

# Cultivating the Contemplative Mind in Cyberspace: Field notes from pedagogical experiments in fully online classes

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*Fully online classes are on the rise in US higher education institutions. This article describes pedagogical methods for incorporating contemplative practices into these courses, using an undergraduate class in Philosophy, Religion and the Environment. I give a rationale for incorporating contemplative exercises into this class, along with specific techniques and example exercises and assignments. Drawing on literature about pedagogical best practices, I suggest some guiding principles for incorporating contemplative exercises into online classes. I then discuss the results of these pedagogical experiments, measured in terms of qualitative student feedback and instructor impressions.*

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## INTRODUCTION

Online classes are increasing in popularity in US higher education institutions. A study in 2008 found that 20% of all US undergraduates had taken at least one online course (US Department of Education, 2011), and by 2012 that figure had risen to 32%, with 69% of chief academic leaders indicating that online learning was critical to their long-term strategy (Allen & Seaman, 2013). This new learning environment requires pedagogical shifts (Barber & King, 2016; Czerkawski, 2016). In light of these trends, this paper offers guidelines on how contemplative pedagogical practices can be integrated into online classes and a brief exploration to some student responses to these practices.

## INTENTION AND CONTEXT

Since 2013 I have been regularly teaching a class called Philosophy, Religion and the Environment. In this course I use an anthology of readings in Richard C. Foltz's (2003) *Worldviews, Religion and the Environment*, and organize the class around four fundamental questions, as all of the readings address some or all of these questions in some way: What is a human being? What is our place in "nature"? Are we apart from, or a part of "nature"? What is our appropriate role in relation to "the en-

vironment”? Some of the readings I assign for this class include voices critiquing our dependence on technology, and lamenting the concomitant alienation and isolation. “We have,” argued S. D. Sharma, for instance, “lobotomized our souls from our neighborhoods” (Sharma, 2003, p. 497) and in our technological isolation from each other are experiencing the “madness of the astronaut” (Mander, 2003, p.65). When I was asked to put the class online I feared that the medium of delivery for this course might be entirely at odds with its content. Somewhat to my surprise, I have ended up with the conviction that cyberspace can, indeed, be supportive of the flourishing of a contemplative pedagogical space. Furthermore, the integration of contemplative practices into my online course has been one of the most effective ways to deliver significant learning experiences. In the next section I will offer some general themes and principles about teaching contemplative practices online that have emerged from a process of trial and error over the years, illustrating them with example exercises.

### **Creating significant learning experiences**

Fink defines a “significant learning experience” as an experience which “has a high potential of being of value in their lives after the course is over, by enhancing their individual lives, preparing them to participate in multiple communities, or preparing them for the world of work” (Fink, 2003, p. 7). Most educators are familiar with Bloom’s taxonomy of learning, with its six kinds of learning of increasing complexity: remembering, understanding, applying, analyzing, evaluating and creating. Fink argues that while these are of great value, they do not necessarily give rise to kinds of learning that are needed to be equipped in contemporary society, such as “learning how to learn, leadership and interpersonal skills, ethics, communication skills, character, tolerance and the ability to adapt to change” (Fink, p. 29; see also Siemens, 2004). Significant learning experiences do include these skills. His taxonomy of significant learning experiences (Figure 1) stresses the importance of integrated course design, such that each of these elements are present and mutually supportive in the structure of the course.

Fink’s concept of significant learning experiences articulates many of my aspirations in designing this course. One of the things that was important to me is that students do more than just “learn about different philosophies,” but explore their own attitudes to the environment from both *affective*, *contemplative*, and *relational* perspectives. I was inspired by Arthur Zajonc’s idea of an epistemology of love rather than an epistemology of separation (Zajonc 2006a, 2006b). Zajonc argues that our modern epistemological emphasis on objectification “predisposes us to an instrumental and manipulative way of being in the world” (Zajonc, 2006a, p. 2), also characterized by a disidentification with others resulting in a loss of empathy

Figure 1.

Fink’s Taxonomy of Significant Learning Experiences (Fink, 2003)	
Objective	
Learning how to learn	Becoming a self-directed learner; inquiring about a subject
Foundational Knowledge	Understanding and remembering ideas and information
Application	Critical, creative and practical thinking; managing projects
Integration	Connecting ideas, people and realms of life
Human dimension	Learning about self and others
Caring	Developing new feelings, interests and values.

and a sense of disconnection from other humans and the environment. He calls for an intentional cultivation of more empathetic relationships with these others, and sees contemplative practice as an important part of this project. This has implications for effecting more concern for justice in our communities. Studies have shown that empathic concern is positively correlated with prosocial behavior and justice motivation (Decety & Yoder, 2016; Segal & Wagaman, 2017).

