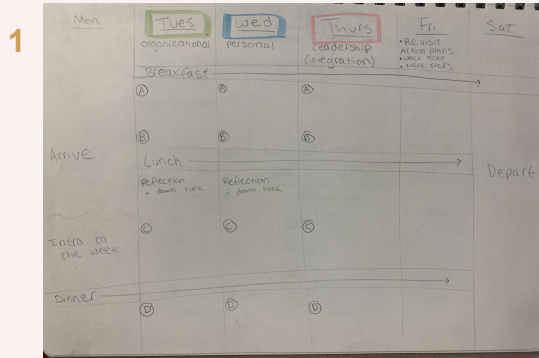
- Going through the Natural Step inspired process three times might be too many
- Possibly jumping in too fast on the first day

2

3

- Too short
- Too rushed
- Lacking smooth transitions

- Could be shorter and still cover desired material
- This length would add cost

4

- Flexibility around arrival and departure
- Allows four full days of content
- Ease in and out of peak work days
- Absorb material + develop community

ideate

Possible Retreat Schedule

What might the potential schedules for the full days (excluding travel days) of the in-person retreat look like, taking into account different types of learning, and balancing individual/group work?

Possible Timeline Overview

To enable behavior change and build a solid community, participants will need to be supported before and after the retreat.

	Stage	Activity	Objective
Jan			
Feb	Registration	Attract and register participants	
Mar			
April		Assign reading materials	Introduce foundational concepts
May	Preparation	Virtual welcome meeting	Share personal intros + goals
June		Virtual reading discussion	Discuss initial reading materials
July	Retreat	In-person retreat	Learn and practice in a safe space
Aug		Monthly virtual meeting	
Sep	Continuation	Monthly virtual meeting	Problem solve real world challenges together + continue to build a solid community + stay accountable
Oct		Monthly virtual meeting	
Nov		Monthly virtual meeting	
Dec	Reflection	Weekend retreat	Share progress report + revise personal action plans if necessary

prototype

Prototype → Test

The **Prototype** stage collected key learnings from personal experience, described the frameworks and principles chosen for the training program, and concluded that the project outcome will include an in-person retreat supported by a nine month curriculum.

The **Test** stage for this thesis describes potential next steps for testing, the completion of which are outside the scope of this thesis.

prototype

TEST

Thesis Process

For the purpose of this thesis, the Test phase of the Design Thinking process is theoretical. Given more time and resources, the test would provide an additional chance to learn about emerging corporate leaders through observation and engagement, as well as give insights to refine prototypes and point of view.

- Theoretical Tests
- Analyzing Results

test

Theoretical Tests

One way to test the theory of the training program before launching into a full scale event, would be to go through an empathy exercise with a diverse collection of personas based in extensive research to imagine what each personal experience and set of action plans may look like after completing both rounds of the ABCD process.

Ideally, a diverse collection of real volunteers could also participate in a practice run through of both rounds of the ABCD process.

This exercise could help identify any issues in the organization and flow of the programming, as well as illuminate any sensitive considerations around equity in the workplace tied to people's identities that should be addressed in the training program.

test

Analyzing Results

If a real world test were to take place, the success of the experience could be measured using a survey with questions built around progress and achievement of the intended final outcomes.

The survey method would be modeled after existing programs such as the greater Good Science Center's measurements of impact, PERMA questionnaires, and the survey conducted by The Global Leadership for Sustainable Development Programme as all three sources are measuring related wellbeing and impacts on their participants.[82, 83, 84, 85]

test

Project Execution Insights

- Interested in using the Natural Step, but wanted something more approachable for beginners and "Sustainability Principles" phrased in a positive way[18]

- Challenging to pinpoint one cause of the values-action gap because issues are so intertwined and compounding

- Other similar existing problems are all examples of cognitive dissonance

- Program Length → a one day workshop could not possibly contain all of the information necessary or allow participants the time necessary to absorb and practice the information

- Adult Learning → people are generally out of practice learning at a rapid pace – it's important to schedule in plenty of breaks and time for processing + reflection[86]

insights

Project Outcome

final
solution

key
insights

viability

potential
impact

conclusion

"The best leaders, the ones people will want to follow into this new territory, are first and foremost good human beings. They are at ease with themselves, have integrity, and what they say and what they do are in sync." [87]

– Paul Polman + Andrew Winston

authors of Net Positive

"Designing Mindful Leadership for a Life-Centered Economy"

The final project outcome is the design of a **year long training program** called **"Designing Mindful Leadership for a Life-Centered Economy,"** built around a **six-day on-site retreat**. This learning experience is aimed at **self-selecting emerging corporate leaders who are motivated to align their sustainability values with their actions** in the corporate sector despite pain points and a complex macroscope of contextual factors. These individuals are motivated to seek this alignment with the intention to facilitate a shift in corporate action towards achieving a **life-centered economy**.

In order to facilitate closing participants' sustainability values-action gap, this thesis work focused on **behavior design**, specifically through the lens of the **COM-B model**, to impact both internal and external transformation work. This process is addressed through instilling participants with **knowledge, skills, and understanding** that show up in the training as interdisciplinary work in **sustainability, design, and mindfulness**.

While on retreat, participants will learn about **The Natural Step** (and a modified version), the **Inner Development Goals**, the **Living Principles**, and **Design Thinking**. Participants not only work towards a sense of **deep connection** to all life and profound personal growth, but they also immerse themselves in a community that will continue to support them as they are kept accountable for following their **action plans** beyond the end of the training program.

final solution

Training Program Learning Outcomes

Knowledge of Sustainability Frameworks: Participants will acquire a comprehensive understanding of sustainability frameworks, including The Natural Step (and its modified version), The Living Principles, and The Inner Development Goals, enabling them to critically assess and apply these frameworks in a corporate context.

Alignment of Personal Values and Actions: Participants will learn strategies to bridge the sustainability values-action gap, developing the ability to align their personal values with their professional actions, ultimately contributing to a life-centered economy.

Interdisciplinary Skill Set: Participants will engage in interdisciplinary learning, combining sustainability, design thinking, and mindfulness, equipping them with a holistic skill set to address complex sustainability challenges in the corporate world.

Deepened Connection: During the retreat, participants will cultivate a profound connection to all forms of life and better understand their place within nature and other complex systems.

Sustainable Problem-Solving: Through Design Thinking exercises, participants will enhance their ability to identify and solve sustainability-related challenges creatively and collaboratively.

Community and Accountability: Participants will immerse themselves in a supportive community that fosters ongoing accountability, and be able to hold space for co-creation and reflection.

Leadership in Corporate Sustainability: Graduates of the program will be prepared to act on their sustainability values when they assume leadership roles, driving positive change in their organizations and contributing to the broader goal of a life-centered economy.

Effective Communication: Participants will develop strong communication skills to convey sustainability principles and goals effectively within their corporate settings, fostering engagement and buy-in from colleagues and stakeholders.

Ethical Decision-Making: Through exploration of sustainability principles like the Living Principles, participants will develop the capacity to make ethically sound decisions that prioritize the well-being of people and the planet in corporate contexts.

final solution

Training Program Timeline

The final timeline spans an entire year to give participants an adequate amount of time to plan for travel arrangements for the retreat, build community together, and practice new skills to successfully enact behavior change. After further consideration, the virtual workshop at the five month check-in will be held at the beginning of November, before the busy holiday season begins. Readings before the retreat will be optional.
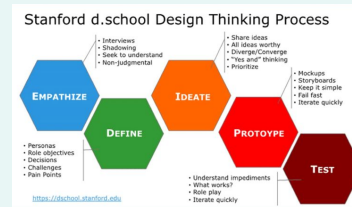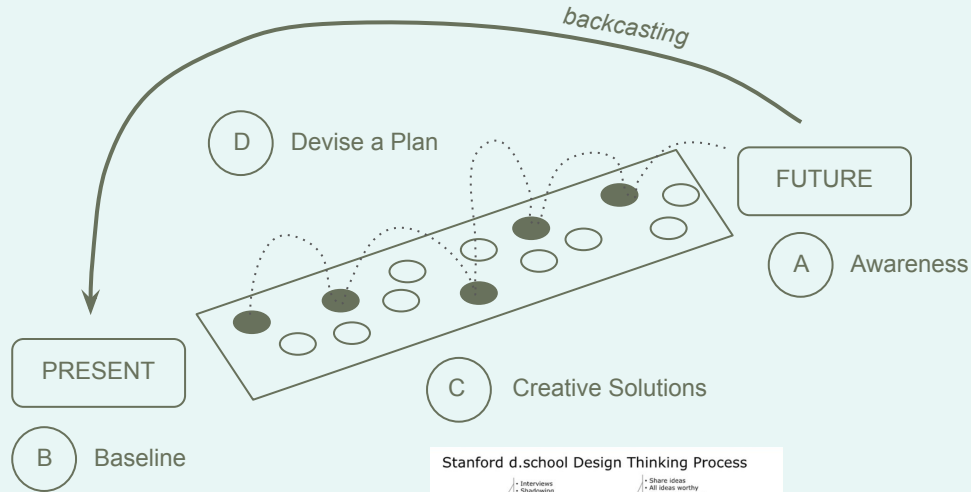
Registration Period	Retreat Preparation	Retreat	Virtual Meetings	Virtual Workshop
- Declare interest - Be selected - Finalize payment	- Optional readings - Virtual welcome mtg. - Optional discussions	! ! !	- Stay in-touch - Ask questions - Share advice - Group reflection	5mo check-in

