



# Article

# Leadership in Sustainability: *Collective Wisdom, Conversations, Creativity, Contemplation and Courage*, the Five Pillars of a Master's Teaching Unit

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**Abstract:** This paper provides an overview of insights and lessons learned from nearly 20 years of running a Master's unit called Leadership in Sustainability and how it has been used to foster change agents in small business enterprises, as well as other parts of our economy and community. The unit is based on five 'C' pillars, which are discussed in this paper to show how the teaching was able to assist potential leaders in their journey towards sustainability. *Collective Wisdom* is the theory of how leaders have used their imagination to solve collective 'wicked problems' and how sustainability requires such wisdom. The unit covers such theory from innovation, complexity, leadership, management and sustainability literatures, and the students are required to show they used this in solving a problem. *Conversations* are the main tool that is used because only through integrating diverse opinions have solutions been found to such problems as sustainability. The unit is based around case studies from leaders (including SMEs) who have approached sustainability from various perspectives, and conversations were created with the leaders to illustrate this. *Creativity* is introduced as a tool that draws upon different layers of perspectives on how to tackle wicked problems, as well as facilitating the breadth of conversations and actions required to solve them. The unit requires students to make a creativity contribution and the teachers provide assistance in how to make this work. *Contemplation* is designed to show how leadership requires reflection to enable the creativity and conversations to reach the depth and breadth required. The unit introduces students to the Theory-U tools to help instil the link between creativity and reflection or contemplation in addressing sustainability challenges and enabling leadership that creates change in personal, organizational and social systems. Finally, *Courage* is shown as a necessary part of the role of a leader in sustainability to make the magic of collective and creative solutions, based on conversations and contemplation, come to life through a demonstration-based transition.

**Keywords:** leadership; sustainability; *Collective Wisdom*; *Conversations*; *Creativity*; *Contemplation*; *Courage*



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## 1. Introduction

### 1.1. The Need for New Modes of Learning

Large-scale transformations are required to move to a more sustainable future and a key leverage point for this is the transformation in worldviews and thinking that is possible through education [1]. Organizations, large and small, require graduates capable of leading

this change; however, many traditional higher education programs are producing graduates not capable of leading this change, and many keep reproducing the kind of graduates and thinking that have created our erroneous trajectory in the first place [2]. A grand re-think in terms of the way we learn, how we learn and what we learn is needed, and new ways for knowledge co-creation are being called for [3,4]. Many educators still grapple with how to design learning environments to build leaders for sustainability [5,6]. Non-traditional and unique approaches to sustainability leadership education have the potential to provide inspiration and practical knowledge on how these pedagogies for the future might support this change.

While there is a plethora of material on leadership, organizational management, sustainability, creativity and complexity thinking as discrete fields, the discourse and praxis of drawing these disciplines and themes together is only just now emerging. In this paper, we explore how we have brought insights from these and related areas together and what has been learned and achieved in running a unit called Leadership in Sustainability (LiS) for nearly 20 years.

This paper draws on the authors' experience and theoretical perspectives as part of their co-teaching of the Leadership in Sustainability (LiS) unit at the Master's level, offered through Curtin University Sustainability Policy (CUSP) Institute in Western Australia. The paper suggests there are five pillars or foundations that are used to understand and provide the tools for leadership in sustainability: *Collective Wisdom*, *Conversations*, *Creativity*, *Contemplation* and *Courage*. It sets out what these pillars are and how they have been applied to the teaching unit. We have selected to focus on how the unit has been able to assist leadership in sustainability for people involved in small and medium enterprises. It accomplishes this in all parts of the five 'C's and especially through conversations with leaders from businesses, civil society and the government, discussing their experience in creative and complex problem solving related to sustainability.

### 1.2. Methodology

Reflective approaches are important for sustainability leadership development [7], and this paper represents this approach as all authors are professionals, researchers and educators and identify as what Schön would call reflective practitioners [8]. This reflective approach shapes the delivery and conversations throughout the Leadership in Sustainability (LiS) unit. It also describes the writing process as method- [9] and learning-involved as a 'meta-reflective' process of co-authoring this paper.

Based on this approach, we have generated five core themes that have become evident as five pillars. The *Collective Wisdom* informs the content and the approach to the practice of the Leadership in Sustainability teaching. The paper therefore uses *Conversations* to present these concepts and illustrate what is taught and presents examples from the student's work, particularly in the Creativity Project; then, it uses the reflective practitioner approach to show how the *Contemplation* approach in the teaching and in practice can enable leaders to have the *Courage* to act.

## 2. About Leadership in Sustainability (LiS)

### 2.1. Intention of the LiS

The study unit of LiS is presently within the Master's course Environment and Climate Emergency but was part of a Master's in Sustainability Policy before this. The research-led Master's program aims to integrate the knowledge and skills needed to understand present global sustainability challenges, particularly climate change, and motivate global change and local action. The course incorporates topics related to global environmental challenges, climate policy, sustainable development goals, cities and urbanization, sustainable waste management, societal resilience and the role of change agents and leadership—which is the context for the LiS unit. Students are also required to prepare a dissertation based on an area of their interest to deepen their insights into a particular field and for some, the LiS enables them to discover their passion to pursue in more detail.

