Title: Embracing mindfulness – breath-by-breath – at the University of Florida


1. Rationale and Significance

Many higher education institutions have seen an increasing trend of students in emotional distress or crisis, resulting in the growth of counseling centers and interpersonal challenges in classrooms. The spectrum of psychological issues include stress, anxiety, burn-out, clinical depression, dissociation, addictions (e.g., social media, alcohol), digital overload, neurosis, and more, with associated effects on health and well-being that impact learning outcomes. There is ample evidence that mindfulness practices enhance cognitive, emotional, physical and relational aspects of learning. Ramsburg and Youmans (2013) found that meditation in the higher-education classroom improved student knowledge retention during lectures. Mood, relaxation, and class interest were not affected by the meditation training. Garland et al. (2013) showed that the state of mindfulness during meditation predict enhanced cognitive reappraisal. Other research has demonstrated that meditation (both concentration and insight-oriented meditation) significantly enhanced well-being (Hosemans 2014). Both meditation approaches demonstrated significantly enhanced mindfulness levels and also indicated lower perceived stress. Lauricella (2013) found that the practice of mindfulness meditation can help individuals to self-calm, focus on the present moment, and experience physical and mental health benefits. This skill was found of particular importance to undergraduate students, who often experience stress, anxiety, or depression. Lauricella (2013) demonstrated that mindfulness meditation in a group of undergraduate students showed multiple benefits, more so in the face-to-face mindfulness training that provided the notion of a sangha or community when compared to a digital informed practice. Numerous other mindfulness studies have investigated the positive effects on body, mind, well-being and other. Greeson
(2009) showed in a comprehensive meta-analysis (52 studies) that clinical trials and laboratory studies alike suggest that the mechanisms of mindfulness involve not only relaxation, but important shifts in cognition, emotion, biology, and behavior that may work synergistically to improve health. This review study also provided evidence that mindfulness practices can influence the brain, the autonomic nervous system, stress hormones, the immune system, and health behaviors. Research is beginning to prove what mindfulness practitioners have known for centuries—that greater attention, awareness, acceptance, and compassion can facilitate more flexible, adaptive responses to stress, which, in turn, can help free us from suffering/pain and realize greater health and well-being.

Over the past decade numerous mindfulness and contemplative practices programs/centers at larger institutions of higher education in the U.S. have been launched to benefit learning outcomes. In 2015, the University of Florida (UF) launched the UF Mindfulness Program as part of a special creative campus initiative. The UF, with a student population of over 50,000 and diverse graduate and undergraduate programs in Science Technology Engineering and Mathematics (STEM), Agriculture and Life Sciences, Arts, Business, Law, Education, Liberal Arts and Humanities, Medicine and more, has experienced profound growth measured by performance metrics. The UF is a tier 1 major U.S. University with 16 different colleges and about 4,000 faculty members. The UF’s annual economic impact exceeds $8.76 billion and has been ranked a number 14 Top Public University by the U.S. News & World Report (2015). This large higher education institution offers 100 undergraduate degree programs, more than 200 graduate programs, and 30 combined degree programs. The UF campus size is 2,000 acres with only two small designated reflection/meditation rooms. It is known for the Florida Gators sports team, but less known for its mindful-oriented education and curricula. Until recently there were few courses offered that include explicit mindfulness components among the thousands of classes offered. Typically, courses that include mindfulness/contemplation practices are situated in counseling, psychology, and health related disciplines. For example, several UF graduate courses focus on spiritual, religious and counseling themes and mindfulness in law and dispute resolution. However, these courses that entail mindfulness and contemplative practices are silos in the matrix of UF programs that are underutilized by the general undergraduate and graduate population. For example, only a small proportion of medical students engages in mindfulness practices but could benefit greatly through focusing/awareness in stressful situations in the emergency room. The same is true for STEM students of which only a small minority enrolls in mindfulness training.

