Cripping the COVID Classroom: Centering Students through Transformative Disability-Informed Instruction

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Abstract

The COVID-19 pandemic has had a profound effect on how educators approach instruction, as this transition to online learning shifted the center of higher education classrooms. As two disabled educators, we parallel this to a transformative learning experience and invite faculty to embrace this as an opportunity to examine who is centered in our classes. Drawing on Mezirow's (1991) theory of transformative learning, we contend that the pandemic is itself a disorienting dilemma, or a situation whereby traditional models of education do not work. However, instead of starting from scratch, we suggest that educators look to people who have experience navigating similar academic barriers: disabled people. In outlining disability-informed instruction, we begin with power and autonomy, which are present in every class but have additional histories and meanings in disability studies. Patricia Hill Collins (1990) wrote about the importance of "pivoting the center" to empower learners, and although she was speaking in terms of race, the same need to be recognized exists for disabled students. More direct and meaningful engagement and reflection is possible by inviting students to utilize their own voices (Duyvis, n.d.) to process their experiences. Additionally, professors can reduce executive dysfunction by employing plain language in course communications and adding flexibility to incorporate both crip[1] time (Samuels, 2017) and dynamic disability (Benness, 2019). We offer both broad conceptual and practical solutions

Keywords: Disability, universal design, accessibility, and pandemic learning

Before the pandemic, educators stood in front of our classes, explaining theory and describing method as students sat and watched our teaching happen. When the country quarantined in the middle of the Spring 2020 semester, it all moved abruptly online. This led to a breakdown between teacher, material, and learner as we knew it. While this anomie, or loss of social norms, is new for many faculty, it is common for disabled students. As two disabled educators we assert that education itself that needs to change in order to create a more accommodating experience for all students. To adapt, we have to change who is centered, which requires premise reflection (Mezirow, 1991). First, we must acknowledge that a center exists. For many faculty, the pandemic was a disorienting dilemma that brought on the realization that if teaching does not center students, it disables them (Mezirow, 2009). In other words, the pandemic has functioned like a transformative learning experience for faculty to reflect on their practice (Cranton & King, 2003). The lesson, we suggest, is a "cripped [1]" classroom. To assist our transformative journey as educators in a pandemic, we offer a conceptual framework based on terms, concepts, and common practices derived from the disabled community. This essay is for faculty who were shocked into student-centered learning by the pandemic and are currently going through one of the stages of acceptance or reintegration (Mezirow, 1991). Our goal is to practice inclusive teaching that centers students in a changing teaching environment.

Many professors have limited first-hand experiences with disability and accommodation. We might receive a notice at the beginning of the semester with a list of conditions required for a particular

student, too often thinking of these as "special needs." A medical condition can fundamentally disrupt a disabled student's access to content delivery. Accommodations and inclusive learning are not small changes to help "special" students; they are the practice of creating equal access to all aspects of a course. We suggest that instead of trying to replicate an abled, physically constrained form of pedagogy, we should look to disability access and accommodation to transform our teaching so that all students can learn on their own terms. Florian (2011) defines inclusive pedagogy as "how to respect as well as respond to human differences in ways that include learners in, rather than exclude them from" (p. 814). An acknowledgement and respect of difference is what can lead to a reimagining of the center. Collins (1990) used the term, "pivot the center," which we take to mean creating a teaching environment in which all students can be centered. Professors can do this by shifting perspectives and thinking about the enabling power of our instruction. Although studies in transformative learning have engaged with a learner-centered approach, "few, if any have explored in-depth what it looks like in practice" (Taylor, 2009, p. 14). Rather than centering in a way that is reactive, we recommend a reimagining of the relationship between learner and teacher. What follows is an introduction of important concepts in what we call disability-informed instruction, and how these practices can benefit all students. We also offer suggestions for how to incorporate these concepts into virtual classrooms.

Our theoretical framework is transformative learning (TL), defined by Mezirow (2009) as "learning that transforms problematic frames of reference to make them more inclusive, discriminating, reflective, open, and emotionally able to change" (p. 22). There are two theoretical orientations of TL (Taylor, 2009). One is centered on the individual experience of the student. The other begins with individual transformation with the goal of extending outward to the transformation of society. In this essay we offer teaching practices that we hope will enable and empower students and faculty to create a more democratic society. This approach aligns with the social model of disability, which generally states that people are not inherently harmed by their impairments; rather, an ableist society disables people. This is important during the time of a deadly pandemic in which being human is a disability. We apply TL to teaching practices that center and enable students with the end goal of creating a society in which all people have more agency and autonomy.

Universal Design and Multi-Modal Learning

Universal design for learning (UDL) is a broad term that refers to a number of practices designed to make content equally accessible to all students by starting with the notion that every aspect of the class should be fully inclusive. In the rushed transition to online learning in spring of 2020, the disorienting dilemma stage of TL, accommodation was often ignored or minimized as panicked educators had to figure out how to turn their tried-and-tested face-to-face courses into online learning. For many, it likely felt like trying to make a square block fit into a round hole. In part, that is because accessibility looks different in face-to-face and online learning. The latter can actually be much more accommodating, but it requires investment on the part of the instructional designer. Traditional examples of employing UDL in class would be providing captions for any and all videos, structuring documents so that they are accessible to screen readers, and providing alt-text for images (Story, 2001). These are required accommodations for many disabled students, but they can also improve the education of abled students (Dell et al., 2015). For example, captions on videos can help ESL students, students who have to work in a noisy environment, or students who cannot use sound without creating a disruption.

UDL is relatively easy to put into practice. Most products contain accessibility checks for screen readers (including Microsoft Word, Google Docs, Microsoft PowerPoint, Canvas, and Blackboard). There are also accessibility programs that can check for issues and correct them, such as UDOIT. For alt-text, many of the programs mentioned above now prompt users to supply alt-text when inserting an image. Captions require more effort. Auto-generated captions are not sufficient to accommodate deaf, Deaf, and hard-of-hearing students. If you are the creator of a video, you will need to provide your own captions. Although, auto-generated captions through sites like YouTube can be a great way to give you a document you need only edit, instead of fully transcribe. This feature is also available in Panopto, Zoom, and

Google Meet. If you are recording an audio podcast, or you prefer to work off of a script, you can also provide students with that to make the content accessible. We would also recommend that if you use an outline or PowerPoint, and then record audio over it, you also provide the students with the original materials so students do not need to watch a whole video during an open-note exam or to study. Using alt-text and providing transcripts/captions can also aid teachers, as it clarifies why a particular image or section was included in a lecture. This reflective process can also benefit students, since it creates a stronger relationship between concepts and illustrations. Speaking from personal experience, it has also helped persuade us from using overly complex images and infographics that are not easily explainable as alt-text; if it is too complicated to explain in writing, it may be too much for students to digest.

Universal design is a starting point for accessibility in the classroom, but we urge faculty not to stop there. Broadly speaking, UDL is a reaction to specific disabilities rather than a reimagining of the learning environment so that it constantly "pivots the center." To use the language of TL, we can view the spring of 2020 as an exposure to the perspective shift of cripping the classroom. Faculty can move deeper into perspective transformation and past the band-aid of UDL by asking themselves what role they have played in learning after moving teaching online. A step toward inclusive teaching is to understand the power dynamics that exist in the higher education classroom, as well as the instructor's role in autonomous learning.

Autonomy and Centering the Student

Authority and power dynamics are key components of the classroom, as higher education is organized hierarchically. State boards mandate policies and general authority to the chancellor and provost, who pass them on to the deans, chairs, and faculty. This puts students at the bottom (Clabaugh, 2008). In addition to being legitimized by the institution, faculty also hold expert power (French & Raven, 1959). In other words, professors walk into class on the first day automatically centered. These asymmetric power dynamics do not foster a healthy environment for learning. A study by Smith, et al. (2008) found that students experiencing powerlessness exhibit reduced executive functioning. Executive functioning is responsible for planning and focusing, everything we want to happen in our classes. Furthermore, Mezirow's (2009) sixth step of perspective transformation, "planning a course of action," is less likely to occur if executive functioning is hindered by powerlessness (p. 19). This is important to TL educators because we know that an environment that enables TL is more likely to be metamorphic and lasting (Mezirow, 1991). Power dynamics are also central to disabilities education and advocacy, as many disabled people are denied autonomy and personhood both in and outside of the classroom (Mill et al., 2010; Vlachou & Papananou, 2015). Having control over one's own actions is an innate need (Guinote, 2007) and should be prioritized as the ultimate goal of disability-informed instruction; to create a sense of empowerment within the student by enabling self-determination.

By designing learning opportunities that invite autonomy, we are creating a more democratic society. Trusting students to be in charge of their lives is particularly important when there are social injustices to right. Learning the autonomy required to take action to make positive change can be modeled in the higher education classroom. hooks (2017) said that democratic teachers "teach and share knowledge in a manner that does not reinforce existing structures of domination" (p. 45). Online course design can help students be autonomous leaders in society. Redesigning classes to negotiate power with students is a step toward our transformation, our students', and the future of our democratic society in which we see students as leaders making positive change. One way to do this, for instance, is to talk openly about where students have choice in the course and where they do not. As an example, one of us has adopted an "unessay" project in undergraduate courses (adapted from Denial, 2019). This assignment asks students to pitch what they would like to study and what method of delivery they prefer. This involves working one-on-one with students to develop a collaborative rubric where in addition to standard course requirements (use of academic literature, clarity of writing in the description of their project, and overall engagement), they suggest the criteria used to assess their learning. Though the instructor

maintains the overall ability to accept or reject their suggestions, it makes students stakeholders in their educational experiences, and increases the clarity of the assignment itself.

Reflecting on power and how it shows up in the higher education online classroom can help faculty "explor[e] options for new roles, relationships, and actions," step five in Mezirow's (2009, p. 19) steps of perspective transformation. For starters, the idea of empowered autonomy can be implemented in the virtual classroom by relinquishing some of our power to our students. Being constrained to one-sided lectures through computer monitors and cracked cell phone screens can lead to students feeling less autonomous than in classrooms where they react organically. Transformative, disability-informed instruction recognizes this and encourages a student-centered focus that allows learners to express their autonomy through selection of readings, flexibility in assignments, and self-goal-setting in class. This does not mean abandoning all lesson plans. Rather, providing options fosters independent engagement. Remote education is an invitation for educators to step aside and take the role of guide. We no longer need to expect all students to follow the same instruction, as we are all physically separate. It is in everyone's interest to harness the independence that online learning initiates.

Ownvoices

Autonomy is closely related to the concept of "ownvoices" in disabled communities (Duyvis, n.d.; Whaley, n.d.). Disabled people want to describe our own experiences and own identities using our own voices. Historically speaking, we have been relegated to subjects in academic research (Stone & Priestley, 1996), discounted by medical practitioners (Werner & Malterud, 2003), and ignored in favor of parents' experiences (Curran & Runswick-Cole, 2014). In many ways this echoes the voices of all marginalized populations in academia—often spoken for, rarely allowed to speak for themselves.

As mentioned in the above section, fostering ownvoices can easily be accommodated in a virtual classroom. First, encouraging students to use experiential knowledge creates a stronger link between the student and content. This can be accomplished by designing content, readings, and assignments that allow learners to apply major course concepts to their own lives and experiences. The use of students' own voices makes the content real. Second, providing bounded choices in content and assignments can create more authentic learning experiences. And third, constructing assignments that turn learners into teachers gives students an opportunity to apply the content. This could be through peer-learning communities or assignments designed to guide students to teach you material (related to the course) that is relevant to them. This motivates students to follow their passions. The unessay example discussed earlier is a great example of this concept.

This may be the most difficult aspect of cripping the classroom because educators are used to depending on our status as the ultimate authority, or the "sage on the stage." Ceding authority to students may feel like a loss of something central to the role of educator, but the point is to de-center ourselves. In fact, if you are feeling uncomfortable with the ownvoices shift, we invite you to use this as an opportunity to reflect on the following questions:

- How is your perspective of your role as professor being challenged by this?
- What might a professor-centric perspective look like in this situation?
- What might a student-centric perspective look like?

Authentic, transformative, student-centered learning depends on an exchange between teacher and learner. Cook-Sather, Bovill, and Felten (2014) refer to this as a partnership, similar to a professional relationship that might exist outside of the classroom. Giving students more control of the course material can be beneficial to both parties. Much of the March teacher panic was around the question, "How do I lecture to students?" This remains the same throughout 2020, and likely 2021, as professors grapple with Zoom fatigue and the lack of student feedback. If we are honest, we know that the professor's voice as the center of the virtual classroom should be the first thing to go. Our lecture content may be important, but the goal is to facilitate learning, not make students listen. Absent the shared physical space of the

classroom, the ritualized monologue becomes a hindrance to learning. Centering students leads to finding and using their ownvoices.

Plain Language

Just as we should consider the role our voices play in organizing the classroom, professors should consider how we communicate with students. Since most online interactions are asynchronous, we often lose the ability to clarify meaning, tone, and/or intent. This holds true for lecture content and assignment instructions. Using turns of phrase and literary flourishes may convey one's personality and help build relationships in the classroom; however, some neurodiverse conditions (such as autism) make it difficult to follow complex metaphors and jokes, understand presumptive leaps in logic, and self-start without explicit direction (Meltzer & Kramer, 2016; Hill, 2004). Plain language, or the use of accessible wording, is one way to accommodate varying levels of cognition, and was codified into federal documents with the Plain Writing Act of 2010 (Federal Plain Language Guidelines, 2011). This does not mean "dumbing down" content or writing at a 6th grade level for college courses, it simply means being mindful about how you communicate.

The Federal Plain Language Guidelines suggest several strategies for writing in plain language. The first step is to consider your audience and write at their level. Again, this does not mean talking down to students, who by definition have a lower level of education than the professor, or inserting seemingly culturally-relevant pop culture terms into our course materials. Instead, try to understand your audience and determine if they have the cultural tools to access your content. If not, then adapt your writing. Second, create a routine, easy to follow organization for all materials. Predictability is important when accommodating disability and is just as crucial when students are suffering from high cognitive loads and executive dysfunction pandemic learning. Good organization can also reduce "where can I find" emails. Third, choose your words carefully. In many cases, we need to use jargon and academic terms. That is okay. It is part of education. The key is to clearly and concisely explain terms that you feel the "average" college student would not already know. Fourth, be concise. As educators, we love learning and creating robust discussions. This may sound contradictory to point 3, but when moving content online, assess your lectures to see what is important and what is filler. Online attention spans are shorter than they are in the physical classroom (Geri et al., 2017), and content can usually be simplified. Likewise, when creating assignment instructions, make them easy to read and follow. Finally, it is acceptable to write in a conversational tone. Academia is not known for embracing informal dialogue, but writing like a human instead of a sentient textbook will help students translate our concepts into their words. It also aids in creating an inclusive environment where students feel like active participants.

These principles can be challenging for academics who are often deeply attached to content, but reimagining how we express ourselves and using plain language is vital for inclusive learning. If just thinking about reducing your content or simplifying your language feels uncomfortable, we invoke Mezirow's (2009) eighth step of perspective transformation, the "provisional trying of new roles" (p. 19). Try it twice to see how students respond. You can start with lectures by following the instructions above and exploring the PLAIN guide for additional notes about using the active voice, how to treat verbs, adapting to web users, and other useful tips. For assignments, use clear, concise language. Bullet-points and step-by-step instructions can help students approach an assignment in a more manageable fashion than if presented with a page long overview of the task. Encourage students to ask questions if they do not understand an assignment or require further explanation. Often when a student asks for clarification, what they mean is that the current explanation is inaccessible. Rather than repeating instructions or telling them to "figure it out," find a new way to convey the information. One simple way to do this is to ask a confused student to explain what *they* think the assignment requires them to do, and go from there. This will help with future assignments and, potentially, make you aware of an unknown source of confusion in the instructions.

(A)Synchronicity and Flexibility

Part of creating a fully accessible course is building in flexibility. Disability and chronic illness often disrupt regular activities, and flares can make predictability difficult. Disabled people often refer to this instability as "crip time" (Samuels, 2017). The term "dynamic disability" has also been used to describe the fluidity of impairment, which can increase or decrease in severity from one moment to the next (Benness, 2019). As a result, rigid attendance policies, late work restrictions, and the policing of behavior over virtual classrooms provide unnecessary barriers to disabled students. This is not to say that educators should forsake all due dates and class structure, turning online class into a correspondence course. Some students (and instructors) need structure right now. Instead, instruction informed by disability would support students by building flexibility into the syllabus. This would also benefit non-disabled students learning in a pandemic because none of us are at our best right now. It can be difficult to keep track of days, some students are engaged in educating their children or siblings while attending classes themselves, not everyone has equal access to the internet and computers, some are working whatever jobs are available to make ends meet, and the pandemic can have a real cost to physical and mental health. Designing courses with all of this in mind, along with the possibility that students could contract COVID-19 or have to quarantine, increases accessibility for all students because it acknowledges our collective anomie and allows for students to make class work with their unique schedules.

Adopting flexible practices can be difficult, particularly for faculty who have structures in place to help manage large classes. However, when we too rigidly adhere to our structures "we become nothing more than automatons following a dubious set of rules or principles" (Cranton & King, 2003, p. 32). Again, we invite you provisionally to try out more flexible practices at least twice. Then collect data from students to see if they were effective. In terms of how to accommodate crip time and the unpredictable nature of life in 2020/2021, this comes down to the personal preference of the professor. Synchronous lectures have obvious benefits over asynchronous lessons, but they are more difficult to accommodate. For one, most educators cannot provide real-time transcription, which makes this form of learning inherently exclusionary. It can be tempting to just tell disabled students to "not worry about it," "do your best," or "skip it" when the planned content is not accessible, but if even one student in your class is forced to have a completely different educational experience, then you have an inequitable classroom. If you can provide equal access to spoken material, then synchronous instruction still has accessibility issues. As mentioned above, disability is dynamic, not static, so requiring a physical presence does not account for illness flares. However, online education can be more flexible than face-to-face, so students can still attend class while in bed or in a dark room to help accommodate their needs. We strongly recommend against requiring cameras or policing student behavior in virtual classrooms. It is one thing to require certain behavior when class is conducted in a shared public space, but instructors have no right to require access to the private spaces of students. Synchronous classes can also be recorded and posted for students who cannot attend at a given time. This can be a form of built-in flexibility that can accommodate students, and give instructors time to create accurate captions (be sure to receive student permission before posting anyone's likenesses). Another approach could be using asynchronous lecture with a synchronous lab or office hours format. This can create accessible content while providing a way for more interactive discussion.

As with lectures, there are many ways to create flexible assignments. One approach is to give students more time to turn in assignments, so they can choose to work on them during the days they feel most capable. A second approach would be to build in a number of dropped assignments. Students who complete all assignments can either skip those at the end of the semester, drop their lowest grades, or earn extra credit. This builds equity into the syllabus because all students have access to the same grade forgiveness policies. A similar approach would be to allow students to have a kind of "late pass" for a number of assignments. This maintains a consistent assignment schedule but allows for when life gets in the way of homework. Finally, the ideal method would be to allow students to select a number of assignments (and even readings) from a predetermined list. Adding choice to readings can be particularly effective when dealing with sensitive subjects. Anecdotally speaking, it is difficult to know what topics

can be distressing, and many students with PTSD or cPTSD may not have accommodations on file. This not only helps students operate autonomously towards their goals, but can benefit students who are dealing with the effects of past traumas, all without forcing them to disclose something they would rather not share with an instructor. As a note, trauma triggers and responses can be deeply personal, and difficult for someone else to predict, so we recommend taking this approach with all readings, and not just the subjects that an instructor feels would be most likely to cause distress. The challenge educators face during the pandemic is finding the balance between rigor and compassion. Allowing students to follow their passions and work on their terms can help achieve this.

Concluding Thoughts

Simply put, cripping the classroom is about noticing the center. To better accommodate our students, we need to be aware of who is being centered and prioritize the student experience over the educator's. Disability provides an insight into how to do this because disabled students, faculty, and instructional designers have had to navigate structures that were not built for us. That feeling of frustration and exhaustion that many educators are experiencing right now is similar to what it means to be a disabled person in an abled institution. We have an opportunity to crip academia and create truly accessible content for disabled and non-disabled students experiencing a disruption in learning. We know this is not a one-size-fits-all solution and that our suggestions may not work for all instructors, all students, or at all institutions. Like many disabilities, the work of educators is often invisible, but our efforts can have long-lasting impacts.

The COVID-19 pandemic, along with protests against racial injustice and economic instability have demanded change in every sector of society, including higher education. While it may seem unfair to ask an already strained occupation to transform its practices, we have chosen an occupation that is dynamic. Our job is, and always has been, to observe and adapt to the fluidity of learning. And pivoting the center means that the goal is constantly changing. The theoretical framework of TL is a useful tool to help educators track and understand the challenges of professional growth during this time. It is okay to still be struggling with some of these lessons. TL takes time and is not linear. Discomfort is a sign that it is working. We want to remind all pandemic educators to be kind and patient with yourselves. We are progressing toward becoming more inclusive and democratic educators.

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[1] "Cripping" is derived from the reclaimed ableist slur "crippled," and should not be used by non-disabled persons. See Castrodale (2017) for a larger discourse on using critical disability studies into pedagogy.

Adapting to New Modes of Teaching During COVID-19: Developing Instructional Approaches that Empower Learners and Facilitate Virtual Learning Experiences

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Abstract

For institutions relying on in-person college experiences, the impacts of COVID-19 were particularly disruptive. Students anticipating on-ground learning opportunities and interactions were forced to adapt to online classroom experiences during a time of uncertainty, trauma, and racial unrest. Many instructors engaged in fast-track learning on different teaching approaches and digital technologies to transition courses to fully online or other modalities. Not all on-ground course experiences translated well into virtual spaces to facilitate student achievement of particular learning outcomes. Such abrupt changes in course modality posed distinct challenges at high-touch small college environments and necessitated reimagining how to support learners during the pandemic. Through the lenses of a director of a center for teaching and learning as well as two professors who were center fellows and who implemented transformative practices in their courses during the pandemic, this essay discusses contemplative and field- and object-based teaching approaches that helped instructors tackle pandemic obstacles and support student learning through powerful online educational experiences.

Keywords: transformative learning, pandemic, contemplative pedagogy, field study, object-based learning

Overview

In this reflective piece, a center for teaching and learning (CTL) director and two professors who were faculty fellows at the CTL during the COVID-19 pandemic discuss transformative teaching approaches that helped instructors across disciplines address instructional challenges and foster student learning. In general, the impacts of the COVID-19 pandemic led many instructors to reimagine their individual definitions of transformative learning experiences when they shifted to online teaching spaces. Faced with quickly learning effective teaching approaches in unfamiliar instructional modalities, the necessity to navigate classroom and field experiences that required retooling in virtual environments, and the realities of uncertainty, trauma, and racial unrest defined by the time, such instruction during COVID-19 was unprecedented. Flexibility and creativity resulted in many teaching innovations that were transformative for student learning, leading to changes in students' frames of reference and a revaluation of assumptions held (Mezirow, 1991). We experienced and witnessed such transformative learning during COVID-19 as instructors (faculty fellows) or in working in partnership with instructors (CTL director) whose previous teaching experiences were largely within in-person contexts. Out of necessity the

instructors confronted assumptions about online teaching that altered many of their views on whether meaningful learning could occur in such spaces.

This essay focuses on the transformative learning experiences in courses integrating contemplative pedagogy practices, virtual field experiences, and object-based learning. Contemplative pedagogy is a set of strategies to promote inquiry and self-reflection (CMind, 2020). These strategies use critical thinking but augment the rational with emotional, spiritual, and embodied ways of knowing, thus providing a rich compounding of experience and reflection that can facilitate deeply transformative changes in points of view and modes of inquiry (Barbezat & Bush, 2014, p. 9-11). By emphasizing students' own experiences and resources, contemplative practices such as beholding, journaling, and deep listening empower students to express themselves and approach challenges and problems with a sense of openness and growth mindset. The contemplative pedagogy practices encouraged students to reevaluate their frames of reference to see the private and social sides of themselves as they navigated through the pandemic, empowering them as learners.

On-ground field-based learning can foster connectedness among students and their instructors, facilitating learning (Fedesco et al., 2020). While students describe how virtual field trips cannot replace the in-person experience, they value how such activities help them make connections with course material (Seifan, et al., 2020). Virtual field learning experiences challenged students to bring a new understanding to the places and landscapes observed as they spent time focused on beholding, and learning through their engagement with such activities. Specimens in hand, whether sent to the students, or newfound there at home, were the centerpiece of object-based learning and a point of attachment to the course experience, connecting students to the material, and even to each other. This pedagogical mode allows students to discover novelty and nuance in a highly engaged way (Chatterjee & Hannan, 2015).

In subsequent paragraphs we describe these learning opportunities in more detail, discussing the journey, providing examples, reflections, challenges, as well as opportunities.

Transformation Through Contemplative Teaching

Christopher Phillips, Professor of English

Students in my English 202: Spiritual Writing course came into Fall 2020 in an online modality, after several months of COVID-19-influenced experiences had left them disoriented and anxious. Students frequently spoke in class and wrote in journals about feeling out of sync. They had more free time than they knew what to do with, they felt pressured to accomplish too many things; they swung between boredom and overwhelm, with deep uncertainty about the future. While it might seem that students in this condition were ill-equipped to learn anything significant about themselves, about writing, or about their world, I believe they were unusually ready to explore those deep, tangled fields of knowledge. "Suffering seems to get our attention," says ecumenical teacher Richard Rohr; "Prayer and suffering … are probably the two primary paths of transformation …. Silence and suffering seem to be necessary teachers in all the great traditions" (Rohr, 2003, p. 15, p. 115). If suffering was already shaping my students, I hoped that guiding them into silence for contemplative inquiry (a secular, academic counterpart to Rohr's prayer) would help them transform their viewpoints about writing and themselves. I had developed a suite of contemplative practices over years of teaching the course—though only face-to-face—and I hoped they would help students face these challenges.

The first and most fundamental practice, then, was silence (Wall, 2014; Woodward, 2010). At the start of each class meeting, the entire class shared a minute of sustained silence. Students could close their eyes, turn their cameras off, pray, do breathwork, or simply hold still. The first few times, most students experienced some discomfort with this practice; several said they had never been asked to be silent for that long at once. After about the second week of class, many students reported looking forward to the minute of silence, appreciating its "no demands" quality and finding it helpful to reset from whatever they'd been doing to the "now" of the class meeting. Simply learning to be quiet, and to claim the silence as a way to mark a threshold between past and present, were already key skills that students could adapt into other settings.

Silence helped our class reconsider how discussion might take place in an online course. One of the most important actions silence affords is listening, to oneself as well as to others (Simmer-Brown, 2013). Listening to others was foundational to the course, both in class meetings and in weekly small group meetings students held together to work on their writing and to stay connected with each other. During class meetings, some students faced connectivity issues that interfered with camera and microphone use; others did not always feel comfortable sharing out loud in the full-class Zoom space, though nearly all students noted that it was much easier to be open and talkative with classmates in "breakout rooms" of three or four students each (the full class had sixteen students). I made an effort early in the semester to normalize written chat contributions as an alternative to spoken comments. As I invited students to choose their preferred modality, I also kept an eye on the chat to include comments in discussion as they came up, and offered follow-up comments, appreciations, and questions responding to student chat comments. I also sought to normalize silence as an element of conversation early on, hoping to convey, as one student put in in their course evaluation, "silence grows things." This meant we might have long pauses between comments, or between my asking a question to the class and a student responding; it might mean that we would have a substantive, meaningful discussion for a full half hour using only written Zoom chats. Silence grows things, indeed.

This use of writing in real time to connect and express ourselves engaged a major theme of the course: writing as a life skill. While students engaged each other's writing as a form of communication, the course emphasizes "writing-to-learn" at least as much as "writing-to-communicate." Writing is a form of thinking, and the course guides students to think-by-writing about who they are, what they know, and how they can use their language to improve their lives and the lives of others (Forsman, 1985). Journaling is a core practice toward this end, but assignments are also left open-ended enough that students must reflect enough to decide what they want to write—for instance, on the question, "Where do you come from?" Such deceptively simple questions tended to take students "back to the basics," rethinking the stories they told about themselves and the ones that they had heard from family and mentors over the years.

This rethinking fed into another key concept in the course, the Zen idea of "beginner's mind." As Zen master Shunryu Suzuki (1999) explains, "In the beginner's mind are many possibilities, but in the expert's mind, there are few" (p. 21). In other words, to approach anything as a beginner is to invite new ways of seeing and imagining one's activity, even when it is highly familiar to an individual. In the course, students collectively undertook learning a new skill—drawing as a way of seeing—and documented their experience, then related that experience to something in which they were already accomplished, such as academics or sports. By cultivating a beginner's mind, students considered how, as their usual academic and life routines had been so disrupted during the Fall 2020 semester, they could see their work anew as students, making space for reconsidering assumptions they might never have scrutinized in the hurried routine of "the normal."
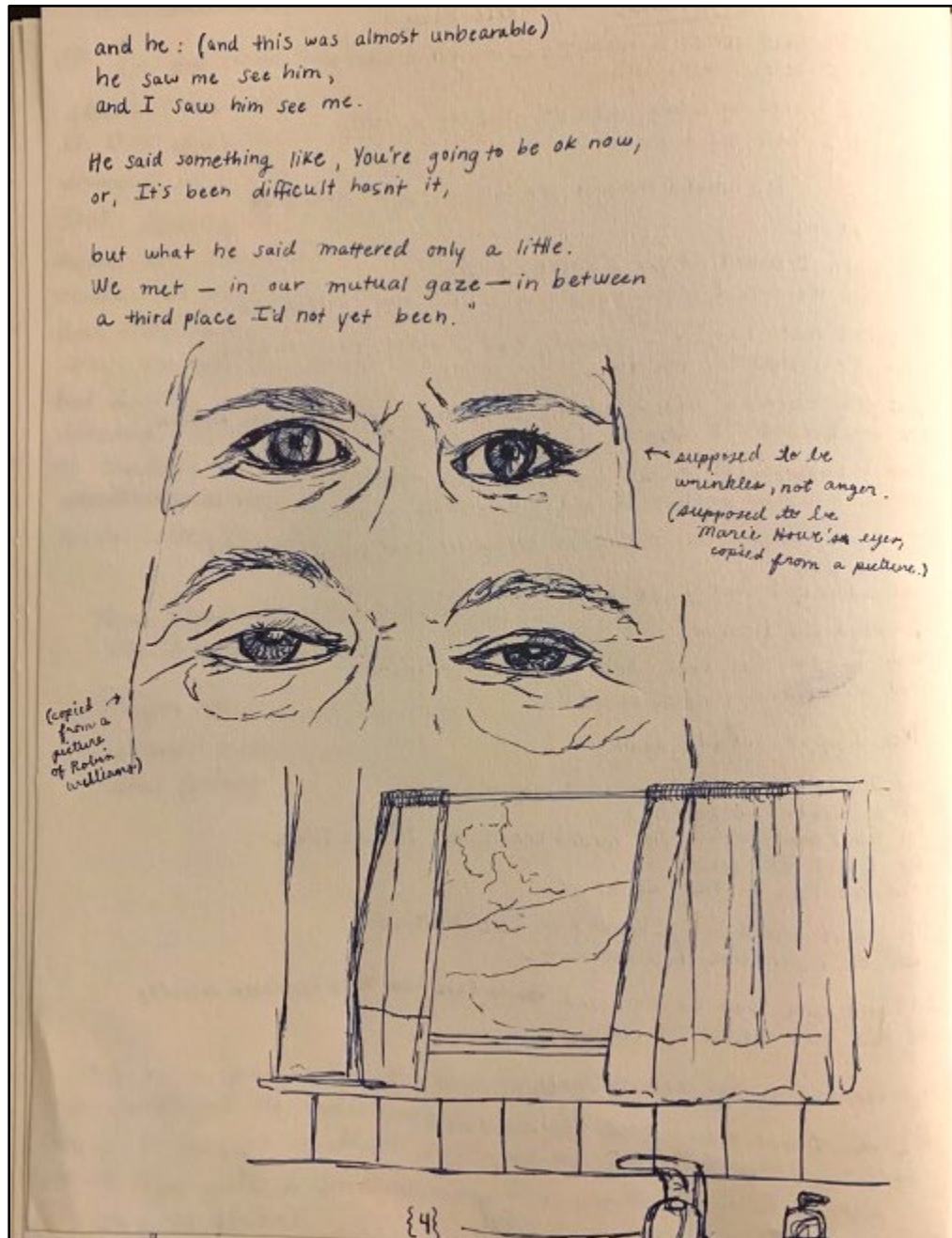
Figure 1: Renee Mercereau, from "What the Beginner's Mind Means to Me." Courtesy of the artist.

