

Article

Professors Practicing Mindfulness: An Action Research Study on Transformed Teaching, Research, and Service

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William Brendel and Vanessa Cornett-Murtada

Abstract

In this 2-year action research study, 33 university professors attended a 4-day faculty seminar titled "Mindfulness Meditation in Teaching," which included guided insight meditation, dialogic inquiry, and action planning. Participants generated and committed to 26 novel methods for integrating mindfulness practice with teaching, research, and service. These practices grouped into four areas including mindful grading and assessment, awareness of students in the classroom, practicing mindfulness in and out of the classroom, and cultivating self-awareness in teaching. A mixed-methods analysis of transformative learning illustrates three fundamental shifts in perspectives and behaviors: balancing expertise with a "beginner's mind" approach for greater innovative capacity, deepening appreciation for subject matter and communion with students, supporting a genuine sense of community across academic silos, and advocating for a more mindful university culture through six new university-wide initiatives.

Keywords

transformative learning, transformative pedagogy, experiential learning

Corresponding Author:

William Brendel, University of St. Thomas, Terrence Murphy Hall, Room 331G, 1000 LaSalle Avenue, Minneapolis, MN 55403, USA. Email: wbrendel@stthomas.edu

¹ University of St. Thomas, Minneapolis, MN, USA

Many colleges and universities have embraced the practice of mindfulness to promote health and wellness in their communities. Enterprising professors are now moving beyond that to integrate contemplative practices into the classroom, with the implicit goal of supporting a more transformative experience for students (Zajonc, 2013). An important part of this process is to investigate how and why certain mindfulness practices actually transform teaching, research, and service. Although university-wide surveys provide a constructive way to study the influence of contemplative practices on student well-being, it is difficult to find methodologies for facilitating and assessing deeper transformation in behaviors and beliefs amongst professors. Most existing measurements gauge the influence of mindfulness on individual perceptions (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003; Buchheld, Grossman, & Walach, 2001), but fewer focus on everyday mindfulness in action. As a result, many disciplines rely on official statements of the role of mindfulness as "best practice," as promoted by professional organizations and accrediting agencies (Cornett-Murtada, 2012). This article shares the goals, design elements, and research outcomes of a strategically integrated, team-based seminar to improve teaching, research, and service though applied mindfulness practice.

Context

Since university professors are hired to profess, they often succumb to a pride of expertise, marked by endless critique and de facto debate. Over time, this tirelessly analytical habit of mind can become inseparable from professors' personal identities and ways of being. At the same time, many professors genuinely wish to transform student experience and push the boundaries of their own disciplines by practicing greater creativity and self-awareness. Intuitively, we feel professors would benefit from developing a greater sense of wakefulness, or being in the moment, in order to welcome diverse perspectives that might aid these new ways of doing and being. This often requires an initially discomforting collaboration between expertise and beginner's mind. Kabat-Zinn (1990) reminds us of the reason why alone, expert mind can halt greater clarity and growth:

Too often we let our thinking and our beliefs about what we "know" prevent us from seeing things as they really are.... An open, "beginner's" mind allows us to be receptive to new possibilities and prevents us from getting stuck in a rut of our expertise, which often thinks it knows more than it does. (p. 35)

For the seminar and study detailed in this article, mindfulness practice is defined accordingly, as "an awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). Underlying tenets of mindfulness practice—letting go, nonjudgment, patience, and insight—suggest that it may help create

an authentic space for professional development and interdisciplinary collaboration in the university setting.

Seminar Design

In the summer of 2013, we organized and facilitated a 4-day faculty seminar entitled "Mindfulness Meditation in Teaching" at the University of St. Thomas in Minneapolis—St. Paul. This seminar was sponsored by the university's Center for Faculty Development. As university professors, our qualifications also include extensive training in various meditation practices, and years of experience facilitating meditation classes and training sessions. Facilitator 1 studied Mindfulness-Based Stress Reduction with Jon Kabat-Zinn at the University of Massachusetts, and Facilitator 2 is a certified meditation instructor with a specialization in vipassanā (insight) meditation. In addition, both are founders and leaders of the Project for Mindfulness and Contemplation at the University of St. Thomas. In this seminar, 33 participants included adjunct, clinical, assistant, associate, and full professors, including department chairs and those with other administrative duties. They represented diverse fields such as theology, psychology, biology, visual arts, music, engineering, neuroscience, education, and business. All participants received a small stipend as an incentive to participate.