LiS has been offered internally as a face–face learning experience and externally through online learning including a module through Open University Australia. It has also been offered across other Curtin graduate programs and to students at Murdoch University so that their Master’s and undergraduate students in Sustainable Development could also enjoy what the course had to offer. The unit runs intensively over five days—two days of lectures and dialogue and two days of workshops. After a month or so working on their creativity projects, a final day is devoted to the group presenting their major creative contributions and to reflect on and celebrate their learning experience.

The formal aims of the LiS unit are to:

- Expose students to a range of contemporary leadership frameworks;
- Facilitate collaborative discourse between students and established sustainability leaders;
- Foster the skills and tools needed to personally adopt an ethic of sustainability leadership within each person’s unique sphere of influence.

We acquit these aims by introducing students to a range of respected sustainability leaders (or champions) who share their wealth of experience through reflective discussions (conversations) about their personal sustainability journeys, guiding students through the process of developing a creative response to a sustainability challenge of their own choosing, as well as by exposing the students to contemporary information on the topic.

More and more, LiS has become about the linkages between the ethic of sustainability, the role of leadership, what it means to take on leadership challenges—at the personal level or within an organizational context—the role of creativity, the importance of reflectivity or contemplation and finally the courage to set up something that can deliver change, sometimes by establishing an SME.

## 2.2. Co-Teaching Experience

It is important to briefly note the authors’ own journeys and the depth and breadth of the perspectives and experience that are brought to the development and delivery of this important unit, which seeks to provide real practical insights and instil a sense of the hope of effecting change. Not all authors have been a part of the unit every year, but we have all been part of the unit’s evolution and development. Please see author biographies for further details.

The role of this team has been to introduce the themes and theoretical concepts, and to hold the space for a rich dialogue and experiential learning experience to unfold. Part of the role of the co-teaching team is to highlight the complexity and ambiguity of the real-life experience of leadership in sustainability—talking openly about personal challenges and ‘failure’.

This real-world experience is enhanced each year by hosting *Conversations* with leaders or champions from businesses, civil society and the government, discussing their experience in creative and complex problem solving related to sustainability challenges in their worlds (see below under *Conversations*).

To introduce the discussion about leadership, we start the teaching by using the insightful YouTube video *First Follower: Leadership Lessons from a Dancing Guy* by Derek Sivers [10], as it has powerful lessons about how a social movement is created or a small business is started. The key lesson in that video is that the leader is creative and courageous enough to do something different, but they only get somewhere when the second and third followers are prepared to stand with them. So, we begin a process in the unit to try and see what lies beneath this kind of change and how the students can begin to participate in it.

## 2.3. Conceptual Foundations and Learning Approaches

The core themes explored and integrated in this unit are set out as the five ‘C’ pillars of *Collective Wisdom, Conversations, Creativity, Contemplation and Courage*.

### 2.3.1. Collective Wisdom

The theory used in the unit tries to avoid the endless academic and business literature on leadership and enables us to talk about deeper topics that we call *Collective Wisdom*. For example, Walter Brueggemann [11], in *The Prophetic Imagination*, says: ‘The vocation of the prophet is to keep alive the ministry of imagination, to keep on conjuring and proposing alternative futures to the single one the agents of the dominant culture want to urge as the only thinkable one’. Aristotle, in second-century BC ancient Greece, developed the theory of democracy based around the need to include diverse voices in what he called ‘rhetoric’. This was the opposite of what he called ‘logic’, which can measure the size of the empire but not enable leaders to know how to govern the empire. This led to the establishment of the Polis and democratic institutions to enable leadership that could solve the deep problems we now face, such as sustainability.

Today there is a new kind of leadership, which has taken on the name Collectivist Leadership. It is about working across a range of actors to build a coalition, a temporary alliance for combined action to generate a transition agenda, to create a shift. This kind of leadership would have been recognized by Aristotle and many leaders across the ages who were not leaders because they wanted to improve their own life, but who were motivated to help the collective common good [12].

Increasingly, the difficult problems of the modern day have been called ‘wicked problems’. These are the problems of sustainability, and the processes of resolution concerning wicked problems require inclusive participatory dialogue and increasingly looks to the *Collective Wisdom* that has been rediscovered by many writers in the sustainability arena (e.g., *Wisdom of the Elders* by David Suzuki). This *Collective Wisdom* approach is found in a range of literatures, and these are touched on in the fields of innovation theory, complexity theory and transition theory [13–16].

*Collective Wisdom* on leadership covers vast fields of enquiry, so the unit seeks to provide some introductory exposure to these topics—or what we have come to refer to as a ‘bath’ in these leadership topics. This ‘bath’ approach allows exposure to diverse fields of enquiry and the connections between them to begin to be made, whilst simultaneously acknowledging the complexity inherent to this work. The aim of the ‘bath’ is also to let the combined exposure to the conceptual material and the exposure to practitioners and experiential learning ‘soak’ into the participants and provide an enriching, if somewhat brief, opportunity to reflect on their own interests.