Dec   Jan   Feb   Mar   April   May   June   July   Aug   Sep   Oct   Nov

final solution
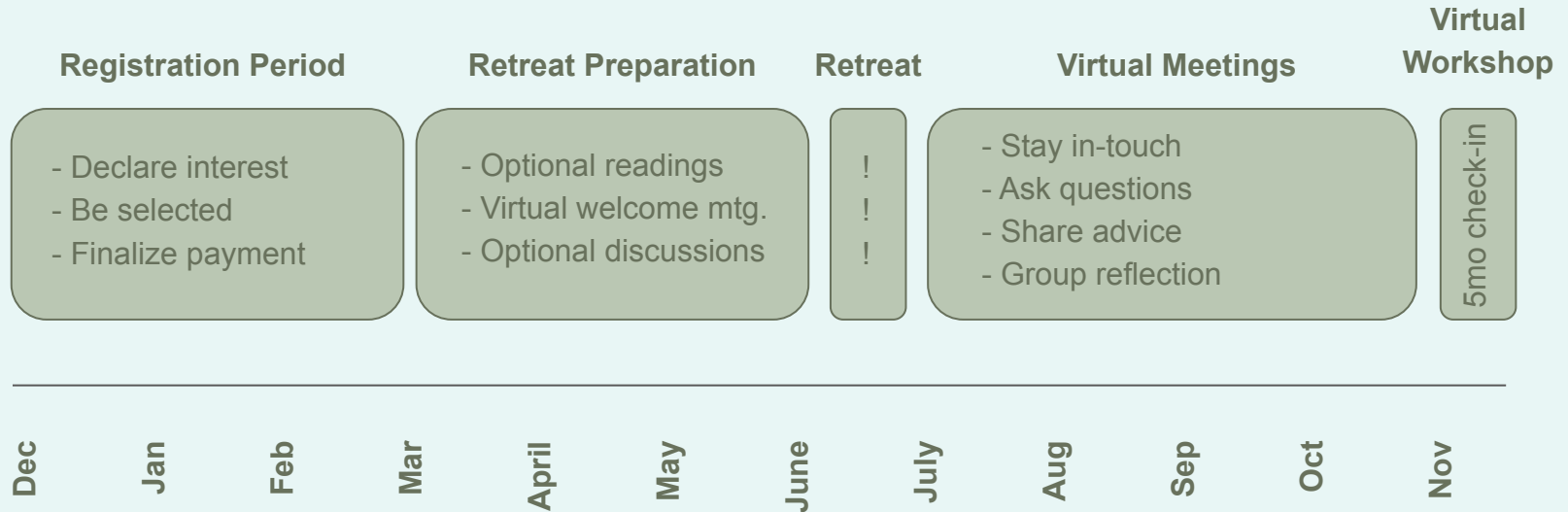
ABCD Process

The Natural Step **ABCD process** will be used as the **basic outline** for a process that participants will engage in during the **retreat week**.[18]

Round 1, participants will focus on their **external** world, examining their organizations and creating a **professional action plan.**

Round 2, participants will focus on their **internal** world, exploring their inner development and creating a **personal action plan.**

At the end of the week, participants will combine external and internal learnings to form a **leadership action plan.**

The metrics used during backcasting are different from the four "Sustainability Principles" traditionally used in the Natural Step. **Each round has its own set of metrics.**[18]

final solution

backcasting

D — Devise a Plan

FUTURE

A — Awareness

PRESENT

C — Creative Solutions

B — Baseline

The Creative Solutions step introduces **Design Thinking** as a tool to bridge the gap between current reality and their vision for the ideal future.[15]

Round 1

The Living Principles
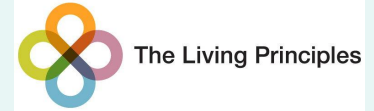
Participants will use **Living Principles** as the metrics to evaluate their **external** world.[19, 20]

Round 2

INNER DEVELOPMENT GOALS
Transformational Skills for Sustainable Development

Participants will use **Inner Development Goals** as the metrics to evaluate their **internal** world.[21, 22, 23]

Retreat Schedule

	Monday *Welcome*	Tuesday *Introduction to Frameworks*	Wednesday *ABCD Process – Round 1*	Thursday *ABCD Process – Round 2*	Friday *Practice + Reflection*	Saturday *Farewell*
		Optional morning activities ▣	Optional morning activities ▣	Optional morning activities ▣	Optional morning activities ▣	
		breakfast	**breakfast**	**breakfast**	**breakfast**	**breakfast**
		Tap into motivation ⬡ ▣	(A) Awareness ⬡ ▣	(A) Awareness ⬡ ▣	Create and share leadership action plans	Move-out logistics
		break	**break**	**break**	**break**	
	Arrive	Set retreat goals & articulate values ⬡ △ ▣	(B) Baseline ⬡ ▣	(B) Baseline ⬡ ▣	Role play scenarios ⬡ △ ▣	Closing ceremony
		lunch	**lunch**	**lunch**	**lunch**	
	Move-in logistics	Review Design Thinking △	(C) Creative Solutions ⬡ △ ▣	(C) Creative Solutions ⬡ △ ▣	Revise + reflect ⬡ △ ▣	
		break	**break**	**break**	**break**	
	Community building ⬡ ▣	Review The Natural Step ⬡	(D) Devise a Plan ⬡ △ ▣	(D) Devise a Plan ⬡ △ ▣	Future goals + accountability ⬡ △ ▣	Depart
	dinner	**dinner**	**dinner**	**dinner**	**dinner**	
	Opening ceremony ⬡ △ ▣	Mindfulness activities ▣	Mindfulness activities ▣	Mindfulness activities ▣	Mindfulness activities ▣	

final solution

● ○ ○ ○ ○

⬡ Sustainability △ Design ▣ Mindfulness

Tuesday

The following schedules break down the specifics of the non-travel days at the heart of the retreat.

On Tuesday, participants are introduced to topics that will be applied in the following days.

Key

⬡ Sustainability

△ Design

▢ Mindfulness

○ Passive Solo Learning

● Passive Group Learning

○ Active Solo Learning

● Active Group Learning

final solution

Introduction to Frameworks

Optional morning activities ▢	Yoga class ●	or	Meditation ○	or	Journal ○
breakfast				
Tap into motivation ⬡ ▢	Warm up + instructions ● ● →		Vision board ○ →		Vision board collaboration ●
break				
Set retreat goals & articulate values ⬡ △ ▢	Instructions ● →	Set goals for the week ○ →	Articulate values ○ →	Share ● ●
lunch				
Review Design Thinking △	Presentation ● →		Practice round in small groups ● →		Share ● ●
break				
Review The Natural Step ⬡	Presentation ● →		Review modifications ● →		Take questions ● ●
dinner				
Mindfulness activities ▢	Option A ○	or	Option B ●	

Wednesday

On Wednesday, participants begin examining their **outer** conditions and realities by moving through the modified ABCD process from The Natural Step, resulting in a **professional action plan**.

Key

- ⬡ Sustainability
- △ Design
- ▢ Mindfulness

- ○ Passive Solo Learning
- ● Passive Group Learning
- ○ Active Solo Learning
- ● Active Group Learning

final solution
● ○ ○ ○ ○

ABCD Process – Round 1: External Focus
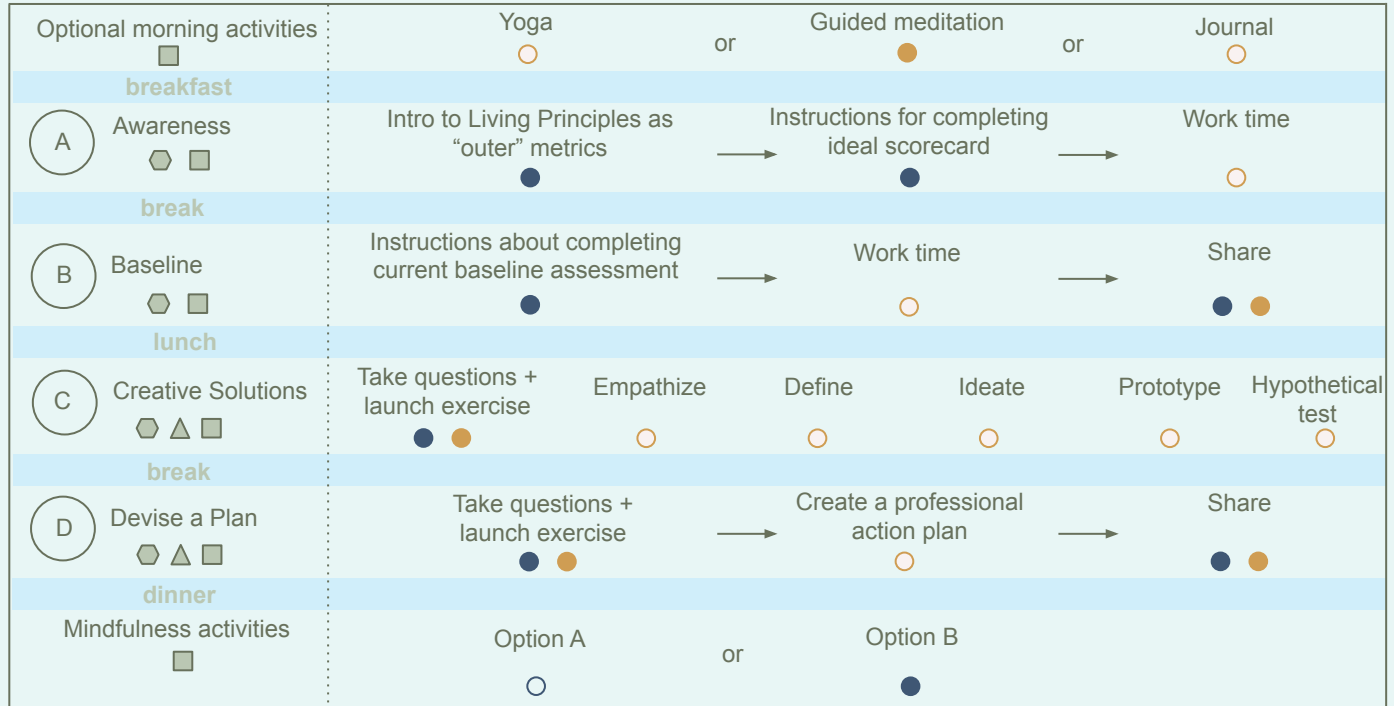
Optional morning activities ▢	Yoga ○	or Guided meditation ●	or Journal ○
breakfast			
A Awareness ⬡ ▢	Intro to Living Principles as "outer" metrics ●	→ Instructions for completing ideal scorecard ●	→ Work time ○
break			
B Baseline ⬡ ▢	Instructions about completing current baseline assessment ●	→ Work time ○	→ Share ● ●
lunch			
C Creative Solutions ⬡ △ ▢	Take questions + launch exercise ● ●	Empathize ○	Define ○ Ideate ○ Prototype ○ Hypothetical test ○
break			
D Devise a Plan ⬡ △ ▢	Take questions + launch exercise ● ●	→ Create a professional action plan ○	→ Share ● ●
dinner			
Mindfulness activities ▢	Option A ○	or Option B ●	