Objectives

The central aim of this seminar was to introduce professors to various mindfulness practices and to help them strategically incorporate and test out mindfulness into their teaching, research, and service. This seminar included approximately 40% mindfulness practice and 60% faculty inquiry, dialogue, planning, and project development.

Each day of the seminar was divided into three phases: (1) guided mindfulness practice to create a sense of awareness relative to a professor's usual quality of mind, (2) critical reflection upon the benefits of greater awareness in the context and measured impact of university strategy, and (3) dialogue and action planning in teams of professors from diverse disciplines.

Faculty participants agreed to six comprehensive objectives of this seminar:

- 1. Become familiar with the approach of "beginner's mind" and its application to creativity, innovation, and efficacy in course preparation, instruction, and job satisfaction.
- 2. Develop a customized system for recognizing symptoms of absentmindedness and implementing immediate mindfulness practice to recenter the mind in order to be more "present" with students and colleagues.
- 3. Develop an actionable strategy for integrating mindfulness in professional life.

- 4. Understand the role of mindfulness in dialogue with others by engaging in mindful-listening activities.
- 5. Enjoy some of the many benefits associated with intensive meditation practice including reduced stress, increased clarity of mind, improved decision-making, and overall sense of well-being.
- 6. Network and develop a support system with like-minded faculty.

Each guided meditation component was followed first by quiet reflection time and then faculty dialogue regarding the experience, connections to various readings, and the development of a "real-world" strategy to apply mindfulness practice to their own teaching, research, and service. We found it helpful to follow-up each guided mindfulness exercise by having participants reflect individually and then participate in a brainstorming activity to determine common areas of interest, which included grading and assessment, awareness of students in the classroom, teaching mindfulness in and out of the classroom, and self-awareness in teaching. Individuals then joined teams based on the subject that was most meaningful to them. As part of the final project, each faculty group delivered a 30-min presentation around what they learned, including how their habits of mind may have shifted, and how they planned to implement mindfulness in their work. During these final presentations, each group addressed four components of their seminar experience: (1) their personal perspectives of mindfulness practice at the beginning and at the end of the seminar; (2) three key learning outcomes (intended or unintended) regarding the way participants enter relationships with their world or themselves differently; (3) a plan for strategic integration with university activities (teaching, research, and/or service), in the spirit of experimentation; and (4) a summary of the networking, support, and plans for future collaboration with fellow faculty members.

The research component of this seminar, discussed later, sought to explain the potentially transformative impact of this seminar on the long-term strategic applications of mindfulness by professors in order to improve their teaching, research, and service. To achieve this goal, we incorporated three specific seminar design elements: guided mindfulness practice, transformative learning (TL) theory, and action research.

Guided Mindfulness Practice

Numerous forms of guided meditation were incorporated to give participants direct experience with the practice and to cultivate a heightened level of awareness before engaging in dialogue. While readings were made available to better conceptualize mindfulness practice and fundamental concepts were addressed periodically, the seminar honored the practice first and foremost. We incorporated numerous forms of mindfulness practice in service to the insight that might arise naturally from it, including breathing, body scan, walking, and light movement meditation. As an example, one insight shared amongst professors was that it was far more difficult

to pay attention to a single process (e.g., breathing), than they originally thought; the implications for listening to a student (without judgment) became an alarming reality. These forms of disorientation became discussion topics that supported perspective transformation as instructed by TL theory.

TL

TL theory served as the guiding framework for participant instruction as well as measuring the breadth and depth of learning. Unlike informative learning, TL involves a fundamental shift in the way a person experiences, interprets, and acts in the world (Cranton, 2006; Mezirow, 2000; Taylor, 2005). It is a process that is often triggered by a disorienting dilemma, or an experience that compels the individual to take pause and reflect upon their taken for granted assumptions (Mezirow, 2000). Both individually and through dialogue with others, this process of critical reflection may lead to new ways of being and behaving (Merriam, Caffarella, & Baumgartner, 2007). As such, the seminar provided ample space for individual reflection, collective dialogue, and planning new approaches in subjective relation to the profession.

Without disorientation, it is difficult to experience the type of urgency necessary for earnest reflection and real-life change. We created a collective disorienting dilemma for participants by first using the Mindfulness Attention Awareness Scale (MAAS) at the very beginning of the seminar, which is essentially a measure of dispositional mindfulness and absentmindedness (Brown & Ryan, 2003). The old adage of the "absentminded professor" proved to be strikingly accurate as each participant considered their MAAS scores individually without sharing. All did generally agree that their individual scores were low and rather troubling given the role of awareness in successfully executing their work.

