Practicing Contemplative Gratitude in University Classrooms: Student learning and happiness outcomes

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In the midst of college environments thick with questions about learning, post-collegiate happiness, and building future learners, this study provides evidence that a simple and intentional gratitude practice positively impacts student learning and student happiness. 103 undergraduate students and three instructors participated in this semester-long experiment. Infusing the classroom environment with a brief practice of gratitude and listening positively impacts the overall *effect of the classroom learning environment when dealing with curriculum unrelated to gratitude or happiness. Additionally, these results provide support that students report themselves to be happier, in relationship to the class, their semester, and more generally, when participating in a class that features a gratitude and listening practice as part of its class routine.*

INTRODUCTION

Scholarship in contemplative pedagogy, a growing body of pedagogical thought and practice, seeks to reorient education's goals to well-being in the present state of learning and knowing in the classroom (Christie, 2013; Newman, 2013; Saevi, 2011; Zajonc, 2013). Borrowing from contemplative practices often associated with religious and spiritual traditions, contemplative pedagogy focuses on the incorporation of practices that require stillness, listening, deep attention, and mindfulness (Zajonc, 2013). Through the incorporation of such practices, contemplative pedagogical approaches foster communicative environments in the classroom that are distinct from the environments fostered by more typical instructional methods. These environments are grounded in communion, connection (through knowing classmates and being known by classmates, as well as connection to course material), and attention to the present. This study explores the relationship among a classroom gratitude practice and student learning outcomes and student happiness.

Recently scholars are "finding it increasingly necessary to incorporate the rigors of contemplative practice within academic contexts, discovering that con-

templative process and method is well equipped to enhance, deepen and broaden academic thought and praxis across disciplines" (Gunnlaugson et al., 2014, p. 1). Research has demonstrated the contemplative practices "help focus the mind, offer the dispassionately reflective capacities of mindfulness, reduce stress, create and uncover meaning, insight and wisdom, as well as facilitate awareness of both inner and outer worlds and our fruitful engagement with self, others, and the world" (Gunnlaugson et al., 2014, p. 2). As such, we set out to test if a short contemplative practice at the start of class would significantly influence student learning as measured by their ability to recall, acquire, organize, and master knowledge; their capacity to openly receive feedback; the instructors' perception of the course climate; student engagement in self-directed learning; and overall levels of motivation.

Educational Unhappiness

While happiness has been the subject of philosophers since the beginning of recorded history, the recent evolution and growth of positive psychology has reinvigorated scholarly interest in the topic. In educational settings, research on happiness is partially fueled by links between student learning and happiness (Nielson & Lorber, 2009), and mental health concerns resulting from unprecedented increases in depression and anxiety among US college students (Twenge, 2000), adolescent depression, and suicidal ideation (Goldbeck et al., 2007).

A simple definition of happiness is positive emotion. However, the study and measurement of happiness is more complicated. Happiness scholars approach the subject from "two different but complementary perspectives: hedonism and eudaimonism, both rooted in ancient Greek philosophical systems" (Della Fave, 2013, p.4). The hedonic approach to happiness is based on subjective well being (SWB) that includes positive affect and global life satisfaction judgments. The eudaimonic approach rests on fulfillment of one's true nature, which includes both self-actualization and commitment to socially shared goals. We use the eudaimonic approach in our study as this encompasses a wide range of constructs, such as self-actualization and self-acceptance, perception of purpose and meaning, self-determination, cultivation of competences, trust in relationships, and cooperation. "One of the basic differences between these two perspectives is that the eudaimonic approach focuses on the process of living well, investigating the factors that contribute to it; the hedonic approach is instead prominently focused on the outcomes of this process" (Della Fave, 2013, p.4).

To manipulate the positive emotion in the classroom we used a gratitude intervention called Highs and Lows, which can be described as contemplative pedagogy. The Center for Contemplative Mind in Society (2014) overviews many contemplative pedagogical practices, organizing these categories broadly into

different categories: stillness practices, movement practices, creation process practices, activist practices, generative practices, ritual/cyclical practices, and relational practices. At the root of these practices are communion, connection, and awareness.