As part of this ‘bath’ in literature, we draw the distinction between management (e.g., keeping an enterprise running) and leadership (setting direction, evolving and adapting to changing circumstances) [17]. We draw on some key insights (as the field is vast) around the differences between formal leaders (e.g., political/executive leaders operating within their ‘role descriptions’) and emergent leaders (e.g., people who voluntarily take on ‘extra-role’ leadership behaviours), highlighting that emergent leaders are particularly important in triggering and driving sustainability-related leadership processes (e.g., they are champions or change agents). Sustainability leaders commonly need to exert influence across and within organizational boundaries due to the nature of the disciplines, and silos normally needed to be involved. Such influence across boundaries requires the emergent skill of personal power [18]. Further, we chart the journey of leaders seen as heroes to the more contemporary perspective of leaders as hosts [19]. Importantly, we highlight the many and varied prefixes that have been added in front of the term leadership (e.g., charismatic, transformational, emergent, servant, dialogic, complex, systems) and how it is useful to use a number of these lenses when considering the change processes we ask the students to explore in their formal assignments.

Expanding the language around leadership to the concept of *Collective Wisdom* provides the first ‘C’ in the student’s exposure to this vast field, allowing them to focus on their unfolding sustainability commitment and career journey. As such, it helps to provide exposure to the importance of enhancing the inner well-being of change makers. For the students, it can boost their capacity for creativity, dialogue and collaboration as they effect

change in their chosen fields. These extra factors are thus helpful to expand on the initial deep dive into what the *Collective Wisdom* can teach us about leadership and which we can now explain further regarding how we can begin to apply it in our own lives.

### 2.3.2. Conversations

Given the reality that the climate and sustainability challenges we face sit squarely in the basket of ‘wicked problems’, which are complex in nature, after the *Collective Wisdom* literature we spend a little time introducing the tools for leadership, and a primary key in this is the need for *Conversations*. Within the leadership theory outlined above, the concept of ‘emergence’ is introduced to describe the almost magical process that arises out of complexity. Margaret Wheatley goes beyond the magic to say ‘Emergence happens through conversations’ [19]. This can be seen to be like the *Collective Wisdom* set out by Aristotle with his creation of the Polis to enable conversations to solve deep problems. Importantly, conversations take work (not mere magic). This leads to what some have called dialogic leadership and the foundation upon which real dialogue rests: listening [20,21].

The conversations developed as part of the teaching process are enabled by a range of guests or champions. The collection of practitioners that have been part of this rich series of dialogues is diverse, but the aim is always to draw on diverse experience and perspectives from businesses, civil society and the government. The focus of these conversations has been exploring, through an interview and dialogue process, the personal and career journeys, challenges and reflections of how the champions have effected change and built their own personal resilience to the challenges of the systems they operate within. This process provides both inspiration and a rich sense of the personal challenges these practitioners have faced. This comes through probing and exposing insights from what sometimes have been very intimate conversations. A further point should be made that much of the literature around leadership theories and sustainable development and/or philosophies of sustainability highlights the need for dialogue between stakeholders and the significance of respectful consideration of multiple points of view. By placing conversation at the centre of course delivery, we displace the teacher–student hierarchy (with the student passively observing), reinforcing that this Master’s unit is interested in paradigm shifts. Furthermore, by enabling dialogue between expert and student, we are quite literally practicing what we preach.

### 2.3.3. Creativity

The unit has taken an approach to sustainability leadership education, which according to Sandri [22] is often missing—one that seeks to draw threads together and focuses on real-world learnings in a manner which is supported by the literature, particularly how creativity has been used. For example, Lozano [23] writes about the role creativity can play in fostering organizational learning, and Molderez and Ceulemans [24] describe the use of art to develop systems thinking, while Palsson et al. [25] describe the benefits of integrating the humanities and the arts within sustainability approaches. Sandri [22] (p. 575) says that ‘... sustainable development is essentially a creative endeavour’ as it requires us to take active roles in creating the futures we want as opposed to merely reacting to the future when we get there [26].

Creativity and creative thinking are therefore deeply embedded in this unit, underpinned by the thesis that sustainability requires change and change requires leadership, but it is creativity that is the nexus between the two [27]. From the beginning, it was realized that we needed not just an interdisciplinary approach that brought science and social science together, but that we would need to tap into personal creativity. Thus, we have always integrated a ‘Creativity Project’ into the course as a key deliverable because we sensed that true sustainability was not just a rational application of technical capability, although that would always be a major component.

Critical to our work with the students in *Creativity* is dispelling the myth of the creative genius—a lone artist experiencing ‘aha’ moments of brilliance. Rather, *Creativity*

for leadership in sustainability, is most often a process of continual curiosity, of ‘bending, breaking or blending’, as outlined by Brandt and Eagleman [28], what already exists in the world in order for new ideas, products and processes to emerge. It is often marked by trial and error, failures and stuck moments [28,29]. Additionally, *Creativity* is often at its most powerful as a socialized activity with diverse, interdisciplinary collaboration and dialogue as key ingredients to dynamic innovations. This aligns with the evolving view of leadership in a complex world from one of leader as hero to leader as host—where an individual has the skills to hold a space for, bring together, and inspire a group of people working towards a common goal [19]. Finally, we illustrate the place of storytelling, emotional intelligence and the political and ethical potential in *Creativity*. We draw connections between these practices and behaviour change theory, concluding that *Creativity* is therefore a great ally for any change agent.

The *Creativity* component of the teaching needs to be experienced, not just explained, so the students are drawn into a major exercise, which is outlined in more detail below in Section 3.