The UF also has one of the largest counseling centers associated with a university in the U.S. working over-capacity. The UF Counseling and Wellness (CWC) Center offers individual counseling, group therapy, crisis and emergency management workshops and self-help resources with 33+ full time psychologists, counselors, and psychiatrists on staff. Most of these services are responding to needs of students in emotional distress impacted by learning stress, exam anxiety, depression, self-esteem, and
suicide prevention. Relatively few UF-CWC trainings invite students to build emotional resilience and establish a mindfulness practice as a life skill.

2. Objectives and Goals of the UF Mindfulness Program
The goal of the UF Mindfulness program is to infuse mindfulness in UF campus culture. The UF Mindfulness team aims to (i) enhance mindfulness practices in existing courses and curricula, (ii) offer new cross-disciplinary short courses, trainings, retreats and workshops, and (iii) serve as a catalyst sparking mindful moments that bring forth a healthy campus culture comprising teaching, learning, research and extension. Our interdisciplinary team integrates silos of mindfulness course offerings and co-creates mindful spaces that facilitate mindful communication and listening that enhance the learning process of students and promote health and wellbeing of students, staff and faculty members. The paradox of our modern time is that mindfulness is inherently simple and human and available anytime and anyplace; yet many of us have forgotten about it. The UF Mindfulness program aims to reconnect us to ancient truths, breath-by-breath taming the anxious mind of college students.

3. Approach
3.1. Integral Theory & Mindfulness
Our approach is rooted in the Integral Model (Wilber, 2000) that Ken Wilber adapted to Integral Spirituality (Wilber, 2007) and more recently to Integral Meditation and Mindfulness (Wilber, 2016). Integral Theory integrates four perspective-dimensions (so-called quadrants): the individual-interior comprising subjective experiential phenomena (upper left quadrant, UL), the collective-interior comprising cultural phenomena (lower left quadrant, LL), the individual-exterior depicting behavioral and physical phenomena (upper right quadrant, UR), and the collective-exterior comprising social and systems phenomena (lower right quadrant, LR) (Fig. 1). This model allows looking at an issue placed in the center of the Integral Map (e.g., development of holistic education or a university wide mindfulness program) through the lens of multiple perspectives. The UL discloses the 1st person perspective (“I”), the LL the 2nd person perspective (“We”), and the UR and LR the objective, distancing 3rd person perspective (“It” and “Its”). All four quadrants reveal important aspects of a complex problem and facilitate to view their interconnectivity. This AQAL model (all quadrants, all levels model) considers also developmental lines that occur in each quadrant suggesting that the model is dynamic and evolving. Some important developmental lines include: (i) the cognitive line (awareness of what is, e.g. depicting the world through logic, technical/scientific understanding and observation), (ii) the moral line (awareness of what should be), (iii) the affective line (the full spectrum of emotions), (iv) the interpersonal line (how I socially relate to others), (v) the needs line (such as Abraham Maslow’s needs hierarchy), (vi) self-identity line (“who am I?”), (vii) the spiritual line (spiritual development), (viii) the values line (what a
person considers most important), and more (Wilber, 2007). Importantly, all of the developmental lines move through basic stages or levels. For example, people move from birth to old age through sensorimotor (animistic), pre-operational (egocentric, selfish), concrete operational (absolutistic, “I am right and you are wrong”), formal operational (multiplistic), pluralistic (relativistic, tolerating others views and actions), vision logic or integral (system perspective, e.g. understanding how larger organizations and social systems work; global view that acknowledges interconnections), illuminated mind (transcendent capabilities), overmind/supermind (oneness and unity perceptions) (Wilber et al., 2008). Importantly, each level has its own world, different needs, holds different values, and has a unique identity.

