

# Teaching Environmentalism: Mindfulness, Activism, and Student Performance

By

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## *Abstract*

*Academics who meditate and engage in other contemplative practices increasingly incorporate their practice into courses as a means of increasing students' capacity for focus and attention, social awareness, and activism. Do they also improve student's grades? Attention in class, especially if it extends to coursework completed outside of class and other extracurricular activities, should improve performance. To find out, I conducted an experiment that tests this proposition. My results suggest that students who meditate do improve their grades, as well as their awareness and predisposition to engage in social activism. Yet additional practice – in terms of both time and the nature of contemplation – does not yield significantly higher grades compared with those of students who practice less extensively. In fact, their grades may even be lower! Despite the preliminary nature of these results, they do suggest that those of us seeking to share the practices that ground and inspire us must carefully consider the universe of grades, grad school applications, and job-seeking efforts our students inhabit.*

## **Motivation: My Best Students are Activists!**

The motivation for this study was my growing realization that my best students, those who participate regularly in class discussions, write well, and outperform their peers on exams, have tended to be more engaged with their community and the world than their less successful classmates. For example, one of my undergraduate honors students initiated our first campus recycling program; the strongest student in my course on globalization and development created an afterschool program for economically disadvantaged children living in university-

adjacent apartment complexes that continues to thrive; one of the best graduate students I have ever worked with was central to the establishment of our campus community's biofuels program. And the list goes on. I couldn't help wondering if I could improve students' academic performance by developing their ability to perceive their connection to the many communities of which they are a part.

Mindfulness practice is the cornerstone of my own scholarly work *and* social and political activism. This is true as well for virtually all of the contemplative-scholars I know. Prior to my recent flash of insight, I had used meditation and related contemplative practices in my courses for more than a decade – typically in the context of units on environmental ethics and activism or in writing-intensive seminars. The purpose of these exercises had been to deepen students' self-knowledge, awareness of their connectedness to the planet, and commitment to course-related projects. I believed that it worked. Indeed, my students have completed awe-inspiring projects, including a bilingual documentary on water quality at the California-Mexico border that they presented at elementary schools near campus. And “my” honors students are increasingly likely to complete their theses. Even average students have reported that meditation during class or on retreat was the highlight of the course for them. Moreover, the idea that psychological well-being associated with mindfulness and potentially costly ecological action are compatible is gaining empirical support (Brown and Kasser 2005; Kaza 2008). Now I wanted to know if it could boost student success in the traditional sense, by raising their grades.

This query begs the question of why I – as an educator committed to student learning, regardless of the grade distribution – should care about grades. To be honest, I am not opposed to grades; they can provide an important and relevant basis for assessing student learning and overall knowledge. Given the additional role that grades play in determining students’ post-graduation options, it is similarly appropriate that *they* should be aware of, maybe even concerned about, their grades. The problem is “teaching to the test.” In contrast, mindfulness practice has the potential to help students develop specific skills – in particular, focus and enhanced attention – and habits of mind that are coincidentally central to becoming successful students. My intuition is that clear demonstration of a positive relationship between mindfulness practice and student performance might ease students’ buy-in to what often appears to be a wacky request on our part. I expect it might also provide a much-needed, rational antidote to colleagues’ skepticism about quiet time and headstands in the classroom.

### **Context for the Study: Contemplative Pedagogy**

*Mindfulness practice is simple and completely feasible. Just by sitting and doing nothing, we are doing a tremendous amount.*

Sakyong Mipham Rinpoche

The Buddhist practice of mindfulness refers to one’s capacity for nonjudgmental attention to the present moment (Goldsmith 1986; Kabat-Zinn 1994; Kornfield 2004). Over the past 30 years, this ancient spiritual practice has become mainstream. Mindfulness is widely regarded as key to stress reduction to improve

psychological and physical health and well-being, for instance. It has also become more familiar in the classroom, where teaching students to “quiet the mind” increases their focus, self- and collective awareness, and overall learning potential (Odahowski 2004; Zajonc 2006; Brown 2007; Hall and Archbald 2008; Zinger 2008). The introduction of mindfulness and other contemplative practices intended to cultivate a personal capacity for deep concentration and insight” (Zajonc 2006) is characteristic of contemplative pedagogy (see also Sarath 2003; Apffel-Marglin and Bush 2005; Nelson 2006; Brady 2007; Hall and Archibald 2008; Zajonc 2008). The Center for Contemplative Mind in Society identifies (mindfulness) meditation, sitting in silence, contemplative prayer, mindful walking, focused experiences in nature, yoga, and a number of other contemporary physical and artistic practices as contemplative.