The TL process was also triggered organically as disorienting dilemmas appeared in the form of meditation insights. For example, if participants were shocked by the busy nature of the mind during guided practice, they were encouraged to reflect upon the adverse influence this may have on their ability to stay present when grading papers, answering students, or giving a lecture. Stemming from this collective understanding, the participants were encouraged to move beyond critical exploration, to action planning and postseminar implementation of new practices and ways of being. Participants were also encouraged to design ways of monitoring their transformed assumptions and behaviors through action research (AR).

AR

The third design element included real-world inquiry in the tradition of AR, whereby participants were asked collaboratively to identify context-specific needs for adopting mindfulness practice and develop interventions, objectives, and time lines for application. In a nutshell, AR "...seeks to bring together action and reflection,

theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities" (Reason & Bradbury, 2001, p. 1).

For example, participants discussed specific things they could do prior to launching into lecture, to heighten their attentiveness to the needs of the class. Following the seminar, participants continued the AR process by practicing and regularly testing these new applications in service to their profession. The AR process was particularly fitting for professors because it was done in the spirit of experimentation, which yielded not only confidence in new behaviors but also measurable results that could be shared with the larger university community. This phase was then followed by additional dialogue with fellow participants and further refinement of applications based on these findings.

Research Design

AR served not only as the learning framework but also the overarching research design of our seminar. In AR, the subjects of research are seen and known as collaborative researchers themselves (Reason & Bradbury, 2001). Once the seminar instructors introduced and educated participants around the goal of the seminar, participants worked together to devise-specific applications to be tested in their natural setting (e.g., mindfully grading papers). Specific application of AR to the professional development context is described as follows by Argyris and Schön (1991):

Action Research takes its cues—its questions, puzzles, and problems—from the perceptions of practitioners within particular, local practice contexts. It bounds episodes of research according to the boundaries of the local context. It builds descriptions and theories within the practice context itself, and tests them there through intervention experiments—that is, through experiments that bear the double burden of testing hypotheses and effecting some (putatively) desired change in the situation. (p. 86)

Once participants learned about the theory and practice of mindfulness, the instructors adhered to the steps of AR listed below (Kemmis, 1982, p. 7) to frame a process of continuous inquiry that would span 2 years following the seminar. The results of each step were codified and recorded depending on the process involved. Due to the nature of this seminar, digitally recording dialogue would distract from the organic development of ideas and strategies. Instead, we collected detailed strategic plans from each AR team and took notes during their presentation to the larger group of seminar participants.

Step 1: Planning

The first step in AR includes developing a plan of action to improve what is already happening (Kemmis, 1982). Once the instructors introduced, facilitated, and guided dialogue around mindfulness, participants independently brainstormed possibilities

for professionally integrating mindfulness to improve teaching, research, and service. To do so, participants were instructed to anonymously write individual applications of mindfulness practice on separate sticky notes. Altogether, over 100 notes were placed in the center of the room and collectively, seminar participants discussed and grouped these ideas into main application categories. These ideas were then moved underneath a logical subheading for further reflection and refinement.

Depending on the participant's personal affinity for a specific application category, they self-selected to participate in a specific AR team.

Next, through careful dialogue, each team created a guiding vision for making the research/learning process both collaborative and cohesive. Individual team members were first instructed to create their own version of a team vision that would guide how they test out their new behaviors and worldviews. Then, in order to arrive at a shared vision, team members entered dialogue around the premise, usefulness, and viability of each vision statement. At the end of this process, each team had developed a single, clear, and motivating vision statement.

Each AR team was then guided through a process of reflective dialogue about why specific applications are worthy of practicing. They not only speculated how it would be useful but also considered what contextual factors might serve as barriers and enablers for executing their plans successfully. Stemming from this discussion each AR team then developed a detailed plan for testing out their set of applications in teaching, research, and service. These plans included a description of what would be practiced, when it would be implemented, and the criteria they would utilize to determine whether the application was useful, and/or transformative.

Finally, one by one, each AR team presented the outcomes of their dialogue including their AR charter, strategic plan, and measures. Members of other teams, having gone through the same process, then shared their thoughts and discussed different angles for understanding the phenomena that would play out over the ensuing year.