Mindfulness plays a dual role in the Integral Model. First, mindfulness allows bringing a given level into focus through deliberate attunement to become fully aware of it (Wilber, 2016). As Kabat-Zinn (1994) outlined, mindfulness is “paying attention in a particular way, on purpose, in the present moment and non-judgmentally”. It is this deliberate attention that matters to bring forth mindful moments. According to Chozen Bays (2011) “mindfulness is deliberately paying full attention to what is happening around you and within you (in your body, heart and mind) in the present moment. Mindfulness is awareness without criticism or judgment”. Often higher levels of awareness are unconscious, hidden and not known to us; and thus, mindfulness allows transforming to higher and higher levels. Second, mindfulness itself is part of what is known as “the Great Wisdom” traditions and through practice brings forth insight and wisdom, the sacredness of “what is”. Wilber (2016) asserted that development along lines across structures of consciousness (“the Growing Up Model”) cannot be discovered by introspection or meditation, but through life experience, interpersonal relationships and development of the ego/mind/self as Western psychology has unraveled over the past 100 years. In contrast, the “Waking Up Model” axis of development is along states of consciousness that are fostered through mindfulness, meditation and contemplation practices. These states of consciousness include increased awareness and insight, emptiness, a wider sense of identity, flow states, expanded love, feelings of bliss, etc. In analogy numerous authors have identified these two pathways of human development previously. For example, Welwood (2002) outlined paths of personal/psychological and spiritual transformation of self. Hanson (2009) presented developmental paths rooted in neuroscience/psychology and wisdom/spirituality/Buddhism. These developmental paths of self/awareness are also found in secular and non-secular approaches of practicing mindfulness. In summary, from a holistic educational perspective introspection through meditation and mindfulness practices as well as self-development play major roles for the motivation to learn, learning outcomes, interpersonal relationships (e.g., teamwork, collaboration), and success in whatever we study or teach. STEM students who may be exposed to one-sided curricula that are highly specialized in terms of the technological or computational aspects, but lack contemplative/mindfulness components in their education may not develop emotional resilience, embodied states of fulfillment, and realize their full potential despite their high level of technical competence. And vice versa, students in psychology or
health sciences who embrace contemplative and mindfulness practices and the arts, but lack basic STEM skills may fall flat in realizing their highest potential in their career.

Complex issues, such as higher education in a fast changing and technological high-paced world, run the risk of being reduced to specific quadrants in the Integral Model. There are critical voices that caution about the corporatization of higher education that is under financial pressure to maintain/grow numbers (of students, publications, and grants), adjunctification, bureaucratization, and infringements on academic freedom (Schrecker, 2010). Mindfulness and contemplative practices have been marginalized in such educational settings. The call for renewal of higher education rooted in a heart-based, integrative approach that is grounded in conversation, contemplation and interconnection among students and faculty has transformative potential (Palmer and Zajonc, 2010). Contemplation and mindfulness are at the center of such vision for an integrative education as outlined in this paper. Rechtschaffen (2014) has provided an excellent account of mindful education across different educational levels.

3.2. Integral Mindfulness at UF
We have adopted an integral lens to develop a blueprint for the UF Mindfulness Program. We assert that different sub-populations and individual students, faculty, staff members and administrators hold different values about mindfulness, contemplation and spirituality in higher education (Fig. 2: UL and LL quadrants). These different values, beliefs, motivations and shared experiences make up the UF campus culture. We posit that different teaching modalities to mindful education are necessary to train/educate different sub-populations within the larger UF campus community.

A change in campus culture (LL quadrant) that recognizes mindfulness as conducive for improved learning, teaching and well-being is bound to the collective structures (LR quadrant) provided by UF that entail organizational (e.g., offerings of curricula), institutional (e.g., units that provide training and education in mindfulness, mindful spaces on-campus), social (e.g., student groups/clubs that practice jointly mindfulness/meditation) and other system-wide UF structures.

