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Reflecting on practice in sustainable education classrooms: COVID-19 tales of hope

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Abstract

Social and ecological issues like climate change, biodiversity loss, sustainable development, inequality, and COVID-19 have changed and are changing the world. These realities have profoundly impacted peoples' perspectives about the future and our human-nature relations. Adding to this mix of disruptions COVID-19 has changed student engagement with sustainability agendas. COVID-19 has increased sensitivity to borders, control, containment, personal health, and wellbeing. This shift in focus and attention to the individual moves against the sensibilities observed in sustainability education. It is at this juncture this paper offers reflections by three Australian sustainability educators who taught during COVID-19. We have come up with three provocations to think with disruption: phronesis, world views and entanglement. These themes, critical to the pedagogies of sustainability educators across the globe, allowed us to pivot around the implications and opportunities presented as we taught our way through this period.

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Introduction

Hope is not at the expense of struggle but animates a struggle; hope gives us a sense that there is a point working things out, working things through. Hope does not only or always point towards the future, but carries us through when the terrain is difficult (Sara Ahmed, 2017, p. 2).

In this short essay, we will reflect on the challenge of teaching sustainability in and through disruption. We have opened with this quote by Sara Ahmed to set the tone for our teaching and learning reflections. Writing this paper has been a productive exercise for *thinking with and through the trouble* (Haraway, 2016) of COVID and tracing its power to move us, and to reflect on its prescience. The reflections offered here follow three academics in their pursuit to stay true to emancipatory and transformative pedagogies. These, we suggest, are at the core of sustainable education, but were tested by the challenges lived through and with students during the extraordinary and unprecedented COVID-19 times. Our reflections argue that generating hope is a quintessential pedagogical tool and this hope is associated with the development of insights of phronesis, world views and entanglement. The reflections for this paper come from the three authors who are involved with teaching and researching sustainability in Australian universities. Authors 1 and 3 co-teach a first-year foundational sustainability course, which is housed within a Bachelor of Arts program. The course is also widely used as an elective course across the university. Author 2 is a sustainability educator whose work is within a Master of Education program that supports practising teachers to lead the embedding of sustainability in the school curriculum. All three teaching academics use philosophy to help students puzzle out the confusing and complex arena of sustainability, sustainable development and the associated critical realities of climate change, loss of biodiversity and increasing social inequalities globally.

To approach this paper, we present our reflections to circle around disruption through our key pedagogical moves of working with phronesis (author 1), world views (author 2); and entanglement (author 3). Each reflection explores how sustainability is expressed through these critical pedagogical lenses and importantly, how the context of COVID-19 has stimulated or disrupted student engagement in this curriculum. In our conversations to write this paper, we have found some commonality across geographies and institutions regarding the fact that most students enter sustainability courses with a simple or limited understanding of what sustainability is. Most often, we have found that the idea of “sustainability” is believed to be either an exclusively environmental science concern relating to climate change and biodiversity loss or about personal-level eco-choices such as plastic straws and veganism. We have found in general that our students are unfamiliar with the enormous amount of work that has occurred in multilateral settings. In particular, the global consensus on human-induced climate change and the work and reporting centred around the UN Sustainable Development Goals (SDGs). The role of a sustainability educator, we argue, is to lift the lens to these larger arenas, introduce students to the ever-advancing sources of consensus science, clearly signposting shared global sustainability aspirations that have been translated into nonbinding declarations and agreements (such as the SDGs, 2015). Most importantly our role is to open student’s consciousness towards rethinking

the world as a more connected, intimate, ethical, and interdependent project (such as the Earth Charter, 2000). To do so, we invite students to critique the status quo and social structures supporting dominant discourses around sustainability and sustainable development. Ultimately, across all the spaces we teach, we use key pedagogical tools to engage, inspire and create curiosity for our students. We understand that education is never neutral (Freire, 1998). To know where we are going, and how to get there, we need to understand where we are coming from and what has shaped us. What is included and excluded from the educative process is based on a series of ontological, epistemological and axiological decisions that reflect understandings and worldviews. This Special Issue is such a great opportunity to follow the work of Peters et al. (2020) who suggest that COVID-19 gives us a unique opportunity to “rethink pedagogical opportunities” and critically evaluate “the basic purposes of education” (p. 718). In this light here are our reflections:

Working with *phronesis*

As a new materialist and an educator in geography and sustainability, my interest is squarely on networks, relations, and performances. This is a sensibility that easily moves with the transformative approaches inherent to sustainability education and helps me to navigate teaching work where the concepts circle around complexity, multifaceted and interrelated effects, and a curiosity about why certain networks of power produce ecologically and socially (un)just effects. The context for my reflection is a first-year foundation to sustainability class (N~200) at a small regional university (N= 18150 (2020)). Most students in the course (73%) must take it as part of their program. There are ten programs that use SUS101 as part of their program learning outcomes, and they include the Bachelor of Arts, Environmental Management, Dietetics (Honours), Bachelor of Urban Design and Town Planning (Honours) and the Bachelor of Science. This disciplinary diversity also contributes to creating a diverse cohort, in addition to the array of different orientations and experiences in the world. In this short reflection, I will walk through how, despite the challenges presented by COVID-19, our teaching team supported the production of creative, interesting, and deeply moving reflections on the course materials, clearly evidencing transformation in how students see and propose to interact in/with the world. The central animating framework used to pull together the reflection is sustainability phronesis, or practical wisdom in a complex world. The key insights offered through this investigation of a single major task are the importance of care, the positive orientation of phronesis, and finally, the reconfirmation that hope is a central component of sustainability education.

The task

Demonstrating Sustainability Phronesis is a reflective creative product and the most significant assessment (45%) in the course. It is a personal reflection on the materials and experiences of the course through the perspective of a future career aspiration or discipline orientation. This is a difficult task for students, and many grumble. They are uncomfortable with the openness and possibilities presented; they are troubled by the fact there is no right way to produce the reflection; they are uncomfortable writing in the first person, and they hate there is no right or wrong answer. Every year, I am inundated with questions about how much to cover. How *many* references? Exactly *what* needs to be included? I feel these questions are understandable products of a neo-liberal system of education that privileges efficiency, self-interest, standardisation, specific measures and indicators, competition, and seeking personal excellence through grades (see Ball,

2016). These questions and worries multiplied during the COVID-19 emergency shift to online teaching. In addition, my colleagues and I found increasing numbers of personalised learning plans with adjustments centring around giving more time for assessment, and I found more students directly emailing me regarding new and uncharted experiences in their daily lives where employment, health, child and elder care, and technology demands disrupted their academic pursuits. It was clear this was a time of anxiety, fear, and social uncertainty. I understood, during these unstable times, that seeking out strict rules, clearly defined ways of producing knowledge, and efficiently addressing assessment task requirements was a reasonable demand. This was where COVID-19 tested my pedagogical approach to active, experiential, and student-centred learning. This approach moves students into scaffolded but uncomfortable learning contexts, where sustainability is framed as a sensibility that employs a set of cognitive and affective skills and understandings rather than a fixed definition or stable construct to explain realities (Mintz & Tal, 2016). But how could I do this when discomfort, destabilisation and anxiety were the shared experiences? This was a difficult balancing act. The following is a synopsis of how our teaching team supported and nurtured students to produce a complicated task in a complicated time.

Care comes first

It is widely acknowledged that COVID-19 was a disrupting and destabilising assemblage across social, economic, and environmental sectors (Staller et al., 2021). It transformed the learning and teaching landscape and, more importantly, how learners engaged and interacted with learning materials and their lecturers or tutors. Thinking back to those first ZOOM sessions with my students, I have a clear recollection of bewilderment, as every class was a new experience. As the tiled screens flashed to life, and the students checked in, we collectively shared in managing this very new world order of health directives, daily news briefs on life and death and blossoming conspiracy theories. Care has always been part of my pedagogical apparatus, but it was clear this was a time when care needed to come first. Without going into too much detail, care for me as praxis is informed by a wide variety of scholars (Chiew, 2014; Johns-Putra, 2013; Mol, 2006). Key components here are widening our concern across human and nonhuman relations, thinking with 'trans-species' empathy, and understanding that care and choice are not interchangeable ideas. The performance of care is a result of a network relation where attention, empathy, responsibility and possibly love reside. The love I am thinking about is the aspirational forms described by Erich Fromm (1956) and Simone Weil (2021). For this course, this approach takes on the form of nurturing, supporting, and providing a safe space for students to work through difficult ideas, think new thoughts, and imagine new worlds. During COVID-19, care translated into quickly and with empathy, responding to student emails, providing extra time for peer-to-peer reflection, and lastly, being more flexible regarding assessment due dates. When we moved online, it was critical that these new synchronous online classes felt comfortable, and that each student was welcomed and recognised. Every online tutorial (1:50 mins) gave ample directed time to discuss very specific ideas and concepts in small groups, and we rotated these (break out) groups as the tutorial progressed. The tutorials were filled with rich experiential simulations, wicked problem case studies, a life cycle analysis mini-project, and SDG reporting explorations. Students became accustomed to talking about the content and experiences in the small break-out groups, and I found that cameras blinked to life and students' conversations were animated.