Step 2: Implementation

Over the course of the following 2 years, individuals on each AR team set out to practice new behaviors in their individual teaching. For the purpose of ongoing dialogue, participants were instructed to use an online discussion board and check in with instructors as needed for guidance and clarification. Implementation was individualized, so that each member carried out the application in their own unique setting. Figure 1 depicts a portion of a strategic plan developed by an AR team that emerged from this seminar. Figure 2 provides a list of faculty goals demonstrating objective reframing.

Step 3: Observation

On a regular basis, members of each AR team would observe and take note of the effects of their new practices by utilizing their measurable objectives established

Vision	Mission	Goals	Objectives	Tasks (Sample)
A classroom wherein there exists an everemerging environment of mindfulness.	To cultivate more authentic and comfortable classroom environments through mindfulness practices.	Normalizing pauses and working with, not against, silence Explicit integration of mindfulness practices into pedagogy Begin class to focus students and instructors mindfully Honoring and embracing tensions and/ or challenging situations in the classroom by using mindful self- awareness (versus self- awareness that might exacerbate negative situations, emotions and/ or reactions)	Beginning-of- class-exercise, Guiding students in a mindful, awareness- raising Separation from cellphones, laptops, and/or tablets, and the attachments each technology represents.	Using music at the beginning to create the space and mark the boundary between everyday busy lives and the beginning of class. Using free writing combined with mindful breathing to begin the class. Use eye contact and names to increase connection, class climate and positive relationships in classroom. Practicing increased eye contact with each individual student, and referring to each by name when taking attendance throughout the semester.

Figure 1. Team implementation plan.

during the formal seminar. Teams were encouraged to capture their insights throughout this period. Some utilized journals, while others wrote large pieces that were shared with the university community.

Step 4: Reflection

The next step in the AR process involves reflecting on the effects of mindfulness application as a basis for further planning, and subsequent action through a

Grading and Assessments	Create exams mindfully.		
	Remain present while grading.		
	Practice not being exclusively "grade centered."		
	Be aware of distractions when responding to student		
	papers.		
	Becoming more oriented to the students' minds when		
	doing (or avoiding) grading.		
	Understand and mindfully address procrastination and		
	distraction related to grading.		
	Create activities or assignments that allow students to		
	use mindfulness in the learning process.		
Awareness of Students in the	Pay fuller attention to students and listen more deeply.		
Classroom	Become aware of my own defensive behavior during a		
	difficult classroom situation, and practice handling		
	these situations mindfully.		
	Seize and relish moments to pause and ask the class to		
	be aware of processes, comments, and events that		
	have occurred in our midst.		
	Hear the entirety of a student's question before		
	formulating a response.		
	Notice when students are bored or confused and adjust		
	in real time.		
Teaching Mindfulness In and	Shift the focus away from "I have to learn X amount by		
Out of the Classroom	the time I finish this course" to a less judgmental		
	process or journey.		
	Integrate mindfulness into the course content when		
	practical.		
	During class activities, encourage students to remain		
	present and to reflect on their process.		
	Make our daily free-writing exercise more mindful.		
	Explicitly and mindfully model for students in class.		
	Discuss the tenets of mindfulness in class.		
	End class with a breath, not "out of breath!"		
Self-Awareness in Teaching	Make peace with all of the tasks I do not enjoy.		
	Feel more engaged in teaching by staying in the present		
	moment, instead of feeling like it is an interruption to		
	other things I need to get done or other places I'd rather be.		
	Be more mindful of students as whole individuals.		
	Become more efficient by managing my thoughts of the		
	past or present.		
	Regularly practice patience.		
	Become calm by releasing judgment.		
	Radiate enthusiasm, peace, and confidence rather than		
	anxiety, vulnerability, or disappointment.		
	Discover the joy in what I'm doing.		
	DISCOVER THE TOY HE WHAT I'M HOHIE.		

Figure 2. Faculty goals demonstrating objective reframing.

ltem	Mean	Standard Deviation
8. Pay fuller attention to students and listen more deeply.	4.40	.49
Become aware of my own defensive behavior during a difficult classroom situation, and practice handling these situations mindfully.	4.10	.54
3. Practice not being exclusively grade centered.	4.10	.99
21. Feel more engaged in teaching by staying in the present moment, instead of feeling like it is an interruption to other things I need to get done or other places I'd rather be.	4.00	.67
26. Radiate enthusiasm, peace, and confidence rather than anxiety, vulnerability, or disappointment.	4.00	.67

Figure 3. Survey items with mean score \geq 4 (n = 10).