Focusing on the affective dimension of learning is also a crucial element in developing critical thinking. Facione et al identified that critical thinking has two dimensions: cognitive skills, and affective dispositions, such as “Honesty in facing one’s own biases, prejudices, stereotypes, and egocentric or sociocentric tendencies; trust in the processes of reasoned inquiry,” open-mindedness and “open-mindedness concerning divergent world-views” (Facione, 1990, p. 25). These ideas focus on the potential for higher education to be transformative, and not merely vocational (Kaszniak, 2014; Zajonc, Parker, & Scribner, 2010). Merizow defines transformative learning as “learning that transforms problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective and emotionally able to change” (Merizow, 2003, p. 58).

This emphasis on significant and transformative learning experiences is reflected in my learning objectives for the course:

- Students will recognize that you have a “worldview” and that it is one among many; it is a view that is part of a particular time and tradition, and which can be challenged and enhanced by other views. As part of this exploration, students will have actively explored and reflected upon different ways of knowing, including emotional and contemplative as well as logical and intellectual approaches.
- Students will have begun a journey of discovery, beginning to find out what diverse religions and philosophies offer in relation to valuing the environment.
- Students will be able to locate how they personally value the environment in the context of these traditions, exploring how the way they value it matches or differs from other religious or philosophical ways of looking at the world and perhaps synthesizing a more refined position as a result of this exploration.

As I “worked backwards” from these objectives it occurred to me that contemplative exercises could help in realizing them, particularly in helping students reflect on and interrogate their own values and attitudes towards the environment. The pedagogical flexibility provided by course management systems (CMS) can offer many opportunities for deep and significant learning experiences. I focus here on the content and design of the contemplative practices themselves, *and* the challenges and opportunities associated with implementing them in a fully online class. Carmean and Haefner (2002) summarize findings in learning science relating to creating deeper learning experiences. They define deeper learning experiences as “an engaged learning that results in a meaningful understanding of meaning and content” (Carmean & Haefner, p. 29). Reviewing the research, they find that deeper learning experiences occur when the learning is social, active, contextual, engaging and student-owned. These findings are supported by scholarship of teaching and learning elsewhere (e.g., Alley & Jansak, 2001; Ambrose, 2010). However, Carmean and Haefner make the point that when the tools of course management systems (CMS) are used effectively, then “incredibly robust and effective learning environments are created” (p. 33).

### **DESIGN PRINCIPLES FOR INTEGRATING CONTEMPLATIVE PRACTICES INTO ONLINE CLASSES**

In this section I will describe five principles that have guided me in integrating contemplative practices into my online course. I will explain how they integrate some best practices in learning science, both generally and relation to teaching in cyberspace. While I illustrate these with specific examples from the course, I offer these principles as generalizable for classes in other topics and disciplines.

For each principle, I will offer guiding questions to facilitate course design and an example of effective cyber-practice.

The five principles are:

1. Grounding
2. Integration by form
3. Integration by theme
4. Integration by process and structure
5. Integration through assessment

### **I. Grounding: The importance of creating foundations**

*Guiding Question: Are students introduced to the rationale, relevance, and importance of contemplative pedagogy?*

I directly address why I incorporate contemplative pedagogy into the course right at the very beginning of the course. In the introductory module, I assign a reading by Tobin Hart called “Opening the Contemplative Mind in the Academic Classroom” (2004), which provides an accessible and clear summary of theoretical arguments in support of contemplative pedagogy. Based on this reading, students respond to a discussion question where they are asked to reflect on the “whats, whys and hows” of contemplative education, and then to try one of the “experiments with knowing” that Hart suggests or a contemplative practice of their own choice. To facilitate student understanding of the broad range of contemplative practices available to them, I use the Center for Contemplative Mind in Society’s “Tree of Contemplative Practices” image (Duerr & Bergman, 2014).

Once they have chosen a practice to experiment with, students are asked to write a reflective posting about their experience and share it on the class discussion board. They write in the first person and frankly share their experiences with the experiment, be they positive or negative. I make efforts to normalize any feelings of skepticism or anxiety about trying these practices, for example by sharing comments from former students who write about their initial skepticism as well as the great benefits that they eventually gained from their openness to experimenting with the contemplative exercises. I will discuss assessment of these assignments later in this paper. For now, though, the key point is that this part of the course is foundational in two ways.