I floated around, popping in and out of the small group discussions, and was never let down – they were always on topic and dynamic.

Phronesis: A thinking heuristic

The approach used for the tutorial synchronous online discussions and debriefs was a sustainability phronesis heuristic. This is not a new idea. This method leads students to think about good knowledge and then good judgement and, lastly, to imagine good action. Good knowledge includes the data, research, theory, or philosophical position proposed, and naming who/what is included/considered/impacted. I encourage students to stay with the data; asking 'what is being said?', 'is it valid?', 'What types of information is shared/not shared?', 'Who is the intended audience?', 'How do the different sources of knowledge complement or contest each other?' and I encourage students to trace out those included or impacted. Once this important groundwork is done the next step is considering good judgements. This is an interesting step for students and the course content provides basic language around evaluation or judgement. For this first-year class, students are introduced to the three major ethical families, namely deontological (the act), utilitarian (the outcome) and virtue ethics (the actor). There are fuzzy boundaries between these sensibilities, but the purpose is to be aware of how these different perspectives and what is morally considerable impact judgement. For sustainability, all these ethical perspectives must be set within the context or setting of supporting the natural systems infrastructure. It is only after knowledge and judgement have been discussed that students are invited to present their own digested views of the issue (how they would act, solve, or perceive this issue). This organiser is useful to slow students down from making quick, rash, or emotional conclusions or assumptions regarding a topic. The key here was practising this heuristic in each tutorial, week after week, through very different topics. In the end, the students produced amazing, insightful, and interesting reflective essays and short movies for their task, each presenting their version of sustainability phronesis within their own context. No two reflections were the same. A common thread, however, was the positive orientation and the sense of agency in the student voices.

I feel that the assignments had a positive tone despite being written in a fearsome and confusing period due to the concentration on phronesis, and with phronesis, the possibilities of hope and change emerged. Phronesis is a concept described in Aristotle's *Nichomachean Ethics*, and it is a recognition that seeking out the *good life* requires learning, reflection, and an active engagement in the practical development of good performances. The key here is this performance circles back on itself and can be thought of as an eternal hermeneutic spiral - always improving, self-correcting, learning and entirely relative to the context through which it is being enacted. The recognition of context and the potential for improvement means that the stories of inaction and impotence in the sustainability field can be acknowledged but do not have to guide our future understandings, beliefs, or actions. We can improve, do better and progress.

Working with World Views

As a teacher educator, my work is in the liminal space between 'what is' and 'what could be', co-creating a way of viewing the world with my students that encompasses both practicality and hope. The notion of liminality speaks to a process and ritual of transition, a 'betwixt and between' time and space (Scaratti et al., 2021). The theory of liminality, popularised in the 1960s by

anthropologist Victor Turner, has come to describe the middle phase of any ritual process where an individual or social institution transitions from what they were before to what they would eventually become (Wels et al., 2011). Wels et al. (2011) identify two distinct characteristics of a liminal space. One is the recognition of it being a middle phase- a critical period of ambiguity and uncertainty where persons or things are simultaneously 'no longer' as they were, but also 'not yet'. The other is that it represents "a period of upending of a prior hierarchy and during which power reversals occurred, or at least appear to have occurred" (p. 1) offering "society a chance to re-evaluate itself, to reflect upon its structure and the possibilities of changing it" (Conan, cited in Wels et al., p 2). In reference to the first characteristic, teacher educators are perpetually operating in this middle phase - the liminal space - as our role is to create the conditions for the transition from 'student' to 'teacher'. However, the COVID-19 pandemic became a perfect convergence of both characteristics of liminality where disequilibrium reigned.