Item	Mean	Standard Deviation
16. Make our daily free writing exercise more mindful.	2.10	1.29
19. End each class with a breath, not "out of breath."	2.20	1.14
I. Create exams mindfully.	2.70	1.64
15. During class activities encourage students to remain present and reflect on their process.	3.00	1.49

Figure 4. Survey items with mean score \leq 3 (n = 10).

Item	Themes in Survey Comments
28. How do you see yourself differently as a result of integrating any or all of these strategies?	Greater sense of authenticity.
29. How have your perceptions and/or relationships with students changed as a result of integrating any or all of these strategies?	Improved interpersonal connection. Increased empathy.
30. How have your perceptions and/or relationship with colleagues changed as a result of integrating any or all of these strategies?	Decreased frustration. Greater appreciation. Increased engagement. Sense of solidarity.

Figure 5. Trends in subjective transformation.

succession of cycles (Kemmis, 1982). This served participants as a feedback loop for continuously repeating and refining application. As part of the seminar design, participants were instructed to periodically visit with their AR team to discuss, revise, and retest their strategies. After a 2 years of participating in ongoing AR

cycles, the instructors then sought and analyzed qualitative feedback collected via interviews as well as quantitative data through a Likert-type scale survey. Figures 3–5 include summaries of these analyses.

Finally, authors shared this synthesis with the members of all AR teams to demonstrate the findings with great detail, so that all participants could learn from each other and continue (outside of the research process) to test and incorporate new strategies for mindfulness in teaching, research, and service.

Assessing TL

As mentioned previously, what is central to TL is recognizing the way we have come to habitually see the world, so that if there were a goal for TL it would be to transform "... problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change" (Mezirow, 2003, p. 58). Mindfulness practice plays an important role in TL because it strengthens the very recognition function (consciousness) needed to observe problematic frames of reference in action (Awal, 2010; Barner & Barner, 2013; Beer et al., 2015; Burrows, 2015; Byrnes & Bassarear, 2015). Individuals must first establish this relationship with taken-for-granted assumptions before they can earnestly reflect upon their accuracy and reliability. Mindfulness practice provides a veritable "window into our habits, ways of being and automatic reactions to the world" (Silsbee, 2008, p. 27). A shift in understanding one's world in such a fundamental way requires an increased level of awareness within the learner. Elias (1997) notes:

Transformative learning is the expansion of consciousness through the transformation of basic worldview and specific capacities of the self; transformative learning is facilitated through consciously directed processes such as appreciatively accessing and receiving the symbolic contents of the unconscious and critically analyzing underlying premises. (p. 3)

For TL to occur, individuals must also learn how to capture insights when they emerge and entertain diverse perspectives that challenge or even contradict their worldview (Mezirow, 2000). Previous research demonstrates this link by demonstrating positive correlations between mindfulness practice and divergent thinking (Ren et al., 2011), new idea generation (Colzato, Ozturk, & Hommel, 2012; Strick, Van Noorden, Ritskes, De Ruiter, & Dijksterhuis, 2012), and overall creative ability (Horan, 2009). Through the practice of opening up to divergent views, participants practiced a fundamental aspect of dialogue, "applying a reflective insight from someone else's narrative to one's own experience" (Mezirow, 2000, p. 23).

In order to determine whether transformation had taken place, research centered not only on changes in a participant's daily habits but also their greater habits of mind, as defined by TL theory as "a set of assumptions—broad, generalized,

orienting predispositions that act as a filter for interpreting the meaning of experience" (Mezirow, 2000, p. 17). When a habit of mind changes, it is referred to as a perspective transformation, described by Taylor and Cranton (2012) as:

...a deep shift in perspective, leading to more open, more permeable, and better-justified meaning perspectives (Mezirow, 1978)—but the ways of getting there can differ depending on the person or people and the context or situation. (p. 3)

Since the nature of the mind is largely habit forming, through dialogue, our seminar participants found it helpful to recognize how assumptions influence specific behaviors.