#### 2.3.4. Contemplation

The fourth pillar, contemplation or reflection, is based on theory and a set of practices that enable people to experience the tool of contemplative practice. The theory of how *Contemplation* for leadership in sustainability can be understood is based on people such as Joseph Jaworski and his insights into the inner path of leadership [26] and other parts of the *Collective Wisdom* literature, but mostly it is based on helping people to better understand their own inward journey. Shawn Ginwright (an educationist) pointed out in an interview about his book *Hope and Healing* that ‘The contemplative journey is the way to build power, to confront and transform . . . ’ particularly as we confront the range of sustainability issues that are structurally imbedded in our societies [30].

Otto Scharmer highlights the importance of this contemplative approach to leadership in the paper on the ‘blind spot’ in leadership: ‘Successful leadership depends on the quality of attention and intention that the leader brings to any situation’, he reminds us of the need to spend time reflecting or contemplating for ourselves the ‘inner place, the source from which (leaders) operate’ [21] (p. 52).

In recognition of this, we draw on the social technologies of awareness-based systems change perspectives of the Presencing Institute [31] (co-created by Otto Scharmer), who have crafted a whole program of training and learning resources to cultivate systems change—from an egocentric to an ecocentric paradigm. This builds on the earlier work of Senge et al. [32] and Scharmer [33]. Increasingly, we have found that around half of the time we spend together involves introducing participants to these techniques, as shown further below. These social technologies are also directly linked to the pillars of *Conversation* and of *Creativity*, which are core pillars of this training program for Leadership in Sustainability. Thus, the pillars are indeed integrated, and hence the teaching activities that involve the students are a combination that use them in various ways.

In Section 3 we set out how Theory U is used to help generate a *Contemplative* approach to leadership in sustainability as now happens in the teaching process of the unit.

#### 2.3.5. Courage

The final pillar, or fifth pillar, is *Courage* in the journey to understanding leadership in sustainability. This has been exemplified in a conversation with Gilbert Roschecouste, the Founder and Chair of Village Well, a 30-year-old SME that promotes ‘place-making’ through tapping into community leadership so that the values of a place can be rediscovered and regenerated. Gilbert has contributed in person to this unit.

Roschecouste points out that in this current time of change, ‘we are all finding that courage is the elixir that opens up the field of possibilities beyond right and wrong. It flames and mobilizes the invisible forces and connects the larger field of positive social change’ and that ‘courage is the rage of the heart, and the heart knows what to do when

it's open enough to listen' [34] (*pers. comm.*). Thus, *Courage* can create the lightning rod for leadership in sustainability, when combined with *Collective Wisdom*, deep *Conversations* with people who you may not always want to, *Contemplation* at times when you know it may hurt and *Creative* place-based actions that are likely to cause political unrest and maybe even unsettle your life.

All of these behaviours and practices developed in the unit require *Courage* or the delivery of an outcome may never quite happen.

This Master's unit introduces the students to the (soft) skills essential to be a *Courageous* leader. We give students these skills in a 'Theory U'-type journey through experiential, personal and team practices (in the contemplation activities and creativity assignments), and then students seem ready to apply these deeper understandings and new perspectives to the 'real world' or the SME environment (as demonstrated in their final essay assignments).

The fifth C is thus *Courage*, and it is where we complete the fundamentals in our approach to Leadership in Sustainability. In Brene Brown's book *Dare to Lead*, she says 'Here's the bottom line: If we don't have the skills to get back up, we may not risk falling. Additionally, if we're brave enough often enough, we are definitely going to fall' [35] (p. 244). Leadership in Sustainability is not a safe journey and we do not try to suggest that. It is fundamentally a test of *Courage*.

### 3. Student Activities

In this section, we outline the four main pedagogical approaches that are used in the LiS course: *Conversations* with sustainability champions; a Creativity Project, which invites students to practice creativity in making change; Critical Reflection essay, which invites students to apply the literature to a leadership issue; and *Contemplation* exercises for student reflection.

#### 3.1. Conversations

Throughout the teaching there are guests or champions invited to the unit who are interviewed by the lecturers and students about their story of leadership to seek what motivated them and how they accomplished it. We attempt to establish gender equity in inviting our guests and to invite individuals who are culturally and linguistically diverse and have at least one champion who is able to speak from a first-nation experience. The students are encouraged to engage in rich dialogue that both inspires and highlights what we usually call the deeper stuff or inner path. Examples of champions that have contributed to the rich conversations include:

- Champion A—a Noongar man from the south coast of Western Australia who has played a key role in helping support recovery from the impacts of the Stolen Generation;
- Champion B—a CEO of the local government who has led significant local community transitions;
- Champion C—previous CEO of Community Arts Network Western Australia, a refugee from Chile and recent PhD recipient specializing in leadership in the cultural and community development space;
- Champion D—Mayor of the City of Fremantle for ten years when they integrated sustainability into all aspects of the council, now a Western Australian state politician;
- Champion E—from Gap Filler New Zealand, a group that continues to lead creative community building processes founded after the Christchurch earthquakes;
- Champion F—a serial-sustainability-focused entrepreneur presently pursuing battery innovations in small business;
- Champion G—coordinator of the Climate Justice Union, a Western Australian group pursuing a 'just transition' to a cleaner, greener future and who runs an SME that provides cultural educational experiences 'on country' with local Elders;
- Champion H—businessman and previous senior mining executive and government leader, who advocates for sustainable value transfer as the basis of sustainability in the extractive industries or any scale of business;