Whilst the COVID-19 pandemic intensified our teaching activity through a rapid pivot to online teaching due to lockdowns, it also paradoxically created a collective pause that appeared to suspend us in time and space. Thus, for a brief period, this liminal space presented us with an opportunity to re-consider and re-frame the way we previously viewed and engaged with the world in ways that could alter our collective futures. My reflection in this section relates to teaching a postgraduate sustainability education class during this period at a large metropolitan university on the west coast of Australia, a 'mining state'. In my teaching, I draw on the multilayered irony of my aim to be a transformative educator that shifts deeply held anthropocentric worldviews in a region where multinational mining and exploration companies have tainted the collective psyche of 'how we educate' and 'what we educate for' by funding fossil fuel exploration research programs that are the inverse of what many of us in sustainability and environmental education try to promote.

The Master of Education (M Ed) course is pitched at those who want to inspire and lead educational improvement and transformation in curriculum and pedagogy. The course is quite small (< 100 students), and the enrolment in my unit 'Education for a future: learning for sustainability' is even smaller (< 15). The students can elect to take this unit as part of one of three streams: innovating learning and teaching, innovative STEM education, and cultural and linguistic diversity. Students who typically enrol in the M Ed by coursework do not necessarily have the time nor inclination to enrol in a research M Phil- they are mostly busy practising teachers, working full-time in schools. They are drawn from government, independent and Catholic schools, and have usually spent at least 5, some as many as 20, years as teachers. The unit is designed over 12 weeks, shaped into three modules: 1) exploring sustainability and education; 2) designing education for a future; and 3) changing mindsets, tipping points, and levers for change. Assessment 1 is a report critically evaluating their chosen education context considering the principles and transformative intent of Education for Sustainability (EfS). The second assessment builds upon the first requiring students to analyse their report findings to create an action plan and evaluation strategy. The goal is to identify and prioritise those levers of change that precipitate tipping points causing transformation to curriculum, pedagogy, and processes within their educational context.

This reflection describes the approach I took, as the sole educator in this unit, to work with my students through the relatively short series of COVID lockdowns in our state, and the subsequent

aftermath that created a paradoxical wariness of others but simultaneously a concern for our collective futures. It relates my approach to curriculum design and pedagogical framing in support of students achieving a greater awareness of the ontological stance shaping their own worldviews and that of others, and the impact of these on education as we know it. What emerged in this MEd unit was the co-awareness of a shift in worldviews as being crucial to creating tipping points towards sustainable ways of being, knowing, and “becoming with” (Haraway, 2016, p. 12).

Perturbations to the system

Embroiled in their largely conservative institutions of education, my students, all experienced teachers, seek out my M Ed unit, looking for ways to reconcile their personal desires and beliefs- their ecological selves- with the practicalities of teaching in schools. Many students report they find it impossible to bridge the impasse between what ‘is’ -the current neoliberal, performative status quo in their schools- and what they want to ‘be’ – a kind of education that is futures-focused and hopeful. This incompatible dichotomy was brought into stark relief for us all when COVID lockdowns occurred in our state during Semester 1, 2020. Suddenly, the hallowed shibboleths of two high-stakes assessments were toppled with the cancellation of the 2020 National Assessment Program- Literacy and Numeracy (NAPLAN) tests, and universities providing early offers based on student’s work in the previous year rather than relying on the gruelling Australian Tertiary Admission Rank (ATAR) exams as an arbiter of worth and quality. Where learning was once thought to only successfully occur within classroom walls and on school grounds, the shift to learning from home online and for much shorter hours of engagement with teachers and fellow pupils demonstrated other possibilities.

What the COVID-19 disruption enabled was a societal-wide experiment of the ‘what if?’ It was a catalyst for changing mindsets that supported the view of education as relational and reciprocal. A report written in March 2020, to inform the work of UNESCO, called for a ‘Maslow before Bloom’ approach for pandemic education- prioritising health, safety, and wellbeing above formal education (Sullivan et al., 2021). Speaking to the often-held belief that systems of education are too large and deeply entrenched in current patterns of thinking and practice to change, Kidson et al. exclaimed that the pandemic has finally shown us that “...old ways of thinking and acting can change. We can move beyond the fallacy that change is unlikely because the scale is so great” (2020, p. 20).