Highs and Lows is one such classroom activity that fosters the sharing of gratitude and sadness. Also called Roses and Thorns or Peaks and Valleys, Highs and Lows is an exercise sometimes used as an icebreaker in classrooms, workshops, and retreats. The exercise invites all in attendance to share both a High and a Low with the group, who are expected to demonstrate empathetic listening behaviors. Highs are understood as something about which the person is glad or grateful, and can range from impersonal observations about the weather or seasonal coffee beverages to personal disclosures about positive social, familial, relational, and academic happenings. Lows are understood as anything about which the student is sad or upset, and can range from impersonal observations about the time of year to personal disclosures about unhappy social, familial, economic, and academic happenings. During the sharing of Highs and Lows, students attend to each other fully; when Highs and Lows are ritually shared at the outset of each meeting, students often provide updates and trace events as they unfold in their peers' lives.

Traditional mindfulness practices can foster communicative environments because communication is based on shared meaning. If a persons' understanding of themselves is increased by being mindful, it may enhance the quality of relationships by helping people first understand themselves, enabling them to better relate to others and create shared meaning. While Highs and Lows is not a traditional mindfulness practice, it may serve to create a balance between inner and outer directed attention and help people tune into their current emotional state.

Scholarship has demonstrated that students' gratitude is positively correlated with happiness. Watkins Woodward, Stone, and Kolts (2003) studied gratitude's traits, extending Guralnik's (1971) definition of gratitude as: "a feeling of thankful appreciation for favors received" (as cited in Watkins et al., 2003, p. 432). Watkins et al. (2003) found that traits associated with grateful dispositions are: feeling a sense of abundance, appreciation of others' contributions to their personal well-being, appreciation of life's simple pleasures, and recognizing the importance of experiencing and expressing gratitude. As such, we posit the following hypothesis:

> H_{01}: Students who experience positive emotions due to the contemplative pedagogy intervention of the gratitude activity will report higher levels of happiness compared to the control group.

Contemplative Interruptions of Schooling

Modern higher education is not free from the trappings of benchmark culture that permeate elementary education, though K-12's hallmark language of standardized tests may be replaced with institutional emphases on innovation, entrepreneurialism, and job readiness. While innovation, entrepreneurialism, and job readiness are important and perhaps desirable attributes of an education, contemplative pedagogical approaches hold that they are not higher education's only aspirations.

Contemplative practices, religious and secular, share a similar emphasis on a "slowing down" or different *experience* of time (Christie, 2013). Christie (2013) writes of the difficulty of embracing expansive time, particularly in an age where efficiency, rapid access to knowledge, and the fear of falling behind are pervasive. Yet, he argues, the very rapidity at which we currently move necessitates intentional contemplative practices that require stillness, deep listening, and an alternative relationship to time; in these interruptions of "normal" time exist possibilities of new knowledge, relationships, and insights.

Contemplative pedagogy's emphasis on the present reorients the possibilities of contentedness from an aspirational future (hinging on the achievement of goals involving others) to a situated and relational present. Contemplative pedagogy's focus on the situated and relational present in the classroom offers opportunities for experiencing present happiness. This happiness is articulated through the processes of working with the course material and community in the classroom to create and process knowledge in a present space of learning.

Contemplative Research in Instructional Settings

One way to gauge tangible benefits to increased positive emotion in the classroom is to consider its impact on student learning. Learning can be defined as, "a process that leads to change, which occurs as a result of experience and increases the potential for improved performance and future learning" (Ambrose, Bridges, Dipietro, Lovett, & Norman, 2010, p. 3). Given this definition, Ambrose et al. (2010, p.4-6) separated learning into seven principles, which were used to measure learning in this study. We used these seven principles on our student assessment measures.

- The first principle is that prior knowledge helps and/or hinders learning, influencing students' interpretation and filtration of new information.
- The second principle is that knowledge organization impacts students' learning and application of new knowledge.
- The third principle posits that students' motivation determines, directs, and sustains learning.

- The fourth principle is that in order to develop knowledge mastery, students must acquire and practice component skills, and learn when and how to apply their new knowledge.
- The fifth principle is that coupling goal directed practice with targeted feedback enhances the quality of students' learning.
- The sixth principle is that students' current level of development interacts with the social, emotional, and intellectual climate of the course to impact learning.
- The seventh principle is that students must learn to monitor and adjust their approaches to learning in order to become self-directed learners.