- Champion I—entrepreneur, educator and facilitator of the highly successful United in Diversity IDEAS program, which brings private sector, not-for-profit and government representatives together in programs designed to stimulate systems-level changes across Indonesia and now across the Indo Pacific;
- Champion J—worked on the Western Australian State Sustainability Strategy in 2003 whilst studying sustainability with Peter Newman, has spent several decades working in a Perth-based SME which consults business and government whilst building a social enterprise on her farm that integrates regenerative agriculture practices;
- Champion K—Campaign Manager of Social Reinvestment WA, an advocacy group seeking to reduce the level of incarceration of Aboriginal people and enact a new vision for an effective and connected approach to justice in WA;
- Champion L—Long-term climate and environment campaigner who suffered burn out and as part of his recovery rode his bike up the east coast of Australia, documenting and blogging about the myriad of sustainability initiatives he visited (see <http://pedallingforwards.com/about/>, accessed on 25 January 2022).

### 3.2. Creativity Project

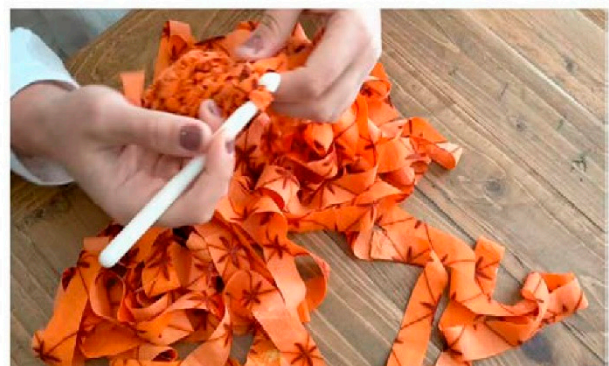
In LiS, we ask participants to explicitly practice creativity in their major assignment-by thinking differently about a sustainability issue and coming up with a creative solution or response to address or reflect change in that issue. Usually, as an entirely new field of practice for professionals working in this field, it is a risk-taking venture, often involving deep reflection, stepping out of comfort zones and a holding space for complexity. We encourage the exploration of a diversity of practices, including performance, creation of prototype solutions, visual art and craft, installations, web development, poetry, song, sculpture, guerrilla gardening, community garden plots, cooking and more. These projects help students discover how the *Creative* process of leadership for sustainability can be seen as ‘a complex dynamic process that emerges in the interactive spaces between people and ideas’ [36] (p. 3).

Throughout the life of LiS, the Creativity Project has been ‘the most challenging and, quite possibly, the most rewarding element in the course.’ [27] (p. 5962). While there is always a struggle enabling the participants to understand the idea of a *Creative* project, ultimately they triumph and grow with the task. We have been presented with immensely diverse projects and creations. We have seen:

- Birdhouses made from wood offcuts at a cricket bat manufacturer;
- Low-carbon food recipes cooked and placed in the fridge at work to be shared with colleagues over lunch (see Figure 1 below);
- A shipping container designed to house the homeless during the COVID-19 lockdown and beyond);
- An alternative walking history of Fremantle;
- The revival of traditional sewing methods and re-designs of unused clothes to challenge fast fashion and the issue of textile waste, such as making shopping bags out of old clothes (see Figure 2 below)
- Learning an Indigenous language with their daughter and then writing poems in that language;
- A sculpture from the rubbish accumulated over a month;
- A myriad of community gardening projects.



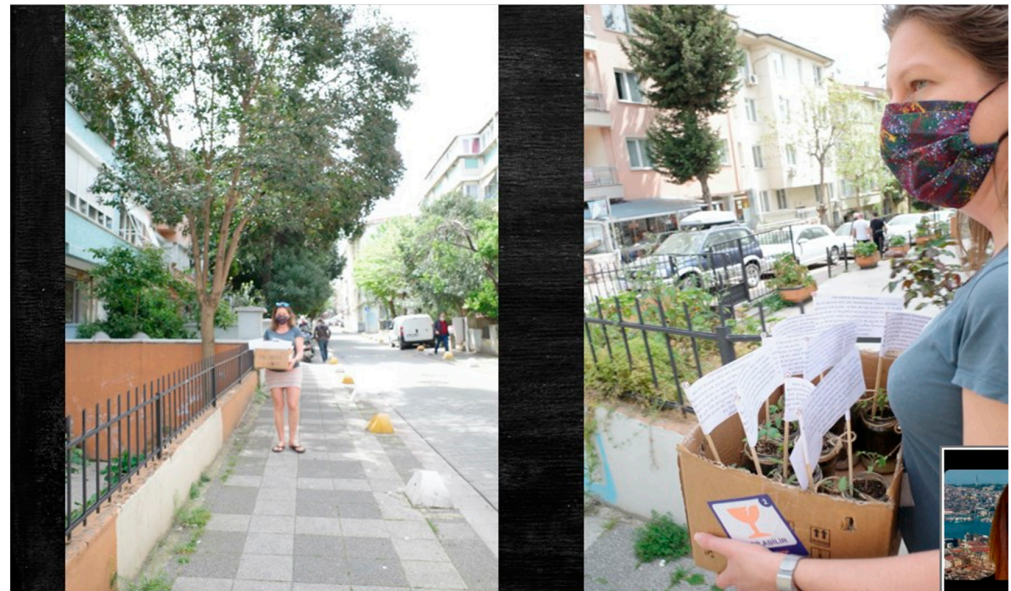
**Figure 1.** Low-carbon meals were designed, cooked, placed in the office fridge and shared with co-workers as part of the ‘Carbon Friendly Cooking’ project, printed with permission from the student for Leadership in Sustainability, 2021.