And it was with this idea, that we started together to change thinking– with a series of storytelling circles led by each of the students in Pecha Kucha style. Here the images formed the narrative, with students given 20 slides for 20 seconds each to represent themselves and their educational context, which was to be the subject of their two assessments, in a way that reflected systems thinking- a central sustainability understanding - defined by Stevenson et al. (2014) as “a holistic non-linear perspective that highlights the connections between different elements of a system” (p.3). The students find this an unsettling process as it forces them to keep asking ‘Why is this so?’, ‘How is this connected?’, ‘Why does it matter?’, ‘Who is being heard and who is being silenced?’ - Story is central to our lives as humans, and it is what we notice and what we tell ourselves that guides our actions - thus the story we tell ourselves shapes our worldviews - “Storytelling is one of the great arts of witness, and in these difficult times telling lively stories is a deeply committed project, one of engaging in the multitudes of others in their noise, fleshy, living and dying” (van Dooren & Rose, 2016, p. 94).

The students become 'perturbed' by their often newfound realisations of the disjuncture between their own beliefs, hopes, and aspirations and the outcomes being produced by the hegemonic machinations of an anthropocentric, neoliberal education system. But because my pedagogical approach is, and particularly so during this time of COVID, a co-constructivist, relational and student-centred approach drawing on the theoretical perspectives of Dewey (1966), Bruner (2006), and Vygotsky (1978) where I privilege the development of interpersonal (but still professional) relationships between our small (<15) group, the bonds of trust and openness help us ride through the uncomfortable, 'troubling' learning. It is in the 'problematization' of the present and 'staying with the trouble' by taking a moral response to work through the imperfect and difficult, as Haraway (2016) counsels, that leads to deep learning and transformative action that takes us from despair to hope.

Tipping points and levers for change

It is the changing mindsets and worldviews that act as a deep 'leverage point' for societal change, according to systems thinker Donella Meadows, whereby small but cumulative changes in "unstated assumptions ... that constitute a society's paradigm, or deepest set of beliefs about how the world works" (1999, p. 18), precipitates a collective 'tipping point' in the system. Worldviews reflect our individual and collective ontological position- they affect how we 'see' our world as they are the "fundamental basis of our perceiving, thinking, valuing and acting" (Wooltorton et al., 2022, p. 372). On the heels of the perturbation by the Pecha Kucha is where I come in as a provocateur- a disruptor. My role is to work with students to lay bare their assumptions and challenge their existing worldview through a series of reflective exercises exploring systems thinking and transformative pedagogies for sustainability, ongoing group dialogue via Blackboard Collaborate, an online video conferencing tool embedded in the unit; and one on one personalised sessions with each student via Teams. The small number of students was conducive to building trust and intimacy essential to the openness required to divulge potentially sensitive, long-held beliefs deeply intertwined with not only the personal and familial but also in relation to their professional, and political identities.

The provocation to existing worldviews arose from the cognitive dissonance caused by comparisons with the course readings, current events, and our collective experiences and observations. This pedagogical design encourages learning in a double-helix recursive, dialectical way, where students reflect and act upon both their personal ways of being and knowing in these dialogic spaces and of their work colleagues through the ethnographic research they conduct on their school site for their first assignment. They are tasked with observing practice, identifying policies, analysing teaching and communication materials and interviewing colleagues to form a holistic picture of how the school reflects the principles of sustainability.

Kindred to the preceding reflection, it is the development of *practical wisdom*, sustainability phronesis that my students are grasping for. Nearing the midway point in the unit, they know they are on the cusp of a shift in their worldview, but they cannot quite articulate it, much less work out how to translate this into their own teaching practice for their own students. As an educator, I guide them through Lewin's (1947) three-part model of change -unfreeze, change, and re-freeze, offered as a simple heuristic for a way to shift to pedagogies and practices supportive of a transformative, systems approach to sustainability education. It is the 'unfreeze' that leverages change by creating possibilities for new ways of thinking, being, and 'becoming with' because it

“matters what thoughts think thoughts; it matters what stories tell stories” (Haraway, 2016, p. 39). Haraway’s words, echoing those of Bruno Latour and Ursula LeGuin, compel us to change the story through different ways of thinking- “Think, we must; we must think...we *must* change the story; the story *must* change” (2016, p. 40).