Over time, such practices hold the promise for greater individual and collective insight, inspiration, compassion (Lazar 2005). No doubt. What appears to be less clear is whether or not this learning potential translates into the currently all-so-important learning outcomes: grades. While there is some evidence that meditation contributes to higher grade point averages and rates of school attendance and greater self-esteem among grade-school children (Rones 1999; Ayers 2009), comparable evidence for college-aged students is much harder to find (Langer 1997; Odahowski 2004; Holland 2006). Rather, with few exceptions, the literature emphasizes detailed course descriptions that record a range of transformative experiences among students (Gunnlaugson 2009; see, for instance, Osterhold, Rubiano, and Nicol 2007; Archibald and Hall 2008). This study

represents a preliminary examination of the relationship between contemplative pedagogy and student performance in an established active learning setting designed to inspire environmental thought and action.

### **Hypothesized Relationship:**

#### **Contemplative Pedagogy Improves Student Performance**

H1: Mindfulness practice improves students overall course grades.

H2: Training in contemplative practices improves students' overall course grades.

### **Methodology: Experiment within an Experiment**

I performed a relatively simple experiment within an experiment during my 2009 summer session of Global Environmental Politics, an upper division, case-based course that focuses on how socio-economically, politically, and culturally diverse collectivities of nation-states, and the individuals who inhabit them, approach solving common environmental problems. The course is designed around the case method, and emphasizes class discussion of actual international environmental negotiations and weekly case-motivated essays. Selected cases provide exposure to both successfully negotiated solutions to international environmental problems, and failures. They also illuminate key issues within the study of GEP: stratospheric ozone depletion (science); global climate change (domestic politics); hazardous waste trade (environment and development); fisheries management (environmental security); and population (ethics and activism). In addition, students – as members of small groups - are required to

conduct field work or perform community service relevant to the completion of a collaborative final project on a selected international environmental problem. With the exception of the explicit introduction of contemplative practices, the summer session course differed only in size from the variant I have taught during the regular academic year since 2005 – 36 students, as opposed to 80 or more.

Although I have incorporated a short meditation exercises as appropriate to covering “ethics and activism” in my larger GEP courses, prior to summer 2009, I had not introduced mindfulness practice as a mainstay of the course. As a basis for determining how contemplative practice affects student performance in an “active learning” environment, we began each day of class with five minutes of silence intended to facilitate students’ movement from an understandable preoccupation with daily concerns and the busyness “outside” of the classroom, into our collective learning space. On the first day of class, the classroom was dim – lit only by early morning light (8 AM!) streaming through the blinds – and relaxing, instrumental music was playing. I instructed students to focus on their breath, and to return to the breath immediately and consistently each time a thought or other distraction entered their minds. At the end of five minutes, I turned the lights on began class with an introduction that included explanation of the psychological and pedagogical merits of mindfulness meditation. Subsequent school days began in the same fashion.

To find out how training in, and more extensive experience with contemplative practices, impact student performance, I randomly assigned students to “Treatment” and “Control” groups. Students who enroll in upper division summer

school courses tend to be fourth and fifth year students who are otherwise representative of UC Riverside’s notably diverse student body.