Firstly, it grounds students in the theory and rationale for the contemplative practices. Being transparent and open about my choices of pedagogical techniques, presenting them as experimental, and inviting students to share their “results” creates a sense of partnership and collaboration, and minimizes any risk of students feeling “forced” to do practices they might be uncomfortable with. It

helps to create the sense of a supportive community in the class. Ambrose (2010) offers seven research-based principles for “smart teaching.” One is the importance of student motivation: she suggests implementing this by connecting course material to students’ own interests, providing real-world tasks, and showing them the relevance of the course material to their lives. Sharing my rationale about contemplative pedagogy with students and having them experiment with and discuss different ways of knowing is one way of fostering this motivation. Giving the students the opportunity to explore and voice their own personal experiences helps to realize the significant learning objectives (Fink, 2003) of integration, human dimension, and caring.

Secondly, the contemplative practices that the students select become their “home” practice that they return to every week in preparation for the themed contemplative assignment for that module. One of the discoveries of learning science is that learning is “spiral”: “The best learning occurs when the brain’s tendency to learn by developing associative connections is facilitated and it is given time to accrete new knowledge through a sophisticated knitting of these links or associations” (Alley & Jansak, 2001, p. 16). Each time students return back to a contemplative practice, they are both reinforcing previous learning and integrating and assimilating new insights from the latest material.

### **Cyber-practice**

Creating space for reflection and metacognition is an important component of deep or significant learning (Alley & Jansak, 2001; Carmean & Haefner, 2002; Fink, 2003). Online learning platforms provide excellent tools for these kinds of learning. They allow for quiet, private time for reflection that is often not possible in the face-to-face classroom. Students can engage and reflect in their own way, not hindered by time constraints of the classroom, and make connections with their own experiences. At the same time, since their reflective writings are shared on a class forum where others can read them (although students can request to have their writings private should they wish), there is a sense of social connection and community with others, too. This is important because deeper learning is social—it requires contact between students and faculty, and reciprocity and coordination between students (Carmean & Haefner, p. 29). Alley and Jansak offer ten principles for effective online assessment; three are that learning is unique to the individual; that it is social *and* private, and that it is experiential (Alley & Jansak, 2001). Giving students the choice of the kind of contemplative exercises to experiment with accommodates different learning styles, and gives students responsibility and agency in their own learning; the activity is “student-owned” (Carmean & Haefner, 2002). Being in the online space, where students learn asynchronously and on their own gives more flexibility in this regard than a face-to-face course format might.

## 2. Integration by form

*Guiding question: Are the contemplative practices consistently woven in with other course materials throughout the course in a way that complements and reinforces the learning opportunities?*

Contemplative practices are woven into the deep structure of the course, rather than being “accessory assignments.” The course is divided by themes into modules, each based on chapters in the anthology assigned for the course. There are three assignments for each module—a quiz based on the readings and course notes, a “conventional” discussion assignment where they respond to a prompt about the readings, and the contemplative assignment. For each contemplative assignment, I provide students with instructions for the exercise, then ask them to write a reflective posting describing the results of their experiment with knowing. Below are the instructions for the first module (building on the orientation assignment discussed earlier).

### **Contemplative Exercise One: Planting a Seed**

- Hold the seed in your hand. Examine it closely—try to pay attention to what it looks like so closely that you could pick it out from a whole bowl full of other seeds. Notice any colors or patterns of the seed, notice its shape and the texture of its surface. Notice its weight, its temperature, and how it feels in the palm of your hand or between your fingers. Do this for at least a couple of minutes.
- Now, still holding the seed, close your eyes and think about other aspects of the seed—where did it come from, and how did it get to be in your hand, now? What potential is in the seed?
- Now let go of your more focused thoughts about the seed and just open up your mind to the thoughts that come up. This is a bit like the deep listening exercise described in the Tobin Hart article. Perhaps the seed exercise evokes certain memories or emotions in you. Perhaps you feel resistant to this exercise and your mental chatter is very negative. Whatever it is, just notice the thoughts like bubbles or clouds in the sky, and try to just notice them with non-judgmental interest. Whenever your mind wanders off, just gently bring it back to the exercise without criticizing yourself. Now plant the seed, either outdoors somewhere accessible to you, or in a pot indoors. It is your job to nurture this seed during the quarter. It will be the foundation of more contemplative exercises, and it can also be seen as a metaphor for your learning pro-

cess over the next few weeks. Try to maintain your contemplative state of mind while you plant the seed. Reflect on the causes and conditions that must combine to make growth possible, including your action in planting and tending the seed.