One last practice that aided this path of transformation was beholding (Barbezat and Bush, 2014, 148–57). Sometimes called "slow looking" (Tishman, 2017) or, in a social activist context, "bearing witness" (Dunn, 2014), beholding involves bringing the visual attention to bear on a person, place, or thing, resisting applying an agenda or questions to what is beheld, but rather waiting for the mind to notice what it notices, and with what emotions. Again, drawing was a powerful way to introduce students to beholding, as they practiced techniques such as "blind contour drawing," a classic artistic discipline of drawing something without looking at one's paper. By de-emphasizing the result (a "good" or "realistic" drawing) and highlighting the attention-focusing process, most students were surprised at how much more they could *see*, regardless of what showed up on the page. As students became more accustomed to settling into their observations, I introduced other applications of beholding. In particular, I incorporated

images that engaged with race and racism, ones that may provoke strong emotional responses in students for a range of reasons, into our practice.

One example from a class session highlights the power of this kind of bearing witness as well as the potential pitfalls involved and possible strategies for anticipating and managing those hazards. We began with several minutes of beholding images such as Andrew Wyeth's painting *The Drifter* (1964), a sympathetic portrait of his homeless neighbor, Willard Snowden. I then explained that the next image could be upsetting, that students should feel free to turn their own cameras off while beholding it, and that if students started to feel overwhelmed by the image that they should feel free to look away, and even to leave the space they were in for a walk, a drink of water, or something that would help them reset. The image was a photograph of a public lynching, altered by John Lucas for Claudia Rankine's book *Citizen* (2014) by removing the victims from the frame, leaving a crowd of onlookers as the focus of the image. Following three minutes of beholding, students remained in silence, sharing in deep, rhythmic breathing that I facilitated. Students then spent a few minutes journaling about their reactions. Those reflections were the students' own and were not to be shared, I told them, but the class spent a few minutes debriefing the experience by sharing brief reflections in the chat space. A number of students mentioned being shocked at how "normal" everyone looked in the photograph, knowing that the people portrayed were in close proximity to two lynching victims. Students also described how painful it was to look, even with the more gruesome features of the photograph removed, and to not be able to do anything. We briefly discussed how to face feelings of helplessness in the face of suffering and violence, but a number of students were unsure where to go next with the reflections the class activity had brought up for them. In the future, such exercises in beholding will likely support students' transformation more fully when connected with other readings, activities, and engagement with social issues in more concrete ways such as CBL (community-based learning), in which students' directed engagement with our local community would provide the occasion and material for learning. Nevertheless, within the context of the pandemic, asking students to consider how and why they respond to images of suffering and injustice right now is essential self-reflection in a moment that demands intense levels of engagement and mutual assistance, even as people are physically more distant from each other.

There was no guarantee that the suffering of life in a pandemic or the practice of contemplative inquiry would lead to transformation this fall. And yet, student after student expressed their surprise and delight at realizing how much they had accomplished and changed over the course of fourteen less-than-ideal weeks of instruction. Among student evaluations comments were reflections on students' new views of writing, of themselves, and of their potential as learners and communicators:

> "I have approached writing in a very direct way for so long it was nice to be able to see it differently."

> "I have learned how to rethink a lot of things. This course was almost like hitting a reset button, and I got to learn how to do things in a different way."

> "The most helpful thing I've learned in this course is being patient and open minded with myself when it comes to learning new ideas and new practices."

> "I have learned to write about myself, which is typically very difficult for me to do since most of my past writing has been the standard argumentative and thesis driven writing."

While these statements are gratifying for me as an instructor, my own experience and reflection this semester has helped me see my own parallels to each of those students' comments. One of the gifts of this disruptive time is being able to grasp that, even as I encourage students to embrace transformative learning, I am myself transforming. Barbezat and Bush (2014) stress in their discussion of best practices in contemplative pedagogy that the instructor's own practice and willingness to take on the discipline of contemplative inquiry is the single most important contributor to successful learning with this approach.

With so much to rethink, try out, give up, and wonder about, I as an instructor have just as much need for transformation as my students do.

Transformation Through Field- and Object-Based Learning

David Sunderlin, Associate Professor of Geology

Natural history asks for close observation of places and things, and thus leans heavily on field study (Fedesco et al., 2020) and object-based learning (Chatterjee & Hannan, 2015). Evidence in the study of natural history is often physical and originated "out in the field." Zoomed out, aspects of a landscape's form and make-up can tell of its history of environmental creation. For instance, places that were glacially influenced during the last ice age show tell-tale signs of those conditions as scratched and scraped rock surfaces on boulders or hillslopes. Here in Pennsylvania cold ice in the Pleistocene smooth-sculpted sandstone bedrock that was deposited on a warm tropical beach millions of years before. Both the substances and shapes of landscapes tell stories. At a smaller scale, found objects obtained from the field can be brought back and "read" as a hand-held source of more knowledge about the place and time from which it came. The rock's sand grains themselves, or the details of once marine fossils within, add to our understanding of the local setting as a window into the regional and global history of earth and life. Like landscapes, small objects too tell their origin story and their subsequent evolution since.

During the COVID-19 pandemic, I built virtual field- and object-based components into two courses in remote learning settings to study landscapes and specimens. In an introductory geology course in spring 2020 I modified a laboratory exercise examining the building stones on campus and in the nearby community into a virtual field exercise. In this same course, I adapted two scheduled in-person off-campus field trip lab experiences into video tours of the field sites. I also remodeled the last laboratory activity of the semester into an exercise about the bedrock geology under each student's place where they were studying remotely. Usually this was the student's home, a place familiar to them.

In an upper-level paleontology course in Fall 2020 I focused on an object-based learning approach to engaging students by sending each student fossils to observe with "hands on." I sent examples of all the study organism groups that I featured through the semester as well as a separate collection of samples gathered from a field site which I featured in a virtual field tour in that course. Most of the objects were not initially recognizable to the students as they had never had exposure to these time-exotic, unfamiliar materials, the remains of organisms long extinct.

Whether it be a geographic place that is visitable in some way or a physical object holdable in the hand, it is physical evidence of events and processes that have happened in the past. In teaching on-campus and now remotely, I have placed much weight on this idea. I need the students to know that historical science is not a "just-so" story told from a human's mouth or a textbook, but rather it is a process of evidenced-based reading and interpreting where the rocks and fossils are the pages and words. The big landscapes and the small objects are the "texts" for these courses and in a remote learning setting they can still be found and observed and read.

In the introductory-level natural history-themed course, I focused our attention on seeing the *familiar* with new eyes. For one activity, students took a close, geological look at Lafayette College's campus buildings they all recognized (Figure 2a–b). In another, they considered the geological make-up, shape, and history of their "home" campus on College Hill in Easton, PA, USA and sites nearby (Figure 2c). Most impactfully, the students also researched their home landscape setting as a way to tie the course to their own present, remote-from-campus lifeworld. These places that were well-known to the student were now able to be seen from a new vantage point, one of earth historical significance based on what they learned in how to read form and material evidence in earth science.

Having spent time in all of these settings, students have grown a sense of familiarity with them. But with the goal of looking again, with an earth historical view, the usual things gain new definition and meaning. The "same old" became "frontier" as students saw evidence in their familiar campus buildings of ancient rivers that once covered the land from which the building stone was quarried. Students realized the antiquity of the material from which they were built and the buildings have new life. There in that

virtual learning setting at home, students felt an attachment to the campus they left at the start of the pandemic.

With virtual field trip video labs at what were to be the scheduled class trips (Figure 2d–e), students got to understand how to examine a field setting, and then could employ that model in freshly examining their home landscape, effectively discovering something new about a place they already know a lot about. The goal of these exercises was to show the value of a re-look, and to stimulate curiosity and exploration of the familiar in an altered frame of reference.

Figure 2: Clipped image from the GEOL 130 video tour of prominent building stones on the Lafayette College campus. b. Map of buildings at Lafayette College on which video tour was based. c. Bedrock geology underneath Lafayette College's campus on a familiar road. d. Clipped image from a virtual field trip video tour at a local geology field site. e. Clipped image from a virtual field trip video tour with base map geology.

In the upper-level paleontology course, the ***unfamiliar*** was the focus, with otherworldly hand-specimens of fossils drawing our attention. Place an extinct rugosid in a student's hand and they feel that, yes, it is a shell of sorts, but not like any they have seen in their beach-combing experience at the shore. With a box full of such curiosities arriving at the students' homes prior to the semester, students reported being immediately engaged with the objects that were the foundation of their upcoming coursework for the semester. Many of the students opened them with their families, laying them out on the kitchen table, excited about what they were, and what they didn't yet know about them all. After the course's evolutionary theory conceptual emphasis at the beginning of the semester, we turned to the fossil specimens, the evidence on which it is all based.

I asked students to look closely at each specimen and to do so through drawing. After a few small beginner lessons on drawing technique, I asked that the students sit with the fossils in this way, with little direct guidance as to what they should be seeing. Instead, I let them behold each object in their own exploratory way, with occasional reference to resources of their class notes, recorded mini-lectures I put up on the course site. The students were asked to deduce what they could from the object's physical form, leading to deep analysis and hypothesis construction (Hannan et al., 2016). The seemingly mundane act of drawing a fossil and then annotating with newly learned anatomy and functionality requires time spent

with the specimen. Students did this during synchronous, free-form sessions as well as on their own time, producing rich "concept sketches" (Figure 3) (Johnson & Reynolds, 2005).
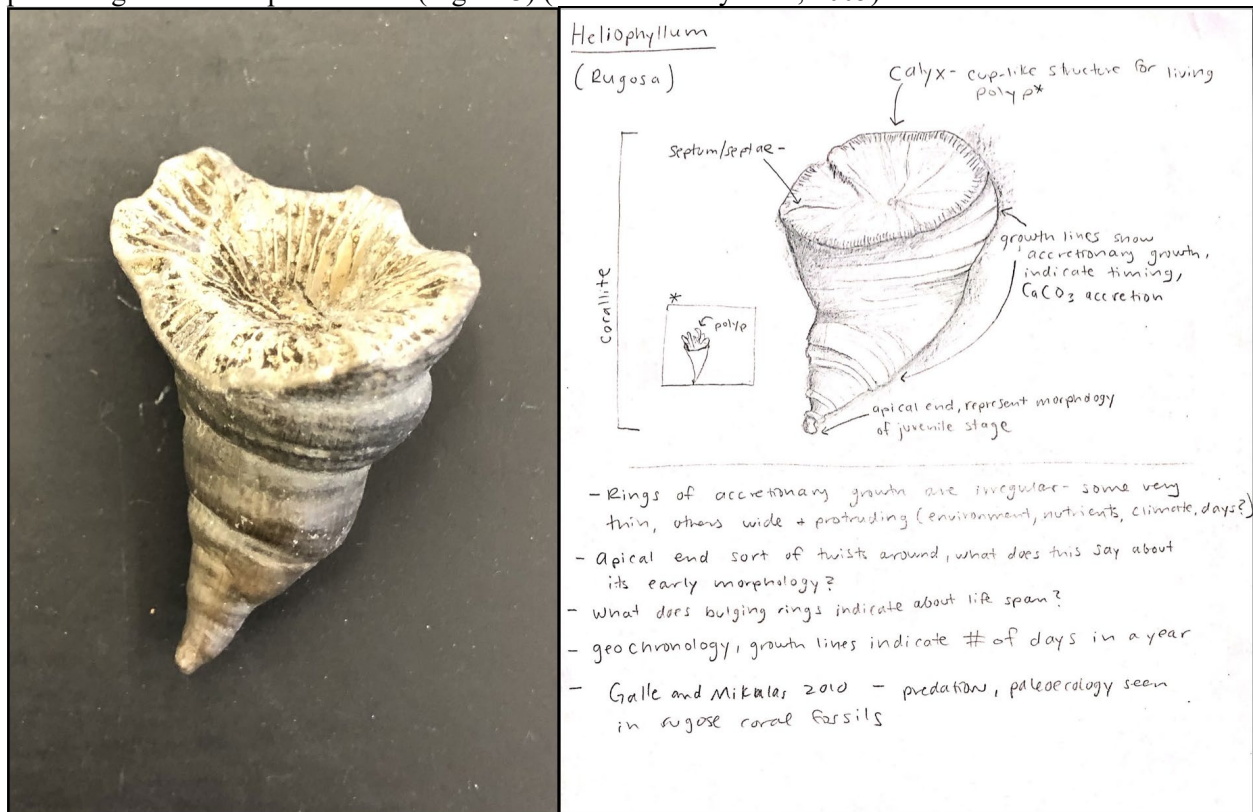

Figure 3: Fossil rugose coral (*Heliophyllum sp.*) and a student's concept sketch with annotations and idea notes beneath. The fossil is 3cm tall and from outcrops of the Mahantango Formation of the Devonian Period (~380 million years old) in [state]. Used with student permission.

Like everything, fossils are more than their name. Students sketched the hard anatomy and pondered the soft parts now decayed away. They jotted ideas about the organism's life mode long ago, and thoughts on how we could know more about it by examining further evidence. The time spent touching and contemplating a strange thing before them led to research ideas, investigation of what the physical presence of the thing means for the history of earth and life, and added to the student's frame of reference. The student notes below ranged from posing of hypotheses to exclamations of fascination, the objects clearly stimulated the students from in subject knowledge as well as the affective domain (Nicholl & Davies, 2019). Through all of this, the fossils became less unfamiliar, and many developed a particular attachment to their "favorites."

Both of my courses during the pandemic approached transformative learning in remote settings by using concepts and materials accessible in different ways to alter the perspective of a student's familiar lifeworld, or accreting onto it with something entirely new. And both of these courses achieved that goal with students commenting positively in course evaluations. Some students anecdotally described their socially-distanced jogging route as being like a field expedition of discovery. Other students surprised themselves by noting that the stone of their front stairs was now "way more interesting".

"I learned how to investigate science and understand concepts through exploring rather than just reading about them."

"(I) have gained more of an appreciation for my surroundings and things I previously took for granted."

"I will never look at a rock the same way ever again."

"I think I learned most how to infer and learn from the environment around me and how I can just tell certain things about the past by glancing at what is sitting in the present!"

"After this course it is impossible to take a trip, walk, hike, or drive without thinking about the complex world beneath your feet."

"This course taught me to be more observant of the world around me."

"I think it's important that anyone who wants to make the world a better place understands the materials under their feet and surrounding them every day."

An additional positive impact of the object-based handling and learning approach was that students reported feeling a centeredness on the act of learning in the class when they had specimens in their hands. It has long been known that just the holding of a study object enhances a learner's participation in their own learning with the immediacy of experience (Willcocks, 2015).

However, the approaches did have their logistical challenges. Although temporarily frustrating to students, I think that they ultimately provided benefits to the learning experience. As students examined their own bedrock geology using the online resources in the Spring 2020 introductory course, many were challenged by the technical language in their research, even with a semester of geological education behind them. But with small coaching from me, as well as quick online searching, many of the students reached a translation that allowed them to extract meaning from the rocks, and were ready to venture outside to see "their bedrock" for themselves. With each person learning remotely about the bedrock in their own place, it was a challenge to me, the instructor, to understand each of the 45 students' unique geological settings. But as I learned from them, and as they compared "their" bedrock to that of their classmates, it brought us all into valuable learning conversations. Similar discussions arose in my Fall 2020 paleobiology course as students showed and compared the variability in the fossil study specimens they had been sent. Though some samples of a few particular groups were lacking a feature, or were slightly different in shape and size, the student discussion among themselves, and with me, added to their understanding of how "messy" the world is, and just what we can learn from the fossil record. Without any single fossil in their collection being "picture perfect" to match the diagrams in a textbook, the students appreciated the value of a long look with a hand lens of what was and what wasn't there.

Although the pandemic has taken much away from the college educational experience at high-touch institutions, it has arguably provided students a chance for more of a valuable resource, time for contemplating. In a remote educational setting, with this focused time, students can concentrate on some aspects of place-based and object-based learning. What I have come to see in advising meetings over the past months, too, is that as a student's identity of place and person has changed in the COVID-19 pandemic, their relationship with their time is changing too. Many have slowed down it seems. The time my students have spent examining something out the window, under their feet, or in their hand for these course experiences is transferable as a powerful mode of inquiry in other aspects of their lives as well. Re-examining the familiar and seeking out the unfamiliar are both doable from home, and in some ways may be just as effective there as anywhere.

Fellows Program as a Transformative Faculty Learning Community

Faculty Fellows

While the COVID-19 disruption to learning at our college challenged us, we have found great inspiration in the ways that it has stimulated conversations in our community. Many of these conversations began amid the rush to move online in March 2020 and the summer of learning online

pedagogy at a small liberal arts college. As faculty fellows in the 2020-21 academic year, we are now talking and thinking even more intentionally about the remote experience and how we share the path toward promoting transformative learning in these trying times.

In our work with the center for teaching and learning this year, we have moderated two series of online discussion events related to the topics of field study and contemplative pedagogy that we discuss in this paper, with voices and views from across the disciplines, and ranging from instructors to student learners. We have been struck by the commonality of the goals we have for our courses, divisions apart. We have benefited from the seed spreading of pedagogical ideas from seemingly disparate disciplines. We have been inspired by students describing their desire to be challenged in ways that draw them into the course material and the learning experience. We have also benefited from expanding the "room" in which we host our conversations; while prior faculty fellows had offered programming for our college's community, the Zoom platform allowed us to extend the invitation as far as our online networks would reach, with participants joining from multiple time zones. This has taken us beyond our comfort zones, but the result has been inspiration, synergy, and (as in this essay) collaboration. Even as we have seen the benefits of slowing down in our own classrooms, we are benefitting from each other's ideas by taking the time to really consider what it is we are doing as educators. Even sharing a simple breathing exercise online, across multiple time zones and yet in embodied sync with each other, brought new insight and resources into conversations about teaching.

Conclusion

Contemplative teaching, field-based study adapted virtually, and learning focused on objects were instructional practices that allowed students to engage in transformative online learning experiences during the COVID-19 pandemic. By practicing silence, beginner's mind, and beholding, students engaged with course material in new ways, providing powerful opportunities for reflection on learning during the pandemic. Virtual field- and object-based study enabled students to grapple with time and place during the pandemic with skills and appreciation that is transferable to other aspects of their lives. Beholding was a practice shared by both faculty fellows during the pandemic, given the powerful nature of this approach on focusing attention and encouraging reflection across learning contexts. As aligned with Mezirow's transformative learning theory, students engaging in these learning opportunities challenged their assumptions about the subject matter whether through contemplative practices, engagement in virtual settings, or interactions with physical objects. Additionally, the collaborative effort of faculty fellows working with the center for teaching and learning staff during a time of intense challenge presented additional opportunities. Such interactions allowed colleagues to share their ideas and struggles respective to their teaching approaches as they sought to foster connections with their students and colleagues. The fellowship program offered a model for mutual support and generative thinking about pedagogy when teaching practices needed to be reevaluated on a short timescale.

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Parallel Teaching Processes to Mitigate Learning Disruption in the Pandemic

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Abstract

The 2020 COVID-19 worldwide pandemic has interrupted all lives in some form. For post-secondary students, moving to various forms of online platforms has caused additional stresses that complicate learning. The overall climate of uncertainty, fear, grief, groundlessness, and disconnection are almost "ethereal" life themes that are, on the one hand, difficult to articulate, and on the other, keenly felt. Educators are inundated with training opportunities to transition to remote, hybrid, and online delivery. As teachers experience the same disruption as their students, they are in a unique and privileged position to thoughtfully engage students in a teaching-learning dynamic that models Transformative Learning principles. This essay explores four practices to connect the shared disruptions shared by students and teachers alike, while articulating parallel methods for teachers to support students. Concepts of patience, flexibility, limit-setting, and equanimity are explored as ways to enhance teaching during this pandemic. While the "ethereal" pervades teaching and learning, the ideas proposed in this essay will help bridge the gap between students and teachers by exploring an education that promotes transformation and ownership of learning.

Keywords: Pandemic, Post Secondary Teaching, Transformational Teaching Practices

Introduction

Post-secondary students are accustomed to educational settings where they attend classes, explore ways to expand their perspectives, and prepare to be more informed citizens. Post-secondary teachers impart knowledge, facilitate learning, and promote growth. It is this mutual process of teaching, learning, and facilitation that is transformative. Mezirow's (1991) Transformative Learning theory proposed that adult learning requires moving away from our childhood beliefs, engaging instead in a facilitated critical reflection toward newer learnings and beliefs, thereby changing our overall worldview. The traditional classroom context of this learning was interrupted in March 2020. This essay recognizes this severe interruption and offers a reminder about the possibilities of Transformative Learning principles in the altered learning environment of remote learning.

The COVID-19 pandemic is a massive-scale, tragic event that has disrupted our lives, the world over. As of writing this essay, we are approaching a year of limited movement, restricted social circles, and for so many, a loss of income and work. For all, a regular sense of living has been truncated. Most significantly however, are the sheer numbers of infections and deaths, which are unfathomable. It is this incomprehensible experience that knows no words, yet requires expression. The disruption has gone from being temporary to long term. With the current "second wave" of this pandemic, additional factors include higher infection rates, the UK faster-spreading variant, and a profound increase in deaths. The creation and roll-out of vaccines are being managed by each country in a measured approach to inoculate most of the world's population. While a welcome relief, there is still the ever-present fear and dread that tests people's patience and perseverance. The accumulation of isolation, movement restrictions, and perpetual mask-wearing has impacted mental people's wellbeing and stability.

Though there were warnings about a possible pandemic, the severity of the spread of COVID-19 caught the world by surprise. Educational institutions, many of which had already embraced online

learning, were unprepared to take on the immensity of this emergency. However, post-secondary education adjusted quickly and assertively. From temporary stop-gap measures to short-term solutions, colleges, and universities have moved to long-term planning. These included the purchase and distribution of Personal Protective Equipment (PPE), discerning which academic programs could be offered remotely and which could be offered on campus, extra cleaning on campuses, and major efforts to limit the on-campus presence of students, staff, and faculty. Furthermore, education systems pivoted quicky to train staff and faculty to implement online and remote programming, shift many ancillary services online, support faculty in adjusting curriculum delivery, and offer alternatives to evaluating assignments and tests.

As administrators navigate the broad strokes of the operations of their institutions, readjusting budgets, securing safer campuses, and investing into remote-enabled technologies, faculty have had to re-think how to translate what they normally do in classrooms to the online environment. In addition to such reconsiderations, faculty are also encouraged to demonstrate support to learners not only in the academic realm, but also in the mental well-being arena. While it can be argued that post-secondary institutions have been more attentive to mental health concerns for their students, the pandemic has exacerbated the importance of this awareness.

These shared disruptions formulate the premise of this article. The pandemic has brought with it experiences of fear, grief, groundlessness, and disconnection. In the post secondary world, this has meant student distress and exhaustion, and perhaps too much time in front of screens. Teachers can say much the same. One statement that seemed to have permeated the academic setting was "we're all this together." Post secondary educators embraced this statement as a show of support to learners, to provide a message of comfort and care in uncertain times. However, upon further reflection, this statement is untrue. The differences between faculty and students are pronounced and while the statement's intention is benevolent, we have an opportunity to do more by embracing Transformative Learning concepts in our remote and hybrid classrooms. This essay therefore explores some key experiences for students and how post secondary educators can employ certain skills in a transformative way to support students in these challenging times.

Transformational Learning

The theory of Transformative Learning is based in constructive foundations whereby we make meaning of our world through our experiences, and then explore these meanings through our interactions with people around us. Transformative Learning is thus, a process in which we examine, question, validate, and revise our experiences and the meanings we assign to them (Mezirow, 2000). In essence, the process of transformation entails taking our closed or fixed sense of assumptions, or how we operate in the world, and explore them more critically, with sensitivity towards more inclusive practices (Mezirow, 2003). The pandemic has forced many to reconsider how they relate to the world around them. Restricted movement and isolation have certainly been the catalyst for people to explore how they live their lives, how they relate to others, and what they might do differently. For many, this introspection has led to transformational growth through the learning of taken-for-granted skills such as bread-making, cooking, gardening, exercise, and a whole plethora of creativity in painting, embroidery, knitting, home renovations, to name a few.

Since, as humans, we tend towards predictability and stability, we can get locked into our worldview, or our "habits of mind" (Mezirow, 2000). This locked nature then helps us create and maintain prejudices, biases, and distortions. Subsequently, we sacrifice alternate and inclusive discourses for the safety of consistent meaning-making. When we encounter an experience that challenges our locked-in worldview, we enter a "disorienting dilemma" (Mezirow, 1991), whereby our prior habits of mind no longer fit the new circumstance. Whereas Mezirow initially saw this as one eventful episode, Taylor (2000) postulated that learning could also be cumulative and gradual. Moving away from the notion of a disorienting discourse, Transformative Learning is also an iterative process where learning is transformed as we continue to revise our beliefs and worldview from day-to-day experiences and

interactions (Dirkx, 2000). Without a doubt, the 2020-2021 pandemic is a significant "disorienting dilemma," where our everyday lives have been severely disrupted. From mask-wearing, to suggested numbers in social bubbles, to physical distancing, to having our normal outlets off-limits, we are indeed, having to confront multi-layered disorientation. Combined with misinformation, politicization, and attempts to recover the economy, our collective confusion has not only challenged our safe assumptions, but also removed them entirely.

Transformational Learning necessitates our engagement in discourse (Mezirow, 2003), so we can access accurate information, be free from coercion, weigh evidence with objectivity, open ourselves to alternate perspectives, reflect critically on our worldview, participate in discourse equally, and accept decisions made in consensus. This set of circumstances underpins the process of discourse. The current pandemic has undermined all these conditions and thus compromised transformational experiences. Leaning on science has helped, but provided little comfort as infections increase, death rates climb, and mental well-being crumbles. The pandemic has reiterated to us that the only thing we can be certain of is that things are uncertain. While not a comforting proposition, it does challenge us to continue the discourse.

We're All in this Together—Not Really

In many contexts, including post secondary education, the adage "we're all in this together" was intended as a place of shared understanding, support, and comfort. It means that in the face of being disrupted and isolated, that people are not alone. In recent years, colleges and universities began to pay more concerted attention to the mental health needs of their students due to suicides and severe mental health problems. The anticipation of isolation, remote learning, and stay-at-home orders due to the pandemic propelled institutions to make available more informal and formal supports for students.

The problem with the statement, "we're all in this together," is that it is simply not true. This is not to negate the fact that faculty have suffered through the restrictions and stresses caused by the pandemic. Neither does this mean that faculty are immune to mental health challenges of working from home or under severe limits on campus. The concern with this statement is that it conflates the experience of faculty with that of our students and puts these experiences in equal positions. Parallel does not mean equal, and this needs to be a reminder to post-secondary educators.

First, teachers set the agenda in their classrooms. They prepare lectures, activities, assignments, and presentation materials. They facilitate exercises and tasks. In setting the agenda, teachers generally occupy a lot of space in the classroom. While students are invited to learn in the same space, it is the teacher who leads. In such a dynamic, in many ways (but not exclusively), students are passive recipients. The transition to online forms of remote teaching has only reinforced this dynamic, which in and of itself, is not necessarily negative. However, the conditions of the pandemic have caused a greater interruption in the classroom. An example is that students do not always have to turn on their video when they are in an online classroom. In the traditional classroom, teachers and learners interact and mutually encounter one another through space where the physicality of the members creates an engaging dynamic. This is lost in the online environment. Another example is that teachers can monitor students far less. We have all heard the stories (from students themselves) about logging in to the online environment, but falling asleep, or engaging in other activities. In a classroom on campus, either students do not show up, or they monitor their engagement or (lack thereof) for the sake of adhering to social cues and expected classroom behaviour.

Second, related to the notion of students being passive recipients, they play this role for far more hours per week than do most of their teachers. Again, on-campus classroom engagement is certainly a forum for various forms of interactions and engagement. In the environment of virtual learning, students tend to be online for more hours. As such, they are recipients of knowledge for far longer periods. This on-screen time is generally multiplied by additional screen time needed to complete assignments, communicate with teachers and peers, and seek services to help them succeed at school. Whereas teachers

have far less screen time and set the agenda for classes, students do not necessarily have the same off-screen time. They are susceptible to more "Zoom fatigue."

Third, teachers still get paid. While the workload has shifted and there have may have been many unpaid hours directed to maintaining access to education for students, teachers did not generally lose renumeration. The parallel corollary is that students continued to pay for their education. Many educational institutions allowed for a period of pause in March 2020 where classes were delayed a few days for teachers to get acquainted with online technologies. Students still paid tuition. These tangible differences are a stark reminder about the power differential between learners and teachers. Therefore, the statement 'we are all this together' is a misnomer.

Between money, screen time, and agenda, the truth is that we are not all in this together. In fact, we as teachers, are in particularly privileged positions, exacerbated in such times. To suggest otherwise minimizes and potentially dismisses the complicated stresses students face, especially during the pandemic.

Guidance Through the Ethereal

The nature of the pandemic is at times, intangible. It seems theoretical and distant from many people's direct lives. And yet, lives are directly affected—front line health care workers, patients, and family members. The numbers of infections and deaths worldwide are again, unfathomable. At the time this essay was written (January 2021), there are 91,061,072 confirmed cases and 1,970, 741 deaths (World Health Organization, n.d.). While the numbers are impossible to comprehend, the day-to-day impact is very much felt by students and teachers. It is made very evident through students' experiences with loneliness, additional stress, feeling confined to bedrooms, lacking contact with peers, and feeling overall disengaged from normal activities. Therefore, from the intangibility of this worldwide long-term tragedy, the concrete impact is very palpable as a felt disruption in our classes and in our learners.

The implementation of Transformative Learning principles as a response to the pandemic has required a careful balance between maintaining academic integrity while demonstrating unusual care and consideration for learners. Recognizing that the statement 'we're all this together' is faulty, this section of the essay takes a decidedly teacher-led approach to mitigating the disruptions caused by the pandemic by suggesting four overarching practices.

Patience

As students have acknowledged high stress levels such as concerns about feeling confined to their bedrooms and the lack of engagement with peers, it has been necessary for teachers to demonstrate extraordinary patience. Patience requires an aspect of waiting, enduring, and tolerating. Waiting in times of uncertainty is challenging because we wait for a somewhat unknown future. The waiting in the interval period between the current disruption and the end of the pandemic is lengthy. Our skill to be patient with our students is necessary and we can also use our own endurance and lead by example. Endurance at its core means "stay the course." The importance in guiding students is to demonstrate to them how they can stay the course and endure. Engaging in a mutual reflection entails that we remind that they are, in the moment, enduring and that it is more than acceptable to stay the course. Tolerance is another challenging skill associated with patience. In the context of the pandemic, tolerance requires more than 'putting up with' inconvenience and disruption. It requires a way to be less emotionally engaged with the pandemic. Combined, waiting, enduring, and tolerating, as demonstrated, and guided by teachers can lead to students working towards patience.