The identification as “Gators” has major importance for many UF students, staff and faculty members. Attention to student and faculty wellness, spirituality and religion are overshadowed by a huge focus on technological and science subject matter, such as digital communication, biotechnology, nanotechnology, informatics and BIGDATA, and genetics. The underlying premise of a mindful UF campus culture would be to identify with mindfulness as a natural human capacity beneficial to learning and well-being. Here each individual – student, teacher or researcher – practices and lives this truth forming a “mindful-oriented” community, whereas “being a Gator” involves football players (others) to win to make an UF member feel good. The differences between these different cultural identification models are evident, where internalization (i.e., striving to be mindful) empowers and is experienced as
fulfilling and internally rewarding, whereas externalization (i.e., others need to provide something; e.g., Gators win a game, Twitter delivers messages, smart phones connect me to others, OneDrive shares data, or a Google search gives access to information) are distancing, objectify subjects and objects alike (e.g., communication via the Internet is experienced differently than a mindful conversation) and evokes the feeling of something is missing. This disembodied experience is a state where mind, body and “being – here and now” are disconnected and the individual does not even recognizes/connects to the present moment. This latter experience is often unconscious and deeply engrained in the way of modern, fast-paced life in an information/technology-dominated age. The Integral Model offers an understanding of how the subjective and intersubjective (UL and LL quadrants) and objective and interobjective (UR and LR quadrants) worlds interact with each other (Figs. 1 and 2). Mindfulness and contemplative practices are situated in the left-hand quadrants of the Integral Map. The individual and collective internal experiences (as “I” or “We”, i.e., a larger group practicing mindfulness) shape how we perceive, interpret, communicate and act. For instance, a student who regularly practices mindfulness may perceive the same difficult exam as doable and welcoming to focus more deeply in understanding a topic, whereas a “disconnected, disembodied student” may feel stressed, anxious or even panic due to fear of failure.

At the current time there is no Mindfulness Center, Institute, or mindfulness or contemplative practice unit at UF. The UF Center for Spirituality and Health, associated with the Medical School, has offered courses that include mindfulness training targeting mainly medical, counseling and health-oriented disciplines. Given the cultural biases outlined above (LL quadrant, Fig. 2) and lack in mindfulness within the organizational/institutional structure of UF (LR quadrant, Fig. 2) a first step of the UF Mindfulness team was to raise awareness of “what mindfulness is and is not”, educate about the benefits of mindfulness, and teach simple mindfulness practices. The UF Mindfulness Program that was launched in summer of 2015 offered the Mindfulness Day to infuse mindfulness in the campus culture. The Mindfulness Day (now offered annually) offers various teachings and practices, such qigong, different kinds of meditation, training for the anxious mind, sound-based relaxation, yoga, and a keynote speaker. About 350-400 attended the Mindfulness Day that was wholeheartedly embraced by students, staff and faculty members. Promotional material (brochures, banners, mindfulness cards, etc.), a web site (http://mindfulness.ufl.edu), mindfulness blog, recorded dialogues, social media, online resources, and local news/media coverage have served to underpin capacity building activities aiming to create a campus culture open to mindfulness. The initial UF Mindfulness team was enlarged by affiliates (several hundreds) interested in mindfulness and mindfulness practitioners. This rapidly growing affiliate community has embraced the online resources provided by UF Mindfulness (e.g., blog, Facebook) but is less inclined to meet face-to-face for joint practice sessions.

Networking with the UF CWC, UF Health and Wellness, and student clubs (meditation, yoga, and Buddhism) has been instrumental to work across the whole campus and gain visibility (”people now talk
about mindfulness”) and recognize the branding symbol UF Mindfulness. This mindfulness social
network structure is situated in the LR quadrant, supported by communication and interaction among
mindfulness groups and the UF Mindfulness team (LL quadrant) and has been instrumental to foster
cultural and less so institutional change. Both are interdependent where structures, such as an
interdisciplinary UF Mindfulness Center, is only likely and sustainable through cultural and social change
in the UF campus community.

Teachings and trainings have been offered by the UF Mindfulness team explicitly considering the sub-
populations (LR quadrant) comprising the UF community. Criteria to discern different sub-populations at
UF include the following:

- Social status / position (undergraduate students, graduate students, Post-Docs, adjuncts, staff
  member, faculty member, and administrators)
- Student generations (generation X, Y, and Z; net-generation)
- Thematic expertise (16 colleges and their departments)
- Digital/technological literacy, aptitude and habits
- Closeness/openness towards mindful education
- Spiritual/religious beliefs (secular/non-secular)
- Personal history/familiarity with mindfulness/contemplation practices
- Cultural and educational background
- Level of business; workload (students: curricula; teachers: assigned courses; others: assigned
  workload)
- Orientation for service in the campus community