Based on these seven principles we constructed the following hypotheses:

H_{02}: Students who experience positive emotions in the classroom will report increases in the seven principles of learning.

H_{03}: Students who experience positive emotions in the classroom will demonstrate significantly higher knowledge levels in response to open-ended questions on learning outcomes created by Dr. Talgar (paper author) based on course objectives.

One way to incorporate positive communication in the classroom is through contemplative pedagogy. A key figure in contemplative pedagogy in higher education, Arthur Zajonc (2013), laments the state of higher education in the US not because of its lack of material resources or workforce preparation, but because of its lack of spirit and cultivation of a learnedness of *whole students.* He positions contemplative pedagogy as a method to practice a necessary revolution of spirit for higher education, because contemplative practice engages students in a practiced, embodied beholding of themselves, each other, and the world; a beholding that is moral, aesthetic, and pragmatic.

Though few operationalized studies of contemplative practices exist, some research has linked classroom activities focused on mindfulness and gratitude to student stress reduction and happiness. Shapiro, Schwartz, and Bonner (1998), for instance, conducted a short 8-week mindfulness-based stress reduction intervention with medical and premedical students, and discovered that after the intervention, students' self-reported levels of stress and depression decreased, while their self-reported levels of empathy increased. In their comprehensive review of research studies exploring the impacts of mindfulness-based stress reduction techniques, Rosenzweig (2003) found that of 64 existing studies, 20 operationalized mindfulness as a central variable, and all of the studies reported

significant impact of mindfulness-based stress reduction techniques on a variety of self- and other-reported behaviors and learning. More recently, Feldman and Dreher (2012) designed a "hope intervention" for students: a workshop focused on student strengths rather than problems such as anxiety, depression, or substance abuse. They found that after one 90-minute workshop, students reported increased hope, life purpose, and vocational calling. This study offers an operationalized study of contemplative pedagogy.

METHODS

Participants

103 undergraduate students at a large university in the Northeast region of the United States participated in the present study as part of their coursework for three of the authors. The average age of the participants was 20.1 years; 55% of the students identified as female, and 45% as male. 60% identified as White, 14.5% as Asian, 8.6% as Hispanic/Latino, 4.9% as multi-racial, and 12% were unknown/unrecorded. Participation in the demographic surveys was voluntary, yet while every question was not answered, there was a 100% survey response rate. Participation in Highs and Lows was required of all students as part of regular classroom activities, although students could "pass" on the Low if they did not want to participate on any given day. Students were asked to find a High, no matter how small, to stay true to the experiment. All participants gave informed consent, following the guidelines of the Institutional Review Board (IRB Authorization #131104).

Experimental Design

Three instructors in a communication department took part in the research study. Each professor taught two sections of one of the following classes in the same semester: Communication Capstone, Communication and Gender, and Methods and Research in Communication. At the beginning of the semester, each instructor introduced the gratitude practice (Highs and Lows) to *one* section of the course s/he taught, and participated in that gratitude practice at the beginning of two class meetings per week. Selections into the intervention and control groups were randomly designated by a coin toss. Two of the courses involved in the study met twice weekly for 100 minutes of instructional time; one of the courses involved met thrice weekly for 65 minutes of instructional time and did the gratitude practice twice a week, on the first and last meetings. Each section was maximally enrolled with 19 students; participation of all 20 persons (students and instructor) in the gratitude practice took approximately five minutes.

To begin the practice, the instructor asked the class for a volunteer to offer the first High and Low. Often, different students started the discussion. On the rare occasion that no student volunteered, the professor started with his or her high

and low. Consecutively, students would go around the room and share their Highs and Lows. There was no time limit; on some days students had longer Highs and Lows, and on some days they were short. On average, no more than five minutes were spent on the Highs and Lows. The tone of the activity was set in the first few classes so students could gauge how long Highs and Lows should be (e.g., we did not need the whole story of how your car was towed, just that your car was towed and it was going to cost $200). Student kept their comments fairly short, unless it was an unusual day. For example, one student started crying when he explained that his childhood dog was being euthanized that day, and we stopped for a moment to comfort him. Even then, the discussion did not exceed 5 minutes.