Thursday

On Thursday, participants begin examining their inner state of being by moving through the modified ABCD process from The Natural Step for the second time, resulting in a **personal action plan**.
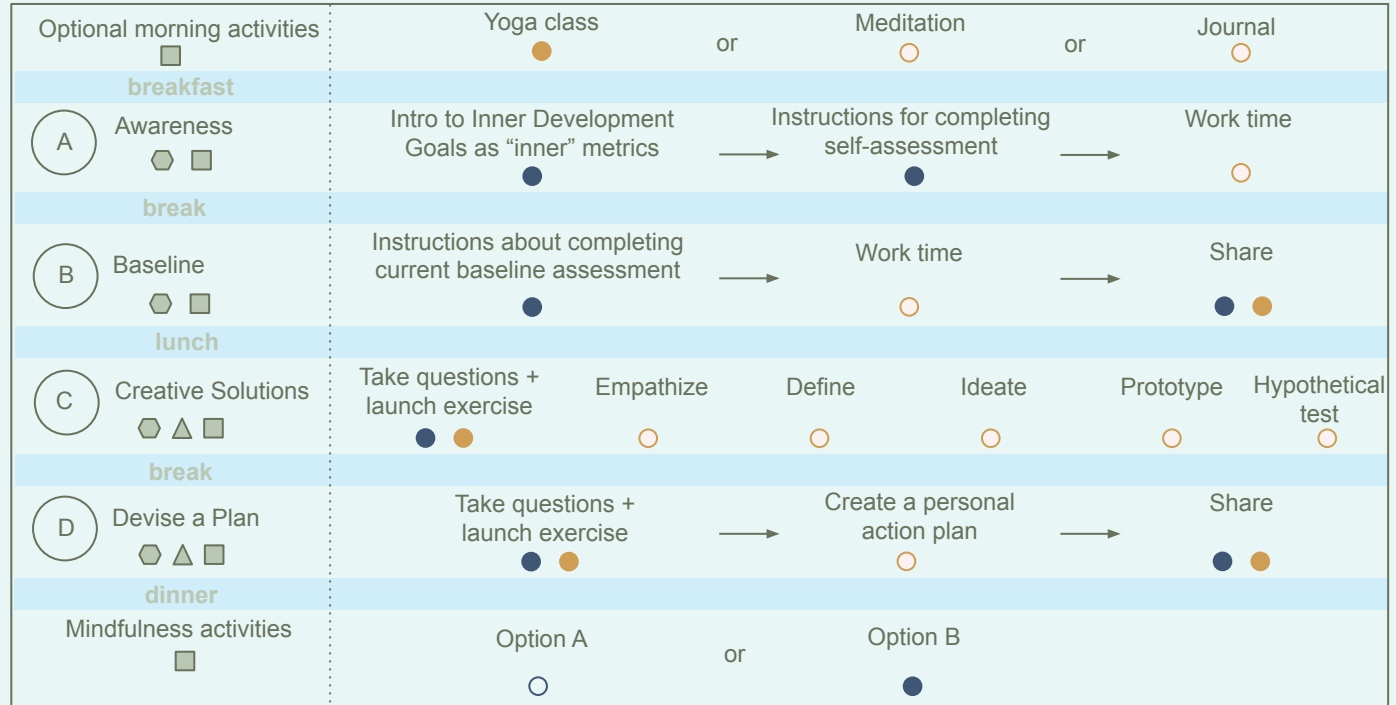
Key

⬡ Sustainability

△ Design

▢ Mindfulness

○ Passive Solo Learning

● Passive Group Learning

○ Active Solo Learning

● Active Group Learning

final solution

ABCD Process – Round 2: Internal Focus

Optional morning activities ▢	Yoga class ●	or	Meditation ○	or	Journal ○

breakfast

(A) Awareness ⬡ ▢	Intro to Inner Development Goals as "inner" metrics ●	→	Instructions for completing self-assessment ●	→	Work time ○

break

(B) Baseline ⬡ ▢	Instructions about completing current baseline assessment ●	→	Work time ○	→	Share ● ●

lunch

(C) Creative Solutions ⬡ △ ▢	Take questions + launch exercise ● ●	Empathize ○	Define ○	Ideate ○	Prototype ○	Hypothetical test ○

break

(D) Devise a Plan ⬡ △ ▢	Take questions + launch exercise ● ●	→	Create a personal action plan ○	→	Share ● ●

dinner

Mindfulness activities ▢	Option A ○	or	Option B ●

Friday

On Friday, participants combine what they have learned about their outer and inner worlds into a **leadership action plan**. They also begin to practice their new capabilities in safe group spaces, reflect, and prepare for re-entry post-retreat.
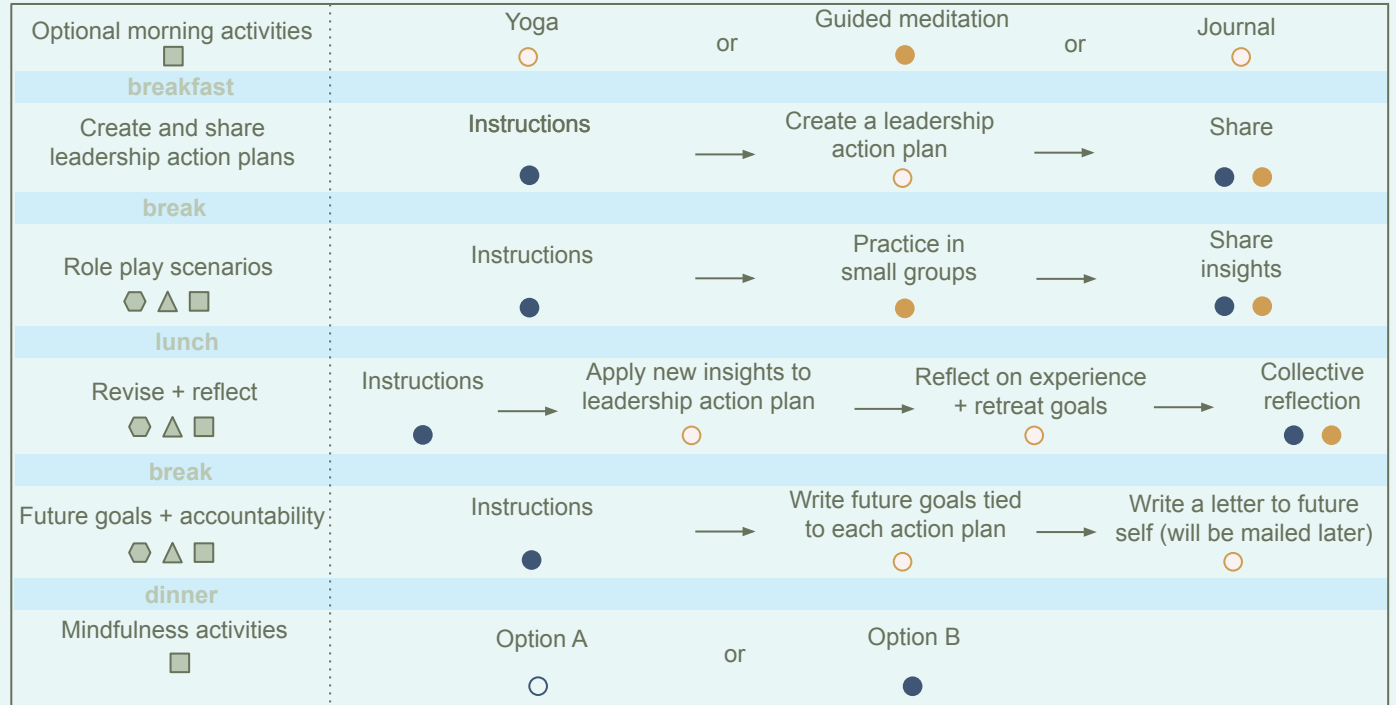
Key

⬡ Sustainability
△ Design
⬛ Mindfulness

○ Passive Solo Learning
● Passive Group Learning
○ Active Solo Learning
● Active Group Learning

final solution

Practice + Reflection: Preparing to Move Forward

|			
Optional morning activities ⬛	Yoga ○	or	Guided meditation ●	or	Journal ○
breakfast			
Create and share leadership action plans	Instructions ● →	Create a leadership action plan ○ →	Share ● ●
break			
Role play scenarios ⬡ △ ⬛	Instructions ● →	Practice in small groups ● →	Share insights ● ●
lunch			
Revise + reflect ⬡ △ ⬛	Instructions ● →	Apply new insights to leadership action plan ○ →	Reflect on experience + retreat goals ○ →	Collective reflection ● ●
break			
Future goals + accountability ⬡ △ ⬛	Instructions ● →	Write future goals tied to each action plan ○ →	Write a letter to future self (will be mailed later) ○
dinner			
Mindfulness activities ⬛	Option A ○	or	Option B ●

Viability

The viability of a training program like the one described is contingent upon several factors. Firstly, the **commitment and engagement of self-selecting emerging corporate leaders** who are genuinely motivated to bridge the sustainability values-action gap is crucial. The success of the program depends on participants' dedication to the principles and practices it promotes.

Additionally, **securing organizational buy-in and financial support** from corporations willing to invest in their employees' sustainable leadership development is essential for sustainability-focused programs to thrive. This kind of support helps alleviate the financial burden from the individual and provides a supportive structure for PTO to attend the retreat.