Almost all teaching and training so far offered through UF Mindfulness have been focused on the most
basic mindfulness practices and an introduction of mindful education (Fig. 3). These involved train-the-
trainer programs, Mindfulness-based Stress Reduction (MBSR) 8 week courses, Mindfulness in Medicine
4 week program, UF Wellness Tools for a Mindful Life 4 week program, mindfulness/meditation half day
and weekend retreats, workshops and targeted training sessions and seminars (e.g., mindful leadership,
compassion at the workplace and in education). Specialized trainings (workshops, short courses and
retreats) with limited seats have been in high demand. They offer learn mindfulness, meditation and
contemplative practices in a safe setting with an ex
perienced instructor. The Mindfulness Wave
comprised a semester long offering of customized mindfulness trainings (1-2 hrs.) in the 16 different
colleges at UF. We acknowledged explicitly the different educational background and familiarity with
mindfulness/contemplation practices in different on-campus sub-populations (colleges). For example,
graduate students in counseling education are likely to be more familiar with mindfulness since it is
included in the curricula when compared to STEM students. Although we acknowledge these differences
in sub-populations at UF we also recognize that mindfulness is a natural, inherent human skill. Although
the spectrum of practiced mindfulness differs widely among students, staff and faculty members, it can
be learned in shorter training segments. More challenging is to sustain these practices over longer periods of time (> 30 days or few weeks) and incorporate them on a daily basis in learning in- and outside the classroom. As Barnes et al. (2007) pointed out net-generation learners want to learn, but they learn differently than previous student generations. By the time they reach 21 years, the NetGener will have spent 10,000 hours playing video games, 200,000 emails, 20,000 hours watching TV, 10,000 hours on cell phones, and under 5,000 hours reading. One open question is how many hours they have spent devoted to cultivating mindfulness skills. Meditation and mindfulness require practice to hardwire neurons in our brains. There is ample evidence that neuroplasticity is associated with mindfulness practice. According to Hölzel et al. (2011) mindfulness meditation exerts its effects on: (i) attention regulation, (ii) body awareness, (iii) emotion regulation (including reappraisal and exposure, extinction, and reconsolidation), and (iv) change in perspective on the self. They provided evidence that mindfulness practice is associated with neuroplastic changes in the anterior cingulate cortex, insula, temporo-parietal junction, fronto-limbic network, and default mode network structures in the brain.

Another modality of mindful education invited students, staff and faculty members to practice together and co-create a mindful campus culture. These comprised ad-hoc meditation flash mobs, regular meditations on the lawn, body scan, yoga, and a mindfulness chain (few days of continued meditation by multiple individuals). The underlying ideas for the mindfulness action events were (i) to build community and enjoy practice together, (ii) establish mindfulness meditation as an integral part of campus culture, (iii) continuity – fostering regular meditation practice, and (iv) capacity building – to allow novice participants to learn how to meditate in an informal, playful setting outside classroom boundaries. Action events (e.g., the meditation flash mob) were well attended, whereas regular meditation sessions offered on the lawn lacked attendance (ranged between 3-8 individuals per session). Ad-hoc responses why students and faculty members did not attend meditations on the lawn included: “I am too busy and have no time for meditation” or “I am too tired and exhausted” (workload too high, stressed), “my mind is too hyper to sit down and meditate” (hypervigilance, dysregulated chatter mind), “I have no interest to meditate” (ignorant, closed, dissociated), “I do not know how to meditate” (avoidant), “I only meditate at home” (preference for individual private rather than a shared experience), “I missed the session, but really want to meditate” (confused, incongruent), “is there an online meditation session? or: do you have an app for meditation?” (Preference for digital facilitated meditations, extrospection), “my mind is overloaded, foggy, flat” (digital overload), and “I had previously tried to meditate for 5 minutes but did not feel different” (attachment to instant gratification). Yoga sessions have received more interest than meditation and contemplation, possibly due to the more widespread adoption of yoga practice in the general population viewed to support bodily health and well-being. These preliminary findings support the assertion that UF members may not have a recognized need to practice mindfulness, are too distracted, too busy/stressed, habitually prefer extrospection, dissociated (emotionally numb, burned-out due to work-overload), disembodied (due to academic focus on conceptual, left-brain mind activities), and lack familiarity or feel anxious to be in
silence and introspect. Rogers (2013) pointed out that although mindfulness meditation has proven to increase positive affect and is a viable option for enhancing resilience in students, it can be challenging to engage college students in the practice of mindfulness. He suggested that programs that are developmentally targeted and acknowledge the underlying motivations (e.g., secular, non-secular, triggered by a health crisis, emotional growth inspired, etc.) to specifically address the needs and interests of college students will likely have greater success engaging and helping them develop a meaningful degree of skill with mindfulness.