During the last week of classes after a full semester (14 weeks) of the intervention, the non-teaching author administered three in-class surveys to all six sections. Students took approximately 30 minutes to complete the surveys. Student responses and the analyzed data were shared with the instructors of the classes after grades were completed and submitted.

Measures of Impact

To measure impact, the authors used a validated survey based on the seven learning principles of Ambrose et al., called "How Learning Works." The items in this instrument asked students to assess to what degree the course engaged each of the seven principles of learning. The survey consisted of five questions for each learning principle: prior knowledge, mastery, knowledge organization, practice and feedback, self-directed learning, motivation, and classroom climate.

A second survey included three questions inquiring into students' class-related happiness. This survey was based on happiness measures that simply asked students how happy they were in certain conditions. Using a Likert scale of extremely unhappy (1) to extremely happy (5), we asked students to report how happy they were while attending class in contrast to other things that happened during the semester, and other classes they attended that semester. A final question asked students, on the same 1 (extremely unhappy) to 5 (extremely happy) Likert scale, to report, on average, how happy they were when they came to the class in the study. This global evaluative question (How happy are you…) is a commonly used measure for happiness in research studies (Haybron, 2007).

A final instrument measured learning outcomes. To do so, authors used three open-ended qualitative questions based on the learning objectives stated in each course syllabus. For example, a course learning objective that stated "Students will learn various theories of gender development and use those theories to analyze others' arguments to find implicit assumptions about gender" informed the following question: "Please describe a theory of gender development and explain how you would know if it were being used."

Coding & Analysis

Data was entered and blinded by the non-teaching author, and released to the authors who taught classes after they submitted their final course grades. The teaching authors developed a grading schema for the qualitative answers on a 0-8 scale, with specific criteria to measure accuracy, thoroughness, application, and overall sophistication. Two of the teaching authors graded the qualitative answers to check for inter-coder reliability; a Cohen's Kappa of .91 indicated high inter-coder reliability. The "How Learning Works" survey consisted of five questions for each of the seven principles, which had been validated to accurately test each of the principles prior to use in this research.

RESULTS

To test hypothesis 1 regarding students' overall happiness as a function of the Highs and Lows condition, a 3 x 2 x 3 mixed-design ANOVA was conducted. The between-subjects variables (instructor and condition) in this model were identical to those in the ANOVA run for hypothesis 1. The dependent variable, happiness, consisted of three questions. These included a general happiness question, a happiness question comparing the course to others, and a question about how happy students felt in the course itself. These three items had high internal consistency (α=.829).

Results showed a main effect for condition on the happiness scale, and mean scores trended in the anticipated direction $F(1, 103)=15.35$, $p<.01$. An instructor effect was not present for the happiness scale (i.e., there was no main effect of instructor on happiness), nor was there an interaction between condition and instructor related to happiness. Thus, the results suggest that students exposed to the Highs and Lows condition reported statistically significantly higher levels of happiness in the course than those in the control condition.

To assess hypothesis 2, regarding differences in the seven principles of learning, a 3 x 2 x 7 mixed design ANOVA was conducted. In this design, instructor (three levels) and condition (two levels) were treated as between-subjects variables, while each of the seven principles were treated as within-subjects variables. This analysis allowed us to assess main effects of condition and instructor on each of our seven dependent variables, as well as a potential condition-instructor interaction. The seven principles each consisted of five questions. For each of the seven principles, the five items showed moderate to high internal consistency (α=.622 to .885).

Results showed a statically significant main effect of condition on four of the seven learning principles. All of these results trended in the hypothesized condition (i.e., students in the Highs and Lows condition showed higher scores on the objective than students in the control condition).

The four principles showing statistically significant differences between conditions were knowledge organization $F(1, 103)=4.27$, $p<.05$, motivation $F(1, 103)=8.75$, $p<.01$, mastery $F(1, 103)=14.69$, $p<.01$, and practice and feedback $F(1,103)=4.86$, $p<.05$. Additionally, prior knowledge trended towards significance $F(1, 103)=3.71$, $p=.057$.