Objective Reframing

One approach to describing TL includes objective reframing, which entails the development of new habits based on new frames of reference (Mezirow, 2000). As a result of our seminar design, professors developed and have since maintained a myriad of new behaviors based on their new understanding of mindfulness practice in context. One professor now includes a regular 5-min meditation as part of course preparation just prior to entering the classroom. A second professor practices mindfully walking up the stairs from his or her office to the lecture hall, while drawing and sustaining awareness to every footstep. A third professor practices placing bright sticky notes on a wall in the back of the classroom—in the spot where she tended to mentally wander off during lecture—reminding her to bring her attention back to the felt experience of communicating with students. As all of these transformations are comprised of new everyday habits, they can be said to be objective in nature.

In order to assess objective reframing, we utilized quantitative measures to focus in on specific variables and collect "data on predetermined instruments that yield statistical data" (Creswell, 2013, p. 18). A Likert-type scale survey asked participants which applications of mindfulness practice (developed during the seminar) they have adopted, and the extent to which these applications have now become routine practice. We also followed up with a select group of participants to further describe the context in which objective reframing took place.

Subjective Reframing

Another approach to describing TL includes subjective reframing, described as a sustainable change in one's habit of mind whereby individuals experience a fundamental shift in how they view their very sense of self, role, and reach (Mezirow, 2000). Subjective reframing is a process that reaches far deeper into the psyche, in that it calls for change in an individual's very belief system. Habits of mind may shift in three ways (Mezirow, 2000). The first is epistemic, as it includes a change in how people perceive their source of knowledge and understanding. The second is sociolinguistic, as it includes a change in how one transforms language and

communication. The third is psychological, as it includes letting go of attachments and developing a greater emotional capacity for entertaining diverse perspectives.

Qualitative research, through the vehicle of AR, provided a context-rich account of the subjective changes that took place within professors. Stories collected through interviews provided not only a deeper level of clarity and understanding but also a relatable account for readers who might include individuals developing seminars with similar objectives and measures.

Results

Indications of Objective Reframing

Results of our survey indicated similarities in objective reframing including grading and assessments, awareness of students in the classroom, teaching mindfulness in and out of the classroom, and self-awareness in teaching.

One vivid illustration of objective reframing is provided by a professor of art history:

Inspired by our faculty workshop, I incorporated a mindfulness exercise into my study abroad art-history course last January which centered on using a work of art as a focal point for quiet mindfulness. The day before a museum visit, I led a short guided meditation which asked students to sit comfortably and silently with eyes closed, and to focus on their breathing. When our minds inevitably wandered, I would offer prods to return our focus to the now of our breathing. After this exercise, I explained that during the next day's visit to the Wallace Collection museum, we would do a similar silent mindfulness exercise, but instead of always returning to our breathing, an artwork of each student's choice would provide the object of continual refocusing. The exercise was planned to last twelve minutes. At the museum the next day, students each parked themselves in front of a chosen work of art and began the exercise. And I did it too, standing in front of Pieter de Hooch's "Boy Bringing Bread" (ca. 1663).

A professor of communication and journalism shared how her teaching habits have changed since the seminar, in a way that helps to recharge these qualities in herself and her students:

As a faculty member who teaches in a discussion-based format, the dynamism of the complex conversations can become overwhelming at times and pre-mindfulness, I often realized I was simply trying to ensure I was "sounding smart and impressive" to myself and my students during the discussions. Post-mindfulness, I notice profound moments of joy as I watch, observe, and fully listen to what each student is sharing, and how the discussion is evolving as if—with beginner's mind—I'm observing a discussion on whatever topic (even one I've heard discussed 129 times before) as if it's the first time. I sometimes become awash in appreciation for the very notion that we are together in a room, multiple minds engaged in a discussion, together creating something very beautiful.

Evidence of Subjective Reframing

Dialogic inquiry conducted by participants provided the greatest evidence of how and why TL took place as a result of the seminar. Two predominant types of subjective transformation amongst participants were epistemic and psychological in nature. They involved a fundamental shift away from a strongly held belief that expertise is the primary source and value of knowledge. In addition to evidence of objective reframing provided previous section, the professor of art history discusses his process of subjective transformation:

As an art historian and teacher, I found it quite difficult from the beginning to take in the painting without having my analytical/judgmental faculties kick into high gear, habitually crafting historical explanations of, or pedagogical riffs on, what I was seeing. And of course as I started to craft mental arguments, I was actually departing from the painting that was supposed to be my focus. So I gently prodded myself back to the artwork in front of me. Over the twelve minutes, I improved at moving attention away from the stories that I could tell about the work as an historian or teacher, and towards the painting as it appeared: the qualities of light, the character of textures, the presence of the two figures, the sense of space. This felt like finding "beginner's mind" as they say: "forgetting" knowledge learned in the past in order to be present with the experience in the moment. By the end of the session, I felt very connected to the painting, and confident that any lessons I would want to build around the artwork would be better grounded in the object as experienced.