4. Final Remarks
This preliminary investigation provides a blueprint to develop a well-balanced UF Mindfulness program rooted in the Integral Map. We should not forget that this Integral Map is only a map, and not the territory. The territory is the individual student, teacher, researcher, and extension specialist and lived moment-to-moment mindfulness in the classroom, in the research lab, and among students and teachers. Mindfulness, and all its benefits, cannot be found online connecting somehow digitally to something out-there. Mindfulness is an internal, ancient art that provides healing and balance in our modern, fast-paced life in a digitally-loaded world. The Integral Map reminds us that it’s about finding balance between internal (individual and collective interior) and external (individual and collective exterior) worlds to create a holistic educational system that has the potential to enhance learning outcomes and individual emotional, cognitive, neurological, and physical well-being. The UF Mindfulness program is still in its infancy and evidence-based research to assess the effects of mindfulness trainings, interventions and action activities will be critical in the future. More investment in resources to support mindful education and activities at UF is needed to achieve this vision.

References


Fig. 1. Overview of the Integral Model consisting of four quadrants (perspective-dimensions): individual-interior ("I"), collective-interior ("We"), individual-exterior ("It") and collective-exterior ("Its") (after Wilber, 2000).
Experiential phenomena:
• Sensual perceptions in and outside the classrooms
• Individual states of consciousness (spectrum from dissociated to transcendental mental states)
• Individual emotional states (e.g., stressed, anxious, frustrated, .... relaxed, joyful)
• Individual attitude toward life (neutral, positive, negative)
• Feelings towards others (e.g., love, care, compassion, generosity, indifference, anxiety)

Cultural phenomena:
• Spiritual/religious values of the UF community
• Identification as Gators
• Values related to education, economy, social status, campus community, etc.
• Dis-/embodiment of groups being present (mindful)
• Openness/closeness of speech (mindful communication)
• Beliefs about health, well-being, learning
• Motivations (e.g. achievements, quality of education, student enrollment, budget)
• Shared learning experiences (classroom/online)
• Interrelationships between students-students; students-teachers; individuals-technology

Behavioral/physical phenomena:
• Learning focused on left- or right-brain activity
• Meditation or yoga posture (body)
• Structural stage of psyche, self, ego
• Use of technology; smart phones; social media
• Response to stress in the learning environment (e.g., blame others, psychopharmacal, addiction, dysfunction, dissociation, tunnel vision)
• Individual life skills to regulate emotions
• Somatic and mental well-being/health
• Spiritual practices (e.g., mindfulness practices, yoga, breathing practices, formal sitting meditation, contemplative practices)

System phenomena:
• Complex, fast-paced, bureaucratic, highly regulated institution of higher education
• Land-Grant institution in the SE U.S.
• Large student and faculty populations
• Highly advanced technological, computational and digital resources
• Large undergraduate classes
• Research orientation focused on graduate/post-graduate level
• Large STEM curricula; highly diverse course/program offerings
• Silos of mindfulness courses
• Lack in mindful/silent spaces on-campus

Fig. 2. The integral model applied to view the perspective-dimensions of the UF Mindfulness program.
Fig. 3. Overview of major mindfulness activities, interventions, trainings and other activities offered through the UF Mindfulness program.