Flexibility

Teachers have long been flexible, partly to make education more inclusive and accessible. Traditional methods of lesson delivery and evaluation have left education as an elite endeavour. Recent movements towards accessible and inclusive education have taught teachers the value of flexibility where students can demonstrate their knowledge through many methods. In the pandemic, teachers have needed

to be additionally flexible to deal with the pervasive disruptions and resulting crises students experience. Correira (2020) points out that adjustability has been needed in teaching during the pandemic. While teachers have learned to adjust to teaching virtually and remotely, they have also had to guide students to be similarly flexible. This has required teachers to encourage students to adjust, but such adjustments have been led by teachers. When conducted with genuineness and care, flexibility leads to a more authentic teaching-learning experience (Nordmann et al., 2020).

Limit-Setting.

Flexibility, however, also requires limits. In the effort to take care of students during this stressful time, teachers have also needed to maintain academic integrity and guide students toward the same. Most importantly, limit setting comes in the form of clarity. This requires explicitness on due dates, clarity on assignment details, and perhaps an even more direct approach of the application of theory to practice during teaching. The mix of synchronous and asynchronous formats, hybrid models, and distant lectures via Zoom or Teams or edX platforms has necessitated more engagement by teachers towards a direct and explicit approach. While flexibility, compassion, understanding, and care are necessary in the pandemic, professional and academic expectations have also needed to be reinforced. Instead of the message "we're all in this together," a more valuable message is "we'll get you through it." This requires classroom leadership, limits on flexibility, a maintenance of classroom and teaching structure, and an emphasis on future-thinking. Not only is this necessary for a consistent classroom experience, but it also creates for students, a sense of trust, safety, and anticipation of what to expect in our classes.

Equanimity.

A more spiritual practice, equanimity brings with it the idea of presenting with evenness. From various faith bases, dealing with life with equanimity leads to a sense of calm and presence. While some have thrived in the pandemic, others have suffered, and the range of experiences has run the gamut causing teachers to have to navigate between a multitude of student emotions, stresses, and expectations. It is helpful to lead from a place of equanimity, of evenness. This requires balance, and contentedness. These traits are hard to acquire and tap into when we ourselves face untold stresses. The reminder of our privilege and power however helps us present with greater openness. This must be done with genuineness (Gibbs, 2017). Equanimity can be misinterpreted as disinterest and distance, and we must genuinely acknowledge our own stresses, while modelling what we are doing to teach from a place from equanimity. Rather than a goal, we lead the journey.

Conclusion

Transformational Learning, at its core, is about making new meaning as disrupting dilemmas confront us. It is about exploring our set worldviews, evaluating what fits and what does not, and adopting new perspectives in an effort to be more critical and more inclusive. The COVID-19 pandemic has caused significant disruption, the world over; the devastation is indescribable. The impact of what we took for granted as our way of life and our worldview has been challenging to articulate. This difficulty and sometimes impossibility to articulate the experience is both disappointing and ethereal. As of this writing, the second wave of the pandemic is coming to a close, but the threat of an oncoming third wave brings with it the exhaustion, isolation, weariness, and disconnection. Though difficult to describe, these are keenly palpable. Post secondary education is not immune to the experience.

This essay began with the premise that the adage, "we're all in this together" is kind-hearted at best, but dismissive at worst. It conflates the positioning of educators and learners and minimizes the privilege and power faculty inherently have. It is likely more genuine and authentic of educators to acknowledge and use their positions to facilitate transformational processes as students cope with learning under challenging circumstances.

The practices noted above of patience, flexibility, limit-setting, and equanimity align particularly well with Transformative Learning principles. They remind us that we, as post secondary educators are

indeed facilitators of a powerful process that requires care, compassion, dedication, and leadership. The combination of these skills and practices, are ongoing processes, that in and of themselves, are transformative. Teachers have had to face major disruptions in their professional and personal lives and while these practices are important to demonstrate to our learners, we benefit from a parallel process of engaging these within and amongst ourselves.

Teachers give. The pandemic has forced us to give more and give differently. Our institutions and management have had to adjust their operations and provided us with a structure and a format to deliver its mandate in the most efficient way possible. Beyond efficiency however, the task of effectiveness falls on us. The disruption of the pandemic has forced us to be even more effective in this regard. The giving comes at a cost as we ourselves seek ways to extend patience, flexibility, limit-setting, and equanimity to ourselves. Our institutions are charged with recognizing what we do to be effective in the face of their tasks to be efficient. Especially in the pandemic, we can practice, demonstrate, and lead in ways that are genuine, heartfelt, and authentic. As this dialogue continues, we come closer to transformative teaching practice.

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Pandemic Transformation of Teaching and Learning: Designing Pedagogy Using Your Pedagogical Pantry Rather than Established Recipes

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Abstract

How can faculty successfully shift from a physical classroom environment to creating meaningful online learning experiences in the midst of a pandemic? Using a "kitchen pantry" metaphor, this essay suggests faculty use a "what's in my pantry?" approach, rather than trying to replicate the in-class experience and following a previously identified "recipe." Some faculty embrace new technology options with great gusto. Others are resistant; and still others wait until they've seen others use it first to consider incorporating it. This model allows for different entry points of interaction, and for different levels of experimentation, reflecting individual faculty's strengths and capabilities. How can faculty use the ingredients they already have at hand, and thoughtfully expand their kitchen tools and ingredients to plan a successful online experience? While these efforts may result in a completely different pedagogical experience than they planned pre-pandemic; engagement, collaboration, and interaction are achievable. We propose not tackling an entire newly-stocked pedagogical kitchen and pantry inventory, but instead carefully considering new options, and adding in a select few to start. This may help transform the online learning space to include fully engaged, interactive, and collaborative course components.

Keywords: teaching, online, technology

Prior to the COVID-19 pandemic, cooking a meal might entail several shopping trips to ensure that the right ingredients and equipment were at hand. But with shortages and lockdowns, home chefs often made do without a specific spice or particular cut of meat, resulting in a variation of a favored dish. But where some home cooks settled for imperfect versions of meals, others looked to the pantry and refrigerator with renewed inspiration, creating meals that occasionally disappointed and at times shined, but always provided a new experience for the cook and the diners.

Faculty in higher education have been facing similar challenges during this time. Face-to-face meetings with students have been severely limited or missing altogether. Many faculty felt this loss deeply, yearning for the direct communication and interpersonal connection to which they were accustomed. Few want to settle for less than satisfying teaching. Wouldn't it be great if a substitution for the in-class experience was readily available? Nothing can truly replicate an in-person experience, but there is an abundance of tools for use in an online environment. As with recipes created out of necessity from available pantry items, initial course experiences with online resources may fall flat or may wildly succeed. Having a growth mindset—that you can become better at something difficult by continuing to work at it—and starting small can make this pedagogical adventure something to enjoy (Cawthon et al., 2020; Cawthon et al., 2019; Marchetti et al., 2019; Schley & Marchetti, 2020).

This essay reflects on a metaphor of "what's in your pedagogical pantry?" to guide faculty teaching online in the current pandemic context. The online environment offers a wealth of interaction and collaboration opportunities, from varying levels of technical complexity. Social media is all about

interaction with an audience. Old-school online "bulletin boards" provide functionally similar utility as physical classroom bulletin boards, with the advantage that viewers can respond to posts, rather than only read them. Virtual playgrounds and game spaces offer both opportunities to play with others and to experiment with new tools. For a detailed list of the online resources, apps, and tools mentioned in this essay, see Appendix A. When viewed from a pedagogical perspective, all of these spaces promote the transfer of information, engaging with perspectives and deepening understanding, demonstrating what you know, and interaction and engagement—similar to what face-to-face classroom teaching and learning entails.
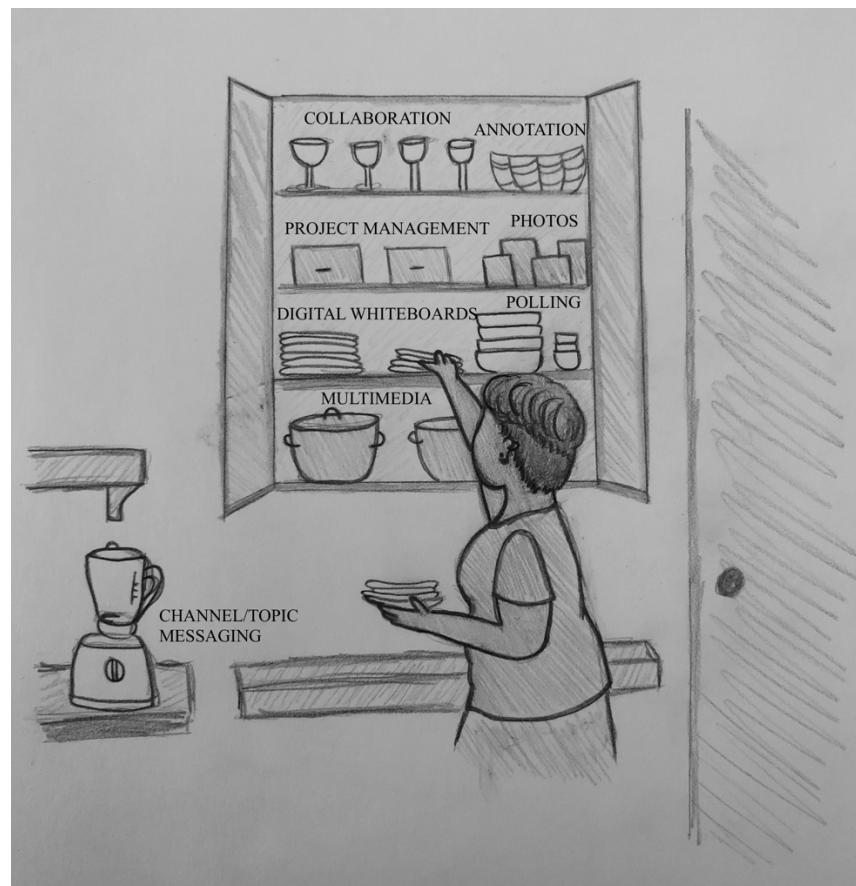

Figure 1: Metaphor: Pedagogical Pantry

The goal of this essay is not to provide detailed technical steps on how to do any specific strategy. Rather, the goal is to offer a shift of mindset: What experiences would you like to encourage and/or facilitate online, and what strategies do you have access to in your proverbial pedagogical pantry? Is there a single new ingredient you could try?

Sharing Instructor-led Information

Short lecture recordings

Most phones and computers have built-in capacity to record audio and video presentations, alongside (or without) slides. If your goal is to provide instructor-led information (summary of points, instructions, lab procedures, preview of material), this is a short leap from doing so in live face-to-face environments. We recommend treating these relatively informally—similar to delivering statements in a classroom, they do not have to be substantially edited and polished. Once an instructor has prepped for the content of what they want to share with students, it can be as simple as recording yourself on your

phone, and then posting the video online via a shared classroom space (course management area, shared online cloud storage area, etc.). To record slides alongside audio and video, there are a number of software which allow for capturing a slide presentation on your screen along with audio and/or video narration, including from within slide software itself (e.g., MS PowerPoint; Google Slides). While the intent of this essay is not to review detailed instructions for specific tools, many institutions of higher education have teaching and learning centers, with instructional designers and technical mentoring tailored to specific sets of tools available at a college or university.

Document Cameras

For synchronous online sessions, or asynchronous recorded sessions, you can use a document camera or a smartphone app workaround to create walk-throughs of content and processes for students. Consider solving math or physics problems, or demonstrating use of lab equipment, or working with a database: rather than having static slides in the background, this allows for showing processes to students during presentations. In addition to dedicated document cameras, this functionality is also available on many smart phones and is supported by a number of video conference tools (e.g., Zoom, MS Teams).

Discussion-Based Engagement and Interaction

Interactive and Collaborative Documents

Many instructors miss the opportunity to have engaged classroom discussions with students in face-to-face classrooms. During the fall of 2020, we experimented with extensive use of online collaborative documents for engaging and interacting with students. By posting a weekly document with an agenda, guiding questions, summaries, and links to information, all students responded within the document throughout the week. A variety of different kinds of information can be included in these online documents—hyperlinks to websites and videos, links to spreadsheets for collecting responses (for columns of responses with rows of students), in-document text discussions where all members of the course can interact throughout the week, etc.—this approach generated active and engaged discussion throughout the week. Students can also work in small groups on assignments using these tools (see Schley et al., 2020 for a detailed discussion and a downloadable template for your own use; see also Schley & Stinson, 2016).

Interactive Presentations (e.g., Voicethread)

These tools allow you to create online presentations consisting of multiple kinds of media (photos, documents, slides, weblinks, videos, etc.), and for students and instructors to add comments throughout the online presentation. Comments can come in multiple formats—text comments, document uploads, sound recordings, video recordings, etc. This levels-up a lecture presentation to one that is interactive; the instructor can add question-points throughout the presentation where students respond, and discussion can occur at any point within the presentation.

Virtual Whiteboards

Like using whiteboards in a face-to-face classroom, virtual whiteboards offer opportunities to take notes for a group, and to solve problems collaboratively—particularly problems which rely on information that is not easy to type (e.g., math, statistics, engineering problems, etc.). There are dozens of versions in existence (Google's Jamboard, Miro, Lucidspark, MS Whiteboard, etc.). These provide a rich opportunity to have students work together using hand-drawn and hand-written material.

Web and Document Annotation

With collaborative web and document annotation tools (e.g., Hypothesis, Scrible), individuals and groups can select a specific section of a webpage or document, add tags, share their own annotation or work together in groups, and reply to other annotations. This adds layers of community, student engagement, exploring reading comprehension, and building critical thinking into virtual class spaces.

Via adding either a browser plug-in or integration with a course learning management system, these tools add an active, visible, social and conversational layer to consuming online material.

Project Management: Document Sharing and Channel/Topic Messaging
    A number of our colleagues have had success adding team and channel messaging options (e.g., MS Teams, Google Hangouts Chat, Slack, etc.), document repositories (e.g., Google Drive; Dropbox, MS OneNote, etc.), and project management apps (e.g., Trello, Asana, MS Teams, Notion, etc.). One advantage to using specialized tools for student tasks and project management is that it pulls such functions out of email, which can be unwieldy and unorganized for many. Another advantage is reducing cognitive load (Paas et al., 2010). By setting up an organized structure (channels for messaging, folders for storing and finding documents and materials, project goals and task management), an instructor can capitalize on customizing the workspace to match the course and assignment areas. Moreover, project management tools allow students to interact efficiently with materials and contextualized messaging and communication.

Collecting Knowledge- and Perspective-Based Information from Students

Smartphones: Pictures and Videos
    If students are completing handwritten assignment sets (or assignments that would be difficult to conduct with a keyboard), they can upload a screenshot or photo of their handwritten exam solutions, perhaps with guidelines that they convert these files to a specific format, such as PDF, to make it easier on the faculty member to work with these files. Students could video themselves presenting about what they learned, rather than an in-class oral presentation. Most students have easy access to smartphones, and it is far simpler for them to upload a screenshot of their work (or to record a short video) than it is to type a written answer.

Polling Apps
    In a lecture/discussion-oriented face-to-face course, an instructor will often "spot check" student knowledge—both as a formative evaluation of whether they are understanding what is being taught, and as feedback for an instructor while they do their job. For a course with large enrollment numbers, polling apps (e.g., Kahoot, Mentimeter, Poll Everywhere, Google Forms, etc.) help get immediate feedback from students; students use a web-link from a laptop or a phone. These transfer quite easily to an online synchronous teaching space.

Visual Media Assignments
    In an episode of the podcast *Teaching in Higher Education* (Stachowiak, 2020), Paul Eaton discusses a photo elicitation project he uses in one of his courses:

> The idea behind the project is that, each week in class, students would have to take an image that would capture some idea, concept, question around whatever it was that we were looking at that week around issues of diversity, equity, and inclusion. That could be a very representative image, or it could be an image that was more abstract. Then they would have to title the image, write a caption … They did this every week. It's a different way of processing information, and then at the end of the term, we had each student in the class pick two images. We then had a photo gallery … [Students] were able to talk to people from the community about what they had learned in the class, and explain their images, … [which] ranged from everything like very abstract to things that were very concrete and easy to understand in terms of symbolic representational-ism. (Stachowiak, 2020)

This is transferable to an online virtual learning space. Eaton further describes how this project helped expand students' abstract understanding of concepts and material concerning Dolmage's (2017) *Academic Ableism*. They started the semester posting more concrete examples (such as pulling images of *stairs* to illustrate "steep steps" and access challenges to higher education for those with physical disabilities). By the end of the semester, they were able to post much more abstract images illustrating more complex concepts (e.g., not only can higher education be physically difficult to access because of stairs, students with disabilities are seen as a financial drain on the university as a whole—students learned how to translate the concepts to visual and evocative images).

This metaphor lends to starting online instructional planning from a "what's in my pantry?" approach, rather than from a perspective of what one misses by moving from in-person teaching and learning to physically distanced and online learning. The specific "cooking in the kitchen" metaphor could easily be "tools in a mechanic's shop" or in an "artist's studio." In essence, what do instructors have available that could provide a basic element to support student learning? The focus could be transfer of information, engaging with perspectives and deepening understanding, demonstrating what you know, or interaction and engagement. If you've seen Samin Nosrat's video series on the elements of cooking, "Salt, Fat, Acid, Heat" (Cotner et al., 2018), you'll recognize this approach. It's not about the specific recipe, but an understanding of what makes food delicious.

When faculty use the ingredients they already have at hand, and thoughtfully expand their kitchen tools and ingredients to plan a successful online experience, these efforts may result in a completely different pedagogical experience than they planned pre-pandemic. However, engagement, collaboration, and interaction are achievable. We propose not tackling an entire newly-stocked pedagogical kitchen and pantry inventory, but carefully considering new options, and adding in a select few to start to help transform the online learning space to include fully engaged, interactive, and collaborative course components. Instructors who use this approach to modify their teaching during the COVID-19 pandemic may just find that some of the tools they tried during this pedagogical shortage will prove valuable enough to continue using.

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Appendix

Table 1

Online Software, Apps, and Tools Mentioned in this Essay

Platform	URL
Asana	https://asana.com/
Dropbox	https://www.dropbox.com/
Google Drive	https://drive.google.com/
Google Jamboard	https://jamboard.google.com/
Google Forms	https://www.google.com/forms/about/
Google Hangouts	https://hangouts.google.com/
Hypothesis	https://web.hypothes.is/
Lucidspark	https://lucidspark.com/
Kahoot	https://kahoot.it/
Miro	https://miro.com/
Mentimeter	https://www.mentimeter.com/
MS Teams	https://www.microsoft.com/en-us/microsoft-teams/group-chat-software
MS OneNote	https://www.microsoft.com/en-us/microsoft-365/onenote/digital-note-taking-app
MS Whiteboard	https://www.microsoft.com/en-us/microsoft-365/microsoft-whiteboard/digital-whiteboard-app
Notion	https://www.notion.so
Poll	https://www.polleverywhere.com/
Scrible	https://www.scrible.com/
Slack	https://slack.com/
Trello	https://trello.com/
Voicethread	https://voicethread.com/
Zoom	https://zoom.us/

Self-Compassion:
Growing Resilience and Perspective-Taking in Turbulent Times

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Abstract

COVID-19 has brought disruption across the globe. Yet, disruption or disequilibration is a starting place in transformative learning which can produce positive change and growth.
Empathy within TL is explored and the practice of empathy is situated within self-compassion.
Self-compassion can support the teacher through disequilbration and assist in developing resilience and perspective-taking. Furthermore, it will support the teacher inwardly in their person and outwardly in their practice. We conclude with concrete steps to develop self-compassion.

Keywords: Self-compassion, self-care practice, empathy, transformative learning, teachers

Introduction

While Covid-19 has had a significant impact on all parts of our lives, the educational community specifically has taken a brutal blow. This has impacted the entire learning community from K-12 to higher education; students, teachers, and administrators who will be referred to as educators herein. Most educators' workload increased with the sudden shift to online learning. Pressure on schools expanded as decisions regarding in-school attendance waffled. Loss of income in some universities resulted in insecurity regarding employment for many. With some institutions re-opening in the fall of 2020, the risk of COVID-19 exposure for school staff and teachers increased dramatically with its additional concerns.

The added burden on teachers without adequate resources or preparation for their increased workload impacted the emotional health of many. As a result of the pandemic, the burden for moving classes online was, in some cases, put on the classroom teacher or lecturer (many without experience in the field) with minimal support from the school system. Additionally, some schools facing parental and other pressures offered both virtual and face-to-face instruction, requiring educators to teach virtually and face-to-face synchronously. The toll on teachers has been high. In Arizona, 43% of teachers who retired or resigned in 2020 listed COVID-19 as their primary concern (Irish, 2020). In addition, 1,138 teachers took a full-year, unpaid leave of absence due to COVID-19.

With many educators in survival mode, stories abound of the best and the worst of responses to their students. Some, without reflecting on the student's personal grief and loss, required obituaries to be excused from class. Others required a COVID-19 test for excused absences during self-isolation, with a negative result penalizing the student with an unexcused absence. On the other hand, there were great acts of compassion. Some educators reached out to absent students with concerned questions and offers of help. Others granted time off, retakes, or adjusted the work according to the student's needs. Universities selected differing corporate responses to the pandemic. Some moved to a pass/fail system, while others insisted on life as usual making no compensations for the pandemic.

Initially, these responses appear to be binary. Some doubled down on class requirements in order to maintain academic standards, while others displayed kindness and support for the student. Yet, these responses could also be the result of a third possibility—a overstressed teacher, possibly close to burnout trying to do what they thought best at the time. Extreme levels of stress during the pandemic are understandable given the circumstances.

In times like these, how can an educator cope? What is the appropriate response to these circumstances? Rather than praising empathy or shaming the lack of empathic responses we offer a third approach. Authentic empathy is rooted in self-compassion and starts with the inner person of the educator. To assist the educator in empathy, it is important to take stock of the educator's compassion toward themselves. With a pandemic raging through the US, political upheaval and continued unrest on the streets, these additional layers of stress have the power to unsettle even resilient educators. As we are all carrying extra stress and grief, empathy is an important gift we can offer to ourselves as well as to each other.

Understanding Empathy

A closer look empathy reveals a lack of clarity around its definition. The German origin of empathy, *Einfühlung*, is roughly translated as "feeling into" (Kouprie & Visser, 2009) or "feeling" as well as connected to the Greek roots of *em* and *pathos* (Mercer & Reynolds, 2002). Rogers (1962) proposed that empathy is rooted in unconditional acceptance and commonality of human needs that transferred into a desire to support and help each other. Professional counselors and psychologists agree on three specific skills of empathy: sharing someone else's feelings; "the cognitive ability to intuit what another person is feeling," and the move to respond with compassion to that person's needs (Decety & Jackson, 2004). Empathy includes both perspective-taking and compassion.

Empathic development begins when a child recognizes themselves as a separate individual (L. W. Hoffman, 1979). Around age two, the child will begin to feel empathy, but most often will not be able to act on it. Between ages six and seven, children can identify with another person's context and can consciously put themselves in someone else's shoes. During the teenage years, these youth can think abstractly and are able to offer comprehensive empathy to abstract groups of people such as refugees or victims of crime. One's homelife and relationships with others such as parents and teachers influence the development of empathy. Those in loving relationships wherein empathy is modeled are more likely to be empathic. Conversely, children raised in harsh and abusive settings will likely not be as successful in their empathic development.

Research indicates that growth in empathy begins within an individual (L. W. Hoffman, 1979; M. L. Hoffman, 1987). An increase in one's self-compassion is a springboard for extending empathy to others. Furthermore, educators, particularly at the primary and secondary levels, are creating environments which can cultivate or crush empathy in students.

There are five modes of empathy which build on one another (M. L. Hoffman, 2000). Mimicry refers to a key ability where an infant is able to mimic the expressions of others. Classical conditioning refers to experiencing a tough situation in a group. Direct association when we can connect our emotions we are feeling to a past event or story. Language-mediated association is where the only requirement is telling about a story incident for an emotional response. The final mode is role, or perspective-taking, an important part of the transformative learning process. Perspective-taking occurs when a person imagines what it would be like to be someone else. This mode is the most advanced and requires regular practice and healthy boundaries (M. L. Hoffman, 2000; Schertz, 2006).
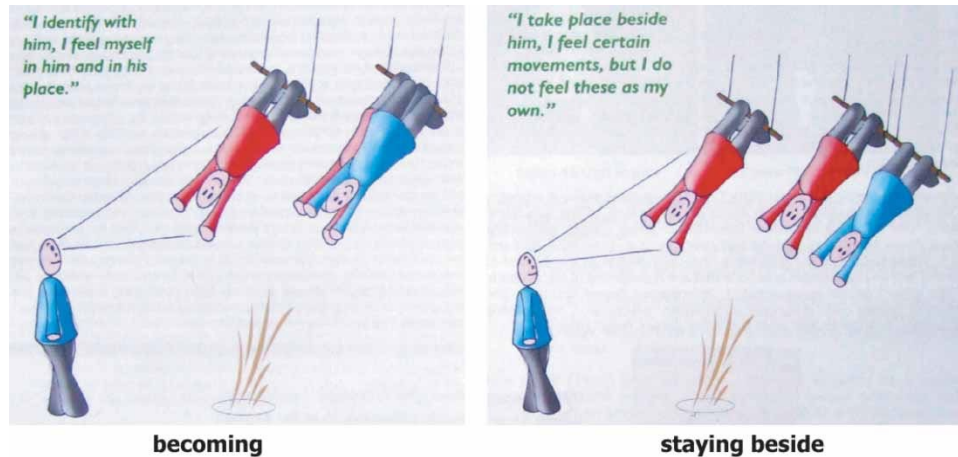
Figure 1: (Kouprie, & Visser, 2009).

There are multiple opinions regarding the relationship between the person offering empathy and the one receiving it. Some perceive that when empathizing occurs there are no longer boundaries between two people (Lipps, 1903 as cited in Kouprie & Visser, 2009). This is demonstrated on the left in Figure 1; they become "one person." The person offering empathy has vicariously assumed the feelings of the other as their own feelings. This position is problematic as one can no longer look at the situation objectively and can find it difficult to aid in resolving the issue.

Others have described empathy as sitting with someone while keeping healthy boundaries (Figure 1 right diagram; Stein, 1917 as cited in Kouprie & Visser, 2009). In "staying beside," both people are sitting in their own space yet from this position, the empathizer can understand the feelings of the other. The importance of maintaining healthy boundaries is also a core component of self-compassion so that we do not "get so lost in our roles" as educators that we stop taking care of ourselves (Neff, 2011b, p. 219). Yet, our boundaries are also softer and not to protect our egos but include a sense of seeing ourselves as being connected to one another in humanity (Neff, 2011a).

Better teacher/student relationships and overall better learning were the results of teachers practicing empathy (Boyer, 2010; Jordan & Schwartz, 2018). More openness and attunement towards those teaching across cultures are additional attributes of empathic teachers who are more effective in diverse settings (McAllister & Irvine, 2002).

While empathy is usually viewed as a positive quality, there are situations where it has negative consequences. When used to exclusively spotlight one side of a situation, empathy results in polarization (Breithaupt, 2018). Empathy can also be used to manipulate or control others. Many financial appeals use stories and photos to provoke empathy, and thus donations.

The common perception of empathy as being only positive has resulted in some replacing it with "compassion" (Bloom 2017). While empathy stresses sitting beside someone, it does not always move into action on this person's behalf. In other settings, self-compassion is preferred as it comprises taking action. Self-compassion involves three key aspects: "self-kindness versus self-judgment, feelings of common humanity versus isolation, and mindfulness versus over-identification" (Neff, 2011a, pg. 4). The practice of self-compassion reorients empathy internally and offers concrete steps of self-care.

Benefits from practicing self-compassion include greater ability in perspective-taking and more emotional stability and calmness (Neff, 2011b). These practitioners are less likely to compare themselves to others, or to get angry, as well as having greater emotional resilience and stability. Other benefits include being more goal-oriented in their academics and not as prone to exaggerate pain. There are even multiple health benefits as well including less depression, greater life-satisfaction, and improved

perspective-taking (Neff, 2011b). We will use the term self-compassion herein to include both of the perspective-taking part of empathy as well as the compassionate side.

Yet, for the educator to be authentic begins with self-compassion where educators have suspended judgement and shown kindness for themselves. In contrast, when the educator does not practice self-compassion, they may feel forced to act empathic and can be perceived as "faking it" or not being genuine. At worst, in pretending to show compassion to others the educator is communicating to others that this is acceptable. In times of stress authentic empathy, which stems from the practice of personal self-compassion, creates resilience and a greater capacity to manage the challenges of teaching.

Herein authentic empathy is defined as rooted in self-compassion, seeing things from another's perspective, and showing compassion which may lead to action on another's behalf. The practice of authentic empathy is important to support the individual in times of disequilibration by understanding and managing emotions, building resilience, and utilizing this practice to support perspective-taking.

Empathy and Transformative Learning

Times of disruption, such as a pandemic, are also windows of opportunity for transformation (Mezirow, 1981; 2000). Drawing upon Piaget's theory of cognitive development Mezirow saw TL as beginning with disequlibration. This occurs when one encounters new information or a situation which clashes with one's personal frame of reference (Driscoll, 2005; Piaget & Inhelder, 1969). In seeking to make meaning of this new situation, one's perspective adapts and shifts, transforming into a new paradigm or way of thinking. Mezirow also saw the importance of empathy in "having an open mind, learning to listen empathically, 'bracketing' prejudgment, and seeking common ground" (2003, p. 60). Encountering a disorienting dilemma is the first step of TL—where we currently find ourselves with the pandemic. Thus, we have all been brought to the opportunity to engage in the transformative process.

Empathy has been added to core areas of TL which include critical reflection, dialogue, and experience (Taylor & Cranton, 2013). It supports TL by providing the motivating factors for active listening, the skill necessary for perspective-taking, understanding and awareness of what others are feeling, as well as the capacity and ability to show understanding (Taylor & Cranton, 2013). In short, it is "the ability to 'subjectively experience and share in another's psychological state or intrinsic feelings" (Morse et al., 1992, p. 274).

Empathy within TL has been studied using Synergic Inquiry (SI) to examine racial consciousness, (Kasl & Yorks, 2016). SI begins with self-knowing, or a form of self-reflection, also a key part of TL. The act of growing self-awareness offers space for the educator to take pause, identify the emotions they are feeling, and to try to determine their source. Yorks and Kasl conclude that "empathetic connection across such emotionally charged issues, especially in groups where members have very different and even opposing perspective requires capacity to both recognize one's own individualizing emotion reactions and adopt a participatory sense of feeling for the other" (2018, p. 592). Being aware of one's own feelings is an important part of connecting with someone else and their emotions across differences.

Empathy is not often mentioned as a critical aspect of TL (Taylor & Cranton, 2013). Most often the focus is in two areas: how connections of empathy are created and maintained and empathy's role in outward perspective-taking by both educators and students. Studies in these areas primarily focus on the act of granting empathy.

Yet this does not go far enough.

We propose that embodying self-compassion both internally and toward others is important to the process of TL particularly in disequilibrium and perspective-taking.