From the early conception of their Assessment 2 Action Plans in the first few weeks of the semester, to which I provide informal feedback, I can see a focus on ‘knowledge and skills’. These mostly reflect the dominant mechanistic worldview where an education focussed on anthropocentric, technicist solutions and transmission of knowledge is privileged (Kuzich, 2011; 2015; 2019). By the time they submit their final version in Week 12, there is a noticeable shift in their understanding of how to effect change so that the educational experience at their school site is responsive to an ecological worldview that “encourages interdisciplinary, holistic and transformative teaching and learning” (Kuzich, 2015, p. 193). Noticeably, the COVID-19 disruption brought to sharp focus the hitherto hegemonic emphasis on anthropocentric, mindsets and world views. The M Ed unit *Education for a Future: Learning for Sustainability*, offered us all a rare opportunity in this space-time juncture of the COVID-19 perturbation - to re-evaluate the ‘now’ and re-imagine the future.

Through these various pedagogic moves, we progress, imprecisely but with greater wisdom and conviction, from ‘where we are’ to ‘where we want to be’. Yes, I position myself alongside them as a learner, experimenter, and education for sustainability (Efs) entrepreneur – that is the whole point of the unit– there is no blueprint – we are creating the future of education, and our collective futures- together. There can be no expert on Efs; we are all responsible/responsible. This reflection examined a moment in time, where, by virtue of a historical perturbation to the current system precipitated by COVID-19, my students and I dipped our collective toes into a brave new world of educational possibilities. Our focus was drawn away from education as being premised on the worldview that valorises competition and exclusion via high-stakes testing, to one that is grounded in the fundamental acknowledgment of the collective well-being of the human and ‘more than human world’ (Abram, 1997), albeit all too temporarily. Educating for sustainability is ultimately a ‘re-turning’ (Barad, 2007) to what really matters.

Working with Entanglement

For me the first concept that comes to mind when thinking about COVID-19 is disruption. Disruptions can be uncomfortable and disorienting, and the COVID-19 pandemic has been no exception (English, 2013; Storying Geography Collective et al., 2023). As shown above, this disruption has pushed us to pause and reflect on the ways we live our lives including how we teach sustainability. Clearly, the upheaval of COVID-19 has opened new possibilities and forced us to challenge old ways of thinking and doing. By highlighting our vulnerabilities, the sudden changes brought by the disturbances and crises, have given us the chance to rethink our assumptions and to re-engage in innovative approaches to living and learning. This short reflection follows the ramifications of disruption on my teaching practice and how I *leaned into* my ontological sensibilities of entanglement and relationality (Barad, 2007; Escobar, 2020). Let me unpack this further.

When COVID-19 was declared a pandemic, besides teaching sustainability and other courses, I was also completing my PhD – immersed, literally and metaphorically, in challenging our human-

centred conceptions of 'being-in-the-world' (Heidegger, 1962). My research had the intention of confronting and disrupting the normative stance of seeing people as separated from nature. It was my aspiration to recognise ways in which we could reposition ourselves as part of nature rather than a counter to it. Unintendedly, COVID-19 offered the disruption and tangible lived experience – a ripple - to emphasise just that; we are not and cannot be seen as separated from the world around us if we are meant to live sustainably. Barad (2007, see also Brown et al., 2020) writes that disruption can be a powerful force for change and that with disruption also comes interconnectedness. Barad (2007) uses the metaphor of ripples to highlight the interconnectedness and entanglement of matter and meaning in the world. According to Barad, every event or phenomenon creates ripples that extend far beyond its immediate context, affecting and being affected by other events and phenomena in a complex web of relationships. COVID-19 might have been the rock in the pond, creating the ripples. This interconnectedness is not limited to human interactions but extends to the entire material world, including non-human entities such as animals, plants, and even inanimate objects – which, to me, echoes a truer notion of sustainability (see: Rupprecht et al., 2020). This shift in our understanding of our experiences with the world and our place in it moves us away from separation and control towards entanglement and interconnectedness.