Furthermore, the **availability of skilled facilitators** and resources to deliver interdisciplinary training in sustainability, design thinking, and mindfulness plays a pivotal role. This factor could make the program challenging to scale quickly in the race against time.

Lastly, **ongoing evaluation and adaptation** of the program to align with evolving corporate sustainability needs and trends will contribute to its long-term viability. While challenges exist, a well-structured and adequately supported training program has the potential to create a cadre of influential evolving leaders who can drive positive change in the corporate world toward a life-centered economy.

viability
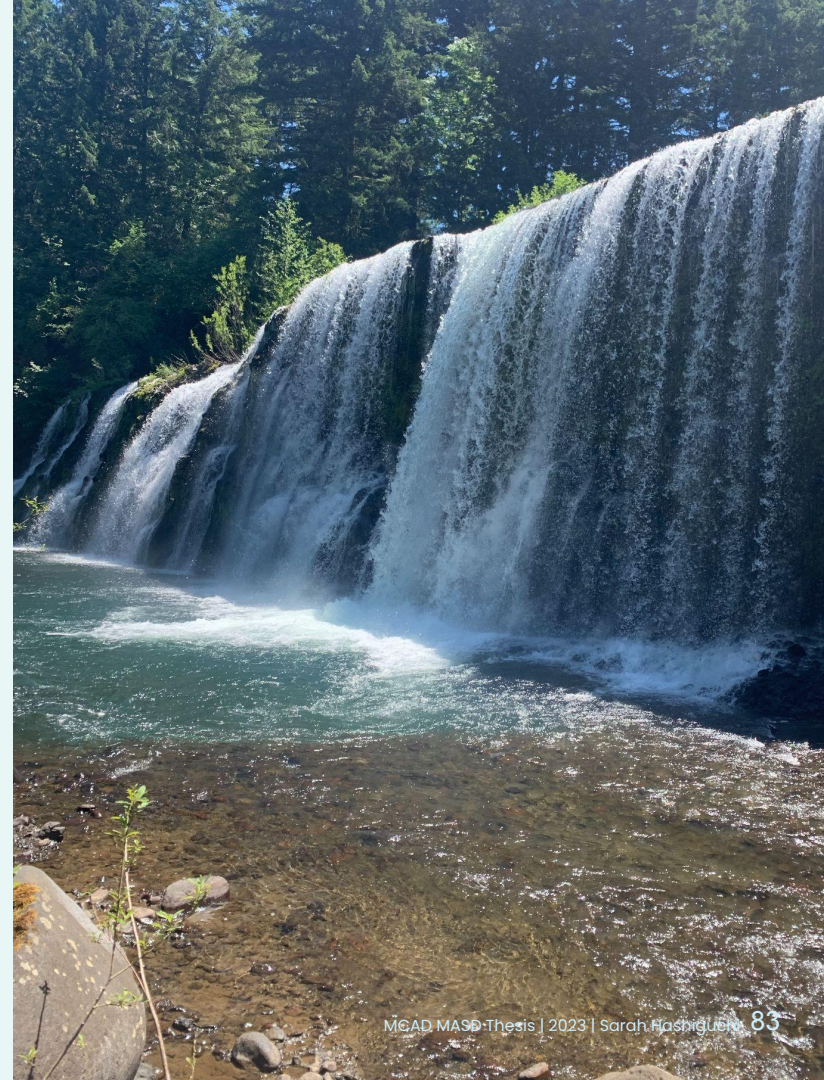
Potential Impact

"...research on social movements and change suggests that a relatively **small number of dedicated individuals can catalyze much wider and more rapid shifts** in the broader environment."[39, 88] In considering E.M. Rogers' Diffusion of Innovation Theory as a model for change, this thesis will target the **Early Adopters** on the innovation curve, as they typically exhibit leadership qualities and are already **aware of a need for change**.[89, 8]
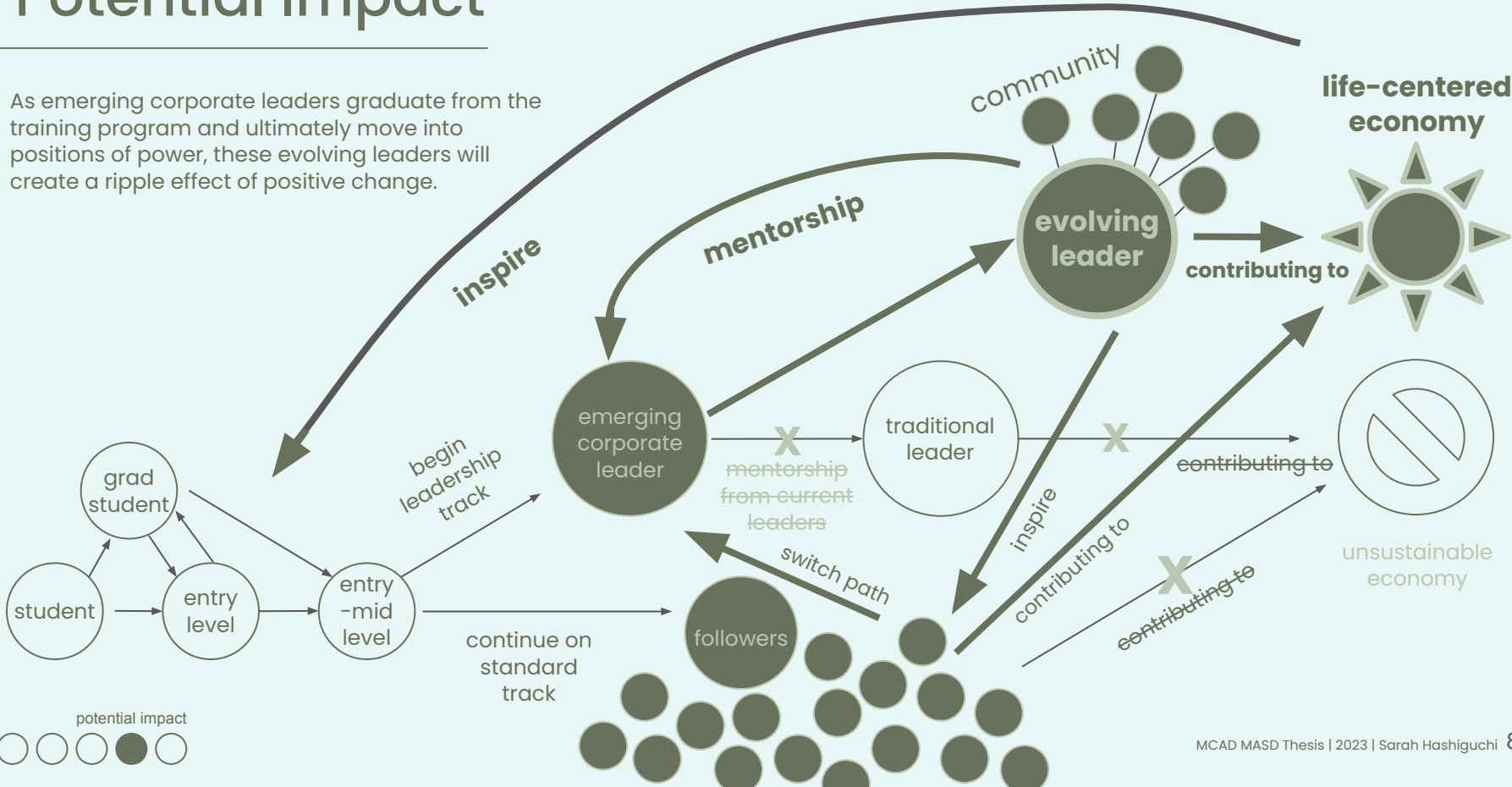
While it's clear change is not yet happening at the rate necessary to avoid irreversible ecological tipping points, it is also important to acknowledge that **there is a social movement building** in the corporate world at a rate faster than previous major social movements in history. With the help of research and reporting from third party agencies, current leaders have come to realize that **corporations must change their ways to better align with the values of younger generations if they hope to continue to attract and retain new talent** unless they dare to face the consequences such as the possibility of leadership deserts.[90, 91, 41]

If the outcome of this thesis work was implemented, program participants would be responsible for spreading the ideas and knowledge of the capabilities they took away from the training to **share with other emerging corporate leaders** who may at first see the systematic change to pursue a life-centered economy to be uncertain or even risky. By spreading necessary tools though direct peer-to-peer communication, **trust and familiarity can accelerate the larger social movement** at play.[89] The more people actively pushing for change, the more likely corporations and the bodies of power they influence, can shift their priorities to protecting and preserving all forms of life.
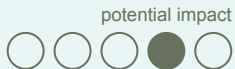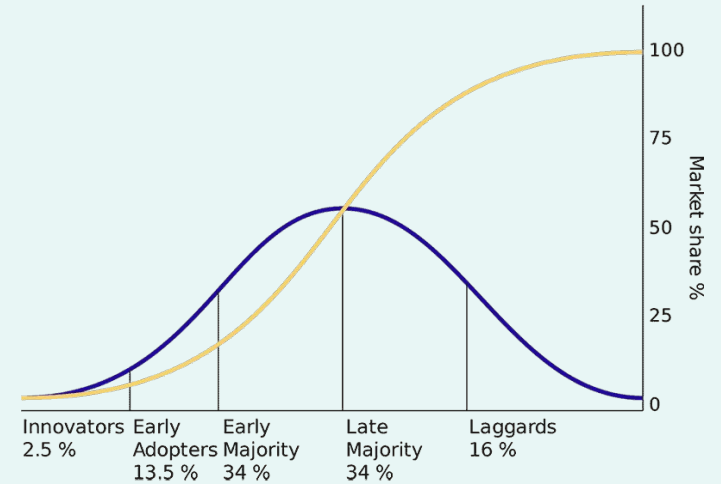
potential impact

Potential Impact

As emerging corporate leaders graduate from the training program and ultimately move into positions of power, these evolving leaders will create a ripple effect of positive change.

inspire

mentorship

community

evolving leader

life-centered economy

contributing to

emerging corporate leader

begin leadership track

traditional leader

X

~~mentorship from current leaders~~

X

~~contributing to~~

grad student

student

entry level

entry -mid level

continue on standard track

followers

switch path

inspire

contributing to

X

~~contributing to~~

unsustainable economy

potential impact

Conclusion

This thesis work **recognizes the complex dynamic world that emerging corporate leaders face everyday**, and offers a training intervention as a possible solution to enable their potential to enact greater change beginning in their organizations. Emerging corporate leaders are **trying their best** to navigate the incentives and disincentives of aligning their sustainability values and actions, while also recognizing they need to learn and develop more robust capabilities to continue to push for systematic change.