To provide support that these statistically significant results for four of the seven learning principles were not the overwhelming influence of one instructor's teaching style or course design, we tested the data for instructor effect. To do so, we tested instructor effect for each of the seven principles. That is, differences between conditions on the seven principles could be in part due to differences in instructor style and course content, rather than the presence or absence of the Highs and Lows manipulation. Of the four principles in which a main effect was found for condition, only knowledge organization exhibited an instructor effect $F(1, 103)=10.15$, $p<.01$. A significant interaction between condition and instructor was also found for knowledge organization $F(1, 103)=3.21$, $p<.05$. None of the other three principles in which condition exhibited a main effect relationship were found to have a significant relationship with instructor, suggesting that, with the exception of knowledge organization, differences between instructors are not responsible for significant mean differences on learning principles. One other principle, self-directed learning, also showed a main effect for instructor $F (1,103)=19.76$, $p<.01$, but this was not one of the five principles that reached or trended toward significance for differences by condition.

To assess differences in the qualitative data assessing learning outcomes in hypothesis 3, independent samples t-tests were conducted to test for mean differences between conditions for each of the three items. Results showed that condition did not significantly impact any of the three open-ended items, $p>.05$, suggesting that being in the Highs and Lows condition did not affect how students answered the open-ended learning outcomes questions.

DISCUSSION

There have been many longitudinal studies that verify the benefits of a regular gratitude practice. These studies echo what Lyubomirsky, King, & Diener (2005) found in their heavily-cited meta-analysis. Numerous physical benefits such as strong immune systems, as well as psychological benefits such as increased self-esteem, and societal benefits including altruism and increased sociability are significantly associated with a gratitude practice. However, few studies have examined the immediate emotional effects of a gratitude exercise, which would be most relevant to this study design. Lyubomirsky's research team recently (Layous, et. al, 2017) completed three experiments and found that immediately after participation in a gratitude practice, in general, people experienced positive emotions

(e.g., happiness). However, they also concluded that individuals simultaneously felt both uplifted and indebted, which they classified as a mixed emotional experience.

Infusing the classroom communication environment with a brief practice of gratitude and listening positively impacts the four learning variables and therefore the *overall* effect of the classroom learning environment when dealing with curriculum unrelated to gratitude or happiness. Additionally, these results provide support that students report themselves to be significantly happier, in relationship to the class, specifically, and their semester, more generally, when participating in a class that features a gratitude and listening practice as part of its class routine.

One of the main differences between reflection and mindfulness is that reflection is based on past events while traditional approaches to mindfulness are based on the present. Highs and Lows that were shared traversed present-moment feelings of gratitude as well as reflection on past experiences and anticipation of future events. The activity may bring students into the moment and evaluate their current relationship with previous/future moments, and, more importantly, these mini-disclosures serve to create a social container where deeper learning can take place due to feelings of being known and knowing in the moment. The disclosures facilitate learning and community through this shared sense of presence.

Though the course design, instructor communication, and class activities were the same across both sections of the courses taught by each of the three teaching authors, students who participated in the Highs and Lows exercise showed significant differences in four of the learning principles: motivation, knowledge mastery, knowledge organization, and practice and feedback.

Motivation

Student motivation, which influences the direction, intensity, persistence, and quality of the learning behaviors (Ambrose et al., 2010, p. 69), was significantly stronger in the courses with the High and Low condition. Students need to perceive the course content as interesting and relevant, and feel that the tasks assigned are achievable. Of the courses in this experiment, research methods and the undergraduate capstone are required courses that many students dread, with significantly lower annual course GPAs than other courses in the department. It was the hope of the study authors that the gratitude practice would trigger students' intrinsic appreciation of the value of learning, motivating them to come to class, increasing community and support in the classroom, and helping them to perform well.

Mastery

Mastery refers to "the attainment of a high degree of competency within a particular area" (Ambrose et al., 2010, p. 5). For students to achieve mastery within a domain, whether narrowly or broadly conceived, they need to develop a set of key

component skills, practice them to the point where they can be combined fluently and used with a fair degree of automaticity, and know how and when to apply them appropriately (Ambrose et al., 2010). It is our belief that the act of Highs and Lows reduced the amount of cognitive processing students were devoting to the immediate circumstances of their lives at the start of each class, making more cognitive processing available for students to concentrate on the course material. The increase in cognitive processing on course-related knowledge and tasks is significant to all four learning principles that were enhanced by the High and Low condition.