Taking on board the idea that the pandemic could manifest as an opportunity for transformation, as something positive, was not easy. Not only did I already carry some level of eco-anxiety, along with many others studying the looming socio-ecological crises (Verlie, 2023), but the pandemic also added an extra layer of stress. Like many people around the world, I was being part of the disrupted time, isolated from what I knew as the 'normal'. Constantly worry about my family more than 17,000 km away in Colombia with no hope in sight for me to visit them. I felt the pain of my students experiencing different forms of separation; some were whisked back to their home countries, and some were sheltered in place. A sense of powerlessness and hopelessness emerged from all these points of separation. Still, I was committed to seeking and sharing different sensibilities, to creatively find ways in which we could recognise our interconnections and becomings in an always changing world. Within this first-year sustainability course (same as author 1), it was critical for me to demonstrate that our actions do not come from our mere understandings of the world; they are products of relations that connect us to everything. This sensibility highlights that "affective bonds to and connections with other things in the world... enable us to enhance or diminish forms of life" (Grosz, 2017, p. 7, reading Spinoza's *Ethics*). COVID-19 created a new space to explore these relations.

So, in the moment of disruption created by COVID-19, interconnection and relationality were brought forward in a new online classroom space. Thinking with and through entanglements with the world around us, became my pedagogical approach. This is not novel or even a recent practice. Freire (1998) argued, for example, that education is only possible within a learning setting that recognizes the legitimacy of each individual in co-constructing the world and as an agent of transformation. This is, indeed, a decisively relational stance. The challenge, however, was to promote those relations at a time when everything was in flux and when teaching sustainability was in a new experimental space characterised by cameras, with a mix of black screens and disembodied voices while others were filled by bodies in intimate personal spaces. Teaching sustainability for me became about finding ways to create (and hold) spaces and times,

when and where students could “focus on the processes and capacities that support deliberation and action” (Caniglia et al., 2023: np) through an awareness of entanglement with everything around us.

Applying these ideas in practice was complex, especially considering the need for quick adaptations and changes required during the pandemic. I centred entanglement in action for teaching sustainability around two axes: dialectical practices and creating human experiences through the sharing of feelings and recognising learning as an emotional journey. The practice of critical questioning is a productive and ancient Socratic practice. For me, this involved engaging students with first gentle and then progressively more complex questions regarding the social and environmental dimensions of sustainability, its key concepts, and efforts to understand them. Importantly, I stretched thinking around where concepts, case studies, or phenomena start and end. Helping them to both untangle and (re)tangle our collective connected webs of existence. In a Baradian (2007) move, I helped them to think about “mattering”. “So... what matters here? What is considered? What is overlooked or forgotten or not included in this story? What other ‘things or people’ can we stretch to include? How far can we stretch this mattering?” This dialectical move to inclusion rather than cutting and framing issues neatly pushed these online tutorials to imagine different perspectives and ways of thinking about sustainability.

I understood that this new COVID-inspired teaching environment created a shared stressful experience (emotionally entangled). In meeting this challenge, I concentrated on employing a caring, careful and supportive tone in my teaching and most importantly, my feedback on their assessment tasks, cultivating a response-able practice (Haraway, 2008). Feedback is a key space to connect and to make a difference in a student’s life. I see that if feedback is given generously and from a person, they know it is taken on board more positively. I believe that for feedback to make a difference, students need to trust and know the marker, especially in this disrupted and complicated time of COVID. I prioritised time in the online tutorials to share our feelings and experiences and allow us to air our frustrations and joys. I asked my students questions about their days and let them do the same in return. These are practices to exchange meanings, concepts, and realities, but also aimed at fostering a sense of reciprocity and care. In practice, this allowed students to question me and to develop a sense of our shared human condition. This pedagogical connection of care and knowing my students, even in this limited interaction, translated into my feedback practice for their tasks. I used a “what’s present” mode where I would identify and focus on the strengths presented. I would encourage students to consider how their individual thoughts, propositions, and choices in what they presented contribute to collective change. I used positive and encouraging language... “This is great, press further, this is exactly what the task is expecting”. I strongly feel students need to believe that they have the power to make a positive difference. The assessment pieces document this shared endeavour. Together, dialogue and centring our attention to our feelings and emotions, permitted the conditions to start learning about ourselves, our relations with other beings and our shared co-existence.