- Finish the exercise and, while it is fresh in your mind, jot down your reactions to this experience—try not to censor it too much. These thoughts will form the basis of your reflective discussion posting which you should post in the contemplative assignments area. In addition to your written reflection you are welcome to share other modes of expression such as artwork, poetry, photography or videography.

All of the weekly contemplative assignments share many characteristics of this example; they require students to complete a task away from the computer and interacting with a “natural” object. They begin with the reminder to start by practicing the “grounding” exercise that they chose in the orientation module. They focus on somatic and sensory awareness and encourage introspection and self-awareness. They give the student some freedom of choice about the kind of preparatory contemplative exercise they choose, and their form of creative expression when reflecting on the experience. They culminate with the instruction to write a reflective posting (accompanied by imagery/photography/poetry/music, if they wish) about their experience, which is posted in a place where all the other students in the class can read it. This ensures that, *per* Alley & Jansak’s recommendations, there is a mix of both social and private activities for the students and that frequent opportunities for reflection are written in to the fabric of the course.

These contemplative exercises are assigned in tandem with “conventional” discussion on the themes of the module, giving the opportunity for different ways of knowing to be in dialog with each other in the students’ mind throughout the course. The exercises include three different types of contemplative practice: mindfulness meditation, structured contemplation, and reflective writing.

Mindfulness meditation is a foundational practice that students are invited to practice as a preliminary to structured contemplations; its role is to give students the opportunity to engage in a non-judgmental way of knowing: “Mindfulness meditation in the context of education is a complement to discursive analysis, an unbiased investigation of experience—qualities, images, feelings, thoughts—without rejecting, fixating on or creating a storyline” (Sable, 2014, p. 5).

Structured contemplation has two stages: firstly focus on a particular object or question (for example, the seed in the exercise above) and then secondly, widening the focus to a more open awareness, to provide space for the arising of feelings and insights that were previously unnoticed (Sable, 2014).

Reflection encourages students to look back on what they have learned (what Schon (1987) describes as “reflection-on-action”) but also to see how they are encountering the present moment (“reflection-in-action”) and recognize some of their own biases and habits. The process of writing deepens this introspection and creates a sense of commitment to the responses (Sable, 2014).

### **Cyber-Practice**

One of the advantages of the online format is that students can set their own pace and enter into the contemplative frame of mind in their own time and under their own preferred conditions, without social or external time pressures of an in-person class. Another advantage is the ability to leverage many different ways of accessing information or representing knowledge. This helps to foster more student engagement by giving them access to great volume and diversity of course-relevant materials which they can access and in turn gives students greater ownership over their own learning experience, all conditions for deeper learning (Carmean & Haefner, 2002). They are encouraged to express themselves creatively in non-verbal forms (e.g., artwork or music) in their reflections; the online space gives multiple opportunities for this kind of “multi-channel processing” which builds on multiple ways of processing information in the brain (Clark & Paivio, 1991; Clark & Mayer, 2002).

### **3. Integration by theme**

*Guiding question: Do the contemplative exercises reflect the themes and content of the course materials?*

Unifying, recurring themes increase this sense of integration. For example, in one module students read three articles that critique aspects of consumerism, materialism and globalization associated with the global North<sup>1</sup>. Common to all of these readings are questions about identity and how humans relate to other people and to the environment. The contemplative exercise below explores this theme, using as its starting point an extract from the book by Jain contemplative and environmental activist Satish Kumar (2002). This extract uses a story about a seed to explore questions of identity and interconnectedness. For the exercise, students

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<sup>1</sup> One reading is the speech to the Rio Earth Summit in 1992 by Indian rural activist S. D. Sharma. He critiques the destruction of local economies in India by the forces of globalization, the environmental and social devastation inflicted by “development,” and calls for a new paradigm which is “ecologically viable, socially equitable and rich in human content” (Sharma, 499). In the second reading, “The Pressure to Modernize and Globalize,” Helena Norberg Hodge describes the negative effects of globalization on the culture of Ladakh, particularly in terms of social fragmentation. In the third reading, an indigenous perspective is provided by Australian Aboriginal Elder, Mary Graham. In “Some Thoughts About the Philosophical Underpinnings of Aboriginal Worldviews” (Graham, 2004), she describes a worldview of radical interconnectedness between people and the environment, and a sense of the land as sacred and integral to human identity.

are asked to do a preparatory mindfulness exercises, read the story and then contemplate the seed they planted. The prompt asks them how the analogy of the seed in the story applies to their own experience, and how the readings for that module tie in to the analogy for them.