Reorienting and Expanding Empathy

A prerequisite for fostering TL is for the teacher to enter into the transformative process personally (Cranton, 2001, 2006; Brookfield, 2017), and this same model can be applied in fostering the practice of self-compassion. Often, this first internal step of practicing self-compassion is bypassed by

moving quickly toward focusing on the other person. Rather, educators should first linger with their feelings by taking time to ground themselves, recognize their state of being, acknowledge their situation, and to offer themselves compassion. Self-compassion supports the educator during disequilibration and allows the educator to see themselves from a neutral position, a practice that will help in perspective-taking.

Practicing self-compassion supports the process of transformative learning in two specific ways. First of all, showing self-compassion is an important part of managing disequilibration. In times of COVID-19 more than ever self-compassion not only offers a good coping strategy, but also a way to build resilience (Neff, 2011a, 2011b). As the educator is attuned to their individual needs, engaged in reflection, this builds strength and health allowing the educator to be more empathic.

Developing self-compassion can also contribute to greater self-awareness. Increased self-reflection and self-awareness are part of becoming more authentic as educators (Cranton, 2001, 2006). This practice can also facilitate making an empathic space (Kasl & Yorks, 2016). Ettling (2012) proposes using contemplative attunement by listening carefully to oneself without distractions and thinking to recalibrate ourselves for listening better to others. TL theory assumes that a teacher is able to practice empathy; however, particularly during times of stress such as the current pandemic, it can be in short supply. Asking educators to provide empathy to their learners when they are not practicing it personally will look and sound hollow, a "fake-empathy."

Secondly, self-compassion is an important practice of growing in perspective-taking by engaging in self-reflection and mindfulness. When we start with self-compassion, we create the path to allow for healthy communication to occur (Barrett-Lennard,1997; Bohart & Greenberg, 1997). This begins by suspending judgment with ourselves and being open and honest to personal emotions. We observe our responses and see what we are feeling, why we are feeling it, and how we need to adjust in light of this to engage appropriately.

An important clarification needs to be made between self-compassion and self-esteem. This delineation is necessary as there is much concern with students' development. Self-esteem does not always yield the positive results as self-compassion does (Neff, 2011a). Many who are both prejudiced and/or narcissistic also have high levels of self-esteem (Crocker, Thompson, McGraw, & Ingerman, 1987; Fein & Spencer, 1997). Self-esteem is attributed to the outcome of doing well, but not the cause of doing well Neff (2011a). Focusing on self-compassion can encompass the benefits of empathy without its potential weaknesses.

If students are to learn about and engage in self-care, it is essential for the educator to be a role model. While there has been greater interest in social-emotional learning in the classroom, this is aimed at what the teacher is producing and practicing outwardly and does not often include the personal social-emotional life of the teacher. As the educator cultivates self-compassion, they are able to also lead and guide their students in this practice.

The Empathic Educator

Inward Practice

When practicing empathy, the educator is acknowledging, considering and nurturing their inward life. Multiple practices can be engaged in to increase empathy but require time, thought, and intention. Efforts to bypass or take shortcuts by the teacher, due to their focus on the learner's needs, will impede this process. As the educator cultivates and practices self-compassion, they will also increase empathic practices toward the learners. During this pandemic, it is particularly critical for educators to practice self-empathy and self-compassion. Thus, we offer a selection of practices:

Self-reflection (emotions): What are the emotions that you feel in the classroom, at home, etc.? Anger toward students or frustration can result from what is inside you. Are you feeling overworked, overwhelmed or hopeless? If so, take some "me time"—what builds into you?

Negative feelings can show us where we have disconnected from our students (Jordan & Schwartz, 2018).

Self-reflection (thoughts): What are you thinking about? What type of self-talk are you engaging in? Are you operating from a negative or judgmental premise? Why do you think this is so? Is there a way for you to pivot toward the positive?

Self-assessment: Would your best friend treat you the way you are treating yourself? Would they be less judgmental and more forgiving? If your best friend was in your situation how would you treat them? Are you treating yourself worse than you would treat your friend? When you catch yourself engaging in negative criticism either about yourself or others, name it, reflect briefly on it, and then move away from it (Train & Niezink, 2019).

Reflective Journaling: As you are mentally self-reflecting, set aside time several times a week or even daily to record your emotions, your responses, and possible reasons for where these emotions came from. Re-reading these entries can help you to grow in self-awareness and to be more intentional and thoughtful in responses to your students.

Practice gratefulness: What makes you feel grateful? Part of your journal can also include writing down several things each day for which you are thankful. This action can help reframe negativity and has been linked to better health, stronger relationships to others, and building resilience.

Mindfulness activities: Are you paying attention to your breathing? Take 10 deep breaths. Both focused breathing and meditation are techniques that can help to ground yourself to stay in the moment and can also release anxiety.

Get outdoors: Take time to get outside in nature once a week. Go to a park or forest or find a walking trail. Take time to both hear and experience nature which can help improve your mood and focus as well as be beneficial towards better sleep and better mobility.

Exercise regularly: Are you doing any physical activity or regular exercise? A brisk 20-minute walk is one way to clear emotional overload and can even help with depression by increasing levels of serotonin, boosting one's mood while relieving stress and anxiety.

Outward Practice

Cultivating self-compassion is an important part in learning to practice empathy. This empathy is not forced or fake and allows the teacher to hold students to a high standard while offering deep compassion and support. In challenging times, such as COVID-19, with heightened levels of stress, relationship-building and maintenance require extra attention and effort. While not a new concept, the implementation of empathy is not intuitive. Using self—compassion as a starting point, all parties (educational stakeholders) can acknowledge each other's burdens and stress. Additional attention to the social-emotional dimension of learning can be the force that propels this crisis into a positive transformation (van Woerkom 2008, 2010).

When educators prioritize learners above themselves, a possible complication is an unbalanced teacher-student relationship where the teachers neglect their inner person and experience. Robertson (1999, 2018) proposes an educator-learner dyad—systemocentrism--where the needs of both are considered equally. Both "teachers and learners are fully human participants in interaction" (1999, p. 281). This allows the educator to care for themselves and care for their learners out of a position of true compassion.

A selection of practices to increase outward empathy and compassion follows:

Suspend judgment: When negative feelings about students arise, stop and deal with them personally. Name three reasons why the student could be acting this way? How could you see this in the best light possible? Ask the student questions such as: Is there something we can do to make this situation better? Why do you think you are doing this?

Listen actively: Is there a message underlying the student's conversation? Ask the student: Could you explain that to me again? Why do you think this happened? What is the most important thing to you in this situation?

Practice kindness. Greet and call on students by name. Uplift students—find a reason to praise them. Respond with positive comments first—this part was good, now let's look at this other section. Objectify negatives—couch negative things in neutral terms. For example, others have had problems here, let's see if we can look at it again. Replace "but" with "and" for example: I am glad you are in the class and your comment could have been said in a different way.

Maintain personal boundaries: "Stay beside" your student. Is letting down your personal boundaries going to help the situation, and your teaching, in the long term? Flexibility is necessary—consider offering re-takes of tests, input for viable solutions, appropriate extensions etc. There may be others who have more skills and training for this situation.

Exercising self-compassion gives educators the opportunity to internalize different methods and thought patterns to develop empathy. As with other activities, the more frequently this is employed, the more reflexive and easier it is to enact. The practice of self-compassion is a healing and regenerating time supporting the educator in times of crisis and building resilience (Neff, 2011a, 2011b). Self-compassion will not only improve the person of the educator but also their practice as they learn to consider the perspective of others.

Conclusion

"What's the most important lesson of pandemic life? I would argue that it's this: Self-care isn't selfish" (Parker-Pope, 2021). The year 2020 has been filled with suffering, chaos, uncertainty, and disequilibration especially for those in education. Yet, this time of disruption is also an opportunity for change and transformation. Educators need both support and space to cultivate and foster self-compassion. Educators who practice self-compassion have greater resources to empower and nurture those with whom they work.

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Acknowledging Emotive Response and Epistemic Positionality: Disruptive Transformative Pedagogy Amidst a Global Pandemic

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Abstract

In the dynamic and iteratively changing landscape of global Higher Education, processes of learning, teaching, and professional practice have been irrevocably impacted upon by the COVID-19 virus. This brief paper explores how the concept of emotive response generally and emotional labour specifically, have impacted the context of Higher Education institutions globally. This paper also explores the implications of this in practice-based educational settings. Wider civic society will bear the burden of this pandemic via processes of economic restraint for a generation, yet transformative perspectives have great significance to both how people's capacity to reflect and make meaning of current times will continue to drive a proactive and reflexive response to the challenges and opportunities it provides. Mezirow's now seminal Transformative Learning Theory (2000) and the Hayes and Corrie (2020) Disruptive Pedagogical Approach to facilitating learning will provide the baseline theoretical frameworks for this conceptual discussion.

Keywords: Higher Education, Coronavirus Pandemic, Communities of Practice, Emotional Labour, Online learning

Introduction

This conceptual discussion paper illuminates how processes of global learning, teaching, and professional practice have been extensively disrupted during the COVID-19 Pandemic of the last year. The resonance of the Coronavirus pandemic across global society still resounds a year after the first genetic code of the virus was identified. The initial outbreak of COVID-19 was triggered in Wuhan in the center of the Hubei province, China. As of January 2021, the virus has progressed globally, with reported numbers of infected reaching 22.5 million and 3.05million across the USA and UK respectively, with corresponding deaths reaching 375 thousand and 82 thousand across each geographical region according to a national report. Amidst these stark statistics, the virus continues to spread indiscriminately and with mutant forms, which exponentially increase its infectivity rate, only the pace of vaccine provides a means of bringing the pandemic under control. Whilst the major concern across an integrated world has been one of global public health and containment, education generally and Higher Education specifically have become major adjuvant victims of the need for containment of the virus, in efforts to limit its spread. Beyond the evident distress caused by the pandemic, and to those who have lost family and friends and been separated from loved ones during illness, is the economic world of productivity of which education is an integral part. As well as presenting dire challenges, in the context of Higher Education (HE) across the USA and the UK, the pandemic has also provided opportunities for a unified and optimal response to the challenge of sustaining and maintaining educational provision.

Situational Specificity and Context for Global Response

Across the globe there was a wide variation of approaches in responding with agility to the demands this Pandemic placed upon learning communities, with many of the adult learning and Higher Education institutions typically adopting hybridised approaches to bridge the immediate gap that the pandemic introduced in the context of face-to-face teaching. The introduction of social distancing rules, the wearing of masks, and a tangible amount of online learning characterised the initial weeks of the pandemic in March and April 2020. Existing models of best practice from blended and distance learning programmes were used as templates for how instructional design could be quickly adapted to fit the needs of learners. Due to diverse situational and context specificities, there was a lack of generalisable consensus as to how best this ought to be approached and as a consequence there are now almost as many different versions of online learning as there are institutions of Higher Education globally.

The COVID-19 Coronavirus Pandemic evolved at speed, requiring a shift in the higher and adult education organisations and in each individual educator's epistemic perspective, which in turn has the impact of creating disorientating dilemmas for address, Mezirow (2000). These necessitate reflection on practice in order to develop timely alternative pedagogical approaches, as an integral part of professional practice.

There are a number of terms that describe learning other than that delivered face-to-face in a formal classroom setting, they include blended learning, distributed learning, e-learning, online learning, and virtual learning.

Despite the organisational and individual barriers, Porter & Graham (2016), reported, prior to the COVID-19 pandemic, that in the United Kingdom HE institutions (HEI) there has been a groundswell of support for the adoption of technological approaches to teaching and learning. What could never have been anticipated was the forthcoming need for the process of early adaptation to be accelerated to the extent of 100% of all delivery shifting to this basis over a chronological period of a calendar month. Kirkwood and Price (2014, Pg. 7), provide a useful definition of this enthusiasm for early adoption as being fundamental to, "the application of information and communication technologies to teaching and learning." The benefits of the adoption of technology into learning include better utilisation of academics' allocated work loading time, the widening of access to extended learning opportunities and learning enhancement initiatives and the concentrated focus of debatably more productive face-to-face learning and teaching time. It is notable however, that only those equipped with the appropriate access to digital technology and access to the internet can be afforded this opportunity. A recent study by the University of Cambridge debates the contention that the COVID-19 pandemic has also enhanced the impact of digital poverty and hence contributed to the concept of digital exclusion, for those most in need of educational stability and progressive opportunity (Holmes & Burgess, 2020).

The Coronavirus Pandemic has required a shift in the educator's epistemic perspective and a reflection on praxis to develop alternative pedagogical approaches. The response in both the United Kingdom and the USA was fundamentally similar. The education systems in both countries are aligned: adult students' study in a formal environment underpinned by customs and practices which are based on the delivery and expectation of face-to-face teaching and learning.

Political Drivers of Change

The resultant impact of this approach proved an active catalyst in enabling the decision making of those who wished to leave study, whilst for others, the degree of increased flexibility it introduced to the mechanism of delivery of study proved a motivator and catalyst for continued learner engagement. The pace of acceleration with which change was introduced across global learning platforms was remarkable. The need to wear masks became a debate which hinged precariously between science and politics, this need provided an accessible forum for educational continuance.

Framing and Contextualising Emotional Labour in Higher Education

For the purposes of this article, and in keeping with the seminal definition of the concept provided by Hochschild (1983), emotional labour will be interpreted as the suppression of felt emotion at a time when it is necessary to ensure a countenance that reassures others. This complex

process of being able to suppress a direct emotive response to a crisis situation or modification in approach to usual events, such as teaching and leadership in Higher Education during the COVID-19 pandemic deals specifically with emotional regulation. Being able to manage expectations and norms of classroom delivery is an integral part of the role of HE educators.

Complex Ambiguity

What the COVID-19 pandemic has ensured is the acceleration of the use of digital technology, so that it is no longer an adjunct to student learning but an embedded and integral part of it, which has had to be embraced with a sense of immediacy, that a year earlier no one could have anticipated. In reassuring their learners, at a point of pragmatic and emotional insecurity, educators have characterised all that emotional labour and the burden of it entails at the front line of education and training provision during a time of complex ambiguity (Bodenheimer & Shuster, 2020). It is this complex ambiguity which is also immediately recognisable as an integral part of the processes of transformative learning, and in common with emotional labour shares tenets of emotional intelligence in terms of capacity for interrelationships and interactions with others, self-awareness, self-regulation, and ultimately reflection and critical reflexivity. Since an emotive response to any crisis situation hinges on a complex cognitive response, which links thoughts, feelings, and as a consequence expressed behaviour, this aligns directly with what it is to engage with active learning.

Processes of Cognitive Adaptation

Unlike usual processes of adaptation, with no degree of external threat such as the COVID-19 pandemic, there is an accompanying response of adaptation, which leads to an additional emotive response, which distracts both learners and teachers, generating negative stress and leading to a variety of emotive responses from anxiety to anger through to hopelessness and helplessness or in instances where students respond positively, thriving and excelling (Heffernan & Bosetti, 2020). In instances where the suppression of negative emotion is permitted to perpetuate, this can contribute to the emotional labour experienced by students as well as staff, which far from having a transformative impact in a positive sense, can lead to further stress, anxiety and the sense of an inability to cope (Rickett & Morris, 2020). With a direct link between stress and vulnerability, it is relatively easy to see how virtual classrooms across the Higher Education sector illustrate the broadest parameters of coping and how processes of emotional intelligence can have a tangible impact on specific contexts of learning and teaching (Zubin & Spring, 1977: Kastberg, et al., 2020). The more intense emotions are, then the more complex the cognitive process of managing them becomes (Ward, et al., 2020).

Contested Authenticity

One of the most important facets of transformative learning in action is the concept of authenticity, which from the seminal definitions of emotional labour, can be seen as the very antithesis of authentic behaviour (Darby, 2017). Whilst emotional labour enables coping in crisis situations, the cognitive response to what would usually be a familiar and known context has shifted during the COVID-19 pandemic to a situation where interactions with others (far from being familiar, known, and sound) have shifted to being complex and integrative perspectives, driven via the use of digital technology platforms (Raffaghelli & Stewart, 2020). Perhaps then a wider question, ought to be how far technology detracts from the capacity of HE educators to be authentic in their approaches to learning and teaching in a new context for the profession, where the concept of individuation is paramount to authentic and tailored approaches to learning and becoming.

Emotive Capacity and Burnout

What is imperative for both educators and learners, is their capacity to manage their emotive capacity for interaction with others, as an integral part of professionalism for the educator and developing professionalism for the learner. What is central to the avoidance of functional "burnout" is the capacity to manage perceptions or actual experiences of depersonalisation, cognitive and emotional exhaustion (which can be characterised by a sense of chronic fatigue) and the sense of a lack of achievement or accomplishment with cohorts of learners. The more laborious it becomes to regulate emotions the more likely educators are to burn out in accordance with the Maslach Burnout Inventory for Educators (MBI-E).

Delineation of Experience in Agile Responses to the COVID-19 Pandemic

The impact of the Coronavirus (COVID-19) on Higher Education, is incomparable to any event in history necessitating a wholesale adaptation to daily practice bar war and natural disaster. The enforced shift to the online delivery of programmes and modules traditionally delivered by student centred, classroom-based signature pedagogies and academic disciplines is unprecedented (Amemado, 2020). Whereas education had a traditionally global outlook, the iterative spread of the virus has ensured every country across the globe has become progressively more inward looking, in terms of how it might best respond and cope with the need to sustain processes of teaching and learning at the front line of the pandemic. The differential between rich and poor became wider, as those with digital technology and access to the worldwide web and those without was starkly highlighted and capacity for organisationally agile responses came to the fore (Rasheed-Karim, 2020). It is arguable that although mechanisms of delivery were quickly adapted to ensure access to information, that robust pedagogical methodologies were somewhat overlooked as processes of teaching and learning came secondary to their mechanisms of dissemination. Here too, on a local level, that differential between rich and poor students came to the fore, and it was illuminated which students had the capacity to access online learning environments and those whose social and fiscal backgrounds dictated they could not. Another clear source of emotional labour emerged during the moment of adaptation to the avoidance of viral contraction via a series of national lockdowns. It is hardly surprising that these dividing issues have arisen, and that individuation has become a central theme of coping during the COVID-19 pandemic, this was annotated as a functional mechanism of response long before the global pandemic became a reality (Brunetto, et al., 2014).

Conclusion

The COVID-19 pandemic has irrevocably and incomparably thrown global education systems into silos of containment, where efforts to maintain and sustain robust and systematic processes of educational provision have driven the roll out of new and adapted approaches to remote delivery. These are virtually all different and are predominantly characterised by the individual needs of learners, their educators, and the civic boundaries within which their institutions operate. Emotive response in particular is an integral part of the emotional labour that now characterises both how, where and why people continue to study. The long-term implications and challenges of the pandemic will not only highlight an indelible mark on the landscape of global HEI, but will also have accelerated the very best of creativity, innovation and highlighted the most agile and responsive institutions, who in the spirit of connectedness that global education once represented, we can hope will be disseminated as an integral part of sharing best practice. Whilst the COVID-19 pandemic has impacted on society with equal measure in relation to its infectivity, what it has illuminated, in the context of HEI learners is the clear disparity between those who are digitally poor and those who are not. This divide is further expanded when dependency on digital literacy and IT are used as an integral part of educational provision not just an integral part of it. The transformative capacity of educational provision is perhaps the one constant that we can hinge most hope and perspective on. The disruptive ambiguity we now face, will become a future benchmark of success and hope for the global sector.

Connection to the special edition theme

This paper links directly to the special edition theme and scope by exploring how concepts of emotional labour and consequent emotive responses to disruptive processes of transformative and arguably critical pedagogy has been applied to teaching and learning on a global stage. The reflections of the educators provide a rich narrative authentic positionality within this Coronavirus Pandemic.

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A Contemplative Pedagogy: The Practice of Presence When the Present is Overwhelming

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Abstract

Through the use of contemplative practices in higher education, contemplative pedagogy is a vastly growing movement and more than capable of fostering transformative learning in a social justice curriculum. My current research is on the implementation of contemplative practices in a Women's and Gender Studies classroom and includes acknowledging the subversive work a contemplative pedagogy does in higher education. As a social justice educator, I feel it is vital to share tools with my students that not only validate their voices and lived experiences but provide them opportunities to practice self-care in connection with community care. Teaching and learning about privilege and oppression is mentally, physically, and emotionally challenging. Learning sustainable and healing ways to navigate social justice education as both a teacher and a student is nonlinear and never complete. During the spring semester of 2020, the Coronavirus pandemic required that my Gender and Social Change class transition from a face-to-face classroom to a virtual space eight weeks into the semester. I knew the benefits of implementing contemplative practices during "normal" semesters; however, I was uncertain of how best to support my students during a global pandemic. Each student had unique circumstances they were trying to navigate such as access to technology, access to healthcare, access to time and space to work from home, access to income on top of the additional responsibilities that come with living inside of a pandemic. It was my intent to meet my students where they were and offer tools for their wellbeing while teaching about internalized and systemic oppression.

Keywords: transformative learning, contemplative practices, compassionate listening, uncomfortable feelings, difficult conversations, social justice, anti-oppression, pedagogy

Teaching Social Justice

Transformative learning refers to the process by which we transform our taken-for granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action.
—Jack Mezirow, "Learning to Think Like an Adult"

As a women's studies scholar and teacher, I consistently search for transformative ways to introduce my students to complex and complicated social justice concepts such as privilege, oppression, and intersectionality. From the first time that I taught a women's studies course over eight years ago, I noticed many students left class with feelings of hopelessness and helplessness. Once they were introduced to issues such as white supremacy, patriarchy, imperialism, capitalism, colonialism, the prison industrial complex, and other social justice issues students often felt overwhelmed and uncertain about how to contribute to systemic change. Increased awareness of one's habitual ways of thinking in relation to how oppression works on a personal and systemic level includes acknowledging our assumptions and that we are all uniquely complicit in systems of oppression. Learning about injustice and our part in it can elicit uncomfortable feelings such as anger, grief, denial, guilt, and shame as growing pains often do. Experiencing uncomfortable feelings can lead to resistance and defensiveness inhibiting our ability to stay

present and engaged in generative classroom conversations, which are a vital component of WGS and my contemplative pedagogy. Witnessing my students struggle to stay present and engaged during difficult classroom conversations around social justice is a challenge that I continue to face each semester.

Maurianne Adams, Professor Emerita at UMass Amherst College of Education, writes about the strong and often unexpected emotions students experience when their previous values, assumptions, and beliefs are called into question by new information and perspectives (2016). She explains that students' perspectives have been shaped by family, school, religion, and other institutions, and they may resist both the instructor and the course material when their core beliefs and worldviews are challenged (pp. 44–45). Students can experience uncomfortable feelings when they feel threatened emotionally or mentally. Diane Goodman, educator and consultant on diversity, equity, inclusion, and social justice discusses resistance stemming from fear and discomfort in social justice education and claims:

> Since we are asking people to question their fundamental belief systems, it makes sense that people feel threatened and act resistant. Defensiveness, specifically, is a way to mitigate anxiety, assuage guilt, or protect against other painful feelings. It is irrational, an automatic reaction rather than a considered choice. When people's needs for safety and stability are not met, they turn off, shut down, and avoid new information—hardly conditions for education to occur. (2011, p. 51)

Adams believes that social justice classrooms need a pedagogy that acknowledges the emotional as well as cognitive aspects of learning, and that encourages and teaches communication skills for dialogue, critical inquiry, and complex thinking. Adams claims, "They may not be prepared to use analytic frameworks when enmeshed in their own personal experiences" (p. 28). Likewise, Mezirow discusses the emotional difficulty involved in the "struggle as old perspectives become challenged and transformed" (2012, p. 23). Students are not always aware of how to navigate uncomfortable feelings and will often disengage from the classroom dialogue or course material. Offering students resources that support their ability to nonjudgmentally observe their feelings while staying present and engaged in the difficult work of learning about social justice is crucial to their learning process.

My experience as a student felt very disembodied. I was not encouraged to bring my lived experiences as a spiritual person, as a mother, as twice divorced, as queer, as living in poverty, and as struggling with depression and anxiety into the classroom. It was as if my lived experiences could and should be left at the door; as if these identities and experiences had no effect on my knowing, learning, and being; as if they were not affected, connected, and interdependent with the issues we were learning about in class and with the sociopolitical events taking place in the world. Therefore, as a teacher I feel a strong desire to teach the whole student: body, mind, and spirit. Teaching holistically means that I value their lived experiences. I feel neglectful increasing my students' awareness of social injustice: racism, sexism, classism, ableism, white supremacy, privilege, homophobia, transphobia, systemic oppression, and internalized oppression without offering students resources for self and community care alongside tools for personal and social transformation. From my experiences as a student and teacher in WGS classrooms, I propose implementing contemplative practices as a resource for students to make mind-body connections through nonjudgmentally observing their emotional, physical, and mental experiences while engaging in difficult classroom conversations on complex social justice issues.

Contemplative Pedagogy as Transformative, Liberatory, & Subversive

A contemplative pedagogy can be transformative, liberatory, and subversive. Transformative learning may be defined as "learning that transforms problematic frames of reference to make them more inclusive, discriminating, reflective, open, and emotionally able to change" (Mezirow, 2009, p. 22). A contemplative pedagogy inclusive of the implementation of contemplative practices within a social justice curriculum is transformative in that it creates space in the classroom for students to pause, reflect, and choose their responses in classroom dialogues and to reflect on how they know what they know, who they learned it from, and who it serves for them to know it in this way. Mezirow writes that transformative

reasoning "may involve critically examining the epistemic assumptions supporting one's values, beliefs, convictions, and preferences and reassessing reasons that support a problematic frame of reference" (2009, p. 23). A contemplative pedagogy inclusive of contemplative practices and assignments asks students to question their assumptions, to make connections between the personal and political, to make connections between their lived experiences and the experiences of those in their communities and the world at large, and to think critically about how to enter the difficult conversations so needed to contribute to personal and social transformation. Charity Johansson and Peter Felton write about the challenges of transforming students and institutions and claim:

> A university cannot compel or guarantee transformative learning for its students or for its faculty and staff. But leaders in higher education *can* provide a fertile environment for meaningful transformation. Our goal is for our students to become their own universities, integrating what they have learned into their daily lives and internalizing the transformative process and thus continuing to grow long after they leave the classrooms, residence halls, and lawns of the college campus. In essence, alumni become the embodiment of the university. (2014, p. 102)

A contemplative pedagogy can also be transformative in that it values the individual lived experiences of students; it promotes and supports students' use of critical self-reflection through the use of the contemplative journaling; and it creates a brave space[1] for generative dialogues on difficult topics such as racism, classism, and sexism as experienced on both a personal and systemic level. A contemplative pedagogy creates space for students to turn inward and observe their assumptions around justice, privilege, internalized and systemic oppression, identity, and more. Students may benefit from resources such as contemplative practices for support in working with more analytic, abstract, critical, and nuanced thinking skills. Contemplative practices acknowledge the emotional and embodied aspects of learning. Students are provided an opportunity to understand, respect, and value others with different lived experiences, beliefs, and values through the inner work of self-reflection in conjunction with learning about different ways of knowing and experiencing the world.

A contemplative pedagogy can be liberatory if it is centered around personal and social transformation through consciousness raising and engagement with a social justice and anti-oppression pedagogy. Contemplative practices invite students into their learning process as participants and co-creators of knowledge and not simply depositories as seen in Freire's (2000) banking model of education.[2] A contemplative pedagogy connects with Paulo Freire's theory on transformative and liberatory education in that it 1) works effectively to keep education accessible to all students in the classroom regardless of their identities; 2) focuses on critical thinking as part of the contemplative work involved in developing both the self and community within the classroom; and 3) considers critical education a form of networking where each student contributes to and is part of the co-creation of knowledge production (p. 17). Inspired by Freire's liberatory education model, bell hooks confesses:

> it was Freire's insistence that education could be the practice of freedom that encouraged me to create strategies for what he called "conscientization" in the classroom. Translating that term to critical awareness and engagement, I entered the classrooms with the conviction that it was crucial for me and every other student to be an active participant, not a passive consumer. (1994, p. 14)

Through my participation in contemplative practices and my creation of a contemplative curriculum, I am intentionally creating space for the entire class to actively embody participation in our learning process.

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[1] For more on brave spaces versus safe spaces see Brian Arao and Kristi Clemens' (2013) work.
[2] The banking model of education is a term used by Paulo Freire (2000) and refers to students as containers in which educators as experts must deposit knowledge into the students as if they were empty vessels without knowledge or experiences of their own.

A contemplative pedagogy can be subversive in that it acknowledges and validates embodied ways of knowing such as emotions and physical senses when systems of education have historically focused on rationality and logic as more legitimate ways of knowing. When we consider systems of oppression, we may think about the Prison Industrial Complex, the Medical Industrial Complex, or the Military Industrial Complex, but we must seriously acknowledge the Educational Industrial Complex as a system capable of establishing and reinforcing oppression on multiple levels. Students are more than rational beings; they are also emotional, physical, and spiritual beings. They enter the classroom with ancestral wisdom and emotional and embodied experiences that contribute to knowledge beyond their minds. In "Transformative Learning Theory," Mezirow offers a response to colleagues who felt that he neglected the role of imagination, intuition, and emotion:

> I have noted that the process by which we construe our beliefs may involve taken-for-granted values, stereotyping, selective attention, limited comprehension, projection, rationalization, minimizing, or denial. These considerations are reasons that we need to be able to critically assess and validate the assumptions supporting our own beliefs and expectations and those of others. The way we typify persons, things, and events becomes our realities. (2009, p. 27)

Through self-reflection, students are invited to observe and acknowledge how their embodied and lived experiences can contribute to subverting dominant ways of knowing along with dismantling social norms and the status quo, which is useful when learning about injustice and in imagining ways to transform systemic oppressions.

Contemplative Practices in WGS Classrooms

> A form of spiritual inquiry, conocimiento is reached via creative acts—writing, art-making, dancing, healing, teaching, meditation, and spiritual activism—both mental and somatic (the body, too, is a form as well as site of creativity).
>
> —Gloria E. Anzaldúa, *Light in the Dark*

A contemplative pedagogy often involves the implementation of contemplative practices in the classroom. Contemplative practices are as diverse in practice as they are in historical, religious, and secular traditions. They include but are not limited to meditation, yoga, writing, dancing, walking, and singing. According to The Center for Contemplative Mind in Society (CMind), contemplative practices are "practical, radical, and transformative, developing capacities for deep concentration and quieting the mind in the midst of the action and distraction that fills everyday life ("Contemplative Practices," n.d.). In the epigraph above, Gloria E. Anzaldúa (2015) claims that we reach conocimiento[3] through creative acts, which she defines as deriving from "*cognoscera*, a Latin verb meaning 'to know' and is the Spanish word for knowledge and skill. I [Anzaldúa] call conocimiento that aspect of consciousness urging you to act on the knowledge gained" (p. 237). She names various creative acts, which I refer to as contemplative practices, as capable of invoking a spiritual, or contemplative inquiry: writing, art-making, dancing, healing, teaching, meditation, and spiritual activism. Anzaldúa proposes a connection between our inner struggles faced on a day-to-day basis and systemic issues in the world.

In my search for ways to encourage and support my students' struggle to stay present and engaged in classroom conversations on social justice, around eight years ago I began implementing contemplative practices such as mindfulness, compassionate listening, meditation, and journaling in my WGS classes. I was increasingly inspired by other academics implementing contemplative practices in higher education through CMind. In 2015, I attended their summer pedagogy session at the University of Massachusetts in Amherst, MA and their fall academic conference at Howard University in Washington,

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[3] Anzaldúa defines conocimiento as "that aspect of consciousness urging you to act on the knowledge gained" (2015, p. 237).