Knowledge Organization

To explain how knowledge is organized, Ambrose et al. (2010) differentiate how experts and novices organize knowledge. Experts "create and maintain a complex network that connects key facts, concepts, procedures, and other elements within their field of expertise" (p. 43). Novices have not fully developed the ability to connect knowledge in meaningful ways; rather, they tend to build superficial knowledge structures. Knowledge organizations develop to help people perform tasks, and are most effective when they are well-matched to the way knowledge needs to be retrieved and utilized. The two variables used to measure knowledge organization are the density of connections that people can make, and level of meaningfulness/practicality of those connections. There are different ways that students can access and recall information. For instance, when examining how students structure knowledge, it is better if they use categories to organize information rather than trying to remember discrete facts. Rote memorization does not work as well as developing a structure to categorize related information into groups. For example, when learning about communication theories, rather than memorizing every detail of every theory, students can categorize them into different paradigms (e.g., functionalist vs. critical) and learn the differences between the paradigms. Then, when tested on a theory, students can draw on those differences, demonstrating more effective knowledge organization. It is likely that such students will also retain higher-quality information about communication theories.

While effective knowledge organization can take time, professors can help students improve their skills through the way they present material. For example, students learn more when presented with facts that can be meaningfully related to one another. The Highs and Lows practice at the start of class enables students to organize their knowledge in more effective and meaningful ways. Perhaps it is by helping them make connections about concepts, work through multiple organizing structures, and by having them arrange material into different organizational schema.

Practice and Feedback

Ambrose et al. (2010, p. 125) defines practice as "any activity in which students engage their knowledge or skills" and feedback as "information given to students about their performance that guides future behavior." Practice and feedback must be combined in an effective manner to create optimal learning. More learning opportunities were present in the Highs and Lows classes. The feedback loop between students and instructors was more fluid because many of the Highs and Lows were related to course content. Professors gained a more nuanced understanding of students' perceptions of the course material and assignments. Learning is best fostered when students "engage in practice that a) focuses on a specific goal or criterion for performance, b) targets an appropriate level of change relative to students' current performance, and c) is of sufficient quantity and frequency to meet the performance criteria" (Ambrose et al., 2010, p. 127). The Highs and Lows better enabled the instructors to flesh out student need regarding appropriate practice and levels of challenge.

Prior knowledge

Prior knowledge trended towards significance and is worth discussing. At first glance, one could argue that prior knowledge is *more* likely a function of students entering the classroom than a function of a classroom gratitude practice. Students' age, year in school, and previous coursework, however, were consistent between each of the courses taught as a part of this study. *If* prior knowledge was *only* significant as a result of classroom and life experiences which occurred before entering the classroom, we would have expected to see differences between sections of *one* course, not all three. We believe students' perceptions of having *more* prior knowledge and better access to that prior knowledge to be related to the communicative environment of the classroom. Curriculum theorists have long held that teachers' engagement with students, pedagogical philosophy, and classroom communication impact what students believe they already know (Freire, 2000). To Freire, accessing prior knowledge throughout the class and the course was extremely important for student learning. Highs and Lows may help trigger access to prior knowledge. For learning, prior knowledge is only particularly helpful if students understand that what they already know is valuable and if they are engaged to *link* what they already know to what they are currently encountering in the classroom (Ambrose et al., 2010). Ideally, in any course, students "build on a foundation of robust and accurate prior knowledge, forging links between previously acquired and new knowledge that help them construct increasingly complex and robust knowledge structures" (Ambrose et al., 2010, p. 13).

Building on a foundation of knowledge occurs at different levels, if at all, and if prior knowledge and feedback is inactive, insufficient, inappropriate or inaccurate

then learning is not enhanced. Instructional scholars know the importance of accessing prior knowledge, and it seems something about the holistic nature of the intervention helps students access the appropriate prior knowledge and apply it in class.