There is an overwhelming amount of content around what needs to be avoided, limited, stopped, and reversed in order to maintain a livable planet, however, negative messaging can be overwhelming and fail to spark engagement. The process of **backcasting and more vividly imagining an ideal future hold so much power to inspire people to fight for the world they want for themselves and future generations down the line**.

Next steps could include bringing this training to life and running it at full scale. This venture would require thoughtful branding, marketing, web design, facilitation materials, capable facilitators, retreat accommodations, and willing participants to come with an open mind and share a generous amount of feedback. Due to the costs associated with interventions like this, **a more inclusive future iteration could involve an entirely online program where participants immerse themselves in local nature settings** such as parks or botanical gardens while still maintaining the educational and community building aspects.

One of the most striking insights of this process has been how much good humans have the potential to do on this planet. It is a commonly held belief among many environmentally passionate people that the world would be better off without the species actively (and knowingly) causing the most harm to all other life.[29] In contrast to that view, this thesis builds the case that younger generations have the motivation to push for sustainable change. **They seek a future not separate from, but in harmony with the rhythms of nature, where human actions can help create thriving communities within the web of all interconnected beings**. Everyone has a role to play, and it's time for emerging leaders to get ready to make waves of change. **There is hope for a vibrant future.**

conclusion

"Hózhó is the joy of being a part of the beauty of all creation. When we understand that humanity is an expression of the earth's beauty, we understand that we too belong. Hózhó understands that we have an ecological role. Hózhó understands that our Mother Earth needs us." [92]

– Lyla June

Diné musician, scholar, and cultural historian

Works Cited

Works Cited

1. Intergovernmental Panel on Climate Change, Synthesis Report of the IPCC Sixth Assessment Report (AR6), March 2023, https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_SPM.pdf.

2. Deloitte, *Striving for Balance, Advocating for Change: The Deloitte Global 2022 Gen Z & Millennial Survey*, 2022, https://www.deloitte.com/content/dam/assets-shared/legacy/docs/about/2022/deloitte-2022-genz-millennial-survey.pdf.

3. "The Life-Centered Economy: Past, Present, and Future," House of Beautiful Business, accessed August 31, 2023, https://houseofbeautifulbusiness.com/read/life-centered-economy.

4. Recapture, 2018-2019 Fortune 500 Companies Greenhouse Gas Emissions: 2021 Inaugural Report, 2021, https://uploads-ssl.webflow.com/62b490fba1b47997dea7f2ad/62e304901945631ef1ea7ffc_F500_Report.pdf.

5. Climate Impact Partners, Imperial College Business School, If Not Now, When?, 2022, accessed March 23, 2023, https://info.climateimpact.com/hubfs/IfNotNowWhen_FortuneGlobal500_ClimateImpactPartners_2022.pdf.

6. "Millennial Generation: Information on the Economic Status of Millennial Households Compared to Previous Generations," U.S. Government Accountability Office, last modified Dec 18, 2019, https://www.gao.gov/products/gao-20-194

7. Jack Zenger and Joseph Folkman, "Companies Are Bad at Identifying High-Potential Employees," Harvard Business Review, February 20, 2017, https://hbr.org/2017/02/companies-are-bad-at-identifying-high-potential-employees#:~:text=in%20a...-,A%20high%2Dpotential%20employee%20is%20usually%20in%20the%20top%205,positions%20of%20responsibility%20and%20power.

8. "Labor Force Statistics from the Current Population Survey," U.S. Bureau of Labor Statistics, accessed March 27, 2023, https://www.bls.gov/cps/cpsaat11b.htm.

9. "Greenhouse Gas Equivalencies Calculator," United States Environmental Protection Agency, accessed September 3, 2023, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results.

10. Jonathan Webb, "How Many Suppliers Do Businesses Have? How Many Should They Have?," Forbes, Feb 28, 2018, https://www.forbes.com/sites/jwebb/2018/02/28/how-many-suppliers-do-businesses-have-how-many-should-they-have/?sh=376ac4029bb7.

Works Cited Continued

11. Mihnea Moldoveanu and Das Narayandas, "The Future of Leadership Development," Harvard Business Review, March-April 2019, https://hbr.org/2019/03/the-future-of-leadership-development.
12. Scott J Allen, David M. Rosch, and Ronald E. Riggio, "Advancing Leadership Education and Development: Integrating Adult Learning Theory," Journal of Management Education 46, no. 2 (April 2021): 1, https://doi.org/10.1177/10525629211008645.
13. "Mindfulness Leadership Training," University of Virginia HR, accessed Oct. 24, 2023, https://hr.virginia.edu/wellness/emotional-well-being/mindfulness-resources/mindful-leadership-skills-training.
14. William McDonough and Coert Zachariasse, "Building for a Better World and Making People Smile," Newsweek, June 5, 2014, https://mcdonough.com/writings/building-better-world-making-people-smile/.
15. Thomas Both and Dave Baggereor, Design Thinking Bootleg (Stanford, CA: Stanford d. School, 2018), https://static1.squarespace.com/static/57c6b79629687fde090a0fdd/t/5b19b2f2aa4a99e99b26b6bb/1528410876119/dschool_bootleg_deck_2018_final_sm+%282%29.pdf.
16. Ross D. Arnold and Jon P. Wade, "A Definition of Systems Thinking: A Systems Approach," Procedia Computer Science 44, no. 1 (2015): 669-678, https://doi.org/10.1016/j.procs.2015.03.050.
17. "The COM-B Model for Behavior Change," The Decision Lab, accessed October 30, 2022, https://thedecisionlab.com/reference-guide/organizational-behavior/the-com-b-model-for-behavior-change.
18. "Approach," The Natural Step, accessed Oct 24, 2023, https://thenaturalstep.org/approach/.
19. Gaby Brink, Nathalie Destandau, and Phil Hamlett. Systems Thinking Methodology: The Living Principles. PDF file. May 15, 2022. Jedlicka.com.
20. Nico Cervantes, The Living Principles: Creative Action for Collective Good, Oct 2013, https://issuu.com/forte_magazine/docs/l_p_book_screen.
21. "About," Inner Development Goals, accessed May 26, 2023, https://www.innerdevelopmentgoals.org/about.
22. Thomas Jordan, et. al, Inner Development Goals: Background, method and the IDG framework (Sweden: Inner Development Goals, 2021), https://static1.squarespace.com/static/600d80b3387b98582a60354a/t/6272f730e54fa847d7db62f5/1651701552398/IDG%E2%80%93Who+We+Are+220426.pdf.

Works Cited Continued

23. Kristian Stålne and Stefanie Greca, Inner Development Goals: Phase 2 Research Report (Germany: Inner Development Goals, 2022), https://static1.squarespace.com/static/600d80b3387b98582a60354a/t/6405f351e80cab0e8e547c9e/1678111582333/Updated_IDG_Toolkit_v1.pdf.

24. Gallup, Inc., How Millennials Want to Work and Live: The Six Big Changes Leaders Have to Make (Washington, D.C., 2016), https://www.gallup.com/workplace/238073/millennials-work-live.aspx.

25. Deloitte, A Call for Accountability and Action: The Deloitte Global 2021 Millennial and Gen Z Survey, 2021, https://www.deloitte.com/content/dam/assets-shared/legacy/docs/insights/2022/2021-deloitte-global-millennial-survey-report.pdf.

26. "AACSB Accelerators: Emerging Competencies for Societal Impact," AACSB, March 8, 2023, accessed Oct. 24, 2023, https://www.aacsb.edu/insights/briefings/aacsb-accelerators-emerging-competencies-for-societal-impact.

27. "A Letter to Leaders," The B Team, accessed Oct. 24, 2023, https://newleadershipplaybook.org/letter/.

28. "Pillars of Inspired Leadership," Soil Institute of Management, accessed Oct. 24, 2023, https://www.soil.edu.in/.

29. Robin Wall Kimmerer, Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants (Canada: Milkweed Editions, 2013), 115.

30. Andres R. Edwards, The Sustainability Revolution: Portrait of a Paradigm Shift (Canada: New Society Publishers, 2006), 100, 115.

31. Fritjof Capra and Pier Luigi Luisi, The Systems View of Life: A Unifying Vision (Cambridge: Cambridge University Press, 2014), 70.

32. Sandra Waddock, "Part 1: Understanding the Concept of a Life-Centered Economy," interviewed by Volker Haltenhof, SAP Intelligent Enterprise Institute, June 14, 2023, written, 1-6, https://www.sap.com/documents/2023/06/0c01fd4f-7c7e-0010-bca6-c68f7e60039b.html.

33. Jūratė Banytė et al., "Sustainable Consumption Behavior at Home and in the Workplace: Avenues for Innovative Solutions," Sustainability 12, no. 16(August 2020): https://doi.org/10.3390/su12166564.

34. Victoria Wells, "'I just can't be bothered': why people are greener at home than in the office," The Guardian, May 2016, https://www.theguardian.com/sustainable-business/2016/may/20/green-home-office-environmental-leadership.

35. Lorraine E. Whitmarsh, Paul Haggar, and Merryn Thomas, "Waste Reduction Behaviors at Home, at Work, and on Holiday: What Influences Behavioral Consistency Across Contexts?," Frontiers Psychology 9, no.1 (December 2018): https://doi.org/10.3389/fpsyg.2018.02447.