My initial presumption was that the students, being "beginners" already (this was an introductory course), would find this exercise easier than I did, since they had less expertise to "forget." But they, no less than I, have habits, assumptions, and distractions that impede mindfulness. Indeed, as students, their usual role in a class exercise is to come up with right answers, which was not the intention here. In checking in with them after the exercise, a few of them shared their theories on what their artworks meant historically as the "results" of the exercise. It was evidently rather unnatural for both student and teacher alike to go to a museum and "merely" experience the art.

I intend to build more of these kinds of exercises into my teaching. My expertise in art history is something I want to develop and share, of course, but I find that the vivid experience of seeing "as if for the first time" brings me in tune with an ineffable value of art that is prior to all of that expertise. That, too, is experience I want to share with students.

A second example of subjective reframing, provided by a professor of engineering, is also epistemic and psychological in nature and relates to beginner's mind. In addition to communing with subject matter, beginner's mind can open a space for creativity to flourish.

As an engineering professor, one of my greatest struggles is how to help students find ways to access more creative thoughts and ideas. One of the biggest epiphanies

for me when I started utilizing mindfulness and meditation in my own practice and in the classroom was its amazing ability to, first, cultivate and, then, reap creative thoughts from our minds. Creative thought usually stems from a breakdown of the ties that conventionally link certain concepts in our mind.

The first important implication of meditation, then, is to allow our minds to create novel idea combinations. The ability to let go and let thoughts wander allows thoughts to intermingle in a natural unstructured way. One way to think about this is that our thoughts get organized into boxes, as we grow and learn. It's an effective method to organize so much information; however, it stifles creativity because often we (and everyone else) only look into certain boxes for the answers to problems that we think are associated with those boxes. Meditation and mindfulness allow all the boxes to be left open and the contents to float around in our mind, mixing together in novel ways. This is akin to a beginner's mind, where the mind has not yet been directed to assign certain common connections between concepts—concepts have not been put away into boxes, so they easily collide and combine with one another in the beginner's mind. We look at all the ideas in a fresh, unconnected light. People often marvel at how children come up with such crazy connections between seemingly disparate concepts, and the reason is because their minds have not yet been trained (or constrained) to think about things in certain ways.

A third example of subjective reframing is provided by a professor of communication and journalism who applied her transformed belief system to developing greater sense of community and communication across silos of expertise.

I've had the same experiences when engaged in conversations or meetings with my colleagues across disciplines. Instead of me worrying about what I might contribute and say, I've become much more at peace and fully appreciative of what we are creating together—moment by moment, thought by thought. It's a subtle but powerful shift of focus from self to what the moment *is* as we work together across disciplines. When we have disagreement, I actually am more apt to enjoy and embrace it—because it is what it is, and that's a pretty powerful thing. I more open to learning from the feelings of defensiveness that, in the past, might have created a hurdle for collaboration.

Practice and Adoption

Using the following scale, participants ranked the degree to which they individually integrated each of the applications developed during the seminar (listed above): (1) decided not to integrate; (2) thinking about it, haven't planned yet; (3) planning/taking small steps toward adding; (4) making specific changes to add to my routine; (5) routinely use and work to maintain. For the full survey, see Appendix A.

Future Applications to Transform University Culture

Following the seminar, several participants actively initiated further dialogue that resulted in six comprehensive initiatives intended to transform university culture. The strategic aims shared by these participants include:

- 1. Developing a rigorous, interdisciplinary academic curriculum related to contemplative studies.
- 2. Maintaining close relationships with local initiatives that aim to awaken the mind, body, and heart to the present moment to promote greater service to the common good.
- Facilitating the entire university community in expanding personal practices through a variety of centralized resources including coaching, information sessions, and a meditation media library.
- 4. Offering free, weekly mindfulness, and movement meditation sessions open to students, faculty, and staff.
- 5. Coordinating meditation retreats and serving as a resource for integrating contemplative practices into research and pedagogy.
- Serving as a community of practice, celebrating the growth and possibilities
 that have been actualized by university members through mindfulness and
 contemplative practices.