The goal of using a gratitude practice is multi-faceted. Contemplative pedagogies help strengthen students' impaired attention spans by helping them practice deep listening, recall, and single-tasking, which can equip minds for thought and the generation of new ideas (Newman, 2013). We wanted students to be able to free themselves from immediate concerns that would occupy their thoughts during class and distract them, whether good or bad. By verbally sharing these immediate concerns, both positive and negative, students apparently were better able to focus in class. This meant students were more motivated to participate in class, better able to draw on previous knowledge and skills, and able to more accurately demonstrate mastery of the subject area. Students employed listening, recall, and single-tasking while performing Highs and Lows, an excellent way to mentally prepare students for the upcoming class.

Many of the Highs and Lows items that the students discussed had to do with course assignments and activities, noted in a safe and conversational environment. For example, many professors often begin a discussion of a reading by saying, "What did you think of the reading?" Answers vary, but inevitably focus on the content of the reading. In a Highs and Lows class, a student said,

> My Low was preparing for class today. I found the reading to be frustrating because of the way it was organized and the vocabulary it used. I couldn't understand what the author was saying and honestly, I just gave up. Yeah, I handed in the discussion questions, but my answers were total BS. It made me feel like I was stupid and then I watched 4 episodes of *Game of Thrones* rather than doing my other work.

This level of detail about the students' experience with the reading sparked a discussion in the class that was different from discussion in the control class. Yes, students in the control class said that the reading was hard and frustrating, followed by the professor saying that they would go through the article together in class, slowly, so everyone would understand the concepts. However, in the Highs and Lows class, everyone validated the student's feelings, including the professor. Some students talked about how they read the paper and organized what the author was saying using diagrams or outlines. The professor took a moment to say that the intent was not to assign something so difficult it shut learning down, but to challenge students and expose them to a new kind of academic writing and thinking; the professor assured the student she was not stupid, and admired

her for trying. Other students commented on how something similar happened to them their first year in college, and now when they look back, some of those readings look so easy to them—perhaps that would happen with this reading by the end of this semester, as well.

From some of the Highs and Lows students shared, it was clear that prior knowledge, motivation, knowledge organization, and practice and feedback were engaged. As a result, gratitude practices used in higher-level classes may help students recall knowledge from previous classes and experiences (especially at schools that encourage professional experiences like co-ops and internships); think about how to organize that knowledge; let a professor know that more practice or feedback is necessary; and motivate students to engage in the class. The student who shared her frustration was completely engaged in the class discussion of the article; her professor and fellow classmates were supportive and directed many comments and questions her way. Rather than continuing to shut down because she was frustrated, she participated in class and left the class feeling much better. This was a typical experience in the Highs and Lows classes.

Happiness

Students were happier in the Highs and Lows courses for numerous reasons. The practice of gratitude (High) is associated with feelings of personal well-being, feeling a sense of abundance, appreciation of others' contributions to their personal well-being, and appreciation of life's simple pleasures (Watkins et al., 2003). Students ritually were able to do this in class for themselves and share in their fellow classmates pleasures and were reminded of life's daily pleasures. For instance, one of the first students to share a High and Low on a crisp fall Monday noted how gorgeous the weather had been over the weekend, and how exciting it was to see the beginnings of the fall foliage. Most of the students (and the instructor) then shared similar Highs, which became a collection of grateful statements about the changing weather (something sometimes bemoaned after very short New England summers).

In addition, we believe students were more comfortable in class, experienced a more inclusive environment, and were able make more connections between themselves and the material. In other words, they brought more of themselves into the class. In line with contemplative pedagogy practice, we believe the students experienced contentedness in the present state of learning and knowing in the classroom (Christie, 2013; Newman, 2013; Saevi, 2011; Zajonc, 2013). Perhaps they were more open to asking questions and more engaged with the content, more engaged within themselves, with other students, and with the professors. Recall that psychological well-being includes items such as environmental mastery, a sense of purpose in life and maintaining positive interpersonal relationships

(Ryff, 1989). Increased happiness has been linked with forming and maintaining close interpersonal relationships, being challenged, finding present and future value in daily activities, and expressing gratitude (Ben-Sharar, 2007), all of which are enhanced by an activity such as Highs and Lows, especially when experienced in a formal classroom environment. Broadly, the combination of the results show increased student engagement.