Works Cited Continued

36. Elisa Farri, Paolo Cervini, and Gabriele Rosani, "How Sustainability Efforts Fall Apart," Harvard Business Review, September 26, 2022, https://hbr.org/2022/09/how-sustainability-efforts-fall-apart.

37. Dr. Itamar Shatz, "The Value-Action Gap: Why People Don't Act in Accordance with Their Beliefs," Effectiviology, 2023, https://effectiviology.com/value-action-gap/#:~:text=Accordingly%2C%20the%20value%2Daction%20gap,that%20will%20help%20address%20them.

38. 1. IPSOS, Addressing the Sustainability Say-Do Gap, by Colin Strong, Tamara Ansons, and Jessica Long. France: IPSOS, 2021. Online, accessed March 6, 2023, https://www.ipsos.com/sites/default/files/ct/publication/documents/2021-07/Ipsos-Views_Addressing-the-Sustainability-Say-Do-Gap.pdf.

39. Leon Pieters, Irena Pichola, Derek Pankratz, and David R. Novak, "Who is setting the pace for personal sustainability?," Deloitte Insights Magazine, April 4, 2022, https://www2.deloitte.com/us/en/insights/topics/strategy/sustainable-action-climate-change.html.

40. Natalie Colley, "Millennials Are Seeing Their Net Worth Go Down. Student Loans Play A Huge Role," Forbes, Mar 17, 2023, https://www.forbes.com/sites/nataliecolley/2023/03/17/student-loans-impact-on-millennial-net-worth-the-importance-of-strategic-college-financing/?sh=4630d9b3516d.

41. Deloitte, 2023 Gen Z and Millennial Survey, 2023, https://www.deloitte.com/global/en/issues/work/content/genzmillennialsurvey.html.

42. BlueCross BlueShield, The Economic Consequences of Millennial Health, Nov 6, 2019, https://www.bcbs.com/the-health-of-america/reports/how-millennials-current-and-future-health-could-affect-our-economy.

43. Tim May, "The Empathy Map: A Human-Centered Tool for Understanding How Your Audience Thinks," Xplane, December 2, 2021, accessed October 27, 2023, https://xplane.com/the-empathy-map-a-human-centered-tool-for-understanding-how-your-audience-thinks/.

44. Donella Meadows, Leverage Points: Places to Intervene in a System (Hartland VT: The Sustainability Institute,1999), 1-19.

45. Christoph Woiwode et al., "Inner transformation to sustainability as a deep leverage point: fostering new avenues for change through dialogue and reflection," Sustainability Science 16, (January 2021): 841-858, https://doi.org/10.1007/s11625-020-00882-y.

46. Yona Sipos, Bryce Battisti, Kurt Grimm, "Achieving transformative sustainability learning: engaging head, hands and heart," International Journal of Sustainability in Higher Education 9, no. 1 (January 2008): Abstract, https://www.emerald.com/insight/content/doi/10.1108/14676370810842193/full/html.

47. Christoph Woiwode et al., "Inner transformation to sustainability as a deep leverage point: fostering new avenues for change through dialogue and reflection," Sustainability Science 16, (January 2021): 841-858, https://doi.org/10.1007/s11625-020-00882-y.

Works Cited Continued

48.   Vera Ivanaj, Kim Poldner, and Paul Shrivastava, "Hand /Heart /Head: Aesthetic Practice Pedagogy for Deep Sustainability Learning," The Journal of Corporate Citizenship 54, no. 1 (2014): 24.

49.   Fabrizio Ceschin and Idil Gaziulusoy, "Evolution of design for sustainability: From product design to design for system innovations and transitions," Design Studies 47, no. 1 (Nov 2016): 118-163, https://doi.org/10.1016/j.destud.2016.09.002.

50.   Janine Fleith De Medeiros, Cecília Gravina Da Rocha, and José Luis Duarte Ribeiro, "Design for sustainable behavior (DfSB): Analysis of existing frameworks of behavior change strategies, experts' assessment and proposal for a decision support diagram," Journal of Cleaner Production 188, no.1 (July 2018): 402-415, https://doi.org/10.1016/j.jclepro.2018.03.272.

51.   Kirk Warren Brown, Richard M. Ryan, and J. David Creswell, "Mindfulness: Theoretical Foundations and Evidence for its Salutary Effects," Psychology Inquiry 18, no. 4 (2007): 211-237, https://www.jstor.org/stable/20447389.

52.   Elizabeth King and Richard Badham, "Leadership in Uncertainty: The Mindfulness Solution," Organizational Dynamics 48, no.4 (Fall 2019): https://doi.org/10.1016/j.orgdyn.2018.08.005.

53.   Satinder K. Dhiman, The Routledge Companion to Mindfulness at Work (New York: Routledge, 2021), https://catalog.loc.gov/vwebv/search?searchCode=LCCN&searchArg=2019054401&searchType=1&permalink=y.

54.   Fernando Rojas, Stuart English, Robert Young, and Nick Spencer, Making Mindfulness Explicit in Design Education, (Chicago, IL: LearnxDesign: The 3rd International Confwerence for Design Education Researchers, June 2015), https://www.researchgate.net/publication/280039201_Making_Mindfulness_explicit_in_Design_Education.

55.   Michaelle Bosse, Christian Wölfel and Jens Krzywinski, Mindful Design: Applying the Mindful Design Approach at Industrial Design Lectures, (London, UK: International Conference on Engineering and Product Design Education, September 2018), https://www.designsociety.org/publication/40857/MINDFUL+DESIGN%3A+APPLYING+THE+MINDFUL+DESIGN+APPROACH+AT+INDUSTRIAL+DESIGN+LECTURES.

56.   Nicole E. Ruedy and Maurice E. Schweitzer, "In the Moment: The Effect of Mindfulness on Ethical Decision Making," Journal of Business Ethics 95, no. 1 (2010): 73-87, https://www.jstor.org/stable/29789714.

Works Cited Continued

57.   "The Art of Mindfulness in Product Design," Web Directions: Conffab, accessed October 26, 2023, https://conffab.com/video/the-art-of-mindfulness-in-product-design/.

58.   Ute B. Thiermann and William R. Sheate, "The Way Forward in Mindfulness and Sustainability: a Critical Review and Research Agenda," Journal of Cognitive Enhancement 5, no.1 (2021): 118-139, https://link.springer.com/article/10.1007/s41465-020-00180-6.

59.   Rimma Teper, Zindel V. Segal, and Michael Inzlicht, "Inside the Mindful Mind: How Mindfulness Enhances Emotion Regulation Through Improvements in Executive Control," Current Directions in Psychological Science 22, no. 6 (December 2013): 449-454, https://www.jstor.org/stable/44318704.

60.   Torgeir Ericson, Bjørn Gunaketu Kjønstad, and Anders Barstad, "Mindfulness and Sustainability," Ecological Economics 104, no. 1 (August 2014): 73-79, https://doi.org/10.1016/j.ecolecon.2014.04.007.

61.   Karen Brunsø, Joachim Scholderer, and Klaus G. Grunert, "Closing the gap between values and behavior—a means–end theory of lifestyle," Journal of Business Research 57, no. 6 (June 2004): 665-670, https://www.sciencedirect.com/science/article/abs/pii/S0148296302003107.

62.   Gaston Godin, Mark Cornner, and Paschal Sheeran, "Bridging the intention–behaviour gap: The role of moral norm," British Journal of Social Psychology 44, no. 4 (December 2010): 497-512, https://doi.org/10.1348/014466604X17452.

63.   Gemma Burford et al., "Making the Invisible Visible: Designing Values-Based Indicators and Tools for Identifying and Closing 'Value-Action Gaps'," Responsible Living, (January 2025): 113-133, https://doi.org/10.1007/978-3-319-15305-6_9.

64.   "Education," The Natural Step, accessed October 29, 2023, https://thenaturalstep.org/services/education/.

65.   "Foundations in Design Thinking Certificate," IDEO U, accessed October 29, 2023, https://www.ideou.com/products/design-thinking-certificate?utm_feeditemid=&utm_device=c&utm_term=ideo%20design%20thinking%20course&utm_sourc e=google&utm_medium=cpc&utm_campaign=BOF+-+IDEO+Course+Themes+(PSDW)&hsa_cam=11993830240&hsa_grp=121226726092&hsa_mt=e&hs a_src=g&hsa_ad=490944528172&hsa_acc=2344323373&hsa_net=adwords&hsa_kw=ideo%20design%20thinking%20course&hsa_tgt=kwd-13849999899 0&hsa_ver=3&gad=1&gclid=Cj0KCQjw4bipBhCyARIsAFsieCynelAV8ljafisQsmtwPkdnSikCcZmwO566Fiiue8oHF9lN6H0bdnAaAi-8EALw_wcB.

Works Cited Continued

66. S. Rupprecht & C. Wamsler, The Global Leadership for Sustainable Development Programme: Inner Development for Accelerating Action Towards the Sustainable Development Goals, Evaluation Report written for the Inner Development Goals and the Templeton World Charity Foundation (Lund, Sweden: the Inner Green Deal and Lund University Centre for Sustainability Studies, 2023), https://static1.squarespace.com/static/600d80b3387b98582a60354a/t/6523c214090a9850f74034f4/1696842266957/IDG_GLSD+2023+Evaluation+Report.pdf.

67. "Why Us?," Institute for Mindful Leadership, accessed October 29. 2023, https://instituteformindfulleadership.org/.

68. "Be the Change," UN Sustainable Development Goals, accessed October 29, 2023, https://www.un.org/sustainabledevelopment/be-the-change/.

69. "Climate Wayfinding," The All We Can Save Project, accessed October 29, 2023, https://www.climatewayfinding.earth/.

70. "The Human Dimension of the Green Deal," Inner Green Deal, October 29, 2023, https://innergreendeal.com/#offers-for-organisations.

71. "Theory: Overview," Self-Determination Theory, accessed October 30, 2022, https://selfdeterminationtheory.org/theory/.

72. "Fogg Behavior Model," Stanford Behavior Design Lab, accessed October 30, 2022, https://behaviordesign.stanford.edu/resources/fogg-behavior-model.