This exercise weaves together common motifs in the course while resonating with specific themes from the assigned readings for that module. It thus gives the opportunity to revisit and deepen this inquiry and moves students from the realm of abstract arguments to a more intimate, immediate and sensory investigation in relation to their own experience. This reflects best practices in learning science by reflecting different ways of experiencing (Carmean & Haefner, 2002), integrating ideas by connecting them with each other (Fink, 2003) and facilitating multiple opportunities for revisiting and connecting earlier concepts) (Alley & Jansak, 2001).

### **Cyber-Practice**

The online format of the class itself provides the opportunity for meta-cognitive inquiry which be integrated into the course learning goals. For example, in one of the modules where assigned authors talk about alienation from nature through technology, students write reflectively about how they imagine the authors would respond to the fact that this class is fully online, and how they personally think about online learning in the context of the ideas they are reading about and reflecting on? This connects the material to the students own real-world experience and shows the relevance of the materials to their lives. This can increase student motivation (Alley & Jansak, 2001) and student engagement (Carmean & Haefner, 2002) and provides another opportunity for meta-cognition and reflection on their learning experiences.

### **4. Integration by structure and process**

*Guiding Questions: Do the contemplative exercises facilitate reinforcement of learning opportunities through “spiraling back,” reflection and meta-cognition? Do they accommodate different learning styles?*

Ambrose (2010) stresses the importance of knowledge frameworks to learning, and advise that assignments should help students to see the relationships and connections between pieces of knowledge (pp. 43-44) In designing my course, I ensured that contemplative exercises are integral to the course at every stage. Consistency is important because it gives students many opportunities to practice exercising their contemplative faculties, to become increasingly comfortable and familiar with this approach, and to reinforce their learning through this process and to trust the process. Certain themes are consistently spiraled back to, to increase opportunities for reinforcement and connectivity. The early exercise

around planting a seed is revisited and referred back to in later modules of the course (example below).

In addition to creating a supportive *structure*, I have found it helpful to create a *process* where there is an integration between reflection on course themes and self-reflection, or metacognition. Introspection and self-reflection are integral dimensions of contemplative practice (Barbezat, 2014; Shapiro, Brown, & Astin, 2011). As Zajonc put it, “we move and feel with the natural phenomenon, text, painting or person before us; living out of ourselves into the other. Respectfully and delicately, in meditation we join with the other, while maintaining full awareness and clarity of mind” (Zajonc, 2006a, p. 3). This focus on relationality can also be applied to how we encounter our own experiences and habits of mind. This self-awareness is prerequisite for exploring how the other influences us, and vice versa. To help students to develop these skills of introspection and metacognition, each contemplative exercise includes instructions for sensory interoception, and/or awareness of their own reactivity to an encounter. For example, a particular emphasis on this self-reflection is found in the last contemplative exercise in the final module of the course, where students are asked to reflect on their own learning experiences. In the prompt for this assignment below, students are encouraged to explore the seed as a metaphor for their learning experience:

You are invited to think about your interaction with and attitudes towards your seed/the process of growth and any changes in it (if any) as a result of your studies in this class. How did this reflect the change of development of your ideas? What factors nurtured your learning? What challenged it or threatened to endanger it? What are the “fruits” of your learning? You could understand your seed as a non-human teacher. What, if anything, has your non-human teacher taught you? You don’t need to be too analytical in this process—remember to adopt the contemplative, “deep listening” approach, and feel free to just write without too much analytical censoring. Your seed may or may not have sprouted and blossomed in that time. In this respect, you could see it as a metaphor for your own learning. Try to “listen deeply” to your non-human teacher and your reflections around it. What does it tell you?

Studies on meditation in higher education have found that meditative and contemplative practices can strengthen students’ metacognition (Shapiro, Brown & Astin, 2004). The exercise above actively prompts students to weave together different kinds of knowing together in the process of inquiry. Carmean and Haefner (2002) argue that learning is *contextual* and that deeper learning occurs when new knowledge is integrated and applied into the learner’s world. Deep learning

is also *active*, intertwined with judgment and exploration, engaged in real-world tasks, and involving practice and reinforcement. The contemplative practice above provides opportunities for these deeper learning experiences.