PERSONAL REFLECTIONS

Except for the inclusion of the Highs and Lows activity in the experimental course, the instructors in this experiment taught the exact same classes using the same syllabus, tests, assignments, PowerPoints, daily lectures, and even told some of the same jokes. It is valuable to reflect upon the impact of a contemplative gratitude activity such as the Highs and Lows presented in this study. What can instructors do with the data gleaned from a shared gratitude activity? How can instructors respond and integrate shared knowledge into their teaching? How does it impact instructor understanding of student identity? How can it transform teaching practice? These would be excellent questions for future research that we can only address anecdotally in this paper. The three teaching authors of the study report that because the condition class knew what was occurring in the students' lives, to a certain extent, they also used the students' high and low experiences in class to help them make connections to the material. For example, a student might say, "Like Abby was saying for her high, people at work tend to…just like this theory." Or they might say during their low, "I've been a little suspicious of some of the things we've been reading about street harassment and how it makes women feel unsafe, but then the other day I was walking down the street and saw this guy say inappropriate stuff to a woman in front of me and I didn't know what to do." And while we know that a daily gratitude practice makes people happier, students were challenged to think of something positive, even if they were having a bad day, which made class a better experience.

On the other hand, students sometimes shared serious lows, for example the death of a family member. They received support and sympathy from the class and the instructors knew to not call on them that day, making class a supportive environment. Indeed, more than one student noted, after a professor invited them to leave class after sharing such serious lows, that they would rather be in class than sitting alone in their rooms. Burleson (2009) found that when people are experiencing distress, supportive messages from others decrease emotional stress, increase coping strategies, and improve emotional health. None of us ever had a student leave class during or after a Highs and Lows discussion, even after being told their grade would not be affected if they wanted to leave. This embodies contemplative practices rooted in communion, connection, and awareness.

LIMITATIONS AND FUTURE RESEARCH

There are limitations to this research. It would be beneficial to conduct a similar experiment with a placebo control activity to see if the actual gratitude practice was significant, or whether simply doing anything at the start of class to build community and reduce stress, such as group stretching, would be equally effective. Furthermore, it would be helpful to include more courses outside of the field of communication studies. Another limitation is that the learning principles assessment is a self-report rather than a behavioral measure of learning. It would be interesting to have students rate the professors on specific skills, such as communication, to see if there is a statically significant difference between the condition and control classes.

Furthermore, while the Highs and Lows activity can be enacted as contemplative pedagogy, it is not a traditional approach to mindfulness. A future study could provide students with intensive training in traditional mindfulness practices and have students participate in the Highs and Lows from a trained standpoint and perhaps a better question for them would be: "How are you relating to your High and Low?" Future research with larger classes would also be valuable. Perhaps this could work with small break-out groups to help create a greater sense of community within large lectures. Finally, the Highs and Lows activity embodies practices that focus on communion with others, connection to others, and awareness of the present. It would be helpful to test this with more diverse groups of people, such as ESL students or those in non-traditional college settings.

CONCLUSION

More and more, schools have sadly neglected to address student goals related to personal life and happiness (Noddings, 2013) and incorporate them into the curriculum. As witnessed by the 2014 Gallup Purdue survey of student success, one of the most important things in a college education is establishing a caring relationship with a professor (Ray & Kafka, 2014). Specifically, the poll found that faculty support and certain types of college experiences were key to future achievement and well-being. Faculty support was measured through agreement with statements that "I had at least one professor at [College] who made me excited about learning," "My professors at [College] cared about me as a person," and "I had a mentors who encouraged me to pursue my goals and dreams." Experiences that supported long-term success and well-being included working "on a project that took a semester or more to complete," having a job or internship where they could practice what they learned, and being an "extremely active" participant in extracurricular activities and organizations. The study found that these elements influenced workplace engagement and well-being after college much more than

where a student went to college. Yet, of the almost 30,000 adults polled, only three percent had these experiences in college (Gallup-Purdue University, 2014, p.10).

Given the high levels of stress, anxiety, isolation, and depression that many students experience during college, we conclude that doing a short gratitude activity at the beginning of class enhances the student experience in numerous positive ways, with little to no cost to the professor. The classroom can be a source of pleasure and happiness, particularly when caring classrooms are developed and the focus is on *whole students*. We encourage professors to explore and incorporate contemplative pedagogy practices such as a gratitude practice into their teaching. This is important. Creating classroom environments that enhance student learning and happiness is vital to the success of our students.

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