DC and was inspired by the variety of ways educators were implementing contemplative practices in higher education across disciplines. I met Beth Berila, Director of the Gender & Women's Studies Program at St. Cloud University and, through CMind. Foundational for her work on implementing mindfulness in a social justice pedagogy, Berila continues to serve as a catalyst for thinking critically about the implementation of mindfulness in a women's studies pedagogy. In her book *Integrating Mindfulness Into Anti-Oppression Pedagogy: Social Justice in Higher Education* (2013), she asserts that "Integrating mindfulness offers the possibility for a more empowered embodiment, which … is critical to not only interrupting injustice but also to building more resilient and vibrant communities" (p. x). Although implementing contemplative practices in my classrooms was not new to me, Berila's work inspired me with her emphasis on the critical analysis needed to understand the complexity, challenges, and importance of implementing mindfulness in a social justice, anti-oppression pedagogy.

Contemplative Practices During COVID-19

In March of 2020, my Gender and Social Change class transitioned from face-to-face to online instruction due to the COVID-19 global pandemic. Neither my students nor myself were prepared for what the second half of our semester would look or feel like because we had never experienced transitioning from face-to-face to online after eight weeks in our beloved community[4] on campus, and we had never experienced navigating living amidst a global pandemic. I assumed that my students would find contemplative practices both beneficial and challenging during the remainder of the semester, but I was not sure how participating in contemplative practices would be different both online and amidst a pandemic. Initially, I was interested in exploring the difference between online students' and face-to-face students' experiences participating in contemplative practices within a social justice curriculum. However, after listening to some of my students' experiences, I became more interested in exploring if and how students found contemplative practices useful and practical in navigating life during COVID-19.

Implementing contemplative practices in WGS courses through the years has taught me a lot. I have learned about my students' lives by listening to their experiences participating in contemplative practices in conjunction with a social justice curriculum. My students share how contemplative practices increase their self-awareness, self-compassion, and self-acceptance. They also share how these practices decrease their stress and tension levels while increasing their ability to focus and stay present. Of course, my students also report the challenges that they face while participating in contemplative practices such as finding the time and energy to practice after a full day of work, school, and parenting. Some students report an inability to sit still, often due to uncomfortable feelings or intrusive thoughts that arise when they get quiet. After implementing contemplative practices in my WGS classes for the past eight years, I did not expect a lot of surprises; however, implementing contemplative practices in an online class in the midst of a global pandemic was new to me. While there are many benefits to teaching and learning online, there are inevitably challenges we must acknowledge and be mindful of when creating online learning spaces. Andrea Domingue, Ed.D., points out how students "may not learn how to address challenging conversational conflicts and attend to cues of body language or facial expression that are evident in face-to-face encounters" (2016, p. 378). She also emphasizes the writing skills needed to participate in online discussion threads inclusive of cultural references not all students are aware of; therefore, educators must be mindful in explaining these references and encourage and support students in asking clarifying questions when they do not understand something. These challenges along with others such as access to technology, space, and time make it imperative that contemplative educators are mindful of the different levels of online participation and understanding among their students at any given time. Aside from the valid challenges to teaching and learning online, I found interesting results exploring students' self-

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[4] The first week of each semester, I introduce my students to Martin Luther King Jr.'s Beloved Community through Jeff Ritterman's (2014) article, "The Beloved Community: Martin Luther King Jr.'s Prescription for a Healthy Society" where he talks about King's vision for an inclusive, equitable, and affirming community.

reported experiences participating in contemplative practices during COVID-19 compared to other non-pandemic semesters.

As I mentioned earlier, my dissertation was on the implementation of contemplative practices in a WGS classroom. After collecting data from my spring of 2019 WGS class, I continued to teach while writing my dissertation. In the spring of 2020 amidst a global pandemic, I invited my students to participate in my study in order to explore their experiences participating in contemplative practices. Five of my students volunteered to participate in my study. At the end of the semester, I asked them to respond to eight questions: 1) How are you navigating the switch from a face-to-face class to online instruction? 2) What are your ideas and strategies for effectively working at home? 3) What are some challenges you face? 4) What are you doing to stay safe physically? 5) What are you doing to stay well mentally and emotionally? 6) Are you finding any of the contemplative practices we learned about helpful during your COVID-19 pandemic experience up to this point in time? 7) From your experience during the COVID-19 pandemic, what are some ideas for how we can take care of ourselves, our families, and our communities in times of crisis? and 8) Please share some connections you see between the COVID-19 pandemic and the social justice issues we learned about this semester? In this essay, I share some of my students' responses to question six, "Are you finding any of the contemplative practices we learned about helpful during your COVID-19 pandemic experience up to this point in time?" and question eight, "Please share some connections you see between the COVID-19 pandemic and the social justice issues we learned about this semester?"

Contemplative Practices as Self-Care

When students were asked if they found any of the contemplative practices helpful during their COVID-19 pandemic experience, they shared numerous ways they found the practices helpful. Self-care emerged as a theme with students naming benefits such as calming, relaxing, healing, mental wellbeing, mind-body wellness, and stress relieving as helpful to them during the pandemic. Dalina shared her experience participating in the mantra practice, "I can feel its effectiveness in calming my mind, soul, or relaxing my body after encountering stressful school and life matters; specifically, the mantra practice helps me a lot because it has major similarities to my daily belief/meditation in Buddhism." She made a connection between the mantra practice and her own daily religious practices, which makes sense because she found the practice similar to her own religious practices. In another class, a student shared their resistance and hesitancy to participate in the mantra practice due to their feelings of fear around the practice conflicting with their own religious beliefs. Learning this reminds me of the importance in acknowledging that students have unique lived experiences that connect and influence their experiences in the classroom and with the curriculum.

Students made various connections between self-care, course material, and social justice. Holly referenced one of our assigned readings by bell hooks in her response:

> In bell hooks essay 'Feminism: A Transformational Politic' (2014), she discusses the need for self-care and healing. [hooks claims] It is vital because in order to find social justice, we have to work together. Social justice starts with your own self, and if you are not healed from the injustice you've experienced it won't work.

I encourage students to consider connections between their lived experiences, their participation in contemplative practices, the assigned course material, and the social justice issues they are learning about throughout the semester. Inviting students to make these connections creates opportunities for them to deeply engage with social justice issues often seen and taught from an abstract and theoretical perspective.

Both Catlyn and Kerry shared how participating in a writing practice contributed to their mental wellbeing during the pandemic. Catlyn shared her experience journaling and what it meant to her:

It is my emotional and mental well-being I am having trouble with. If my mind is going crazy with intrusive thoughts, I will write them down. This contemplative practice [journaling] allows me to forget about things that crowd my brain. Sometimes I will go on long walks, which helps me release precious endorphins.

Through journaling, Catlyn practiced vulnerability in confessing her challenge with emotional and mental wellness. Intrusive thoughts were a common experience among students. I have seen an increase over the years in critical self-talk and self-judgment mentioned in students' journals. A consistent journaling practice creates space for students to go within and observe their intrusive thoughts without judgement or criticism or at least to observe their judgment and criticism with compassion. Kerry also chose journaling as a contemplative practice and found a way to take advantage of living in quarantine through her writing practice:

One thing I can take away from this is using this time in the house to actually take care of myself. Like reading a contemplative practice and using it towards my day so that it may be filled with something other than being a couch potato. One practice I like to do the most is writing down my thoughts and goals. And while doing this I can release any stress I had before, and now complete my day in a brighter light. Doing this everyday can help a lot of people other than me, and that's how I know there is a positive in staying at home. Finding what fitted me and made me feel comfortable led me into believing this will soon be over.

Kerry made a connection between staying home and discovering a practice that was beneficial for her as well as for her community. As mentioned earlier, it is important for students to make connections between their day-to-day thoughts and actions and the world at large. Students' awareness of the effects of what is happening in the world on their bodies and minds along with an awareness of their personal impact in the world has the capacity to decrease feelings of hopelessness and helplessness by increasing their sense of agency in contributing to personal and social change.

Many students shared how time in nature was an extremely useful practice in presence. Time outside served as an invitation for students to come back into their body and feel less consumed by their thoughts. Ursulina shared how beneficial time outside was for her during the pandemic:

Contemplative practices have definitely given me a way to cope with all the thoughts going through my head. Being able to sit outside and paint, write, or just meditate has helped me check-in with myself and make sure I feel comfortable. I am thankful that I learned about this and am able to implement this into my current situation.

Based on Ursulina and many other students' experiences with contemplative practices during COVID-19, intentional time outside was a helpful practice for observing and attending to intrusive thoughts. As Ursulina pointed out, spending time outside created space for students to "check-in" with themselves as a form of self-care.

Marilyn chose yoga as her contemplative practice. She described how yoga and other contemplative practices benefited her during the pandemic: "To keep a balance of mental and emotional health, I use my contemplative practice called yoga. For peace and positive energy, I also practice other contemplative practices, including listening to music, singing, walking, dancing, and painting." Living a balanced life is a challenge for most people on a daily basis let alone during a pandemic. Marilyn's participation in contemplative practices offered her a space to create mental and emotional balance as well as provided her with a sense of peace and good energy—all helpful when living amidst a global health pandemic.

Connections Between COVID-19 and Social Justice

Students shared connections they made between the COVID-19 global pandemic and the social justice issues they were learning about throughout the semester. In this section, I will share themes of community, intersectionality,[5] mental health, privilege, and racism. Both Kerry and Ursulina emphasized a connection between the pandemic and community. Kerry referenced the beloved community that students are introduced to the first week of class:

> We may live in different communities but we all have the same goal, which is bringing out the best in the situations we are in. We have seen teachers make efforts on bringing you back into their students' lives, we have seen restaurants serve essential workers for being out on the front line. That is a representation on what a beloved community is, people standing and fighting together to help a terrifying cause.

Kerry acknowledges the work that teachers do in engaging students to connect. She also acknowledges restaurants for serving the community of essential workers in dire times. As mentioned earlier, I introduced students to Martin Luther King Jr.'s concept of a beloved community early in the semester. It helped students acknowledge important connections between the beloved community we cocreated in our classroom and the work needed to create a beloved community outside of the classroom during the pandemic.

The connections that students made between the pandemic and social justice were lengthy but poignant. I felt the desire to share them in their entirety in order to capture the nuance. Ursulina shared connections between capitalism and the pandemic:

> There is a social justice connection everywhere, enough for me to write a whole new paper about it. The most that has stuck out to me is about how disconnected we are as a nation. The virus does not care about what political party you belong to, your race, age, gender, religion, sexual orientation, etc. Yet there still seems to be division as to what we should and should not do. There comes a point where we have to listen to the facts without sugar coating it: people are dying, this is a highly contagious disease, for as much as we might miss it, "normal" will never be the same until this disease no longer exists. We, as a society, cannot be selfish and demand to leave [home] because of personal boredom. Being bored is a privilege—the fact that staying home could save a life and people still chose to ignore this shocks me. No other nation has had to protest to "the right to leave their home." The pandemic seems far from over, but people are eager to return to "normal." It truly shocks me how brainwashed this capitalist economy has people. Though the future seems uncertain, we must remember to take things one day at a time. Everyone's best looks different, and we should not judge one another for what peoples' best could be. I will continue to do my part to help my community and I hope people will do the same.

The complex connections Ursulina makes between capitalism and the pandemic are important because it illustrates her ability to understand how capitalism works in people's lives and relationships and indicates a deeper understanding of systemic oppression. Learning about capitalism earlier in the semester increased her awareness of a need for collaboration and collective work versus individualism. I appreciate Ursulina's awareness and emphasis on the current state of our nation as well as its effect on a global scale.

I consistently invite students to contemplate the connections between our daily lived experiences and the systems and structures that some of us benefit from and are complicit in through intersectional

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[5] Intersectionality is a term coined by Kimberlé Crenshaw and refers to the multiple forms of oppression BIPOC belonging to multiple marginalized groups experience simultaneously.

theory and analysis. Marilyn's intersectional approach illuminates the connection between systemic forms of oppression and the unique ways in which people are affected during a global pandemic:

> The COVID-19 pandemic has illuminated severe social injustices related to intersectionality, including age, race, ethnicity, and economic status… Unfortunately, during a press conference, the President blamed China and called the coronavirus the China virus. Following his statements, people of Chinese ethnicity were attacked and beaten. This occurrence is one example of a connection between the COVID-19 pandemic and the social justice issues we have studied. The narrative shifted to African Americans being mostly affected, which brought the pillar of Slavery/Capitalism to mind. It involves the continuous enslavement of African Americans through systems like a prison, promoting negative perspectives, and capitalizing their labor. In Chicago, Blacks represent seventy percent of the people who have died. Systemic social issues surge these outcomes, including inadequate healthcare, lack of livable wages to purchase food and supplies necessary for quarantine, and lack of opportunities to work from home. The pillar of Genocide/Colonialism operates in the colonializing and genocide of Native people. These Indigenous people's voices are missing from the narrative.

Marilyn made clear connections between the global pandemic and the treatment of marginalized groups beginning with xenophobia around the blaming of China and Chinese people for the virus and transitioning to the historical lack of access to resources in Black, Indigenous, and People of Colors (BIPOC) communities. In the beginning of the pandemic, we heard messages in the media that COVID-19 does not discriminate, but now we see it is much more complicated than that because COVID-19 affects marginalized communities differently. Holly takes an intersectional approach in her response as well by emphasizing the connection between the pandemic, privilege, and racism:

> I found that I can connect this pandemic to other social justice issues. COVID-19 is not only a health and mental health crisis, but it is also a crisis of individuals who earn low incomes, homeless individuals, individuals who are over 65, and people of color. Many have lost their jobs because they are not "essential" and for those who are "essential" they are at risk of catching the virus. Some precautions we take to prevent the spread of COVID-19 is not practical for homeless individuals. They lack the access to soap, water, proper care, medications, and when available, they stay in crowded shelters. They are also poorly treated when it comes to chronic illnesses, which puts them at a greater risk of the infection. During outbreaks such as this one, we see attacks on marginalized groups increase. The racism towards Chinese Americans and other Asian Americans blames them for spreading disease.

Holly understands how minoritized[6] groups and individuals are affected and oppressed through racism and a lack of access to resources such as jobs, healthcare, and housing. Learning about social justice issues throughout the semester such as privilege, oppression, racism, classism, sexism, and ableism helped students understand and provide a more nuanced and critical analysis of how different people are experiencing the pandemic.

Imagining the Future

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[6] I. E. Smith (2016) explains the importance in naming and claims, "I believe that "groups that are different in race, religious creed, nation of origin, sexuality, and gender and as a result of social constructs have less power or representation compared to other members or groups in society" should be considered *minoritized.* Women are not minorities; they are one of many minoritized groups … People who are minoritized endure mistreatment, and face prejudices that are enforced upon them because of situations outside of their control." ("Minority Versus Minoritized: Why the Noun Just Doesn't Cut It")

Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.

—Victor E. Frankl

More research on the implications of a contemplative pedagogy as capable of 1) creating space for responding more meaningfully, 2) creating space for what Johansson and Felton describe as "disequilibrium" with a belief that it will "open the way for change that we hope will be significant and lasting—indeed, transformative," (p. 16) and (3) creating space for students' to be uncomfortable. In these ways, contemplative pedagogy can be useful in the field of transformative teaching and learning. Educational interventions such as contemplative practices are useful in ensuring "the learner acquires the understandings, skills, and dispositions essential for transformational learning [possible components of a contemplative pedagogy]" (Mezirow, 1997, p. 11). If we can imagine a contemplative pedagogy as transformational in how it acknowledges both the personal and political work taking place within a social justice classroom, I believe contemplative practices are a very useful point of departure. As I continue in this area of research, I imagine the possibilities of the capacity of contemplative practices to increase students' ability to stay present and engaged in difficult conversations around social justice while experiencing uncomfortable feelings. I anticipate one of the implications of a contemplative pedagogy will include more generative classroom conversations, and ultimately, personal and social transformation.

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Recommitting to Trauma-informed Teaching Principles to Support Student Learning: An Example of a Transformation in Response to the Coronavirus Pandemic

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Abstract

In our roles as adjunct faculty and full-time higher education administrators managing an online program, we (Marquart & Báez) were already using Trauma Informed Teaching and Learning (TITL) practices in our own classrooms as well as training and mentoring faculty on the use of TITL practices. However, as a result of the pandemic, we both found that our use of trauma-informed teaching and learning practices significantly increased, particularly our compassion, collaboration with students, and flexibility with assignment deadlines. In this essay, we reflect on our individualized experiences as adjunct faculty, one teaching during the first semester of the pandemic in March–May and the other teaching during the second semester of the pandemic in May–July. Because of the collective trauma and distress of the pandemic, we gained a new perspective on a practice we believed in—we reconceptualized TITL practices as much more fundamental to teaching, both now and in the long term.

Keywords: Transformative learning, trauma-informed teaching and learning, TITL, COVID-19 pandemic, pedagogy, online teaching, distance education

Introduction

The coronavirus pandemic has served as a catalyst for faculty to adopt trauma-informed teaching and learning (TITL) practices, as educators across disciplines have shifted their teaching to be more compassionate, flexible, consistent, and predictable in response to the worldwide trauma and distress (Alhadad et al., 2020; Davidson, 2020; Marquart, Carello, & Báez, 2020; Mascolo, 2020; Strauss, 2020; White & Ruth-Sahd, 2020; Zinger, 2020).

This paper describes the reflective processes of two instructors whose experiences teaching during the pandemic have been transformative and have led to a recommitment to TITL to support student learning. We connect transformative learning theory with TITL, and share the impact of our own transformative experiences on our teaching practices due to the pandemic. Our conceptual framework integrates both transformative learning and TITL, and is grounded in the perspective that the pandemic has been a major life change that has served as a dilemma that drives educators to use trauma-informed practices (SAMHSA, 2014).

An Overview of TITL

A TITL approach to teaching applies six trauma-informed principles to classrooms. These principles, originally developed by Maxine Harris and Roger Fallot (2001), were adapted and expanded upon by the United States' Substance Abuse and Mental Health Services Administration (SAMHSA,

2014). They were then adapted for higher education by Janice Carello and Lisa Butler (Carello, 2018a; Carello & Butler, 2015). The six principles include: physical, emotional, social, and academic respect; trustworthiness and transparency; support and connection; collaboration and mutuality; empowerment, voice, and choice; cultural, historical, and gender contexts; and resilience, growth, and change. These principles acknowledge that traumatic experiences are widespread and harmful, and that the long-term impacts of trauma can interfere with academic success (Perry, 2006). The goal of using strategies based on these TITL principles is to mitigate the effects of trauma in order to support student success.

Examples of trauma-informed strategies include providing opportunities for students to share power, such as by co-creating classroom agreements together with students (Collaboration and Mutuality), recognizing students' strengths and resilience, such as by celebrating student successes (Resilience, Growth, and Change), and building in choices for students, such as by allowing students in online classes to respond to questions via chat or webcam (Empowerment, Voice, and Choice).

Ideas related to TITL have been described in terminology such as trauma-aware or trauma-responsive (Missouri, 2014), trauma-sensitive (Alexander, 2019), compassionate teaching (Jennings, 2018), compassionate pedagogy or critical compassionate pedagogy (Cammarota & Romero, 2006; Dickson & Summerville, 2018; Hao, 2011), pedagogy of kindness (Denial, 2019), grace before grades (Engler et al, 2020), and Maslow before Bloom (Berger, 2020). At the heart of these approaches is the understanding that educators can promote student achievement by addressing barriers resulting from the impacts of traumatic human experiences, and create classroom communities that promote student wellbeing and learning.

Transformative Learning in a Pandemic

Perspective transformation can either occur through a series of cumulative revisions of our frame of reference or as a result of a personal or social crisis (Taylor, 2008). The coronavirus pandemic catalyzed transformation in our teaching and learning both as a series of cumulative revisions of our frame for teaching online and as a personal and social collective crisis, during a time of continued systematic injustice due to racism and political instability. As Jack Mezirow (1978) described perspective transformation:

> There are certain challenges or dilemmas of adult life that cannot be resolved by the usual way we handle problems … Life becomes untenable, and we undergo significant phases of reassessment and growth in which familiar assumptions are challenged and new directions and commitments are charted … When a meaning perspective can no longer comfortably deal with anomalies in a new situation, a transformation can occur. (p. 101)

We noted that our teaching became even more inclusive, self-reflective, and integrative (Mezirow, 1997), as we had no choice but to be transformative learners, alongside our students. With our unique lens of being social workers, we embraced conceptions of transformative learning that included holding our students' positionality and intersectionality, an appreciation for the role of relationships, and a centering of context and social change in our transformative experience. We used critical reflection to think about the meaning and implications of the different structures we were using in the online classroom and made changes *with* students based on their feedback. Consistent with an emancipatory perspective on transformative learning, we sought to share power with our students and have them develop their own agency both in the classroom and outside of the classroom to transform society (Freire & Macedo, 1995).

The coronavirus pandemic has been a dilemma that has caused us as educators to challenge our familiar assumptions, chart new directions, and transform. It has altered our self-identity as educators who now have a much stronger commitment to TITL practices, and ultimately in this way, it has improved our teaching.

TITL and Transformative Learning Theory: Two Overlapping Concepts

This essay advances transformative learning theory by connecting it with TITL. There are key elements that connect between transformative learning theory and TITL (Table 1), and both influenced our transformative experience of teaching during the pandemic. Both are learner-centered, encourage student discourse, and involve critical reflection, and they are paradigm shifts that speak to the heart of student learning. Student-centered transformative learning and TITL require an acknowledgment of students' humanity, and incorporate teaching practices that accommodate needs created by human experience.

As a result of the global pandemic, which has been traumatic and has shifted worldviews on a grand scale, we anticipate that classrooms will be impacted for years to come, and we see value in a long-term pedagogical approach that integrates these complementary frameworks. This approach also supports other times of stress and uncertainty, which are bound to come up in the future.

Table 1

Complementary Aspects of Transformative Learning Theory and TITL

Trauma-Informed Teaching and Learning	Transformative Learning Theory
Definition: "TITL is an approach to college curriculum delivery that involves adopting a set of trauma-informed principles to inform educational policies and procedures." (Marquart, Carello, & Báez, 2020)	**Definition:** "A process of affecting change in a *frame of reference*." (Mezirow, 1997)
Foundational premise: Trauma is a universal human experience, and the majority of adults have been impacted (SAMHSA, 2014)	**Foundational premise:** Transformative learning theory is "the essence of adult education" (Mezirow, 1997)
TITL principles:	**Elements and perspectives that connect with TITL principles:**
Physical, emotional, social, and academic respect	Educators focus on "engaging with students to mutually examine their own worldviews," rather than imposing a predetermined view (Hoggan & Kloubert, 2020)
Trustworthiness and transparency	Building trust entails developing community via a welcoming environment and connecting through vulnerability including via check-in rituals, which leads to freedom and empowerment for learning (Haber-Curran & Tillapaugh, 2014)
Support and connection	Recognize that "learners may be in the midst of major life changes...drawing on TL theory for understanding can help educators design adaptive support structures and pedagogies appropriate for these extracurricular learning needs" (Hoggan & Kloubert, 2020)

Table 1 Continued

Trauma-Informed Teaching and Learning	Transformative Learning Theory
Collaboration and mutuality	Eisen (2001) identified a peer dynamic that reflects essential relational qualities including non-hierarchical status, non-evaluative feedback, and establishment of mutual goals (as cited in Taylor, 2008)
Empowerment, voice, and choice	Social-emancipatory: Develop student agency and share power with students (Freire & Macedo, 1995)
Cultural, historical, and gender contexts	"A race-centric view of transformative learning is culturally bounded, oppositional, and non-individualistic" (Williams, 2003 as cited in Taylor, 2008); A cultural-spiritual view is concerned with "connections between individuals and social structures...and notions of intersecting positionalities" (Tisdell, 2005 as cited in Taylor, 2008)
Resilience, growth, and change	Holistic approach: Recognizes the importance of relationships, "about inviting the whole person into the classroom environment" (Dirkx, 2006 as cited in Taylor, 2008)

Implementing TITL Prior to the Pandemic: Pre-Transformation

In our roles as adjunct faculty and full-time higher education administrators managing an online program, we were already using TITL practices in our own classrooms and training and mentoring faculty on the use of TITL practices as well (Marquart, Báez, & Garay, 2019; Marquart & Verdooner, 2019; Ortega, et al., 2018). This has been particularly important as educators in our specific discipline because in the field of social work, students and practitioners have often experienced higher rates of adverse childhood experiences and greater vicarious or secondary trauma than the general population (Butler, et al., 2018; Carello, 2018b; Didham et al., 2011; Dykes & Green, 2016; Gilin & Kauffman, 2015; Rubi, 2020; Steen, et al., 2020; Thomas, 2016).

However, social work students, similar to many other students, also have a "fairly high degree of resilience" (Wilks, 2008). Resilience is the degree to which one is able to overcome challenges and find meaning out of adversity (Masten & Reed, 2002). Along with resilience, research has found that individuals can be changed in radical ways through struggle and trauma in a process known as posttraumatic growth (Calhoun & Tedeschi, 2014). In posttraumatic growth, individuals grow out of adversity from creating a greater appreciation of life to looking towards new possibilities (Tedeschi & Calhoun, 1996). And, recent innovative models of posttraumatic growth have included both individual and collective factors in building strength and adversity, especially with those who have been historically and currently targeted for ongoing systemic violence and discrimination based on racial and ethnic identity (Ortega-Williams et al., 2021). This has led us to ask ourselves and our colleagues: how are we as educators building resilience and wellbeing in our students to support their growth?

Transforming Our Approach

As a result of the pandemic, we both found that our use of TITL practices significantly increased, particularly our compassion, collaboration with students, and flexibility with assignment deadlines. At the same time, we have received increased interest from educators across disciplines seeking to learn to implement TITL practices (Báez, Carello, & Marquart 2020; Báez & Marquart, 2020; Marquart, Báez, & Florio, 2021).

Because of the collective trauma and distress of the pandemic, we gained a new perspective on a practice we already believed in—we reconceptualized TITL practices as much more fundamental to teaching, both now and in the long term. We reexamined when to offer deadline extensions for coursework and how much flexibility to offer, how to incorporate student feedback on assignment requirements while continuing to meet course objectives, how to intentionally demonstrate compassion in interactions with students, and how to balance competing interests and viewpoints in making decisions fairly.

Teaching and Transforming in a Pandemic: March–May, 2020, Matthea Marquart

My course's first day of class was March 10th, and the next day the World Health Organization (WHO) announced that we were in a global pandemic (WHO, 2020). We had the next week off due to spring break, so we had time to think before our second class on March 24th, and in the meantime our university made the decision that all spring semester courses would be graded pass/fail (Bollinger, 2020). The course instructional team consisted of myself as the instructor, a teaching associate, and a technical support specialist because the course was an online synchronous course, and every week we planned our response to the changing conditions of the pandemic together. After the course concluded, we wrote about the experience together (Marquart, Seibel, & Wong, 2020), and several months later, after the students had graduated, we reunited to write about the experience again with one of our former students (Marquart et al., 2021). Along with writing here with a fellow instructor, this has given me the opportunity to reflect on this pandemic teaching experience over time and from multiple perspectives, and I find my teaching permanently transformed.

During the first class session of this course, the agenda reflected my usual practices. During introductions, I shared that I see the course as the beginning of our relationship as social work colleagues, and that past students have stayed in touch for reasons such as letters of reference, career advice, or to meet up at conferences. The students shared their goals for the course and anything else they wanted the group to know. We created community agreements by asking students what agreements would be helpful in establishing a sense of professionalism, leadership, and respect, and what their hopes and dreams were for our classroom community. I shared my philosophy on teaching, including how the instructional team would support their learning by creating a positive learning environment, helping them make connections between their prior knowledge and experiences and new information, giving them opportunities to practice, integrate, apply, and reflect on their learning, and giving them timely, supportive feedback. I also shared my perspective on what grades mean in my courses; I said that they are neutral feedback on a student's performance on an assignment's requirements as indicated in the rubric, they are not a judgement on a student's value as a human being, they are intended to support learning by providing feedback on coursework, and every student would be treated with respect during the course and in the future regardless of their grades. For example, if there are points in a rubric for turning in an assignment on time, students can choose whether to forgo those points by turning in the assignment late, or they can contact me ahead of time for an extension with no lost points for lateness, and either way there are no judgements or criticisms of individuals for their choices. My team and I also introduced an idea we were piloting: one "self-care coupon" per student, which students could use to turn in any one discussion forum post up to one week late for any reason, which was an idea shared by a colleague on Twitter (Thompson, 2019). The assignments included choices, including choosing topics and dates for presentations, choosing which weekly reading to respond to in weekly discussion forums, and choosing topics and groups for the

final assignment. We gave students a chance to review the rubric for the final assignment and provide feedback to update it. We asked for feedback at the end of class, and students were positive about the rest of the course to come.

I felt pleased with the trauma-informed strategies my team and I had implemented, including beginning to build an atmosphere of respect and acceptance, clarifying course expectations, sharing power with students, giving students choices, and soliciting feedback from students to improve the course. These were also strategies that fit the framework of transformative learning theory. However, by the second class session, the world had changed. One of the principles of TITL is Cultural, Historical, and Gender Contexts, and living through the beginning of a pandemic together was certainly a significant shared historical context. This was a social crisis that impacted all of us and sparked reassessment and challenging of assumptions. Suddenly, the TITL strategies implemented in the course thus far appeared stingy in the face of the crisis, as the pandemic was a major life event for myself, my team, and my students, which caused us to adapt our course pedagogy. For example, giving students only one opportunity to turn in an assignment late was not enough flexibility, as deducting points for lateness seemed cruel. Emphasizing "professionalism" in the classroom seemed ridiculous. Grading assignments for a pass/fail course seemed like it would cause unnecessary stress. My team and I prepared a proposal for changes to the course, including making some assignments optional, grading some assignments as complete or incomplete, removing penalties for lateness, and simplifying the final assignment—all of this I shared this with students during the second class as a starting point for discussion. With the students, we collectively decided on the final changes, and we also added to the community agreements that we would forgive each other because we were all going through a lot.

This experience challenged my commitment to TITL; I had previously felt satisfied with the strategies I was implementing, but teaching during the pandemic was a transformative experience that highlighted additional ways that I could commit to TITL principles. It caused me to reconceptualize what it means to meet student needs, and revisit tensions between competing ideas about teaching and learning, such as the tension between the idea that grades are an obstacle to learning (Stommel, 2017) and the idea that an important function of social work education is gatekeeping to protect clients from inadequate service providers (Sowbel & Miller, 2014). The pandemic is also highlighting social issues that impact education, including digital poverty, food and housing insecurity, disparate impacts of the pandemic on black and brown communities, and the struggles of students balancing caregiving, work, and other responsibilities with their coursework. In the wake of teaching during this period, I have recommitted to the belief that TITL is essential, and I continue to reflect on ways to go further with TITL strategies and to incorporate elements of transformative learning theory as well.

Teaching and Transforming in a Pandemic: May–July, 2020, Johanna Creswell Báez

I found myself continually transforming alongside my students, while teaching during the summer months in a pandemic. The class even started off different than other classes, as I took time to explain my worldview upfront with a focus on trauma-informed teaching and learning principles. Together, we went over the key principles of TITL; I talked about how my teaching works towards creating change and transformation, includes choices, integrates their voices and opinions, and holds the intersectionality of individual cultural, historical, and gender contexts, among other integrative and transformative approaches. We also examined the concepts of change and growth together and created our community agreements after discussing how we can support each other's growth during a time of immense change. Students were really receptive; they liked that a one-page TITL overview that was shared and asked to share it with other professors. There was a sense of feeling grounded in a collective agreement with guiding principles, in a time when everything felt unpredictable.