### **Cyber-Practice**

One way to take advantage of the functionality of course management systems is to use hyperlinks to refer students to multimedia resources to help them with the contemplative practices. An advantage of online learning is the opportunities it affords for students to customize their learning experience (Wilcox et al., 2016). There are many excellent audio guided mindfulness practices online; I give students links to a wide selection of them. I also use video to support their learning—for example, by making brief video recordings of myself offering them feedback, or producing links to short videos of relevant to the topic. Learning is engaging when it emphasizes natural curiosities and respects diverse ways of learning (Carmean & Haefner, 2002); the functionalities of course management systems allow for the accommodation of a wide range of learning styles, directed by the students' own curiosity.

## **5. Integrating assessment**

*Guiding question: Are the contemplative assignments assessed in ways that encourage reflective and meta-cognition, and leave room for creative expression?*

The course content encourages students to explore and challenge students' *conceptual* boundaries about their relationship with the environment, but my intention is to give students an opportunity to explore these boundaries in an *affective* way, too.

For assessment of this process, students are asked to write a reflective posting about their experiences in response to the prompts. This they share on a discussion board which is visible to all the other students in the class. In addition to writing, students are also invited to submit their responses through other media such as through poetry, artwork, photography or videography.

The concept of evaluating students on these kinds of personal reflections can bring some tensions. For example, the content of their reflections is likely to be personal, and reflective of their deeper values and attitudes. Giving students an evaluative grade for their contemplative reflections risks bringing in a more inspectorial rather than collaborative ethos, which might inhibit their honest self-expression. Brockbank and McGill articulate this concern: "We start from the Latin root of the word assessment: 'to sit beside.' This classical meaning reflects the values being promoted in critically reflective learning as collaborative rather than inspectorial" (Brockbank & McGill, 1998, p. 100). There is a danger that

students may feel that they should write what they think I want to hear and the assessment process might end up being “a medium to reward the right attitudes and sanction the wrong ones” (Hargreaves, 2004).

To help mitigate these concerns, I grade these reflections on a pass/fail basis. In other words, students are not assessed on the content or quality of what they write, but on whether or not they completed the assignment. In this respect this assessment group is unlike all the other assignments in the course where students are given a score based on a grading rubric. I also write appreciative or affirming comments in response to their postings. My initial worry that students would take advantage of the pass/fail system by making minimal effort has not been justified. I have been pleasantly surprised how much time and effort most students put into these experiments with knowing, and how they seem to grow in confidence as the course progresses. Collectively, the weekly contemplative assignments constitute 20% of the final grade for the course, but they are also assessed in the final project where students reflect on how the contemplative exercises helped them to answer their chosen question. This integration, spiraling back, and repeated opportunities for practice are all indicated, as we have seen, are indicated by the best practices in pedagogy.

### **Cyber-Practice**

Course management systems have excellent functionality to enable students to share their reflections with each other in a variety of media (though most opt for writing). As instructor, I give prompt and encouraging feedback using written, video, and audio tools available in the course management system. The online delivery platform creates a digital cumulative archive of all that has transpired in class (Vonderwell, Liang, & Alderman, 2007). Students have a record of their contributions to the class which they can return to and reflect on. A culminating assignment that takes advantage of this asset encourages meta-reflection. Alley and Jansak identify this process of reflection as vital in facilitating higher order learning. They argue that good instructional design “prompts reflection and meta-cognitive thinking by requiring the student to pause, to summarize, to evaluate, to take inventory, and to construct (draw) broader connections” (Alley & Jansak, 2001, p. 10).

### **DISCUSSION**

Do the contemplative exercises “work”? Of course, how one answers this question depends on one’s criteria for success. At the start of this paper I described my intentions for integrating contemplative pedagogy. These included helping students to explore questions of identity and relationship to the environment in an affective and not purely intellectual, conceptual level, and helping students devel-

op self-awareness, both in terms of their relationship to their own experience, but also in terms of recognizing some of their own foundational assumptions and how they affect the way that they are in the world. In the absence of a formal assessment study, the information I have to assess effectiveness of the contemplative practices in this regard comes from four main sources. First, and most significantly, it comes from the weekly student contemplative reflections. Second, from the final project where students reflect on their experiences with the contemplative practices. A third source is those student evaluations in which students specifically mention the contemplative practices. Finally, occasionally I receive unsolicited emails from students about the contemplative practices. This data is qualitative and not part of a formal research project about the efficacy of contemplative pedagogies in my classes. However, from these four types of sources I have identified certain recurring themes that do seem to indicate that students are reaping some of the intended fruits of the contemplative exercises. I will now discuss three of these themes, and give some examples from student work.