73. "Fogg Behavior Model," Behavior Model, accessed October, 30 2022, https://behaviormodel.org/.

74. BJ Fogg, "A Behavior Model for Persuasive Design," Stanford University: Persuasive Technology Lab, (2009): 1-7, https://drive.google.com/file/d/19LYba4fuceGM3KhqxTXByV4msmb33t1o/view.

75. Liz Guthridge, "How To Balance Compassion And Accountability For Behavior Change," Forbes, March 23, 2023, https://www.forbes.com/sites/forbescoachescouncil/2023/03/29/how-to-balance-compassion-and-accountability-for-behavior-change/?sh=19b7e4eb6a6b.

76. United States Agency of International Development, Social Accountability and Social and Behavior Change: Applying a Behavioral lens to Social Accountability Approaches, by Kama Garrison and Susan Pietrzyk, Washington D.C.: Health Systems Strengthening Practice Spotlight, June 2023, https://www.usaid.gov/sites/default/files/2023-08/Social%20Accountability%20and%20Social%20and%20Behavior%20Change.pdf (accessed October 26, 2023).

77. Allan H. Church and Lori Dawson, "Agile feedback drives accountability and sustained behavior change," Strategic HR Review 17, no. 6 (2018): 295-302, https://doi.org/10.1108/SHR-07-2018-0063.

Works Cited Continued

78. Elias Oussedik et al., "Accountability: a missing construct in models of adherence behavior and in clinical practice," Patient Prefer Adherence 11, no. 1 (July 2017): 1285-1294, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5536091/.

79. "200-Hour Yoga Teacher Training: A nine-week program recognized by Yoga Alliance," Corepower Yoga, accessed Oct 25, 2023, https://www.corepoweryoga.com/content/200hr-yoga-training-programs.

80. "Programs: On-land Retreats," Spirit Rock: An Insight Meditation Center, accessed Oct 25, 2023, https://www.spiritrock.org/residential-retreats.

81. "The IDG Summit 2023 Connecting the Dots: From Inner Growth to Outer Change," Inner Development Goals, accessed Oct 25, 2023, https://summit.innerdevelopmentgoals.org/.

82. "Our Impact," Greater Good Science Center, accessed oct 25, 2023, https://ggsc.berkeley.edu/who_we_are/our_impact.

83. Julie Butler & Margaret L. Kern, The PERMA Profiler (PA: University of Pennsylvania, 2016), https://www.peggykern.org/uploads/5/6/6/7/56678211/the_perma-profiler_101416.pdf.

84. Margaret L. Kern, The Workplace PERMA Profiler (PA: University of Pennsylvania, 2014), https://www.peggykern.org/uploads/5/6/6/7/56678211/workplace_perma_profiler_102014.pdf.

85. S. Rupprecht & C. Wamsler, The Global Leadership for Sustainable Development Programme: Inner Development for Accelerating Action Towards the Sustainable Development Goals, Evaluation Report written for the Inner Development Goals and the Templeton World Charity Foundation (Lund, Sweden: the Inner Green Deal and Lund University Centre for Sustainability Studies, 2023), https://static1.squarespace.com/static/600d80b3387b98582a60354a/t/6523c214090a9850f74034f4/1696842266957/IDG_GLSD+2023+Evaluation+Report.pdf.

86. Derek Barter, "The Slow Learner: Feeling our way to Thinking about Lifelong Learning," Liverpool John Moores University 5, no. 2 (August 2023): https://doi.org/10.24377/prism.article722.

87. Paul Polman and Andrew Winston, Net Positive: How Courageous Companies Thrive by Giving More Than They Take (Massachusetts: Harvard Business Review Press, 2021), 47.

88. Erica Chenoweth and Maria J. Stephan, Why Civil Resistance Works (New York: Columbia University Press, 2012),1-320.

Works Cited Continued

89.   Everett M. Rogers, Diffusion of Innovations, 5th Edition (New York: Free Press, 2003), 1-576.

90.   Jennifer Schaefer, "Gen Z, Millennial Workers Are Prioritizing Sustainability and Climate Change," Indeed: Career Guide, August 16, 2023,
        https://www.indeed.com/career-advice/news/gen-z-millennial-workers-prioritizing-sustainability.

91.   Samantha Connell and Felicity Furey, "Millennials As Emerging Leaders," The Synergist, Sep 2022,
        https://synergist.aiha.org/202209-millennials-emerging-leaders.

92.   Lyla June, "3000-year-old solutions to modern problems | Lyla June | TEDxKC," filmed September 29, 2022 at TEDxKC, Kansas City, MO, video, 13:27,
        https://www.youtube.com/watch?v=eH5zJxQETI4.

93.   Chris Hatch, "The surprising antidote to despair," Canada's Naional Observer, March 19, 2023,
        https://mailchi.mp/nationalobserver.com/the-surprising-antidote-to-climate-despair?e=c62c9a8fa7.

94.   Stefan G. Hofmann, Paul Grossman, and Devon E. Hinton, "Loving-kindness and compassion meditation: Potential for psychological interventions,"Clinical
        Psychology Review 31, no.7 (November 2011): 1126-1132, https://doi.org/10.1016/j.cpr.2011.07.003.

95.   Thich Nhat Hanh, Interbeing, accessed October 29, 2023,
        https://chaplaincy.tufts.edu/wp-content/uploads/Priya-Sraman-Interbeing-Exercise-Thich-Nhat-Hanh.pdf.

96.   "Welcome, time traveller," Good Lide 2023, accessed October 29, 2023, https://toolkit.goodlife2030.earth/part-one.

97.   Insight Meditation South Bay, Four Foundations of Mindfulness, September 2014,
        https://www.imsb.org/wp-content/uploads/2014/09/FourFoundationsOfMindfulness.pdf.

98.   "Traditional vs. Sustainability Indicators," Sustainable Measures, accessed October 29, 2023, http://www.sustainablemeasures.com/node/90.

Images Cited

*note: all full size slide photos taken by Sarah Hashiguchi

Slide 30 → Juicy Fish, "person at computer desk," March 12,2023, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/person-at-computer-desk-5630203/.

Slide 43 → Syafii5758, "health and fitness," August 11, 2023, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/health-and-fitness-6017970/.

Slide 43 → Mahmure Alp, "finance," April 30, 2017, Creative Commons Icon, The Nounn Project, https://thenounproject.com/icon/finance-1033149/.

Slide 43 → Maria Kislitsina, "time management," April 13, 2017, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/time-management-1005174/.

Slide 43 → S fahrudin, "conflict resolution," June 15, 2023, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/conflict-resolution-5855359/.

Slide 43 → Juicy Fish, "Work Life Balance," May 30, 2023, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/work-life-balance-5807013/.

Slide 43 → Lia Rahdiah, "Community," November 07, 2020, Creative Commons Icon, The Noun Project, https://thenounproject.com/icon/community-3659714/.

Slide 51, 52, 55 → Azukina, "Paper Post-it Note Sticker," accessed October 27, 2023, Kind PNG, https://www.kindpng.com/imgv/xTboRb_paper-post-it-note-sticker-sticky-note-png/.

Slide 53, 59, 77 → The Natural Step, "The Natural Step Logo," accessed October 29, 2023, The Natural Step, https://thenaturalstep.org/.

Slide 53 → Biomimicry 3.8, "Life's Principles," 2013, Creative Commons Image, Biomimicry 3.8, https://biomimicry.net/the-buzz/resources/designlens-lifes-principles/.

Images Cited

Slide 53 → Ellen MacArthur Foundation, "Circular Economy Systems Diagram," February 2019, Ellen MacArthur Foundation, https://www.ellenmacarthurfoundation.org/circular-economy-diagram.

Slide 53, 59, 77 → Schmarzo, "Stanford d.school Design Thinking Process," 2017, Stanford d.school, https://www.researchgate.net/figure/Stanford-dschool-Design-Thinking-Process-Schmarzo-2017_fig2_338741533.

Slide 53 → Smart Cities, "The Three Pillars of Sustainability," accessed October 29, 2023, Smart Cities: Resource Portal, https://smartcities.cc/introduction/.

Slide 53, 59, 60, 77 → Forte Magazine, "The Living Principles," October 21, 2013, Issuu, https://issuu.com/forte_magazine/docs/l_p_book_screen.

Slide 53, 59, 60, 62, 77 → Inner Development Goals, "Inner Development Goals Logo," accessed October 29, 2023, Inner Development Goals, https://www.innerdevelopmentgoals.org/.

Slide 60 → The Natural Step, "Sustainability Principles," accessed October 29, 2023, The Natural Step, https://thenaturalstep.org/approach/.

Slide 60 → The Natural Step, "Our ABCD Process," accessed October 29, 2023, The Natural Step, https://thenaturalstep.org/approach/.

Slide 61 → AIGA, "Four Streams of Integrated Sustainability," October 2021, The Living Principles, PDF file.

Slide 62, 103 → Inner Development Goals, "IDS full framework - English," accessed October 29, 2023, Inner Development Goals, https://www.innerdevelopmentgoals.org/resources.

Slide 84 → High Tech Strategies, "An Overview of the Innovation-Adoption Curve," Harlequin Consulting Group, June 11, 2022, https://www.hightechstrategies.com/methods/technology-adoption-lifecycle/innovation-adoption-curve/.

Slide 102 → AIGA, "Living Principles Scorecard," accessed October 29 2023, The Living Principles, PDF file.

Appendices

A B C D E F

Appendix A: Possible Activities

- Gratitude journal [93]
- Compassion component [94]
- Interconnectedness exercise [95]
- Envisioning for an ideal future to work towards and protect [96]
- Explore internalized norms and self-expectations in the development of one's motivation to adopt a given behaviour [62]
- Cover the Four Foundations of Mindfulness [97]

Appendix B: Living Principles Scorecard

Living Principles Scorecard

The following Project Scorecard Worksheet is intended to facilitate critical evaluation of efforts as they relate to sustainability. The objective of this metric is to arrive at a "score" for each of the four integrated streams of sustainability. The scorecard is used for this Proposal Project to assess the applicability of sustainability ideas to the project and account for each of the twenty-one discreet principles that comprise the four streams (Living Principles 2009).