**Figure 2.** ‘Carry me home’ shopping bag woven from the fabric of unused dresses printed with permission from the student for Leadership in Sustainability, 2021.

One of the most creative and courageous projects was the ‘Seeds of Resistance’ project, where a student in Istanbul planted guerrilla tomato plants on windowsills in a neighbourhood, encouraging a collective cultural shift in growing food locally, and formed

the seeds of a community-led campaign for the local government to create a community permaculture garden in an abandoned site. The student emailed six months after the unit finished to tell us of the exciting progress with this campaign; the local government had now agreed and taken concrete steps to establish the garden (see Figure 3 below).



**Figure 3.** Tomato ‘seeds of resistance’ placed on balconies in Istanbul to encourage local food production and fuel a campaign to establish a local permaculture garden, printed with permission from the student for Leadership in Sustainability, 2021.

Through these projects we have seen quite stunning transformations of student’s thinking and doing around leading and creating. In 2016, an exhibition of past works was included in the Fremantle Festival and held at a well-know Gallery space. This exhibition covered two floors of the gallery and included complex and simple pieces, including a hand-written design of the students’ home-to-be in regional Queensland (radically redesigned to reduce the carbon footprint and encourage passive solar energy); an abstract installation presenting a tiny sliver of raw beef balanced precariously on litres of bottled water, illustrating the water use in the consumption of meat; a splatter painting in the Jackson Pollack tradition representing the sustainability journey of the student, sitting alongside a laptop computer playing the time lapse documentation of the making of the painting; and a specially welded bicycle repair station. While this was an artistic exhibition, these students would mostly never have considered themselves artists, and while most years their projects were presented in their house, each year the students are afforded an opportunity to think differently and innovatively—to be creative.

We have seen the students grapple with and embrace concepts of complexity, dialogue and collaboration, invest in the power of storytelling, see failure as part of the creative process rather than an end point and establish themselves as a ‘leader as host’—holding space for others to lead or enact change.

### 3.3. Critical Reflection on Collective Wisdom Applied to a Leadership Issue

The main formal written assignment in this unit is an essay that asks students to analyze one example of sustainability leadership they know about or have been involved in and reflect upon it through the lens of the leadership theories they have been exposed to. Students analyze what worked, what did not, and highlight what could be done differently in the future. This exercise provides an opportunity for critical reflection and synthesis of insights into sustainable leadership theory and practice. This brings the *Collective Wisdom*

literature into a more personal understanding of how it can be applied to leadership in sustainability in the experience of each participant.

Over the years, these essays have covered diverse examples of sustainability leadership, from community-led campaigns to new government policies. Most often, participants choose to analyze a small-to-medium size enterprise or organization, often within their own industry or workplace. For example:

- One student analyzed their first-hand experience of trying to implement paper-free processes in an NSW hospital.
- Another analyzed the strategies employed in implementing a food organics and garden organics (FOGO) recycling service at a local council.
- A motorsport racer and enthusiast analyzed his industry, identifying which individuals, teams and companies were driving the sector towards lower emissions and reducing their environmental impact.

Through the process of this analysis, we have seen meaningful and often transformative insights take place for participants who, perhaps for the first time, through insights gained from this unit, are able to identify specific leverage points and leadership practices to better lead and accelerate sustainability within their workplaces and businesses.

### 3.4. Contemplation Exercise

As highlighted above, we have expanded the time spent on the experiential learning based on our own experiences with the awareness-based systems change practices from Theory U. These exercises, which last for nearly two days, are not considered part of the assessment but are regarded as a critical part in understanding the core values, the pillars, of being a leader in sustainability.

The students have responded over the years that they have had many deep insights into their experience during these exercises. There is usually a profound realization that working on the self can lead to inner growth and a pathway to change and transformation. Feeling safe and supported are often identified as the prerequisites for opening up and building trusting relationships. What emerges, in a subtle way, is a sense of interconnectedness and the collective power of shared stories to bind and to build shared meaning for what is possible. Lost dreams are revived, and the two days spent diving into the self serve to affirm direction and purpose. There is a strong desire to apply the techniques and tools learnt to the workplace and to the students' own lives. The embodiment practices taught during the two days also highlight the importance of listening to our somatic intelligence. What was clearly expressed by the students is a yearning for more of this kind of learning. The following are some recent responses from students:

*'I now see myself as someone more capable and willing (rather than resistant), less fear'*

*'What has landed for me is infinite possibilities.'*

*'I see myself as someone with potential and the ability to change or transform'*

*'I see that we all share experiences as each other. We are never truly alone in this process'*

*'I will use the tools of my class as a way to connect and listen to others, to myself'*

*'I will try to introduce some of these techniques in my work and life'*

*'I wish I worked somewhere these listening techniques were used'*

*'I wish there was more time for reflection across all units of study, what we are learning can be digested.'*

*'I wish more people could experience this level of collaboration.'*

#### 4. Discussion—What We Have Learnt

This paper has set out how each of the five pillars of leadership in sustainability have a role to play in an integrated approach to deeper understanding that enables people to become leaders. Table 1 provides a summary of key conceptual frameworks and literature and relates it to the findings in the LiS course.