My first area of major transformation was around deadlines and extensions with the first assignment in the class. Many students were reaching out with personal struggles and asking for an extension. I met their personal struggles with great compassion and reflected on my own personal struggles privately (e.g. balancing a child at home, a partner trying to finish a bachelor's degree online,

dangerous protests against unjust anti-Black racism in our community, etc.). I decided to ask students during the next class session how we can hold the complexity of our own and collectively our classmates' real struggles of balancing life in a pandemic with school, while making more realistic requirements that still upheld our course objectives. The students agreed that extensions were helpful and that ultimately, it was about the students learning and completing objectives. I noted that we could transform with the TITL principles of support and trustworthiness, in giving all students the opportunity to submit their assignments up to a week late. And, if some students needed a bit longer, that could also be worked out with myself, the instructor. I have always viewed myself as flexible and focused on the learning over the grades. However, this felt like a great risk in transforming to be more flexible with deadlines. The students, on the other hand, seemed to not view this as a risk and focused more on the learning and supporting their classmates. The students modeled for me that updating our deadlines was a supportive frame change that made our class more inclusive. One student who I provided multiple extensions, actually did some of the best work on assignments and really needed these accommodations given the multitude of personal stressors going on in their life.

I have also been thinking about and including choices where possible with my assignments. This course included a paper about their families and I provided them multiple choices throughout the assignment, including they could choose four areas from a list of topics they would like to write about and removed topics that included trauma. I also said they could choose which family they would like to write about, as several students had chosen families both in the past through the foster care system and presently through their chosen life-partners. Through providing choices, my teaching became more inclusive and transformative. The student's papers were some of the most fantastic papers that I have read, including a student who ended up winning a local scholarship award for the paper on her family.

Similar to what was happening in our communities, our classroom also reflected the long-standing health and economic disparities in the United States, as my graduate students from economically disadvantaged backgrounds and under-represented groups were reporting higher rates of anxiety and stress (Woolston, 2020). My students talked about their families and the families they were working with and how they were understandably exhausted from ongoing systemic violence and discrimination. We leaned into our collective strength to support our growth, by providing more mutual aid with each other (Ortega-Williams et al., 2021). We listened to our family stories of strength and struggle as students presented pictures of their families or chosen families (they were provided the choice). We rallied around each other during a summer of racial reckoning, where the United States was witness to continued horrendous violence and death towards Black Americans (Chang et al., 2020). Alongside the nation, our class talked about action we were taking in our local communities against anti-Black racism and provided support to those who were historically and currently being targeted based on their race and ethnic identity.

Continuing to Transform: Recommitting to TITL Beyond the Pandemic

As we continue to critically reflect on these experiences and continue to teach, we're discovering continued implications of our transformative recommitment to TITL. TITL principles are complementary to transformative learning theory and practice, as they both "move toward a frame of reference that is more inclusive, discriminating, self-reflective, and integrative of experience" (Mezirow, 1997). We encourage transformative learning theory practitioners to consider integrating TITL principles into their pedagogical practice, and hope that sharing our reflective experiences will create discourse within your learning communities. These practices are intertwined and beneficial in the long term for student learning, as traumas and emergencies will continue to occur beyond the pandemic. The current pandemic will have a long-term impact, and transformative learning theory, which seeks to integrate the whole student experience, may therefore benefit from the sustained integration of TITL practices.

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Fighting for the CURE: Antibiotic Discovery and Storytelling during the Time of COVID

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Abstract

Students' experiences shape their learning and understanding of content, which will allow them to make meaning with it. Science classes can provide opportunities for living experiences and acting as a mechanism for learning, but lectures and discussions, along with "cookbook laboratory experiments" lack opportunities for meaningful experiences, which causes content to become harder for students to grasp. The development and implementation of course-based undergraduate research experiences (CUREs) open diverse student populations to research-type experiences involving content that can change their lives. This CURE program utilized antibiotic discovery to non-major, pre-nursing students during the Spring 2020 semester at the beginning of the COVID19 pandemic. Before moving swiftly to emergency remote learning, the students had completed over half of their tasks, particularly isolating and purifying their samples. In order to continue this antibiotic discovery CURE, meetings went virtual and the instructor became the student hands. Organisms were characterized using standard microbiological tests, and the student experience was saved overall, though the impact of the pandemic on the research, as expressed through student reflections, influenced students' perceptions of their learning. Though unconventional, the modified research process saved the CURE and provided students with experiences to connect their work to their lives.

Keywords: Storytelling, CURE, reflective learning, experiential learning

Introduction

When content relates to their lives and creates experiences, students take a greater interest in learning and making meaning with it (Taylor, 2007; Mezirow, 1990). Storytelling acts as one way to help encourage students to engage with the content while allowing them the opportunity to create new knowledge and find ways to express that knowledge to others (Alterio, 2003). Students need to want to engage and learn, but faculty have to engage students and help them engage the content (Race, 2011). Lecturing, discussions, and prompts tend to miss this desired impact, as do the standard "cookbook laboratory experiments" generally implemented into introductory science laboratory courses (Clark, et al., 2000). Researchers have shown that undergraduate research in Science, Technology, Engineering, and Mathematics (STEM) fields enhances student engagement and persistence in STEM fields, but those research experiences tend to focus on science majors, most often upper classmen pursuing independent projects (Hanauer et al., 2017; Lopatto, 2004). Undergraduate Research Experiences (UREs), like these independent projects or inclusion in faculty research programs, have shown significant gains in helping students interact with scientific principles, but require substantial investments in resources, including materials and faculty time to operate them (Linn et al., 2015). Additionally, UREs typically can only involve a few students at a time, thereby leading to significant competition for the top students and cannot be scaled to bring these benefits to more students, and even diverse populations at the same institutions. This research, in contrast, embraces the course-based undergraduate research experience (CURE) to engage nursing students in an introductory microbiology laboratory course in antibiotic discovery with the intent to transform students' perceptions of science and antibiotics as noted through student assessments in the course, particularly those focused on storytelling.

Relevant Literature

CUREs vs. UREs

As mentioned above, UREs involve a few students at an institution who participate in more focused research activities with a Primary Investigator (PI), often the faculty member leading the research, and have a strong mentoring component from other members of the research team as well as the PI (Linn et al., 2015). Students in these programs tend to already be highly interested in science and may have developed that interest early in life (Russell et al., 2007). Additionally, many students who participate in such programs have the tendency to go on to graduate education within the sciences (Lopatto, 2004). Programs tend to reach across demographic groups, genders and particular majors, but most students participating are already high scoring and successful students (Lopatto, 2004; Russell et al., 2007). The question for many faculty members has been how to provide these benefits to more students, which lead to the development and implementation of CURE programs.

In contrast to the UREs, CUREs expand research opportunities and scientific method exploration to a large number of students with usually less focus on individual mentorship because of the increased student to faculty ratio (Linn et al., 2015). CURE programs, as defined by Auchincloss, et al. (2014), provide students with the opportunity to use scientific principles, discover new insights, work on relevant topics, participate in collaboration, and build on previous knowledge within these research projects. CUREs tend to be hypothesis driven and help students work through the steps of the scientific method (Dolan, 2016). CUREs also improve students' perceptions about science, persistence in science, and leading potentially to careers in science (Auchincloss et al., 2014; Dolan, 2016; Linn et al., 2015; Hanauer et al., 2017). The ability to participate in a CURE provides students with experiences related to content, which improves student learning.

Conceptual Framework for the Antibiotic Discovery CURE

For the CURE framework, this course model was based off two international antibiotic discovery curriculum programs, the Small World Initiative and the Tiny Earth Program. The program was being implemented for the first time at The Pennsylvania State University – Penn State Schuylkill (hereby referred to as Penn State Schuylkill) during Spring 2020. Within this course, one group of students participates as Small World students, while the other group participates as Tiny Earth students, though the programs have very similar purposes and techniques. The Small World Initiative, as noted by Dolan (2016), is one of three national curriculum programs using a common experiment system.[1] Both programs have students obtain soil samples to isolate and characterize potential antibiotic producing bacteria as laboratory experiments.

The Small World Initiative started as the Microbes to Molecules course in 2013 under the direction of Dr. Jo Handelsman at Yale University and then expanded to include other institutions, thereby becoming the Small World Initiative (Caruso et al., 2016; Davis et al., 2017). The Small World Initiative encourages students to pursue science and engage in scientific field-based research revolving around "crowdsourcing antibiotic discovery" (Davis et al., 2017). The curriculum involves having students isolate bacteria from nearby soil sampling sites, determine potential antibiotic producers from the isolates by testing against safe-ESKAPE (non-disease causing) organisms, and extract compounds from their chosen, isolated organisms (Davis et al., 2017). From Yale and a handful of institutions, the Small World Initiative has grown over the last 8 years to include over 300 institutions across fifteen countries (Small World Initiative, 2021). Barral et al. (2014) were among the early implementers of the program and explained that during the pilot phase with 25 schools, the assessment of the program examined student perceptions about the science learned, students' experiences about participating in research and how they viewed field-based laboratory work. Their methods at that point involved the use of pre- and post- surveys (Barral et al., 2014). Assessment of the program has noted improvement in these areas

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[1] Dolan's work was written before Tiny Earth was founded and as related to the Small World Initiative would most likely also fit into this category.

beyond those experienced in traditional "cookbook" type laboratory courses. Barral et al. (2016) also explain that this CURE implementation has the ability to improve student experiences and in particular, they note that women and minority groups have a greater growth in these categories. In their study, Caruso et al. (2016) found that students participating in the program had higher grades than control groups who were involved in traditional laboratory courses. Their work also showed an improvement within critical thinking skills (Caruso et al., 2016). The instructor was trained under the protocols of the Small World Initiative at the University of Connecticut—Storrs during the summer of 2017 during a weeklong intensive training.

The Tiny Earth Program officially started in summer 2018 at the University of Wisconsin Madison and the Wisconsin Institute of Discovery. It is the transformed version of the Microbes to Molecules course from Yale and is once again under the leadership of Dr. Handelsman (Tiny Earth Project, 2021). Similar to the Small World Initiative, the Tiny Earth Program seeks to inspire students to careers in science by involving them in original laboratory research as part of "studentsourcing antibiotic discovery" (Tiny Earth Project, 2021). Additionally, the Tiny Earth Program has begun work to create and house a database for chemical samples from student-isolated microbes and continue to examine the types of compounds found. Furthermore, as Bueso-Bordils et al. (2020) note, the Tiny Earth Program also helps students explore microbial biodiversity within these soil ecosystems as the search for antibiotic producing bacteria continues, while instructors are able to highlight the discovery component to students. In a twist to the American implementation of the course, the work of Bueso-Bordils et al. (2020) explored the use of Tiny Earth to also engage both university aged students and a pre-university set in the work, while providing the university students additional knowledge of antibiotic resistance in bacteria, skills in teamwork, lab work and model teaching. The instructor maintains a membership as a Tiny Earth Instructor, since its development.

Conceptual Framework for Assessments in the Course

Beyond the implementation of the CURE, this project focused on the ability to connect experience with learning. The pedagogical framework for this project integrates transformative learning from Mezirow (1990) with aspects of storytelling from Alterio (2003). As Mezirow (1990) notes,

> To make meaning means to make sense of an experience; we make an interpretation of it. When we subsequently use this interpretation to guide decision making or action, then making meaning becomes learning. We learn differently when we are learning to perform than when we are learning to understand what is being communicated to us. (p. 1)

The act of doing provides the experience and provides for an opportunity to reflect upon what has happened. The reflection then allows for the information gained from experience to be utilized in another part of life. This concept of learning provides the learner with the ability to change their perceptions, and in turn, their lives (Mezirow, 1990).

Transformative learning, as Taylor (2009) explains, has particular hallmarks in its execution. These elements are the experience of the individual, a critical reflection on the experience, and dialogue about the experience, along with a holistic orientation to the process, an awareness of the context being provided, and an authentic implementation (or practice) from teacher to learner. Though the elements are distilled from transformational educational experiences, each of these elements is not a strategy in and of itself for changing how students learn. Instead, the experiences implemented, as the transformative process, require each element to work with the others (Taylor, 2009). Though experience is central to process, for without it, the rest degrades, providing the mechanism for reflection and dialogue needs to exist within a trusting relationship between teacher and learner circumstances and have a context that the learner can relate to.

Within this CURE, the experience, of course, was the procedures related to the antibiotic discovery procedures from the Small World Initiative and the Tiny Earth Program, but the application and reflection on that experience was given special outlet. In many CUREs, the notebook and potentially a

few discussion questions may provide that outlet, but within this CURE implementation, students experiences were to be connected with a reflective element, storytelling.

Storytelling was chosen as a focus for student assessment, as it could provide a format to not only reflect on the experience provided within the laboratory, but also it fostered the application of that knowledge by having the student explain how the experience would influence their behaviors and careers, along with connecting the current experience with their past experiences. As Alterio (2003) explains, storytelling is one of our oldest forms of learning and communication. Additionally, it provides the ability to express views and share experiences. By using storytelling, students can talk through their concepts, along with their experiences. Storytelling is not as simple as just saying, "Tell me a story…", instead it requires creating a culture of storytelling where the environment is without judgement and can be considered safe for the student to tell the whole story, including those emotional components (Alterio, 20013; McKillop, 2005).

Health Professionals and Storytelling

Health professionals, especially nurses, have to maintain a difficult balance of learning and comprehending complex scientific concepts and then being able to explain parts of those concepts to patients, who come from varying backgrounds, and do so during times of crisis. Bourhis, Roth and McQueen (1989) note that within the healthcare setting that Medical Language (ML) and Everyday Language (EL) use are commonplace and that convergence, the movement between one style to that of another group, is important for communication. Doctors tend to maintain a higher degree of ML use, even with patients, which can lead to communication breakdowns between these groups, though convergence to EL to help patients understand procedures and treatment plans is expected. In contrast, nurses may act as "communication brokers" where they need to rise to the level of ML used by the doctors, while also being able to move quickly to the EL level of their patients, which may also be explained as translating the ML of the doctor to an understandable EL for the patient (Bourhis, Roth & McQueen, 1989, p.341). Nursing students need to learn ways to take the concepts from their courses and make meaning with it, so they can later recall and apply it to their professional lives. Storytelling provides one way for students and other health professionals to help accomplish this task.

Storytelling has been promoted as one way for nurses and nursing students to learn content, but also is viewed as a significant way to learn about patient history (Tevendale & Armstrong, 2015). Tevendale and Armstrong (2015) note that having nurses encourage patient storytelling can provide a way for nurses to learn important parts of patient history that are not commonly expressed or asked about during standard entrance interviews at a healthcare facility. Additionally, Davidhizar and Lonser (2003) explain that storytelling can provide a way for nurses to disseminate knowledge to patients and their families. The use of storytelling has been shown to increase the level of trust generated between patients and their caregivers, which can also translate into increased compliance with healthcare protocols (Haigh & Hardy, 2011). Storytelling of protocols and techniques can help patients feel more at ease with what to do, and more importantly what not to do (Davidhizar & Lonser).

The importance of storytelling within nursing is growing throughout the field, but much of the research on storytelling in nursing focuses on the clinical setting or nursing education courses, however the skills of storytelling and reflection are often ignored in the students' initial courses where the development of these skills could provide meaningful practice before the more impactful major-based courses. Nurse education courses and clinical experiences utilize these methods to help nursing students make meaning of the experiences and content (Davidhizar & Loser; Haigh & Hardy). However, these courses and experiences come later in nurse education. Pre-requisite courses could implement opportunities to learn such skill sets and provide the opportunity to practice storytelling and reflective learning. Some course types, like literature and history, may provide amble opportunity for these skills to be developed but the later application of the content to clinical experience tends to be limited. Prerequisite science courses generally provide the content that will act as a foundation for later experience but the formats tend to be more limited. The implementation of the CURE model opens students to having

experience, which also provides the opportunity for students to take their experience and create stories around it.

Methods

This research study was a qualitative, exploratory design as part of a preliminary study on student learning of the concepts incorporated into an introductory microbiology course implementing a CURE on antibiotic and utilizing the mechanism of storytelling for reflective learning. Since this was more exploratory in nature, the design focused on examining student work to determine themes that students deemed as meaningful. Students were assessed on content acquisition through quizzes and comprehension through discussion posts, presentations, and weekly oral journaling. The goal was to examine what students learned by looking at what they explained in their oral journals and then how they connected it to their lives and potential future careers.

Research Participants

This antibiotic discovery CURE project was implemented into MICRB 107, Elementary Microbiology Laboratory classes at Penn State Schuylkill. MICRB 107 is designed as an introductory microbiology laboratory for students who do not plan on further studies within the field of microbiology. The course tends to be utilized as the microbiology course for students designated as pre-major nursing or those who are trying to enter into a registered nursing program, as microbiology courses with laboratories tend to be pre-requisites for such programs. The MICRB course, for example, is a pre-requisite for students seeking entrance to our affiliate, the Joseph F. McCloskey School of Nursing in Pottsville, PA. In Spring 2020, two sections, containing a total of 35 students between sections, were involved in the project.

Given the new curriculum model, the author used this opportunity to investigate student perceptions of the activities performed within laboratory sessions through active reflection on experiences. The Pennsylvania State University Institutional Review Board had approved the study in March of 2020 and students were approached for consent by a member of the research team shortly before our spring break, which also happened to be the end of our in-person learning. The information session informed students that participation in the study would not require any additional work from the students. Additionally, students were informed that their participation in the study would not provide them any direct benefits or negatively (or positively) influence their grades. Based on the timing for the consents, not all students were present for the research information presentation and consent signing. Out of 35 students, 22 provided their consent to examine any materials and assessments from the course.

Multiple methods of assessment were incorporated into the course, which aimed to demonstrate the connection between experience and student learning, including quizzes, oral journals, discussion boards, and presentations. The assignments chosen aimed to develop the students' ability to discuss scientific issues with colleagues (i.e., other students and the instructor as grader on content knowledge) and the patients (as represented by the public and the instructor as grader on content dissemination). Throughout the course, students also recorded "oral journals," which were weekly Zoom recordings where students explained concepts they learned that week, why that concept was important and how it related to their potential professional careers. The presentations for the course revolved around student reports of their research work, conclusions drawn from the work, ways to improve their student reports of their research, conclusions about their characterized organism, what the student learned from the work, and finally, what the student wished they could have done with their organism or learned more about during the course. In-depth presentations were recorded and posted to our class symposium website, and the students answered questions live regarding their work during a live-streamed Zoom event.

Here, it is important to note that students could share both their laboratory experience on what they saw and did as well as communicate what lead them to this experience from the other parts of their lives within the "Oral journal." The recording space for the oral journal provided a safe space for students to speak their thoughts truthfully and talk through the concept with the "instructor" who would view them

later. They also had the ability to bring in sensitive information that could emotionally affect them without having to show that character aspect in class. Students were prompted to speak casually and not read from a script though using a grid of topics could be helpful initially (Appendices 1 & 2). The privacy and encouragement to incorporate their stories helped to create a culture of storytelling (Alterio, 2003; McKillop, 2005).

Therefore, students had already been recruited for the IRB-approved teaching and scholarship research on how the implemented modifications influenced their knowledge, interest, and engagement towards both research and science when the pandemic struck. Though on a limited population and in only a semester time frame, the students' materials have the ability to demonstrate how the unique circumstance of in-person versus emergency remote learning influenced this student group and provides a real-time examination of how this type of disaster could impact students and their perceptions about learning related to microbiology.

Surviving COVID19—Changes to the Curriculum during a Pandemic

Students had completed a number of activities related to their CURE projects before the SARS-CoV2 virus had caused significant issues in the United States. Unfortunately, the spread of the virus led to school closures. The pandemic changed how the course proceeded and what content students were exposed to along the way. The movement from in-class research activities to remote engagement provided a unique opportunity for both student research and teaching scholarship. The changes to the curriculum and the methods are described below, as the pandemic required significant changes to teaching methodologies which were not expected in the original design of the course.

Students had performed work as scheduled for approximately half of the course (Appendix 3). This work included the students collecting campus soil samples for dilution, creating dilutions and plating them, characterizing their soil, and isolating bacteria. Their plates showed different strains of bacteria and independently students chose bacteria with appearances that interested them. They made decisions based on appearances of which bacteria samples they desired to follow going forward, though as a group we discussed some features, like "curly colonies" will be spreaders and several famous pink colonies have antibiotic activities. They performed initial antibiotic screening on their selected bacteria against safe relatives of human pathogens (*Escherichia coli* and *Staphylococcus epidermis*), as well as performing routine, microscopic bacterial characterizations, including Gram staining.

With the Penn State system being closed physically, students could not continue their work as scheduled. Students were off campus on spring break when the announcement was made, so kits with materials and the student's samples were not created in time. Samples remained in the laboratory and the discussion shifted to what to do next. The University's initial plan was to remain remote for several weeks until the situation passed, which suggested that we would be delayed but that we could return to work and just lose several activities (Appendix 4). With this presumption, the cohort did not want to abandon the work completed. Shortly after our group decided to continue work, Penn State administration made the official announcement that classes would remain remote throughout the spring semester, which would directly impact our ability to continue.

With the move to remote for the semester and increasing cases of COVID19 in Pennsylvania, Penn State also requested that all laboratories have research halted. Since we originally believed we would return to campus, materials for the remainder of the semester were already being prepared. Additionally, with the shutdown, all samples that were not ready for deep freeze storage would have to be discarded, which included every student sample at that point. Given that media for the projects was already made and student samples were ready for the next stages, it was decided to continue the research projects but on a different, catastrophic-type schedule (Appendix 5). Our method for laboratories continued via Zoom meetings for the rest of the semester.

Students directed the research process during individual meetings with the instructor by helping choose samples to follow through the rest of the process and deciding which tests should be performed on their selected bacterial strain. During a synchronous Zoom meeting, the instructor, alone in a lab setting,

would perform inoculation techniques with directions from the student investigator. Each meeting required that the student be involved in the process, since the instructor would ask questions about what to do, as well as encourage conversation about experiences of the pandemic. Students were able to view their samples using multiple camera views. The instructor had erected a cell phone camera stand for sample closeups and a laptop with webcam so the instructor and student could see one another and converse directly. Students were safe at home, but had the ability to direct the instructor to move a sample up, down, left, right or even say "pick the yellow one." Throughout the session, the student and instructor would discuss the importance of each test and also reason through what results might be present. By this point, the instructor had already reviewed the meaning of each diagnostic test and the potential results, so it acted as a review session and an alternative way to build knowledge.

The student and instructor then reviewed results the following week. These individual meetings acted like mentor research meetings, where a principal investigator would be asking what results were achieved and discussing what they meant (Linn et al., 2015). Students could see the color changes and new appearances to their selected specimen thanks to the cell phone video. Students also received pictures of their samples shared through Microsoft Teams. The purpose of sharing images was to provide students with the materials to create their posters and presentations for the now virtual symposium. Finally, students worked in small cohorts via Zoom meetings to discuss plans for the data obtained and critique final symposium materials as part of peer review before the live online symposium occurred. Some student groups worked very effectively to help each other improve their presentations.

Findings

This qualitative and exploratory study presents preliminary results from one semester of student data, which was directly impacted by an unforeseeable national emergency—the COVID19 pandemic. Our curriculum and methods were directly impacted by the pandemic as noted above, so these results include the impact of remote learning, which was noted by some students. Though not the ideal situation, the circumstances did lead to several developing themes, which can be considered significant as nearly 63% of the class consented to the study.

Students had recorded weekly oral journals, along with discussions, posters and symposium presentations, to explain what they had learned and express how it could affect their current lives and future careers. Several major patterns of content interaction, especially within the oral journals, became apparent. First, some students focus solely on what was important to them and why, but fail to address any of the protocols or terminology learned that week. Second, some students explain protocol details very precisely, but using everyday language more than the scientific terminology, so that their explanations utilized simple terminology and stressed steps, but lack explanations of importance. Third, some students incorporate a little bit of both perspectives, for they include somewhat detailed explanations of protocols and use terminology, but then also reflect on how these techniques are important to their future work. The student sample of 22 student falls nearly evenly within these three grouping.

Beyond their interaction with the material and reflection about what they learned, patterns about how the students approached doing the oral journals also surfaced. Within this category, some students tend to be very brief and direct with their commentary. Other students take the recording as very conversational, including what they did and did not like about lab that week, as well as adding their terms and techniques. Finally, some students became the storytellers. These were students who moved beyond just giving brief answers, but were explain the process and then try to connect it to something in their lives. A few students were very open about situations affecting them, which did seem to become more apparent at the very beginning of the course and then again after we discussed COVID19 and the issues we were facing during the pandemic. Some of these students brought in a theme, for example one student ended every session talking about why maintaining a clean environment and preventing contamination would be useful in her future career as a nurse.

Students' storytelling also embraced their lives. For example, illnesses that they experienced they were able to relate to how to diagnose an infection as a result of skills they learned in class. A student mentioned being recently diagnosed with a bacterial infection one week and noted that it was interesting to see how the aseptic (clean) techniques from class could be used to gather a sample from the student in order to isolate the bacteria and make the diagnosis. The procedures of the laboratory had meaning to that student. Another student commented on how each of our lab experiences would apply within the nursing profession. That student focused on the actions the student would take during shifts at the hospital. When someone did not wash their hands, that student commented to the person about why hand hygiene was so important and tried to remind them that washing hands can save lives. Many of the students grasped the idea that surfaces they touched regularly had germs on them and that the surfaces needed to be cleaned more and that they needed to wash before touching other things.

When examining the experiences and procedures performed in class, some lessons were discussed more by the students. Handwashing to prevent disease was important to them and many noted how being deliberate about gathering materials so they could prevent transfer had to be a method of focus. Additionally, aseptic technique to prevent contamination was important to them, as they did not want to get the wrong diagnosis. Then Gram staining and its connection to antibiotic type was of great interest to them, as it was something they could see, did not struggle with performing, and could narrow down the class of antibiotics needed, as they understood that some types of antibiotics did not work well on Gram negative organisms, which was a concept from a previous lesson. Finally, pipetting was a technique that they initially noted as difficult, but when the context of the procedures changed from just transferring a liquid from point to point and was about working with a bacterium, then the procedure took on a whole new meaning and made sense because there was something else to see.

In contrast, some concepts were hardly discussed, which suggests that the comprehension of the topic was also less. The main concepts that fell into this category were the differential and selective media plates, as well as biochemical tests, that were part of our remote experience. The students knew that the media would help them narrow down their bacteria from other potential organisms, but why tests were performed or what the tests could tell them did not make it into regular journals. Students did mention the tests during their practice presentation, but presentations were also recorded with their posters present to them. Whether the form of lesson was the sole influence for the lack of discussion or if it was related to the number of tests occurring at the time due to the change in format is hard to decipher.

As the class discussed the coronavirus, the ways it spread, the symptoms it caused, how to mask properly, along with the concerns the students had, the oral journals and discussions began to reflect an understanding that what was going on with this contagious virus was not normal. Students within a month of being remote and in lockdown realized that we needed to do more to prevent the spread. Students expressed concerned for healthcare workers in the field and hoped people would wear masks properly and stay home to help the process. Several of the students accepted that it was hard to for them stay home, since they were not used to doing so and many still had to go to work. They understood that you have to leave home to make money in many cases. However, about a quarter of those participating in the study also noted that they believed this pandemic would change how healthcare was provided. Unfortunately, several of them also feared that the changes going on, like wearing a mask, were going to become part of their everyday lives. They were, in general, also concerned that "COVID will never end."

Beyond COVID19 impacting their home lives, the students commented about how the research process changed as a result. The change to the curriculum layout removed for several students their way to connect their experiences to the concepts. They explained this made the material harder to learn. They noted that being online was different and in general, they did not like being online for their lab classes. They missed being able to do the procedures we were talking about during the lecture portion. Seeing it was not the same as doing it. The plates we had inoculated together during our Zoom sessions were interesting, but they wished they could see the details. Without being able to repeat some tests because of possible contamination or confusing results due to time and material constraints, the affected students became frustrated with the process, as their results were not as clear as they would have desired. It is

important to note that students had expressed their frustration with procedures before the pandemic, but some of these issues became repetitive themes in their oral journals after the pandemic.

Overall, several themes were present in students' responses. 1) Students believed that handwashing was extremely important, not only to healthcare workers, but to everyone. This theme began at the beginning of the semester when we discussed handwashing, but for multiple students was carried throughout their discussions. Additionally, after the rise of coronavirus, the importance of handwashing again came into discussions of a number of students. 2) The students believed that knowledge of antibiotic use and ability to aid in discovery were crucial factors for students entering allied health careers. Many students were concerned that antibiotic resistance was developing for more bacteria each year. They had basic understandings of how and why antibiotic resistance was growing and wished that more people would be educated about the issue. They were also excited to know that their work could potentially have an impact on this battle, for they understood that without new antibiotic research one day we could have diseases that might not be able to be treated, which would change healthcare altogether. 3) Students expressed an interest in expanding their work to investigate connections between their projects and potential future treatments for the current coronavirus. 4) Students also desired to perform those last hands-on activities, for they suggested that seeing it under a camera was different than doing and seeing it in person, which changed their experience. 5) In general, students appreciated the experience, wished it were not interrupted, and would go participate again.

Discussion

In examining how this CURE implementation applied to transformative learning, the elements of transformative learning were present throughout. In contrast to many lectures, especially in science, learning has focused on portraying content, while failing to bring experiences to students to allow them to apply information to their own lives. Unfortunately, many laboratory courses have also been directly to that same type of portrayal rather than creating the experiences to put practical techniques into action. This antibiotic discovery CURE provided nursing students with experiences for the processes needed to discover bacteria with the potential to create antibiotic type compounds. Since nurses and common citizens need and utilize antibiotics, the content for the course then has a visible connection to student lives.

Beyond the issues raised from the COVID19 pandemic, the opportunity given for storytelling also faced its own challenges. On the face of it, some students were challenged with the technology, for they had bad connections which disrupted the flow of their ideas (or at least interpretation of such) or had problems using the technology the first few times ("Is this recording? No, it can't be recording." Stop recording). Additionally, the generalized layout of content that should be covered within an oral journal (i.e., explanation of the week's protocols and terminology, how it applies to your life, and how it applies to your future profession) were taken as a script. Some students only answered these questions and did not elaborate upon them. For several of these students, storytelling and reflection really were not achieved, as the content of the oral journal seem to be very blunt. Unfortunately, As McKillop (2005) notes, providing such a listing for content can be for some students as a simple checklist. When they are focused on completing the items on the list, the reflective aspect is lost.

Multiple students mentioned being hands-on learners and losing the hands-on component changed everything for them. For these students, per their oral journals, the amount of reflection also reduced because they no longer could go through the process. The change was apparent as several of these students had embraced storytelling before the pandemic began and had previously included significant details. This unintended change could be reflective of how these students embraced the experience of doing the science as physically manipulating items in space. Concepts of hands-on learning in science support these students' experiences. As Satterthwait (2010) notes, "cooperative learning, object manipulation and embodiment, contribute to the underlying efficacy of hands-on activities in science education" (p. 9). The ability of the students to touch and feel objects used in the procedures cause neural

interactions and involve the whole body. As one student noted, "I just can't organize myself anymore." The simple sensations can help the students make sense of the experience.

Further Research

Given that the semester was disrupted by the pandemic, comparing this first semester with other versions of the course can help see the impact that the remote learning phase had on students and their comprehension of material. Having additional student populations will show if the commentary of those initial weeks includes additional patterns for student perceptions. As of the writing of this manuscript, the SARS-CoV2 virus still rages across the United States and will directly influence the implementation of this CURE for the Spring 2021 semester. It is too early to tell, of course, whether we will return and be able to perform the majority of experiments for the project or not or if antibiotic discovery will move from soil bacteria to another source, including culinary organisms. The use of organism type could be an area to examine to see if students care more about things that come from their foods.