	<b>Treatment (A)</b>	<b>Control (B)</b>
<b>Gender</b>	4 men, 8 women, 5 NR	5 men, 11 women, 2 NR
<b>Age</b>	10 (20-25), 2 (>20), 5 NR	13 (20-25), 1(<20), 2(>25), 2 NR
<b>Ethnic Background</b>	3 Hispanic, 7 Asian, 1 Black, 1 ME, 5 NR	5 Hispanic, 7 Asian, 1 Black, 1 White, 2 NR
<b>Major</b>	9 POSC	10 POSC
<b>Year</b>	11 SR, 1 JR, 5 NR	10 SR, 6 JR, 2 NR
<b>Work</b>	8 yes, 3 no, 6 NR	9 yes, 5 no, 2 NR

**Table 1: Demographic make-up of groups.<sup>1</sup>**

Students in the treatment group (A) met for 10 minutes before class officially began each morning to learn about and then practice a series of contemplative activities: seated meditation; lectio divina; contemplative writing; walking meditation; and yoga. These students gained more extensive experience in meditation than their classmates. They also learned about related contemplative practices in relation to their coursework. Students received one “instruction and explanation” lesson, followed by three days of practice during the course of each week. For example, on Monday during Week 3, in conjunction with learning about the relationship between domestic politics and international climate change negotiations in lecture, students in Group A received a brief introduction to lectio divina (holy reading) – an ancient practice of slow, contemplative prayer that facilitates union with God. Tuesday-Thursday, they collectively read the following selection from an article by Bill McKibben on the politics of asking people to make costly, personal sacrifices to slow global warming:

We need to conserve energy. That's the cheapest way to reduce carbon. Screw in the energy-saving lightbulbs, but that's just the start. You have to blow in the new insulation—blow it in so thick that you can heat your home with a birthday candle. You have to plug in the new appliances—not the flat-screen TV, which uses way more power than the old set, but the new water-saving front-loading washer. And once you've got it plugged in, turn the dial so that you're using cold water. The dryer? You don't need a dryer—that's the sun's job.

We need to generate the power we use cleanly. Wind is the fastest growing source of electricity generation around the world—but it needs to grow much faster still. Solar panels are increasingly common—especially in Japan and Germany, which are richer in political will than they are in sunshine. Much of the technology is now available; we need innovation in financing and subsidizing more than we do in generating technology.

We need to change our habits—really, we need to change our sense of what we want from the world. Do we want enormous homes and enormous cars, all to ourselves? If we do, then we can't deal with global warming. Do we want to keep eating food that travels 1,500 miles to reach our lips? Or can we take the bus or ride a bike to the farmers' market? Does that sound romantic to you? Farmers' markets are the fastest growing part of the American food economy; their heaviest users may be urban-dwelling immigrants, recently enough

arrived from the rest of the world that they can remember what actual food tastes like.

Which leads to the next necessity:

We need to stop insisting that we’ve figured out the best way on Earth to live. For one thing, if it’s wrecking the Earth then it’s probably not all that great. But even by measures of life satisfaction and happiness, the Europeans have us beat—and they manage it on half the energy use per capita. We need to be pointing the Indians and the Chinese hard in the direction of London, not Los Angeles; Barcelona, not Boston.

The group reading represents a secular version of traditional lectio divina in which students take turns reading the passage, slowly and one word at a time, to encourage individual reflection, meditation, and contemplation. Each time the passage is completed, students are invited to share their experiences.

<b>Week</b>	<b>Issue Area</b>	<b>Theme</b>	<b>Practice</b>	<b>Topic</b>
<b>1</b>	Stratospheric Ozone Depletion	Science	Seated Meditation	Mindfulness
<b>2</b>	Global Climate Change	Domestic Politics	Lectio Divino	“First, Step Up,” Bill McKibben
<b>3</b>	Hazardous Wasted Trade	Development	Contemplative Writing	“Renunciation”
<b>4</b>	Fisheries Management	Security	Walking Meditation	Body-Mind Connection
<b>5</b>	Population Growth	Ethics and Activism	Yoga	Self-knowledge and transformation/ environmental protection

**Table 2: Contemplative practices to deepen understanding of course material**

After ten minutes, reading stopped and the students moved into seated meditation as members of the control group (B) joined us to complete a total five-minute period of silence.

### **Results: Guarded Optimism**

As a basis for understanding how meditation affects student performance, I compared my summer session students' grades with those of students who took Global Environmental Politics with me during the Spring 2006 and Fall 2007 quarters. The students in my 2009 summer session performed marginally better than those who took the same course during the 2005-2006 academic year. In fact, the difference between their average course grades is significant at the .05 level. The average course grade for my summer session students was actually worse than the corresponding grade for students enrolled in Global Environmental Politics during the 2007-2008 academic year.