Conclusion

Course material is often most inviting when it honors the complexity and nuance of the subject at hand. The occupational hazard in doing so is forgetting to anchor exploration to an existing train of thought. Learners can quickly become lost in the intricacies of subject matter and rely greatly upon professors to resurface. One admission that became clear in our seminar is that professors can also lose themselves in the lesson. Course material can also be inherently dry in nature, which at times deflates momentum, sense of wonder, and appreciation that connects learners with learning.

Mindfulness practice not only served as the subject matter for our seminar but was also instrumental in demonstrating how our thoughts and feelings can be observed from a more spacious sense of awareness. A helpful description of how our seminar design produced a safe platform for this insight is described by a professor of biology:

By practicing with others and then having the opportunity to discuss the experience, I found a new space between my thoughts and myself, and the ability to experience—to be—without judgment. This new awareness has changed my perspective in many aspects of my life, including my teaching. In the classroom, I can be mindful of the space between my experiences and my reactions to those experiences. Similarly, I can

be mindful of the space between a student and their performance, and that mindfulness changes both my experience and the way I interact with my students.

Since the design of our seminar included greater space for mindfulness practice in contrast to reflection, participants were better able to identify and articulate these phenomena and its implications for everyday work. Including strategic applications of mindfulness in teaching, research, and service invites greater creativity, communion with the subject matter, faith in complexity, and human connection. Through this 4-day seminar, together, we learned that universities may do well to help professors strive not only for innovative performance but also something very much related; a more wakeful and authentic way of being with students and colleagues.

Appendix A

Faculty Survey

Using the following scale, participants ranked the degree to which you integrated each of the applications developed during the seminar (listed above): (1) decided not to integrate; (2) thinking about it, haven't planned yet; (3) planning/taking small steps toward adding; (4) making specific changes to add to my routine; and (5) routinely use and work to maintain.

Objective Transformation

- Create exams mindfully.
- 2. Remain present while grading.
- 3. Practice not being exclusively grade centered.
- 4. Be aware of distractions when responding to student papers.
- 5. Becoming more oriented to the students minds when doing (or avoiding) grading.
- 6. Understand and mindfully address procrastination and distraction related to grading.
- 7. Create activities or assignments that allow students to use mindfulness in the learning process.
- 8. Pay fuller attention to students and listen more deeply.
- 9. Become aware of my own defensive behavior during a difficult classroom situation, and practice handling these situations mindfully.
- 10. Seize and relish moments to pause and ask the class to be aware of processes, comments, and events that have occurred in our midst.
- 11. Hear the entirety of a student's question before formulating a response.
- 12. Notice when students are bored or confused and adjust in real time.
- 13. Shift the focus away from "I have to learn X amount by the time I finish this course" to a less judgmental process or journey.

- 14. Integrate mindfulness into the course content when practical.
- 15. During class activities, encourage students to remain present and to reflect on their process.
- 16. Make our daily free-writing exercise more mindful.
- 17. Explicitly and mindfully model for students in class.
- 18. Discuss the tenets of mindfulness in class.
- 19. End class with a breath, not "out of breath!"
- 20. Make peace with all of the tasks I do not enjoy.
- 21. Feel more engaged in teaching by staying in the present moment, instead of feeling like it is an interruption to other things I need to get done or other places I'd rather be.
- 22. Be more mindful of students as whole individuals.
- 23. Become more efficient by managing my thoughts of the past or present.
- 24. Regularly practice patience.
- 25. Become calm by releasing judgment.
- Radiate enthusiasm, peace, and confidence rather than anxiety, vulnerability, or disappointment.
- 27. Discover the joy in what I'm doing.

Subjective Transformation

- 1. How do you see yourself differently as a result of integrating any or all of these strategies?
- 2. How have your perceptions and/or relationships with students changed as a result of integrating any or all of these strategies?
- 3. How have your perceptions and/or relationship with colleagues changed as a result of integrating any or all of these strategies?

Authors' Note

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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Author Biographies

William Brendel is the President and CEO of the Center for Ethical Organizations and Opus Fellow of Organizational Ethics in the College of Business at the University of St Thomas.

Vanessa Cornett-Murtada, DMA, is the Director of Keyboard Studies and associate professor of Piano and Piano Pedagogy at the University of St. Thomas (Minneapolis-St. Paul). She is a certified meditation instructor and co-director of her university's Project for Mindfulness and Contemplation.