EN Environment	Score	EC Economy	Score
EN.01 Behaviors		EC.01 Systemic View	
EN.02 Creation		EC.02 Metrics	
EN.03 Durability		EC.03 Benefits	
EN.04 Disassembly		EC.04 Transparency & Truth	
EN.05 Supply Chain		EC.05 Waste = Food	
EN.06 Waste		EC.06 Product > Service	
Total Environment Score		**Total Economy Score**	
PE People	**Score**	**CU Culture**	**Score**
PE.01 Impacts		CU.01 Visions	
PE.02 Conflicts		CU.02 Meanings & Reactions	
PE.03 Desirability		CU.03 Systemic View	
PE.04 Need/Use		CU.04 Diversity	
PE.05 Long View		**Total Culture Score**	
Total People Score			

Living Principles Scorecard Scoring Key:

0= Doing nothing,

1 = Exploring Concepts,

2 = Implementing Solutions,

3 = Exhibiting Leadership,

4 = Achieving Restoration. Note: Restoration in sustainability terms means to restore ecosystems to their original, self-sustaining balance.

Appendix C: Inner Development Goals

Inner Compass
Having a deeply felt sense of responsibility and commitment to values and purposes relating to the good of the whole.

Integrity and Authenticity
A commitment and ability to act with sincerity, honesty and integrity.

Openness and Learning Mindset
Having a basic mindset of curiosity and a willingness to be vulnerable and embrace change and grow.

Self-awareness
Ability to be in reflective contact with own thoughts, feelings and desires; having a realistic self-image and ability to regulate oneself.

Presence
Ability to be in the here and now, without judgement and in a state of open-ended presence.

Critical Thinking
Skills in critically reviewing the validity of views, evidence and plans.

Complexity Awareness
Understanding of and skills in working with complex and systemic conditions and causalities.

Perspective Skills
Skills in seeking, understanding and actively making use of insights from contrasting perspectives.

Sense-making
Skills in seeing patterns, structuring the unknown and being able to consciously create stories.

Long-term Orientation and Visioning
Long-term orientation and ability to formulate and sustain commitment to visions relating to the larger context.

Appreciation
Relating to others and to the world with a basic sense of appreciation, gratitude and joy.

Connectedness
Having a keen sense of being connected with and/or being a part of a larger whole, such as a community, humanity or global ecosystem

Humility
Being able to act in accordance with the needs of the situation without concern for one's own importance.

Empathy and Compassion
Ability to relate to others, oneself and nature with kindness, empathy and compassion and address related suffering.

Communication Skills
Ability to really listen to others, to foster genuine dialogue, to advocate own views skilfully, to manage conflicts constructively and to adapt communication to diverse groups.

Co-creation Skills
Skills and motivation to build, develop and facilitate collaborative relationships with diverse stakeholders, characterized by psychological safety and genuine co-creation.

Inclusive Mindset and Intercultural Competence
Willingness and competence to embrace diversity and include people and collectives with different views and backgrounds.

Trust
Ability to show trust and to create and maintain trusting relationships.

Mobilization Skills
Skills in inspiring and mobilizing others to engage in shared purposes.

Courage
Ability to stand up for values, make decisions, take decisive action and, if need be, challenge and disrupt existing structures and views.

Creativity
Ability to generate and develop original ideas, innovate and being willing to disrupt conventional patterns.

Optimism
Ability to sustain and communicate a sense of hope, positive attitude and confidence in the possibility of meaningful change.

Perseverance
Ability to sustain engagement and remain determined and patient even when efforts take a long time to bear fruit.

C

Appendix D: Sustainability Indicators

If the end goal is working to achieve a life-centered economy, how might that be measured in the future? One option might be to look at **Sustainability Indicators** as potential metrics for measuring sustainable communities.[98]

These differ from traditional indicators in that they focus on quality of life, human activities and processes. This is by no means an exhaustive source for potential metrics, just one avenue to be explored.

http://www.sustainablemeasures.com/node/90

Traditional vs. Sustainability Indicators
The tables below compare traditional indicators with sustainable community indicators.

Economic Indicators		
Traditional Indicators	Sustainability Indicators	Emphasis of Sustainability Indicators
Median income Per capita income relative to the U.S. average	Number of hours of paid employment at the average wage required to support basic needs	What wage can buy Defines basic needs in terms of sustainable consumption
Unemployment rate Number of companies Number of jobs	Diversity and vitality of local job base Number and variability in size of companies Number and variability of industry types Variability of skill levels required for jobs	Resilience of the job market Ability of the job market to be flexible in times of economic change
size of the economy as measured by GNP and GDP	Wages paid in the local economy that are spent in the local economy Dollars spent in the local economy which pay for local labor and local natural resources Percent of local economy based on renewable local resources.	Local financial resilience

Environmental Indicators		
Traditional Indicators	Sustainability Indicators	Emphasis of Sustainability Indicators
Ambient levels of pollution in air and water	Use and generation of toxic materials (both in production and by end user). Vehicle miles traveled.	Measuring activities causing pollution
Tons of solid waste generated	Percent of products produced which are durable, repairable, or readily recyclable or compostable.	Conservative and cyclical use of materials
Cost of fuel	Total energy used from all sources Ratio of renewable energy used at renewable rate compared to nonrenewable energy.	Use of resources at sustainable rate

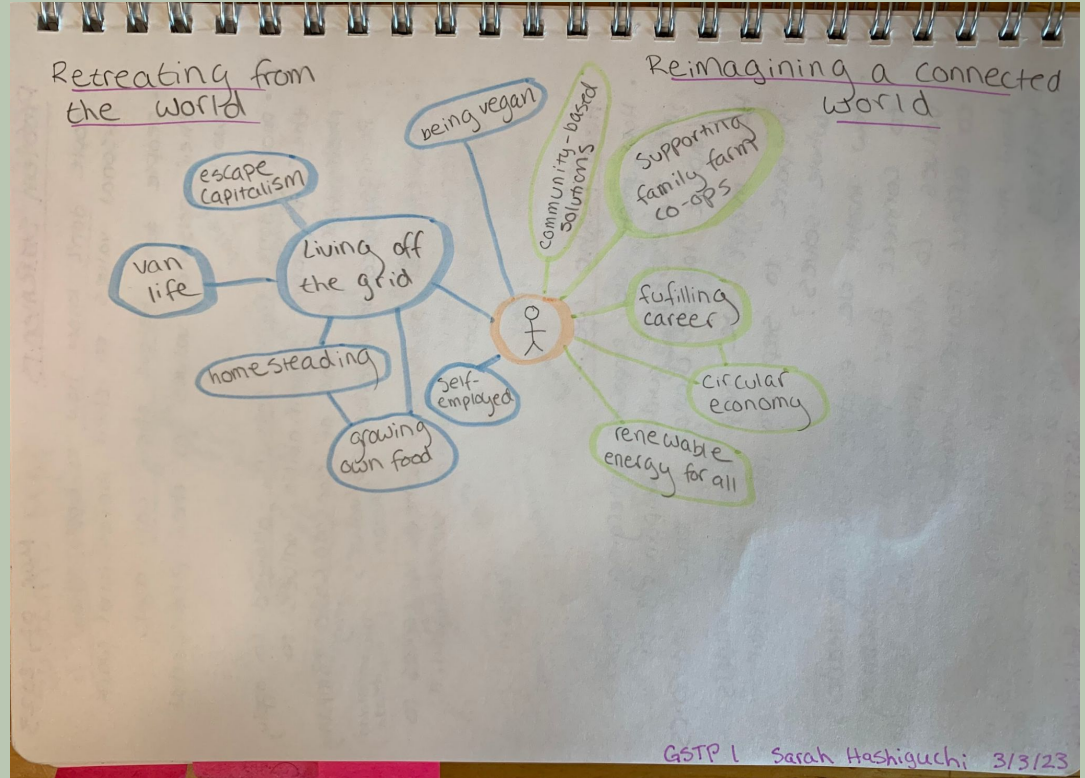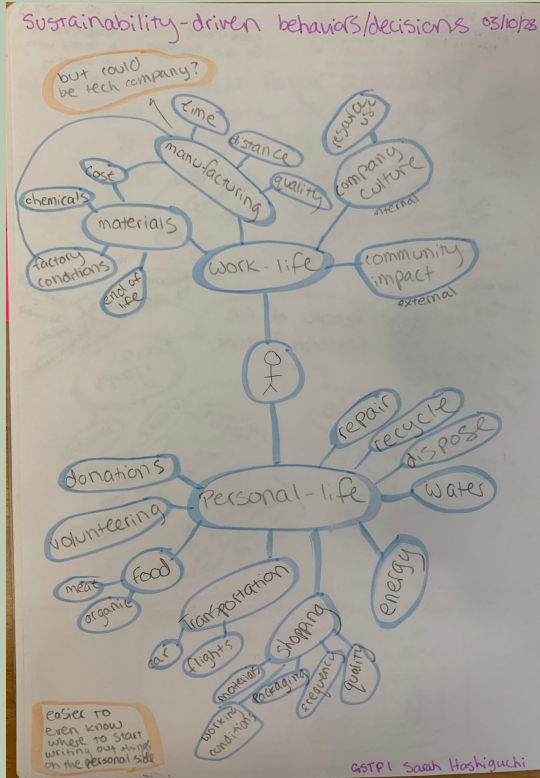| Social Indicators		
Traditional Indicators	Sustainability Indicators	Emphasis of Sustainability Indicators
SAT and other standardized test scores	Number of students trained for jobs that are available in the local economy Number of students who go to college and come back to the community.	Matching job skills and training to needs of the local economy
Number of registered voters	Number of voters who vote in elections Number of voters who attend town meetings. Ability of citizens to register to vote (reduced barriers).	Participation in democratic process Ability to participate in the democratic process

D

Appendix E: Mind Maps

Appendix F: Mind Maps