	<b>Ozone</b>	<b>Climate Change</b>	<b>Hazardous Waste</b>	<b>Fisheries</b>	<b>Population</b>	<b>Course</b>
<b>2006</b>	16.60	16.48	16.44	16.65	16.73	16.47
<b>2007</b>	17.45	17.29	17.36	18.27	18.2	16.87
<b>2009</b>	16.98	16.74	16.69	16.66	17.52	17.71

**Table 3: Comparison of class grades<sup>2</sup>**

This result is promising, especially since the summer session students failed to surpass their counterparts in Fall 2007. In my own experience, students who opt to take summer school are very highly motivated – either because they have to be in summer school, or because they desperately want to be. They also benefit from much smaller class sizes, and the corresponding opportunity to participate in more

frequent class discussions and get to know their instructors. It is, therefore, not immediately surprising that students who participated in my summertime experiment would get better grades than those taking the same course during the regular academic year. If they had not done significantly better, I'd be willing to attribute my results to class size alone. There were 106 students in my Spring 2006 course, but only 84 in my Fall 2007 course. As it is, I'm willing to believe that in-class mindfulness meditation is effective – not only as a means of centering students and helping them to focus during class, but also as a strategy for improving student learning, as measured by grades.

I compared students' grades on individual assignments as well as their final course grades to find out if the students in Group A, who received instruction in contemplative practices, performed better, in terms of grades, than their classmates in Group B, who did not receive this instruction. Bottom line: they did not. There was virtually no difference between the two groups. Curiously, average essay grades for students in Group A actually dropped mid-session before bouncing back. The corresponding grades for students in Group B gradually improved in a pattern more consistent with the increasing knowledge, familiarity with the case method, and writing practice associated with progression through this course.

	Ozone	Climate Change	Hazardous Waste	Fisheries	Population	Course
<b>Group A</b>	17.06	16.91	16.44	15.80	17.00	17.52
<b>Group B</b>	16.91	16.56	16.95	17.43	18.00	17.70

**Table 3: Comparison of group grades.<sup>3</sup>**

At first glance, these results suggest that providing additional exposure to contemplative practices in the classroom is not an effective means of raising

students' grades. The truth is likely more complicated. My course provides an active learning environment that encourages student participation – leadership, even – and collaborative learning. The case method, in particular, invites democratic discussion that can approach simulation of a given international environmental negotiation so that students develop new skills and attitudes as well as adding to their collective knowledge base (Boehrer and Linsky 1990, Mingst 1994). Could it be that by treating some of the students, they all benefited? If so, it lends credence to the idea that stronger students – here, those who have been trained to be more present, aware, and focused – naturally raise up their weaker peers.<sup>4</sup>

### **Discussion: Next Steps**

The results presented here are hardly definitive. As a basis for a more valid examination of the effect of contemplative practices – in particular, mindfulness meditation – I intend to incorporate an introductory five minutes of silence at the beginning of each lecture during my Spring 2010 and Summer 2010 sections of Global Environmental Politics Course. The results will inform revision of the experimental study.

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<sup>1</sup> Students were asked to provide demographic information voluntarily. Non-responses (NRs) reflect students' failure to return survey; this may or may not have been intentional.

<sup>2</sup> Values listed under environmental issue areas refer to points earned out of 20 possible on the five essays; the value for the course grade represents a weighted total out of 20 possible; The difference between 82.37 and 88.57 with standard deviations of 9.88 and .0977 based on sample sizes of 106 and 36, respectively, is significant at the .05 level. The value of the t-statistic for this test was -3 .76.

<sup>3</sup> Values listed under environmental issue areas refer to points earned out of 20 possible on the five essays; the value for the course grade represents a weighted total out of 20 possible

<sup>4</sup> Grouping, or "tracking," students by ability continues to be controversial. While some current research indicates that "improved peer" quality positively affects a student's performance (Kang 2006;), this relationship does not seem to hold at the university level (Arcidiacono and Nicholson 2005).