Teaching sustainability during and after the COVID-19 disruption, therefore, requires educating not only for sustainable development, but also showcasing sustainable behaviours, and for fostering a sense of intergenerational responsibility. It is also to expose other ways of being-in-the-world that are founded on relationality and entanglement between humans and non-humans,

between feeling and thinking. It is about showcasing the openings that acknowledging connection and fragility create. These are, I believe, fertile grounds from which a different, and needed, sustainability education and practice can flourish.

Conclusion

There are some key insights we would like to share as a conclusion to this collaborative 'reflection on teaching' exercise that produced this paper. Firstly, we found writing this paper energising, mutually supporting and a theoretically enriching performance for us. We therefore suggest that sustainability educators write together, more often and in different configurations. We are sustainability academics who are spread across the Australian continent, and it was affirming to listen to similar stories of the pains and pleasures of teaching sustainability during COVID. We feel this collaborative writing practice enlisted the earlier calls of Hammond and Churchman (2007) to enact social sustainability in academia by creating both interconnections and a sense of collective community. Their main point is that we need to work towards constructive alignment between what we teach and how we (institutions and academics) embody the principles that we teach. This suggests there must be an authentic and mutually supporting practice bonding sustainability as a transformative agenda for the delivery of sustainable education. We see this bond can be developed through collective scholarship and camaraderie in the field, thereby rekindling inspiration for the agenda.

The second insight re-affirms the value of *praxis* and viewing our pedagogical approaches of thinking with theory application in active and invigorating ways. We have often found that the scholarship of teaching and research depends on empirical and quantitative approaches that assess our practice or the efficacy of a learning intervention. While this is entirely valid, we suggest that working with theory *in situ* created an interesting challenge that weaved together both our teaching and researcher roles and responsibilities together. Sustainability both as a researcher and a teacher, is an active engagement in the world that seeks to attune our values and beliefs to live more justly on a fragile and interconnected planet. This requires a deeper understanding and an ongoing ontological conversation with ourselves and others. The theory is meaningless if it is left on the page.

Lastly, we circle back to the title of this essay, hope. As sustainability educators, our role is to carefully walk a learning-centred path with students and to "create realistic hope in which the possibility of change and the real desire for change are accompanied by a concerted, active participation in change" (UNESCO, 2002, p. 11). This was especially true during the COVID-19 pandemic and now in our permanently disrupted pandemic times. We acknowledge the breadth of work studying the gap or tragedy, between knowledge and action (Glavovic et al., 2021; Kollmuss & Agyeman, 2010). In Australia, we clearly live in a period where we have what seems to be scientific clarity on human-nonhuman relations and climate change, biodiversity loss and social inequality through the IPCC AR6 suite of reports, but an absence of government leadership to address and instigate change. But this is where COVID was a sage teacher. Systems, practices, demands and circulations can change and change quickly. As sustainability educators, we are working within a network of current and emerging scholars (Brown et al., 2020; Caniglia et al., 2023; Costanza, 2019; Evans, 2019; Harrison et al., 2017; Nousheen & Kalsoom, 2022) who share the telos of transformational education. All these researchers focus on the power of

pedagogy to transform not only sensitivities but also expose students to the critical ontological question of 'who we are in the world' and potentially inspire an expanded connected consciousness (Nousheen & Kalsoom, 2022). Our job at the core is to do this work by equally touching the heart, impacting the mind, and enabling students to imagine new ways of being on the planet. This common endeavour has no national boundaries. Ultimately, we found COVID-19 brought forward key sustainability issues to light, including how scale discloses and hides issues and how some networks can exacerbate human fragility. It became clear how inequality perpetuates risk and that self and personal interest quickly eroded collective health agendas. In addition, the stark realities of science up for grabs perpetuated through technology platforms were both ironic and sobering. Clearly, these COVID realities are all sustainability themes. COVID-19 was an actor and a teacher. It pushed our pedagogical considerations and reaffirmed our belief that hope and care are indispensable performances and values in future-focused curricula.

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Conflict of Interest

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