**Table 1.** Conceptual frameworks and literature and their relationship to LiS.

The 5 ‘C’ Pillars of LiS and Reference	Conceptual Frameworks and Literature	Relationship of LiS Findings to Literature
Collective Wisdom [11–19]	<ul style="list-style-type: none"> <li>• <i>The Prophetic Imagination</i> (Bruegemann 2001)</li> <li>• Democracy and ‘rhetoric’ (Aristotle)</li> <li>• Wicked problems require collaboration (Australian Public Service Commission 2007; Snowden and Boone 2007)</li> <li>• Difference b/w Leadership and Management (Kotter 2008)</li> <li>• Personal Power for Sustainability leadership (Taylor 2010)</li> <li>• Leader as Host (Wheatly and Frieze 2011)</li> </ul>	<ul style="list-style-type: none"> <li>• LiS demonstrates a pedagogy for sustainability leadership that draws on understandings that collaboration, participation and a collective approach to problem solving are required for society to address the challenges we face today.</li> <li>• The content challenges notions of leadership as being about personality or hierarchy and instead proposes the leader as ‘host’ and demonstrates this approach in the pedagogy of the unit through hosting and facilitating conversations to aid learning.</li> <li>• Theories that propose that dialogue and conversations are essential to both effective leadership and creating societal sustainability change are taught in LiS as content and modelled as pedagogy. The method of learning through the champions that are hosted through the unit is performed through collaborative dialogue.</li> </ul>
Conversations [19–21,37].	<ul style="list-style-type: none"> <li>• Emergence happens through conversations (Wheatly and Frieze 2011)</li> <li>• Dialogue and Dialogic Leadership (Isaacs 1999; Scharmer 2008)</li> <li>• Generative Dialogue (Gunnlaugson 2006)</li> </ul>	
Creativity [22–29].	<ul style="list-style-type: none"> <li>• Creativity needed in Education for Sustainable Development (ESD) (Sandri 2013)</li> <li>• Creativity for sustainability in organisations (Lozano 2014)</li> <li>• Art to foster Systems Thinking competence in ESD (Molderez and Ceulemans 2018)</li> <li>• Creativity and Humanities needed in Sustainability Approaches (Palsson et al. 2013)</li> <li>• Synchronicity and Creating the future (Jaworski 1996)</li> <li>• Learning from failure (Brandt and Eagleman 2017)</li> </ul>	<ul style="list-style-type: none"> <li>• The LiS course demonstrates and articulates a practical approach to adding creativity as a concept, content and pedagogy into sustainability education.</li> <li>• The examples provided show the creative pedagogy of LiS, encouraging students to make changes for sustainability, demonstrating the impact on their organisations, workplaces and communities.</li> </ul>
Contemplation [7,26,31–33].	<ul style="list-style-type: none"> <li>• Contemplative Practices to Support Sustainability Leadership (Jaworski 1996; Scharmer 2008; Ginwright 2019)</li> </ul>	<ul style="list-style-type: none"> <li>• The value of contemplative practices can be seen through the student feedback, thus supporting literature calling for this.</li> </ul>
Courage [34,35].	<ul style="list-style-type: none"> <li>• Courage to lead sustainability (Brown 2018; Rochecouste 2022)</li> </ul>	<ul style="list-style-type: none"> <li>• Courage is demonstrated through the LiS students’ creativity projects and is an essential capacity to develop for sustainability leadership</li> </ul>

##### 4.1. What We Have Learnt about the 5 Cs of Leadership in Sustainability

*Collective Wisdom* is shown to help guide students through extensive leadership literature, to touch on those elements that mean most to them. This process is assisted by the student needing to relate the wisdom they find most meaningful to an actual case study of failure or success in sustainability leadership. The experience often makes students go back to experience the literature more deeply.

*Conversations* are held with people who we believe are champions at undertaking sustainability leadership. The conversations reveal difficult questions, often leading to sharing personal stories as well as battles to change the system or a structure that needs

changing. This leads to students wanting to understand the complexity of a leader's internal journey and to build empathy for different stories. These conversations are often raw and vulnerable and emergent, a property of generative dialogue, which is a rarely used but valuable approach in education [7,37]

*Creativity* is set up as a process for students to not only enjoy but to learn how the perspective of creativity shifts everyone away from seeing everything as fixed and unmoveable. An earlier paper in this journal about the LiS unit [27] (p. 5957) suggested: 'At the core of this course is the understanding that just as the integration between ecological, social and economic elements is inherent in the practice of sustainability, so creativity is a necessary element in bringing sustainability and leadership together'. We still think this is the case. The creativity project draws on design thinking, encouraging the student to experience a rapid problem-solving process and learn that, like a picture tells a thousand words, a prototype can save 100 meetings. It also illuminates the power of dialogue, storytelling, emotional intelligence, connection and collaboration in creating change. The creativity project asks the student to invest in lateral thinking. For many, these concepts have rarely been put to work, certainly not in combination, in their own working life or in their role as a leader or change agent in an SME or any organization.