### **I. Reflection about relationship with the natural world**

The seed-planting exercise in particular seems to encourage students to explore their relationship with nature in interesting ways. Some students seem very attached to outcome, and become self-critical or upset if their seed does not sprout. The following extract provides an example of this, and demonstrates how this experience led the student to explore if her relationship to the seed was connected to her relationship with nature more broadly:

My non-human teacher sprouted, then died. It was actually quite devastating. The thought of having this living thing completely dependent on me to feed it, nurture it, and love it; then to just die because of me, was just awful. It made me think full-circle about many of the things we have learned in this class. Why our relationship with the living and non-living has been “tainted.” We neglect nature and view ourselves apart from it instead of a part of it. (A1)

There is an implicit and apparently unacknowledged anthropocentrism in this comment, as though nature is dependent on humans for its health. Other students describe starting with such a perspective but being moved to challenge it by their experiences:

I learned so much from this class that caused me to have a different perspective on my non-human teacher than I would have if I hadn't taken the class. For example, my plant never sprouted. Prior to the class I would have felt a sense of failure and disappointment. Because of the class I look at my pot of dirt with happiness! I learned

that the soil is alive and feel that it is a gift and a part of our nurturing Earth, whether or not my seed sprouted. (A2)

In her final project later in the course, the same student describes an increasing and deeply-felt appreciation of interconnectedness, supplanting her previously held assumptions:

The experience I had with my seed (and later plant) has been eye-opening. I realized that the way I thought about my seed was a direct reflection of my worldview, not necessarily of reality. Instead of recognizing that the seed was perfect in whatever state it was in, I was entirely focused on the end result, on seeing the seed sprout and grow. This realization was powerful and taught me to appreciate where I am in any given moment, rather than always being worried about getting to some end-goal; I was reminded to focus on the journey, not just the destination. I also learned to appreciate how both the seed and I are dependent and made up of many non-seed and non-human elements and this knowledge really brought home the idea of interconnectedness. (A2)

Here, then, we see how the seed-planting exercise was the catalyst for exploration about the relationship with the natural world. There is a certain intimacy about this exploration—it is not a purely conceptual, intellectual exercise, but a personal realization. In his work on transformative learning, Mezirow argues that a central goal of education should be to recognize the factors that influence our worldviews. Making this recognition gives rise to the opportunity for students to “change these structures of habitual expectation to make possible a more inclusive, discriminating and integrating perspective, and finally, make choices or otherwise act upon these new understandings” (Mezirow, 1991, p.167; see also Shapiro et al., 2011). The student postings here seem to indicate just such a process unfolding.

This extract also demonstrates another common theme in student reflections: a shift to a more *empathetic* relationship with nature, conducive to a stronger sense of *community*. This is important; studies in environmental education show a positive relationship between a sense of connectedness to nature and environmentally responsible behavior (Carmi, Arnon, & Orion, 2015; Frantz & Mayer, 2014; Pfattheicher, Sassenrath, & Schindler, 2016). Pulkki, Dahlin, and Värri (2017) call for “biophilia revolution” towards affinity to all life to overcome a destructive alienation from the physical environment, and see contemplative practices as facilitating this: “Contemplative pedagogy cultivates the body and its senses for learning intrinsic valuation and caring for the environment” (p. 214). A prerequisite for creating just communities is acknowledging both the existence and the intrinsic value of other community members (both human and non-human), and *caring*

about them. Contemplative practices help to address a sense of disconnection and alienation from others by generating “the ability to observe our own present-moment experience with a certain degree of compassionate detachment” and to “let the usual storylines go” to pay attention to lived, present-moment experience (Kahane, 2009, p. 53). The compassionate detachment that Kahane refers to here is important: emotional contagion or personal distress from affective empathy is less effective in (or even detrimental to) motivating justice sensitivity than cognitive or motivational empathy (Decety & Yoder, 2016, 2017).