Seeing how modality influences students would be another avenue to examine going forward. One aspect for this type of work would be seeing how a completely remote CURE project could influence student perceptions on topics as noted in oral journals. Also, the hope is one semester we will return to a more pre-COVID experience where students remain in the laboratory working with groups the entire semester, which would actually demonstrate the originally proposed form of this CURE. Here seeing how students interact with the content after a pandemic would also be an interesting twist because these students would have only had a pandemic in their lifetime.

Since students missed out on the experience, if we do have another switch to remote during a semester, are there other methods for having the students continue to perform the work? For students in the region, can small groups be arranged for them to come to campus to do the work, so they can have the experience of doing each test themselves and promote that hands-on aspect. If buildings can be utilized, there is a significant possibility for this option. More extreme social distancing protocols can be implemented, but the amount of time needed to have such operations is significant for a lone instructor. Within the current implementation, the lone instructor invested an hour per student per week for several weeks, which is not sustainable over a long period, as well as not feasible in larger classes. Though, the use of teaching assistants, laboratory assistants, and additional research students has the potential to help expand this opportunity to larger numbers of students.

Additionally, can kits be created to give to students so they can continue with their organism? There is potential for such work, if sufficient time to assemble the kits is provided by the institution and/or state. The switch to emergency remote learning happened when students were away for break and occurred only 10 days before the entire state of Pennsylvania was placed in lockdown. Creating and coordinating such efforts is doable, but would require days for the kits to be designed, approved by Penn State's Environmental Health and Safety committee, prepared for all the media to be used, organized and mailed. However, transportation and disposal could potentially cause problems to this effort. The pedagogy would be worth examining.

Conclusion

Though unconventional, the modified research process saved the CURE. The approach was not implemented ideally, but still managed to engage students in the research process and provide a mechanism for the students to reflect on their experiences. Students were still able to obtain data on their isolated bacteria, in order to learn what made their specimen special, while also having the opportunity to use reflective learning and develop that skill into storytelling. Continuing to provide students with the opportunity to engage in storytelling remains a goal of this CURE implementation and it is hopeful that this methodology will demonstrate to other science instructors that storytelling can bring out the ideas instructors want to focus on, while providing a language for students to express themselves and prepare to communicate those ideas to others.

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Appendix

Fighting for the CURE: Antibiotic Discovery and Storytelling during the Time of COVID

Appendix 1: Syllabus Prompt for Oral Journals
The student will keep an **oral journal** on the procedures assigned to them during the semester. In this weekly assignment, students will record briefly their understanding of the work performed during this week's labs and explain why it is important, as if they were explaining it to someone not in the field. This will help them review why the content is important and prepare for the larger presentation associated with the project. Don't worry about being perfect—that's not the point of the exercise—the point is to gauge how you develop your thoughts as we go through the semester. Let it come naturally and answer the question from the heart using the knowledge you have at each stage.

Recordings can be done on your phone, through the OneStop Presentation area in the library, or on a computer with camera. The oral journal will have its recording done through a Zoom link provided to each student individually, so that it is automatically shared with the instructor for grading purposes alone. Though video is in part easier, voice recording at the minimum is necessary, for I are looking for you to explain your thoughts in your words, your way, and incorporate your story. The instructor is the only one to see recordings to ensure confidentiality, so don't worry about how you look or if you have perfect grammar. Recordings will not be played in the office or public areas. At the end of the semester after all grading is complete and grades are submitted, recordings will be deleted.

Appendix 2: Grid System Promoted to Students to Aid in Oral Journals
Since some students expressed in class that they might forget things, the instructor suggested a tool to aid in their oral journals, so they could provide themselves some key words to help trigger thoughts.

Appendix 3: Original Course Outline Set before Pandemic.
All Exercise (Ex) Numbers are from the Essential Microbiology Laboratory Theory and Application by Leboffe and Pierce.

Wk.	Tuesday Tasks/Assignment	Thursday Tasks/Assignment
1	Introduction; Safety; Handwashing; Ex. 1-1 Glogerm	**Safety Quiz**; Ex. 2-1 Ubiquity of Microorganisms
2	Results from Ubiquity; Ex. 1-2 Aseptic Technique	Results from Aseptic Technique; Ex. 1-3 Streak Plate
3	Results from Streak Plate; Ex. 1-4 Spread Plate	Results from Spread; Ex. 2-7 Anaerobic Jar
4	Results from Anaerobic; Pipette and Dilution Lecture and Practice	Ex. 2-12 Standard Plate Count
5	Results from Standard Plate Count; lecture on antibiotics and antibiotic resistance; examination of prepared germicide plates from Ex. 2-11; background on project	Soil attainment at start of class; Soil plating with dilutions in class (on Canvas instructions)
6	Results from soil plating; pick and patch (on Canvas instructions)—master plate formation	Pick and Patch for antibiotic production to initial bacterial resistance (on Canvas Instructions)
7	Ex. 3-1 Introduction to Light Microscopes; Examination of Bacteria (on Canvas instructions)	Results Pick and Patch; Streak of desired cultures that show antibiotic production (on Canvas instructions); remake Master Plates
8	Pick and Patch for antibiotic production to initial bacterial resistance (on Canvas Instructions); **Assigning Formal Midterm Essay**	Ex. 3-3 Simple Stains, Ex. 3-4 Negative Stains, Ex. 3-5 Gram Stain to Characterize Chosen Bacteria
	Spring Break – No Class	Spring Break – No Class
9	Results Pick and Patch; Streak of desired cultures that show antibiotic production (on Canvas instructions); **Midterm essay due**	Selective Media for Selective Cultures– Ex. 4-1 Mannitol Salt Agar (MSA), Ex-4-2 MacConkey Agar (MAC), Ex. 4-3 Eosin Methylene Blue Agar
10	Results from Selective Media, remake Master plates with chosen strains from streaks; Bacterial Metabolism Lecture	Fermentation studies on Chosen Bacteria, Ex. 5-2 Phenol Red Broths, 5-3 Methyl Red and Voges Proskauer; Respiration tests 5-4 Catalase test, 5-5 oxidase test, 5-6 Nitrate Reduction Test
11	Results from Fermentation and Respiration; Nutrient utilization 5-7 Citrate, 5-9 Starch Hydrolysis (Amylase), 5-11 SIM Media, 5-12 Triple Iron Agar, 5-14 Blood Agar; On Canvas 5-14 Gelatinase printout, On Canvas 5-13 Caseinase printout	Results from Nutrient Utilization; Streaks for Purification and Isolation (on Canvas); Discussion of Results to Date what they mean in general—**make appointment to meet instruction for your specific results**
12	PCR lecture and PCR prep (on Canvas instructions) and sizing up best antibiotic producing samples (on Canvas instructions)	Gel electrophoresis and sending samples; Antibiotic TestingEx—6-1 Antimicrobial Susceptibility Test: Disk Diffusion (Kirby-Bauer) Method on your samples to determine if your bacteria have resistance to any antibiotics

13	Results from Kirby Bauer; Antibiotic extraction part 1 (on Canvas instruction)	Antibiotic extraction part 2 (on Canvas instruction)
14	Antibiotic testing against Eukaryotes (on Canvas instructions)	Final Results; Make up day; Working on Posters/Presentations
15	**Presentations (Research Forum)**	**Final Practical**

Appendix 4: Proposed Course Schedule Change Assuming a Return to Campus
The course went essentially as scheduled through week 8 which was before spring break in March. Penn State University moved to remote learning during the middle of spring break because of rising cases of the SARS-CoV2. Emergency remote learning was initially scheduled to last several weeks, so the schedule below was proposed and explained to students.

Tue	Tuesday Tasks/Assignment	Thu	Thursday Tasks/Assignment
3/17	**Midterm essay due** Explanation of changes for labs upcoming—and modifications to assignments (syllabus changes) Lecture Content on: Abstracts, Posters and initial preparations using already determined materials. Tech aspects for the projects and presentations Students will be required to make contact with the instructor on progress before April 14.	3/19	Lecture Content on: Selective and Differential Media with purposes—Ex. 4-1 Mannitol Salt Agar (MSA), Ex-4-2 MacConkey Agar (MAC), Ex. 4-3 Eosin Methylene Blue Agar
3/23	Lecture Content on: Bacterial Metabolism Lecture—Fermentation studies on Chosen Bacteria, Ex. 5-2 Phenol Red Broths, 5-3 Methyl Red and Voges Proskauer; Respiration tests 5-4 Catalase test, 5-5 oxidase test, 5-6 Nitrate Reduction Test	3/26	Lecture Content on: Nutrient utilization 5-7 Citrate, 5-9 Starch Hydrolysis (Amylase), 5-11 SIM Media, 5-12 Triple Iron Agar, 5-14 Blood Agar; On Canvas 5-14 Gelatinase printout, On Canvas 5-13 Caseinase printout
3/30	Lecture Content on: PCR lecture and PCR prep, Gel electrophoresis, and DNA testing, including connections to Coronavirus	4/2	Lecture Content on: Types of viruses commonly worked with in laboratory settings; Virus propagation and purification in a lab setting; Phage Therapy
4/7	Laboratory in Person Content: Students will set up tubes for Fermentation studies on Chosen Bacteria, Ex. 5-2 Phenol Red Broths, 5-3 Methyl Red and Voges Proskauer; Respiration tests 5-4 Catalase test, 5-5 oxidase test, 5-6 Nitrate Reduction Test	4/9	Laboratory in Person Content: Results from fermentation; students will set up plates with selective and differential media with purposes - Ex. 4-1 Mannitol Salt Agar (MSA), Ex-4-2 MacConkey Agar (MAC), Ex. 4-3 Eosin Methylene Blue Agar
4/14	Laboratory in Person Content: Results from Selective and Differential Media; 5-7 Citrate, 5-9 Starch Hydrolysis (Amylase), 5-11 SIM Media, 5-12 Triple Iron Agar, 5-14 Blood Agar; On Canvas 5-14 Gelatinase printout, On Canvas 5-13 Caseinase printout	4/16	Antibiotic Testing – Ex. 6-1 Antimicrobial Susceptibility Test: Disk Diffusion (Kirby-Bauer) Method on your samples to determine if your bacteria have resistance to any antibiotics; Antibiotic extraction part 1 (on Canvas instruction)
4/21	Results from Kirby Bauer; Antibiotic extraction part 2 (on Canvas instruction)	4/23	Antibiotic testing against Eukaryotes (on Canvas instructions)
4/28	Working on Posters/Presentations	**4/30**	**Symposium**
Final Exam Week – Final Practical – online availability			

Appendix 5: Catastrophic Course Schedule Change with Considerations of Pandemic.
The course went essentially as scheduled through week 8 which was before spring break in March. Penn State University moved to remote learning during the middle of spring break because of rising cases of the SARS-CoV2. Emergency remote learning was extended for the remainder of the semester, which led to schedule below.

Tue	Tuesday Tasks/Assignment	Thu	Thursday Tasks/Assignment
3/17	**Midterm essay due** Changes to Schedule and Assignment due dates Lecture Content on: Abstracts, Posters and initial preparations using already determined materials. Tech aspects for the projects and presentations	3/19	New Updates on changes Lecture Content on: Selective and Differential Media with purposes and Bacterial Metabolism Lecture
3/2-3/27	In order to continue the project so students learn some of the content per their own results, meeting for the next two weeks will be individually based. Students will schedule a time to live stream with the instructor. Ms. Smith will be in a lab to set up samples for each student. Students will instruct Ms. Smith on how to perform tasks and explain what bacteria to test. Students will have the ability to take notes on the set up and will meet again next week for the results meetings, which will also be individual. Ex. 5-2 Phenol Red Broths, 5-3 Methyl Red and Voges Proskauer; 5-4 Catalase test, 5-5 oxidase test, 5-6 Nitrate Reduction Test; Ex. 4-1 Mannitol Salt Agar (MSA), Ex-4-2 MacConkey Agar (MAC), Ex. 4-3 Eosin Methylene Blue Agar; 5-7 Citrate, 5-9 Starch Hydrolysis (Amylase), 5-11 SIM Media, 5-12 Triple Iron Agar, 5-14 Blood Agar; On Canvas 5-14 Gelatinase printout, On Canvas 5-13 Caseinase printout; Nutrient agar or Tryptic Soy Agar for sample to store		
3/30-4/3	Students will have the ability to take notes on the results meetings, which will be individual.		
4/7	Lecture Content on: PCR lecture and PCR prep, Gel electrophoresis, and DNA testing, including connections to Coronavirus	4/9	Lecture Content: Explanation of SARS-CoV2 virus structure and pathogenesis
4/14	Lecture Content: Explanation of SARS-CoV2 virus	4/16	Lecture Content on: Other types of Virus testing; Phage Therapy
4/21	Lecture Content: Other Common Laboratory Tests—6-2 Kirby Bauer Antibiotic Disc Susceptibility Testing and Throat Cultures	4/23	Poster work session online with peer reviews—during regular lab time on Canvas
4/28	Working on Posters/Presentations and final run through with Ms. Smith and peer groups	**4/30**	**Digital Symposium**—Digital Symposium during class time. Materials for symposium due by day before.
Final Exam Week—Final Practical—online availability			

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How to Cultivate Personal Learning and Professional Growth in a Disrupting Time Among Reactions, Resistances and Collective Transformations. An Empirical Study with Italian School Teachers

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Abstract

Scenario: *COVID 19 had a severe impact in every sphere of life, and education is not an exception of this. The pandemic caused by the spread of the COVID-19 is producing an epochal change that is irreversibly transforming the nature, objectives, and didactic and organizational practices of Higher Education systems. This is particularly urgent in some countries, like Italy, where the spread of the pandemic was terribly more advanced than in other states.*

Object of the study: *This article presents the results of a national study about reactions, feelings, and resistance to the changes of primary and secondary school teachers imposed by the lockdown due to the pandemic.*

Literature review and conceptual framework: *The conceptual framework adopted for the study includes the empirical research on the constructs of collective disorienting dilemma (Dirkx, Mezirow, & Cranton, 2006), traumatic exposure to cumulative adverse experiences (Felitti, 2017), and emotional impact (Cerniglia, Cimino, & Ammaniti, 2020). Our hypothesis is that the pandemic's unexpected widespread affects as well as the consequential lockdown, imposed in many countries as a first measure to prevent the diffusion of the contagions, may be assimilated to: a traumatic experience with high emotional impact on people's mindsets and behaviors; a collective, disorienting dilemma capable of eliciting emotional reactions and intensifying senses of disposability while people, if adequately supported, attempt to learn and adapt to change.*

Research questions: *What kind of feelings, reactions, and behaviors did school teachers assume during and after the lockdown? How did teachers, faculty, and educational instructors react to the shift from in-person classes to distanced learning and which factors influenced their reactions the most? What factors were most effective in helping them to cultivate their professional development through and while engaging with these epochal challenges?*

Design and methodology: *Starting from those questions, an online survey was designed and administered to more than 400 in-service teachers of primary, secondary, and high schools across Italy. 348 teachers completed the survey. Among them, 20,40 % of the respondents were primary school teachers (N=71); 37,07% of the respondents (N= 129) were secondary school teachers; 42,53% of the respondents were teachers of high school (N=148). Statistical descriptive analyses were carried out.*

Findings: *The majority of the respondents reported emotions of sadness, melancholy and sense of loss during the experience of lockdown. Some factors emerged as potentially affecting the increase of negative/positive feelings, such as the material conditions of the home environment, the number of people at home and the type of job, the openness and disposability to change and adapt to new life conditions. Factors that impacted positively on school teachers' reactions and feelings to the pandemic were: a) technology adaptability and readiness; b) accessibility to sophisticated platforms*

and tools for conducting online classes; c) the social support perceived by their institutions and the community of the colleagues.

Theoretical and pedagogical implications: *The implications of this research are discussed with recommendations for supporting teachers to increase their knowledge and familiarity with the highly technological instruments of the online distance learning and to acquire capacity to make the difference in (a) addressing digital divide and technological poverty in students, and (b) guarantee equity and accessibility of the all-digital contents for all students.*

Practical implications: *The research identifies a unique approach to intercept factors that can trigger and facilitate transformations of perspective in educators, teachers, and faculty engaged with the challenges of the disruptive changes due to the COVID-19 pandemics. This is particularly relevant when lots of countries in the world are facing the third wave of the contagions and the measures to prevent the exponential growth of the curve.*

Keywords: Emergency remote teaching, digital learning, distance learning, Higher Education, teaching strategies, COVID-19.

The Disruptive Scenario of the COVID-19 Pandemic

The pandemic emergency due to the spread of the COVID-19 is producing an epochal change that is irreversibly transforming the nature, the objectives, and didactic and organizational practices of Higher Education systems. This is particularly urgent in some countries, like Italy, where the spread of the pandemic was terribly more advanced than in other states.

Facing uncertain and ambiguous scenarios with fast changes highlights the weaknesses and the contradictions of "emergency strategies" (Abel, 2020). On one side, the pandemic reminded us how fragile mankind is and that it can succumb to a small and invisible enemy; on the other side, the COVID-19 challenged and stimulated the potential of human intelligence and creativity that, when driven by collaboration and solidarity, can be very high (Giovannella, Passarelli, & Persico, 2020). The urgency of reacting to the disruption of traditional, daily working practices, as posed by the health emergency, forced millions of people to adapt to an epochal change in their daily routine. It imposed them to stay at home and completely challenged their prior habits of mind. The education sector, like the economic ones, underwent a quick transformation from the traditional in-person pedagogies to using online resources and distance learning. The effects of the pandemic inevitably put all learning ecosystems under stress, as they had to switch suddenly to the online modality, where they have remained confined to this virtual dimension. The technological shift affected ways of teaching and learning, and required new teaching practices and pedagogical approaches in relation to the opportunities afforded by digital technologies (Trust, & Whalen, 2020).

Schools and educational institutions had to align themselves with the need to experiment with new and technologically rich methods to ensure didactic continuity, sometimes with improvised solutions (Canavagh, & Deweese, 2020). This was an adaptive challenge for which there were no prior technical solutions (Heifetz, et al. 2019; Watkins, & Marsick, 2020). Teachers, such as all organizational actors of the *school* systems (administrative and technical staff, instructional designers, students) had to test their ability to learn and to change in high levels of ambiguity and uncertainty environments. Teachers tried to address this adaptive challenge (Heifetz, et al. 2019) first with technical solutions, but because only those were available at that time.

Teachers who were resistant to the use of e-learning platforms converted, instead, to the potential of building collaborative online learning settings, discussion forums, open access learning paths, and e-community. Those who thought that Moodle or other platforms worked only as a repository of slides shown in class, had the opportunity to validate their perspectives and to experiment with new practices of use, in which they could interact with students both in synchronous and asynchronous (Hodges, et al. 2020).

Recently published research explored the move to distance learning in the wake of the COVID-19 crisis: this study talked mostly about emergency remote teaching, rather than strictly online learning, producing knowledge about the differences between the two categories (Hodges, et

al., 2020). Emergency remote teaching is a temporary shift from instructional delivery to an alternative delivery mode due to extraordinary crisis circumstances (Hodges, et al., 2020). In emergency remote teaching, the planning stage is largely focused on searching for resources which would be plausible to be shared through technology-based platforms available for both students and teachers. Subsequently, the shift to online platforms elicited consideration of learners' prior knowledge on technological use, which affected teachers' delivery of their lessons, input, and which tasks to assign.

Numerous studies on emergency remote teaching focused on teachers' readiness to cope with new demands and challenges of the seemingly new mode of learning (see Chuah, & Mohamad, 2020, for more details). However, the empirical literature has not yet examined the collective transition in remote teaching experienced by students and teachers. Much of the online education studies mentioned above summarized the attitudes of teachers and students toward remote education and the usefulness of digital tools and platforms that can be implemented in remote learning. Unfortunately, only few of them accounted for the crisis factor, which posed extra challenges to both students and teachers.

As researchers, we are interested in exploring how and under what conditions school teachers, as well as many other practitioners, learn to transform their way of thinking, acting, and interpreting the emergency scenario as a "collective disorienting dilemma" through processes of validation and critical reflection (Watkins, & Marsick, 2020; Brookfield, 2017). We investigated the use of technologies, the adoption of specific teaching methods and the perspectives that teachers have on themselves, their professional role, and positioning within volatile contexts.

Emergency Remote Teaching: How to Learn in Complexity

"Physical distancing" became a priority for preventing the contagion and represented the paradigm on which we had to build new habits without being prepared to abandon our familiar patterns (Giovannella, et al., 2020).

Public opinion was strongly oriented towards a position of insecurity and uncertainty, with the sensation of an unheard-of fact, a collective, cumulative adversity which indiscriminately concerned all (Felitti, 2017).

Faced with the disorientation of the invisible virus that struck everyone, in the face of the most epically disorienting scenario since the 2001 attack, schools and educational systems had to preserve "didactic continuity" and "reduce distance" to satisfy a need of learning and maintain points of reference of students for different age groups.

In this phase we, as teachers and adult educators, realized how unprepared we were to address a severe pandemic like the one we have experienced up to now. We noticed, at every level, the absolute lack of specific risk analysis and recovery plans, despite the recommendations that, following previous pandemics, had been expressed by many important international organizations (Giovannella, et al., 2020).

Media and institutions reported digital technology as the framework capable of continuing the fundamental activities that govern our daily lives, while we remained closed up at home. The priority was to maintain connection and sharing, while eliciting a "sense of community belonging" amid the general disorientation.

This originally idealized "honeymoon" narrative did not take long to show all the limits of those pre-critical views. The first limit concerned digital divide and social inequalities (Halford, & Savage, 2010): there are sociomaterial conditions that impact the accessibility of digital resources. The "lockdown" made tangible a series of barriers to digital infrastructure, such as the possibility of connecting, the level of familiarity and knowledge with e-learning platforms and digital media, the accessibility of technological personal devices, and the different amplitudes of connections among diverse locations. The need for a rapid reorganization of times, spaces, places, accentuated marginality, gaps, latent difficulties, instability, and an increase in poverty. In emergency settings, students experienced aversive experiences, cumulative trauma, lack of typical services provided by schools (Conan Simpson, 2020).

Against this backdrop, a strong contrast emerged between virtuality and physicality, digital and non-digital, distance and presence, integration of new modalities and complete restoration

(Giovannella, et al., 2020). We have fallen into the trap of a rhetoric where there was the polarization of attitudes between "*pro* emergency remote teaching" and "*against* emergency remote teaching." Antinomic visions polarized the collective narratives of distance learning: on the one hand the pole of negativity: instance teaching as a monolithic enemy of student participation and of the quality of teaching and course design; or as the pole of positivity: online teaching as the driving force behind the technology of innovation.

This dominant media narrative on emergency remote teaching resulted in some sociolinguistic and epistemological distortions: confusing the emergency remote teaching (Hodges et al., 2020) that school institutions adopted with online and distance learning; or thinking that, in the face of digital transformations that change the way of thinking and designing courses, someone can have opinions that are not scientifically founded and not empirically validated. Very soon, however, such contrapositives appeared as a false problem. Even though the transformation to remote teaching due to COVID-19 was sudden and immediate, it took place in the midst of a broader technology shift among education platforms. Digitalization in schools gained popularity even before the pandemic. Schools' governances are oriented toward increasingly blended and integrated digital learning. This is characterized by the simultaneous delivery of distance and face-to-face lectures, even though the latter are attended by groups of limited dimensions, and are subject to rotation. The National Government in Italy has already considered combining classroom modes with e-learning modes to create an integrated and cohesive expanded learning system in the long term, considering the demand for technology-based education and the requests to incorporate it as a strategic leverage for innovation in school teaching (Lucisano, 2020).

How to Cultivate Personal Learning and Professional Growth in Times of Uncertainty

International literary discussion regarding studies and research on emergency remote teaching is flourishing in the field of educational research (Weiss, et al., 2020; De Filippo, et al., 2020; Watkins, & Marsick, 2020). Those studies clarified that distance teaching does not consist of online transposition of the traditional teaching methods but instead requires the use of technological tools, and above all, an innovative approach through which students have a central role in developing contents (De Filippo, et al., 2020). Integrated digital learning is a collaborative-based framework grounded on a rigorous concerted design, with a focus on the incorporation of the digital component in learning processes *inside* and *outside* the classroom. We are not talking about a replacement of face-to-face teaching, but an expansion of it, through the integration of digital teaching methodologies and devices.

In emergency remote teaching there were experiences with a high rate of experimentation. For example, there were teachers and professors who have become familiar with *Padlets* and virtual whiteboards, jamboards, and online survey systems in order to keep audience participation constantly alive in small, medium, and large classrooms, both in synchronous and asynchronous mode. Faced with these outcomes, nobody could ever say that this learning, even if instrumental, has not produced transformative outcomes.

To design, prepare, and deliver high quality online teaching requires a much greater commitment than a standard teaching process conducted in presence (Fabbri, & Romano, 2019). The exponential growth of digitalization of learning environments, in the "lockdown" and "post-lockdown" phase between March and July 2020, elicited frequent resistances from professors and teachers. One aspect of these resistances is that teachers used to interpret the novelties in terms of familiar practices: to the frontal lesson in the classroom, where the teacher speaks and the students listen, they replaced the video recording of the explanation as digital content to be enjoyed asynchronously or the one-way front explanation in synchronous mode. This is the risk of doing "distance teaching" in the presence, applying transmissive and frontal teaching models to virtually, digitally, and technologically mediated presence (Rivoltella, & Rossi, 2019).

Considering the emergency remote teaching as an adaptive challenge in a collective disorienting dilemma (Watkins, & Marsick, 2020) offers us a framework to investigate how teachers adopt consolidated categories and past conceptualizations in order to interpret unexpected problems occurring in scenarios where familiar routines are broken both for students and teachers. The study reported in the next paragraphs is aligned with this wake.

The Research

This section presents the results of a national study about reactions, feelings, and resistance to the emergency remote teaching imposed by the first lockdown in Italy due to the pandemic spread out in March, 2020. At the point of writing, Italy has undergone three waves of the COVID-19 outbreak. Schools have closed, opened, closed again, and reopened in blended learning.

In the first lockdown (March–May 2020), all classes were completely conducted online but there was a lack of standardization of procedures among the schools in implementing online courses. We were aware that there was also a disparity in terms of accessibility, especially for students with educational special needs and learning disorders.

This study is the result of a collaborative project carried with the Teaching and Learning Center of University of Siena, a center of research, training, and innovation that aims to support teachers, faculty, and educators through instructional design, faculty development, and introduction to technology-based frameworks (Fabbri, & Romano, 2020). The Author of the article is the scientific coordinator of both the university faculty community of learning and certified training programs for school teachers.

The conceptual framework adopted included the empirical literature on the constructs of "emotional impact" (Cerniglia, et al., 2020) and "collective disorienting dilemma" (Dirkx, et al., 2006). Our hypothesis was that the pandemic's unexpected widespread affects and the consequential lockdown, imposed in many countries as first measure to prevent the diffusion of the contagions, could be assimilated to: a traumatic experience with high emotional impact on people's mindsets and behaviors; a collective, disorienting dilemma capable of eliciting emotional reactions and intensifying senses of disposability while people, if adequately supported, attempt to learn and adapt to change (Mezirow, 2003; 2016).

Our research questions were:

RQ1: What kind of feelings, reactions, and behaviors did school teachers assume during and after the lockdown?
RQ2: How did teachers, faculty, and educational instructors react to the shift from in presence classes to distance learning?
RQ3: Which factors can be mostly effective in helping them to cultivate their professional development through and while engaging with these epochal challenges?

Starting from those questions, an online survey was designed and administered to more than 400 in-service teachers of primary, secondary, and high schools across Italy. The survey contained three parts: 1. background information and demographic data, such as school role, number of classes, and contextualized components; 2. teachers' perceptions and reactions to remote teaching scale; 3. teaching strategies, schools' support, and struggles scale. The second and the third part included ten 4-point Likert scale items (1. Strongly Disagree; 2. Disagree; 3. Agree; 4. Strong Agree), and ten open ended questions for gathering teachers' narratives about their experiences in emergency remote teaching.

The online survey was distributed via email. Ultimately, 348 teachers completed the survey. Participants who were recruited had to meet the inclusion criteria of 1. taught at least one class during the first lockdown; 2. answered all close-ended and open-ended questions.
20.40 % of the respondents were primary school teachers (N=71); 37.07% of the respondents (N= 129) were secondary school teachers; 42.53% of the respondents were high school teachers (N=148).

The data from the close-ended items were analyzed using descriptive statistics while the open-ended questions were qualitatively analyzed through thematic analysis. Coding was done by the author of this paper, Alessandra Romano, and checked with a group of three independent reviewers. The interpretation of the data was done through member checking to ensure reliability and validity of the themes identified. Feedback by respondents were captured in an online dedicated meeting. Five focus groups were conducted with a small sample of the participants (N= 12). Participants for focus groups were recruited with rational and purposeful sampling.

The researchers adopted the study carried out by Chuah and Mohamad (2020) as a modeling example. The survey was thus located in the framework of Technological Pedagogical Content Knowledge (TPACK). This framework provided guidance to construct items to help understand actual and emotional experiences that respondents went through, as they utilized technology as the primary means to teach remotely and to keep alive the relationship with their students. TPACK served as the reference point for items related to teachers' technological, instrumental, and instructional content knowledge (Chuah, & Mohamad, 2020). We added a reference to the framework of the Reactions to Collective Disorienting Dilemma (RCDD) offered by transformative learning theory (Warkins, & Marsick, 2020) and to the Communities of Practice (CoP) as a device for professional development in Higher Education and High School contexts (Bolisani, et al., 2020). These two additional frameworks offered inputs for the content analysis of the open-ended questions related to teachers' efforts to face the challenges associated with emergency remote teaching and to cope with their emotions and feelings against online distance learning. Table 1 shows analytical framework hereby described.

Table 1

Mapping of the TPACK, CoP and RCDD Frameworks.

Analytic Frameworks	*Focus*	*Constructs*
Technological Pedagogical Content Knowledge (TPACK)	Ability to use technological and digital resources as the primary means to teach remotely	Ability to design online activities for students, with a specific focus on students with disabilities and special needs; increase students' engagement and participation
Reactions to Collective Disorienting Dilemma (RCDD)	Coping strategies adopted to face the challenges of emergency remote teaching	Collaborative tools and strategies; planned interaction strategies with students; feeling, reactions, and challenges occurred during emergency remote teaching
Communities of Practice (CoP)	Practice suitable resources and strategies to increase teachers' support and professional development	Analysis of the professional development needs; adaptive solutions for technical and undefined problems; formal and informal learning gained

Emerging Findings

The study here presented was a necessary step to identify and determine how teachers articulate their perspectives as educators during emergency remote teaching. The following sections will only illustrate the first preliminary results of the overall study.

RQ1: What kind of feelings, reactions, and behaviors had school teachers assumed during and after the lockdown?

On the totality of the respondents, the 75% (N=261) reported emotions of sadness, melancholy, and sense of loss with a high-medium average score for the items about feelings of sadness and loss (average score = 3.15 at the 4-points Likert scale). Some factors emerged as having potentially affecting the increase of negative/positive feelings, such as: the material conditions of the home environment, the number of people at home, the type of job, and the openness and disposability to change and the ability to adapt to new life conditions. The unexpected and sudden need to provide a quick response to outside disturbances interrupts teaching staff's normal everyday planning and workload. Mental exhaustion and physical health problems accompanied the discontent feelings. Furthermore, the emergency remote teaching period was blurring the boundaries between personal and working life.

The respondents, although considering themselves well equipped with pedagogical knowledge in integrating technology, claimed that they were unable to fully utilize what they learned in their teacher training programs due to lack of organizational and technical support from the school. Sometimes, poor infrastructure accessibility caused students to drop out. Most of the respondents reported that they were actively participating in webinars to enhance their knowledge and skills on remote teaching, while engaging in virtual mentoring, peer tutoring and knowledge sharing in community of practice (Wenger, 2006).