*Contemplation* is not a frequent part of any university education. However, it has been critical to teaching leadership in sustainability. To equip the next generation, as well as current practitioners, with skills needed to effect change, we have learned from our own experience and the reflection of our participants that they need to build personal resilience as well as a creative mind set. This is essential as the 'systems' or organizations and institutions we work within tend to be cumbersome and structurally resistant to change, which can be daunting. Power and agency to make change in these systems rests in an awareness that we can shape systems and policies rather than just having them shape us. Their power over us exists simply because we fail to notice what they are doing to us, as Daniel Miller suggests [38] (p. 155). Students learn that changing systems can be based on how systems need to learn to 'see themselves and sense themselves', as Otto Scharmer says [39] (*pers. comm.*). This cannot be done unless there is a *Contemplation* process through which students learn how to sense and feel themselves within the systems they are immersed in. The importance of reflection as a pedagogy in supporting sustainability leadership development is found in other programs and is a key part of developing competencies required of sustainability graduates [7].

*Courage* is about taking risk. Most education reinforces and rewards processes that lead to the present systems and practices, which are often highly unsustainable in terms of their outcomes in our economy and society, such as climate change and loss of biodiversity. Helping students to take risks is about learning to embrace failure and be brave enough to do things differently. Failure is often demonized in our culture, but it is in fact an essential part of any leadership process, and it is how we learn and iterate an idea. The creativity assignment in this unit often reveals this truth to the participants; the first iteration of their project may come up against a roadblock or fail in some way, from which a new version or direction often emerges that is more impactful or insightful than the first. The failure is necessary to learning, reflecting and creating. However, the ability to take risks mostly depends on being able to reflect and contemplate what deeper feelings about oneself that are getting in the way of taking risks.

These five pillars overlap in their ability to help create leaders in sustainability. In a short, focused Master's teaching unit, students can only just begin to see how they overlap and help them in their emerging careers. It is of course a 'lifelong process of learning how we can be the transformation and realize our unique potential in a way that serves the wellbeing of all' through developing a benefit mindset and practice [40] (p. 499).

#### 4.2. What We Have Learnt about Course Design, Structure and Integration

Finally, the way the teaching journey is structured—an introduction to *Collective Wisdom*, followed by *Conversations* with champions, then a *Creativity* project and finally the

*Contemplation* work (social technologies of Theory U) leading to *Courage* to take risks based on a greater self-awareness—takes participants on a personal journey of transformation. There are always students who are not quite ready for this kind of change, and this challenge has been found in other transformational sustainability leadership programs [5]. Other students, however, are seeking such transformative education, and many at a Master's level have already experienced enough to realize the need to begin an inward journey as well as learning tools and techniques. As the students move through the various elements of the course, they experience and apply, first-hand, the things we are teaching through the unit, so it is possible to see how they can begin the journey of application in their businesses, organizations and SMEs that they work for or would like to establish. Additionally, we see this come to life in their creativity project, which often takes a great deal of courage. The core objective is that these students will, at some point in their lives, have the courage to take the steps that begin a new kind of sustainability solution.

#### 4.3. What We Have Learnt about Why an Innovative Sustainability Leadership Education Matters

Higher education has the capacity to be a key part of the solution to our 'un-sustainability' and indeed societal transformation towards sustainability and must be a key part of social learning in its broadest sense [41]. The institutions, systems and paradigms within which much of our learning takes place, however, are indeed part of the problem, and the danger is that we keep reproducing the kind of graduates and thinking that have created our erroneous trajectory in the first place [2]. A grand re-think in terms of the way we learn, how we learn and what we learn is needed, and new ways for knowledge co-creation are being called for by many [3,4]. We have not solved all these issues, but LiS is a unit that challenges the norms of education and has provided a unique approach to encouraging sustainability leadership in its graduates for two decades. In this era, where the need for change toward sustainability is undeniable, we need transformational education that can support students as active participants in creating a sustainable world and being a part of the solution [42]. This unit is experiential as well as academic, and in inviting students to create change in their lives, workplaces and communities, it affirms that 'the only way to understand something is through a comprehensive, collaborative attempt to change it' [43] (p. 54).

## 5. Conclusions

Over the years of running and evolving this Master's unit, Leadership in Sustainability, we have come to experience first-hand the transformative power of:

- a. *Collective Wisdom* from the ancient prophets and sages to the present wise collectivist leaders who seek common good outcomes;
- b. *Conversations* with people (champions) seeking to achieve sustainability and some of how they did it in practice;
- c. *Creativity*, which deeply touches people's emotions and often untapped creative potential, providing new perspectives on sustainability issues;
- d. *Contemplation* that enables reflective approaches to touch the heart and soul of the issues we find ourselves struggling to resolve;
- e. *Courage* at a point of transition where we contemplate the risks of a life-changing move and make the decision to become a change agent.

We have never found teaching Leadership in Sustainability to be anything other than an inspiring and deeply moving experience.

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