## 2. Introspection

Another common theme emerging from the contemplative exercises was an increased sense of students reflecting on their own habits as learners. For example, the extracts below, from two different students, illustrate some honest self-evaluation, prompted by the seed exercise:

If I plant another basil seed when it's later in spring and warmer, it will probably grow a lot better. If I am at a plateau in my life, maybe the environment isn't quite right for me to flourish, just like the basil. Maybe there isn't enough sun, or too much water. I think if the balance is off in my life, I will not be able to grow to my full potential. (A3)

It didn't sprout and nothing happened because I neglected it. The same can be said for almost every area in my life except for when it comes to my son. I don't do as well in my classes because I don't put in enough effort or time needed. My home is usually a mess because I have a tendency to put off tomorrow what I should be doing today. I always feel as if I'm busy and yet I don't get much done. (A4)

The latter student clearly illustrates awareness of her own habits and tendencies and how they influence her learning and the way she engages with her other activities. Although what she finds is problematic, she demonstrates a maturity in recognizing her own role in shaping her experience. Such understanding and self-awareness is a prerequisite for transformation (Barbezat, 2014).

## 3. Appreciation of the contemplative practices

Students often report being initially skeptical about the contemplative practices, but then surprised about how they found them beneficial in various ways. In course evaluations, one question asks students, “What aspects of this class most contributed to your learning?” In every iteration of the course, students have explicitly identified the contemplative exercises in this response section. The following discussion posting from a student identifies various aspects that

she found beneficial. I have cited it at some length because it exemplifies many of the qualities that students often say they appreciate about the contemplative exercises.

Over the course of the past weeks I have come to understand myself and the world I live in a little better. When I chose my non-human teacher in the beginning and made the choice to be completely open to the process of contemplative reflection I didn't think I would find it so useful. Being able to quiet my thoughts and become centered has allowed me to examine my own experiences and opinions in a more thoughtful way. I feel like these exercises have provided me with a new way to be prepared academically and mentally for schoolwork. I especially felt that the various meditative activities we participated in were beneficial to me, and I would have never tried it if we weren't doing it in this setting. The inspiration of a non-human teacher as a guide in this course helps remove any preconceived insecurities about being judged and I think overall led me to a more valuable outlook on the material. My non-human teacher provided me with hope and potential for growth, but also kept me grounded in the moment about my responsibilities as a student and a citizen of the world. My worldviews about the environment and other aspects of life have been challenged by this course, but in the end it has brought me to a place of better understanding. Questioning the Western worldview through the readings has put me in a position where I must ask myself how participative I am in the destruction or preservation of the environment. If I am "listening deeply" to my non-human teacher, I know that it tells me to acknowledge the energy around me and remember the cooperative relationship that must be maintained to ensure the Earth and all nature—including human being—persists. (A5)

This contains the themes of introspection and a shift in perception about her role in relation to the environment catalyzed by the interaction with the non-human teacher. It demonstrates how the process of slowing down and reflecting on her experiences catalyzed greater awareness not only of her own study habits and biases, but also of her own obligations, responsibilities and actions as a citizen of the world. She notes that such insights are challenging, but in a beneficial way.

Each of these examples demonstrates how the contemplative practices help to realize some of the learning objectives for the course as a whole. In particular, one of the learning objectives focuses on students recognizing that they have a worldview which is one among many, and on exploring and reflecting upon differ-

ent ways of knowing. The examples of student work here highlight this sense of exploration and suggest that it has been fruitful and stimulating for students. Another learning objective is that students locate their own personal ways of valuing the environment in the context of the other philosophies and traditions that they are learning about. The contemplative exercises help to make visible students' deep-seated values and assumptions, and put more of a focus on subjective relationality rather than cool or detached observation.

## **CONCLUSION**

My discussion of the results of these pedagogical experiments is based on impressions gathered from various sources, not from data collected as part of a formal qualitative or quantitative research study. Such a study in the future would be helpful to examine the effects of these practices on student learning, although it would need to be nested within a wider philosophical discussion about appropriate measures and criteria for "success," and the goals of higher education.

Throughout this paper my focus has been on the student learning experience. I will conclude, however, with the observation that my experience as a teacher has been very much enriched by my experiences with contemplative pedagogy. Just as I yearn for meaningful connection with my chosen subject matter, I also yearn for a sense of connection with my students. The contemplative exercises really help to provide this because they encourage students to move beyond stock and platitudinous responses to a more personal and intimate exploration of their experience. Perhaps the relative anonymity of the fully online modality helps to facilitate their willingness to express their feelings about their experiments with these ways of knowing. This would be an interesting topic for further research, as there is little existing work about it, apart from studies suggesting that students may be positively disposed towards online discussions because they have more time to think about and articulate their ideas than in face-to-face discussions, which helps those students who might be too inhibited or shy to speak out in a face-to-face class (Ellis et al., 2006). It is an honor and privilege to listen to students' thoughts about their place in the world, especially when they move beyond the superficial and express some of their most heartfelt challenges and concerns.

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