> Our life since Covid-19 was devoted to online learning and teaching with lots of reading, intensive workshops offered by schools for converting courses, listening to webinars, and engaging in experimentation and practice, sometimes with unexpected promising results. The student with autism with whom I work was more comfortable with online learning. He had more time to search for videos and podcasts and felt less constrained at home. As well as the weeks of lockdown were passing on, I reframed my challenge from one of getting up to speed on using more efficient technology, which was the first challenge setting, to the one of helping him to deal with pandemic's impact on social relationships. (P8, open-ended response)

Respondents mentioned that large-group live meetings were challenging, especially with primary school students, because many students tried to talk at the same time, and it was almost impossible to focus only on the speaker. Another common complaint was the feeling of loss due to the lack of opportunities for socialization and the sense of isolation, commonly shared by participants with different age groups. While national agencies and governments have put effort to mitigate the impact of emergency remote teaching on education, the widening gap in access to proper education is alarming and many levels of secondary and high schools are hoping to reopen as soon as possible.

Factors that impacted positively on school teachers' reactions and feelings to the pandemic were: 1. technology adaptability and readiness; 2. accessibility to sophisticated platforms and tools for conducting online classes; 3. the social support perceived by their institutions and the community of the colleagues.

A participant mentioned the initiative to create a bottom-up community of practice among his school teachers: "I collaborated with my colleagues that teach other subjects. We have a community of practice page on Moodle where we share and discuss any challenges we have, share course syllabus among each other, and biweekly check-in meeting on Gmeet." (P34, in focus group discussion)

RQ2: How did teachers and educational instructors react to the shift from in presence classes to distance learning?

Table 2. represents the most frequent difficulties about emergency remote teaching evidenced by participants' responses.

Table 2

Mapping difficulties, barriers and obstacles to emergency remote teaching.

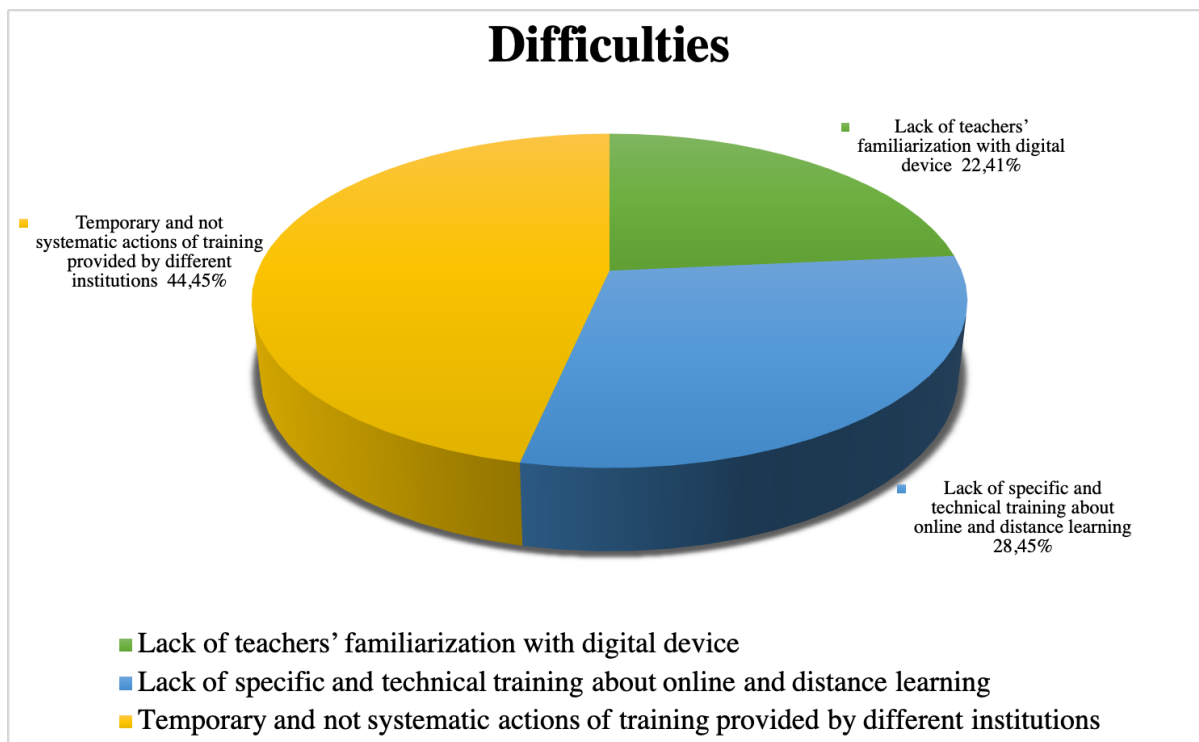| **Difficulties**	**Absolute Frequencies**	**Percentage**
Lack of teachers' familiarization with digital device (such as laptop, tablet, smartphone)	N= 78	22.41%
Lack of specific and technical training about online and distance learning	N= 99	28.45%
Temporary and non-systematic actions of training provided by different institutions	N= 154	44.25%

Figure 1: Percentage about difficulties to emergency remote teaching reported by participants.

Table 3

Mapping barriers to emergency remote teaching.

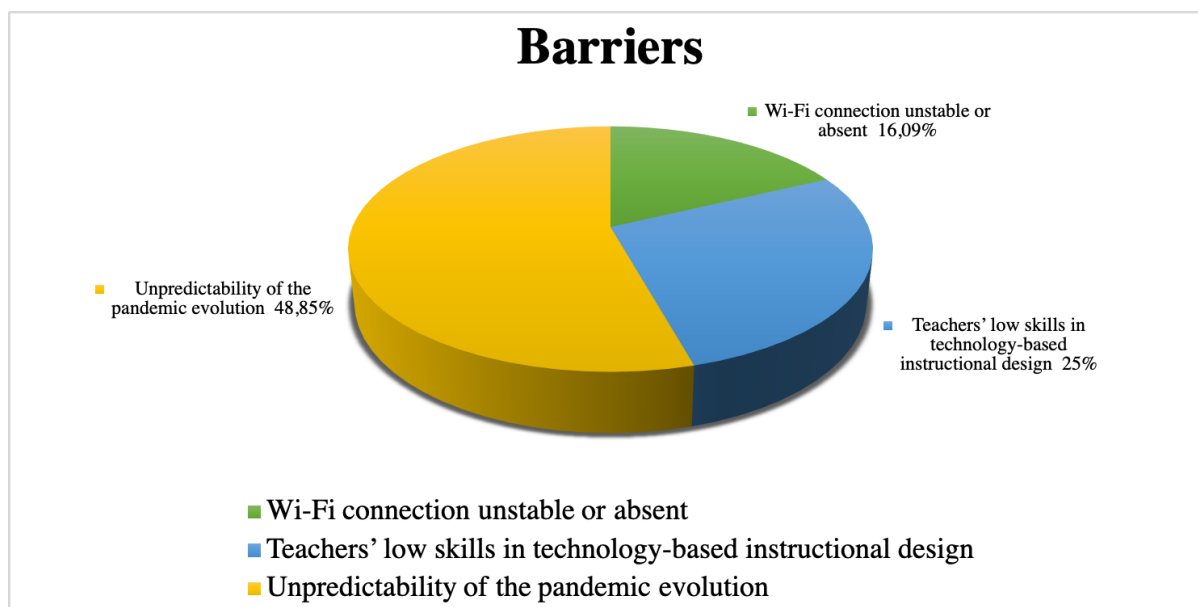| Barriers	Absolute Frequencies	Percentage
Wi-Fi connection unstable or absent	N=56	16.09%
Teachers' low skills in technology-based instructional design	N= 87	25%
Unpredictability of the pandemic evolution	N=170	48.85%

Figure 2: Percentage about barriers to emergency remote teaching reported by participants

Table 4

Mapping obstacles to emergency remote teaching

| Obstacles	Absolute Frequencies	Percentage
No equal distribution of technological devices among students (*Tablets and laptop are in the schools but students are at home*)	N=301	86.49%
Teachers' loneliness and poor cooperation in professional community	N=312	89.65%
Sporadic spots and pills of technical learning, lack of compliance with families of the students	N=134	38.50%
No cooperation with colleagues for curriculum design	N=198	56.90%
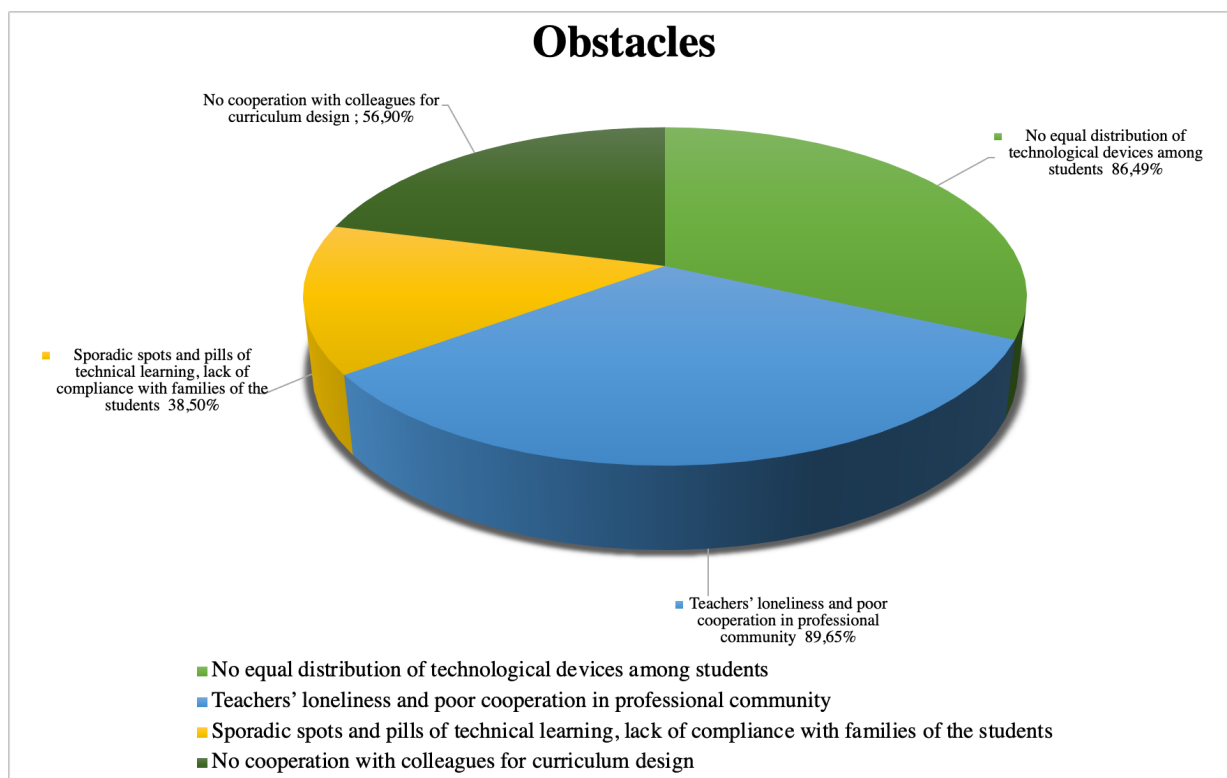
Figure 3: Percentage about obstacles to emergency remote teaching reported by participants.

Teachers of primary and secondary schools were asked to use Google Meet, Cisco Webex, and Zoom for doing online synchronous teaching. Most respondents (N=190, 54.59%) reported the push from their schools which made them embrace remote teaching almost immediately as when the announcement of school closures was made.

The respondents were mainly attempting to reproduce the standard face-to-face methods during the emergency remote teaching. Teachers felt overwhelmed and unprepared to use online or remote teaching strategies and tools. They struggled to adapt to fluctuating situations, needing support shifting their practice. The concept of "just putting everything online" looked prevalent, to the extent that 290 teachers answered that they felt submerged with the series of webinars, online demonstrations, and product placements which feature multiple educational tools. "*We were not ready at all for engaging online teaching. We hadn't any training before. We had tried some experimentation, emphasizing creativity and all the tools that allowed us to keep the relationship with students*" (P3, open-ended response). The reported usage also showed the respondents' tendency to opt for synchronous teaching methods, such as live class via Google Meet, Zoom, or Cisco Webex. Game-based learning was mentioned as a successful distance learning engagement strategy. Other tools listed are Kahoot, Flipgrid, Teams, and Padlet, for more interactive learning methodologies.

Teachers were able to redesign face-to-face teaching materials to fit the needs of emergency remote teaching: most of them *try to understand the students' level of internet connectivity first, then decide what is the best way to reach out to them in terms of content* (P9, open-ended responses). Very often they tried to experiment with multi-methods and multimodal strategies: "*I produced self-recorded videos, and I got some video materials from online resources. My videos are short, as pills of knowledge, so that students can easily load them faster*" (P89, open-ended responses). In terms of creating cognitive, social and teaching presences, respondents' willingness to offer assistance to their peers when they faced problems in online teaching was a positive indicator of their collaboration in teachers' community. Providing one-to-one meeting or community meeting through live video conferencing, discussion boards, virtual social mentoring fostered a sense of community that helped to overcome the isolation of teachers.

Participants also underlined the relevance of the synergy between school teachers and parents to support the students learning during emergency remote education. Respondents that were working with special needs students highlighted that the compliance of the families was fundamental for

homeschooling carried out during the first lockdown. When parents or families were not collaborative, because they did not recognize the importance of maintaining the teaching continuity, the students were less encouraged to participate in classes and very often were exposed to the risk of dropping out.

RQ3: Which factors can be mostly effective in helping them to cultivate their professional development through and while engaging with these epochal challenges?

Our study revealed that especially primary school teachers needed more time to adapt to the online learning option due to lack of support and insufficient pedagogical knowledge on how to conduct classes remotely. They reported a heavy reliance on external resources such as videos on YouTube and photos of printed materials and sending them via WhatsApp chat app. Finally, after the first familiarization weeks, they declared to have moved on a classroom platform for question and answers and for correcting homework. In sum, teachers were notably excited to test all possible means to meet the demands of emergency remote teaching despite struggling to cope with the initial stage of emergency remote teaching. The solutions devised by the respondents are reflective of their ability to transform what they have learned into a plausible means to solve problems that they faced during this period although there was limited support from the school administrators.

COVID-19 has magnified inadequacies and made them glaringly obvious (Watkins, & Marsick, 2020, p. 2).

> It has disrupted routines and habits, and has assaulted teaching continuity. Our daily and familiar routine won't be part of the next normal that is coming to emerge. As teachers of special education, we are all seeking new solutions for keeping on going the relationship with students as well as in preparation for a future we cannot reliably predict. (P237, focus group)

Facing the emergencies demanded deep changes in epistemological perspectives about professional identity, that is teacher identity.

The sudden onslaught of the COVID-19 pandemic has not only disrupted the education ecosystem but also created countless opportunities for teachers and students to explore unconventional strategies and methods to overcome the issues which came about with the emergence of the outbreak globally. Teachers' voices were crucial to listen to in order to intercept coping strategies and learning acquisition which transpired because of the pandemic lockdown. Understanding their struggles provided significant insights on the necessary support, professional development and solutions that had to be given to them. What practices or path of professional development are more promising in supporting teachers facing uncertainty and unsafety times?

The prevalent problem of digital accessibility is a key factor in stopping many teachers from being more enthusiastic about remote teaching: 23 participants pointed out that their pupils didn't take part in the class activities because of digital divide. Teachers' narratives also suggested a pertinent need for future study to investigate the synergy between parents, schools, teachers, and educational leaders in working cohesively to ensure learning that is supported effectively at home especially during emergency remote teaching.

Table 3 reports the key elements for facilitating online learning according to respondents. The presence of those elements resulted coherent with the positive feelings about pandemic emergency remote teaching as a meaningful learning experience.

Table 5

Key elements for facilitating online learning.

Key-Elements for Facilitation	Absolute Frequencies	Percentage
Cooperation among teachers, school administrators, and instructional designers	N=266	76,44%

Table 5 Continued

Key-Elements for Facilitation	*Absolute Frequencies*	*Percentage*
Systematic, "bottom-up," and situated training about technical artifacts and digital learning	N=197	56,61%
Cooperation and compliance with families	N=170	48,85%

Findings confirmed that designing and organizing forms of cooperation and collaboration among teachers was the first step towards a more integrated and effective digital learning. In some cases, they had the opportunity to notice unexpected positive effects of remote teaching, especially in students with learning disabilities, neurodiversity, autistic spectrum disorders, ADHD, who had more time to study and who reacted in a more comfortable way to social distancing and lockdown. In other cases, students with low technical skills got the opportunity to increase their digital awareness skills; students with behavioral problems had the chance to stay in a safe and familiar physical environment, while in a virtual classroom with their peers without escaping the relational connections with them.

About supports to students, online laboratories resulted to be one of the most promising experiences for preserving students' positive contacts, relationships, and positive interdependence. In online laboratories, facilitation techniques, such as cooperative learning approach, peer tutoring systems, student team learning and inquiry-based methods galvanized the collaborative informal learning that could happen in formal structured educational paths. Music, art-based methods, game-based learning techniques were particularly effective in maximizing students' engagement. Immersive reading and digital books were widespread, such as more differentiating and personalized contents for classes and lessons. Differentiation and personalization were pedagogical opportunities presented by remote teaching: teachers had the instruments to design and deliver courses that fitted with students' learning patterns and interests. In online eco-learning systems, students had the opportunity to self-pace their work based on their own times and rhythms. Even if in condition of physical distancing, emergency remote teaching had the positive impact of emphasizing the potential of good curriculum design preliminary phases and of the personalization and individualization of learning contents. Distance learning, if accurately designed and facilitated, lends itself to mastery-based learning, where students moved forward in the curriculum based on mastery of the material at their own pace.

About support to students, the need to overcome "teacher and teaching loneliness" was pointed as the first trigger for searching for a community of teachers where finding a dialogical space of exchange, growth and knowledge sharing. Teachers were required to: a) change their prior cognitive and actions schemes; b) navigate the adverse circumstances, with a high disposition to change in adaptive challenges; c) sustain emotionally and educationally students to face the same adverse and uncertain circumstances.

Professional development in scenarios with high density of complexity and potentially traumatic is more similar to creative learning which calls for iterative cycles of assessing the multiple situations in light of the multiple questions to be resolved. Professionals need first to seek all available knowledge about ambiguity and non-routinary situations. Then they have to design, that is crafting possible solutions and prototyping. Finally, they have to select and choose for taking that intuitive leap to select the best option (Watkins, & Marsick, 2020, p. 6). Creativity is essential because there are no ground rules for the disruption of COVID-19: in our study teachers were required to manage the unexpected, think outside the box, face the unpredictability of the unprogrammed activity. Nicolaides and Scully-Ross (2018), at this regard, identified five promising practices for cultivating curiosity, endless flexibility and self-awareness, especially in teacher education and professional development: disruptive design methods, polarity mapping, collaborative developmental action inquiry, visual design, and collaborative design thinking.

Conclusions

The discussion articulated herein has some limits. The empirical investigation at hand, albeit being based on survey administered to teachers of different genders, educational backgrounds, and ages who are engaged in various topical terrains, nevertheless works with a snowball-determined sample that implicitly cannot exclude bias. The Author acknowledges the limited sample size as well as the convenient sampling technique used in the study. Although the numbers may not be representative of the whole population (N= 400), the findings serve as a promising indicator of actual instructional issues faced by teachers who learned about designing online learning paths. These findings unveiled individual efforts and struggles that teachers face to cope with emergency remote teaching. One of the main obstacles is how the respondents are going the extra mile to design lessons that are reachable by learners who are now in various learning environments at home, which may not be conducive for learning.

The research identifies a unique approach to intercepting factors that can trigger and facilitate the transformation of perspectives in educators and teachers who are engaged with the challenges of the epochal and disruptive changes caused by the COVID-19 pandemic. This is particularly relevant when lots of countries in the world are facing the third wave of the contagion and are taking measures to prevent the exponential growth of the curve. Our findings depict the collective, disorienting dilemmas caused by emergency remote teaching through a unique lens where both students and teachers had to adopt online learning as "the new normal," with the understanding that it will stay with us in the future. The responses given by the respondents of this study could initiate a deeper and larger investigation on strategizing relevant interventions to assist the teachers during crises, not only exclusive to the COVID-19 pandemic, but also prefiguring what will happen post-COVID-19. In our study, a pillar of a positive remote teaching experience is the richness of support as the digital awareness and maturity of teachers. Informal support from a community of teachers experiencing the same disorienting dilemma could play a crucial role in the definition of a new model of integrated digital learning.

Teachers need to be encouraged to take a complexity perspective on their work post-COVID-19 and to enlarge their repertoire of responses to learning needs to include blended and integrated digital teaching. As the literature on creative education chants the call for nurturing "future-ready students," teachers too, have to be "future-ready" by equipping themselves with necessary skills, knowledge and disposability for learning to thrive during emergency situations (Chuah, & Mohamad, 2020).

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"We Went Through a Pandemic Together": Strategies for Facilitating Transformative Learning Among Nontraditional Adult Learners During a Crisis

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Abstract

COVID-19 has presented both challenges and opportunities for transformative education. While the pandemic has deeply disrupted learning, particularly for the most vulnerable and disenfranchised students, it has forced educators to re-assess and re-invent their courses. This Teaching Note draws on my experience directing and teaching in the Clemente Veterans' Initiative Newark—a free, college credit-bearing humanities course centered on themes of war and reconciliation for adult learners—during the COVID-19 pandemic. This Note offers strategies for educators interested in facilitating transformation in nontraditional academic settings, especially during times of crisis. When faced with a disorienting dilemma like a pandemic, educators might consider incorporating humanistic texts and art into their courses to promote reflection and perspective transformation; pursuing dialogic, synchronous instruction to build community; and focusing on students' deep and sustained engagement with material rather than mastery.

Keywords: adult education, COVID-19, humanities, transformative learning, veterans

The Clemente Course in the Humanities (CCH) was established in New York City in 1995 to teach college-level humanities to adults living in economic distress. Undergirding the program is the idea that a liberal education is education for liberation, and reflection inspired by the humanities can help marginalized adults to more actively shape their lives and communities. Over two semesters, students explore philosophy, literature, US history, and art history with faculty from area colleges. Upon completion, students receive 6 transferrable college credits from Bard College. Because CCH strives to remove barriers, the course is free and there are few requirements for admission: prospective students must be over age 18, have a household income at or below 150% of the Federal Poverty Level, and have basic literacy skills; a high school diploma or GED is not required. Since its inception over two decades ago, CCH has expanded to over 30 sites in the United States and Puerto Rico.

In 2014, CCH launched the Clemente Veterans' Initiative (CVI) to provide a humanities-focused intellectual community for veterans struggling to adapt to civilian life. Like a traditional Clemente course, CVI is free and open to all veterans, regardless of discharge status, as well as veterans' friends and family. Unlike a traditional Clemente course, CVI courses are a semester long, award students 3 credits, and focus specifically on themes of war and reconciliation in the humanities.

During the spring 2020 semester, I directed and co-taught a CVI course in Newark, New Jersey. The students, who ranged in age from 41 to 76, were veterans, as well as their spouses, mothers, and friends. Some had college experience and some did not, but all had been away from formal education for a number of years. The class had the good fortune of meeting in-person for a month, and building a budding classroom community together, before COVID-19 derailed our best laid plans for face-to-face discussion and field trips together. Like most of higher education in the US, we transitioned to Zoom, losing some students in the process but maintaining a group of half a dozen truly dedicated adult learners. Ultimately, both the students and I left the course transformed in important ways—feeling more

reflective, more connected to each other and the world around us, more empathetic, more curious, and more motivated to effect positive change. "We went through a *pandemic* together," a student remarked at our last online class meeting; "We aren't the same as when we started." This Teaching Note draws on my experience with the CVI course during the COVID-19 pandemic and offers strategies for educators interested in facilitating transformation in nontraditional academic settings, especially during times of crisis.

Theoretical Framework

Clemente's founder, journalist and social critic Earl Shorris (1997), established the course to help impoverished adults negotiate the "surround of force" that restricts their lives (p. 50). Myriad issues—such as crime, hunger, housing, illness, incarceration, isolation, police, and racism—surround marginalized adults, forcing them to live by *reaction*. The humanities, Shorris argued, teach *reflection* and with it, the ability to critically analyze and transform one's circumstances. The idea that the humanities can act as education for liberation by engendering critical reflection is in keeping with transformative learning theory generally (Mezirow, 2012) and the emancipatory learning domain in particular (Freire, 1985; Habermas, 1971). The sort of education Clemente offers can contribute to emancipation from the "surround of force," or what Mezirow (1991) calls the "libidinal, epistemic, institutional, or environmental forces that limit our options and our rational control over our lives but have been taken for granted or seen as beyond human control" (p. 87).

Incorporate the Humanities

Our class examined the Peloponnesian War, the American Civil War, and the Vietnam War through history, literature, and art, tackling works like Sophocles' plays, the *Declaration of Independence* and the Gettysburg Address, Walt Whitman's poetry, Picasso's *Guernica*, and Maya Lin's Vietnam Memorial. On a good day, the humanities are often criticized as a discipline of the "elite" with no real utility. During the pandemic, the humanities were frequently decried as insignificant in the global fight against the coronavirus, the field "a wheel turning nothing in an emergency" (Callard, 2020, n.p.). Yet our class demonstrated that the humanities *do* serve a purpose during times of crisis. "Humanities" is simply shorthand for the study of the human experience (Sheedy, 2020). What humans—and in the case of our class, veterans and their loved ones—feel and experience is universal and cuts across time, space, and culture. Our close reading of humanistic texts and formal analysis of paintings and monuments revealed universal themes of the human condition and allowed us, during a time of fear, uncertainty, and isolation, to feel more connected. Such immersive educational experiences have the potential to usher in new perspectives, which can generate the dialogue needed for transformation (Bull, 2020; Hooper-Greenhill, 2013; Mezirow, 2000). COVID-19 presented us with a sudden, disorienting dilemma, but the humanities helped the class to pause, reflect, and adopt new viewpoints. As one CVI student stated, study of the humanities "truly stretched my mind."

Although we live in an interdisciplinary world, academic courses are typically structured along strict disciplinary lines (Faulconer & Griffith, 2020). Regardless of the courses we teach, we, as educators, can integrate the humanities. One might start by incorporating a poem, short story, historical document, or painting into a class discussion or assignment, guiding students to make connections between the texts or art and the class and reflect on what they see, what they feel, and in what ways they relate (or don't) to the humanistic material. Incorporating philosophy, literature, art, and history is generative, offering not only additional content and insight but also the epistemology and analytical methods of the humanities, all of which might otherwise be absent in the original discipline (Skorton & Bear, 2018). Taking an interdisciplinary approach may help students to understand and meaningfully engage with the world around them. As a CVI student veteran with no prior college experience remarked, "The humanities expand your horizons in all aspects of life."

Detractors may argue that the humanities have no place in some disciplines—especially mathematics and the "hard" sciences—but I contend that the humanities can, in fact, play meaningful roles in seemingly unexpected places. Dartmouth College, for example, developed nine courses linking mathematics with humanistic disciplines, including art and architecture, history, literature, music, and philosophy. Demonstrating how math is used in other fields helped students understand mathematics better, stimulated student interest, and offered students a new way of looking at other subjects and the world. By integrating disparate disciplines, instructors modeled the kind of intellectual dexterity needed to navigate our compartmentalized world (Korey, 2000). While research on the impacts of STEM courses integrated with the humanities is limited, it appears that students in integrated curricula outperform those in fragmented curricula (Becker & Park, 2011; Fan & Yu, 2017), and an interdisciplinary approach is associated with improved higher-level thinking skills, problem solving, and retention (Fan & Yu, 2017).

Keep Talking

COVID-19 stopped our class in its tracks, and I took several weeks to regroup. Despite my reservations about moving a Socratic, discussion-based class online, the students wanted to continue. "We miss class," one student wrote. "Hopefully we can work out this change and complete what we started together." Others concurred, writing in: "I miss you all" and "Thank you for keeping this class alive."

When educators are directed to take their teaching online, they often pivot to truncating discussion in favor of "discussion boards" and moving to asynchronous learning. While there are certainly benefits to asynchronous instruction, our class chose just the opposite. The dehumanizing, technicist approach of most online education is anathema to Clemente so, based on student input, we chose to meet synchronously and frequently, since living in crisis made us hungrier for intellectual community and contact. Pre-COVID, the class met in-person for about three hours on Saturdays. When the class moved online, we met virtually three times a week—two weekday evenings and Saturday mornings—for about an hour each time. Meeting so frequently required effort on all our parts but it meant that if a student couldn't make a class session, they could easily catch up.

Online education is well-suited to transformative learning. Our Zoom discussions were often *more* collegial, more relaxed, and more personal than those in traditional, in-person classes, and when asked what they liked most about the course, several students commented on the power of peer-to-peer discussion, relishing "the moments when we shared our thoughts and different points of view and ideas." The online format created a relatively egalitarian environment that challenged conventional norms of classroom power and authority. Too, the frequent online meetings helped create a supportive class community. Regular, sustained dialogue is critical to transformative learning because it facilitates students' collaboration and critical thought and promotes their tolerance of ambiguity and differences (Cranton, 2006; Meyers, 2008).

Focus on Engagement, not Mastery

Rather than tackling entire books when the class transitioned online, CVI students engaged with shorter, equally rigorous texts that accomplished the same pedagogical goals. During a crisis, no one, including educators, has the same level of focus as they did pre-crisis. Our Zoom class grew to be something we all looked forward to, in large part because we could come together to discuss poems, short stories, images, and film clips and, by the end of class, we felt that we had accomplished a discrete task and exercised some semblance of control in an otherwise out-of-control world. Quantity—of books, pages, or words—does not equal rigor. The *Declaration of Independence*, for instance, is a surprisingly short document but a text to which the CVI students continually returned, making frequent connections between the world around them and the founding document: "The current events going on now in America show that nothing much has changed," observed one student during the height of the Black Lives Matter demonstrations.

Crises offer new opportunities. Rather than trying to directly transfer our pre-pandemic syllabus to the online world, we made accommodations to fit our class meeting schedule and diminished attention spans. And because CVI students are nontraditional learners, it was particularly important to present complex or challenging material in smaller, digestible chunks. Students dove deeply into excerpts from Tolstoy's *War and Peace*, for instance, but were not overwhelmed with undertaking the entire novel. This way, students were able to wrestle with the material during a class meeting, question their assumptions, and even begin to act on newfound perspectives—what educators most hope for. As one student, a family member of veterans, commented mid-way through the course, "This class has encouraged my activism like never before."

Conclusion

Writing in the *New Yorker*, philosopher Agnes Callard (2020) argued that "Crises are, at least while they are happening, not educational opportunities. They are events that befall us, that harm us. They target everything about us, including our faculty for learning" (n.p.). Indeed, COVID-19, and all that encompassed 2020, re-shaped our country, hurting us deeply and in some ways irreparably. But I contend that it *has* been an educational opportunity, and a transformative one at that. The CVI course demonstrated the power of the humanities, which promote reflection on the human condition, something particularly relevant during times of crisis. Humanistic texts and art can be incorporated across disciplines, giving students a chance to make interdisciplinary connections, question their beliefs and assumptions, and transform their perspectives. Our choice to go entirely synchronous, while admittedly labor intensive, provided the human connection we needed during the pandemic, and our focus on engagement rather than mastery gave students the opportunity to tackle complex material without feeling overwhelmed. Taken together, these strategies helped facilitate a transformative learning experience among CVI's nontraditional learners during an especially challenging time.

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