SPECIAL ISSUE

Meditation in Higher Education: The Question of Change, a Current Problem, and Evidence Toward a Solution

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This article examines the process of systemic change in the higher education system. An overview of meditation research in the fields of medicine and psychology is presented, and the emerging field of contemplative education is described. New developments in mindfulness research in higher education are also introduced. The author suggests a reframing of meditation in the classroom as a solution to a current societal problem and advocates for the ability of meditation to address some of the practical concerns of education today.

The Question

Meditation in higher education? That question, coupled with a puzzled look on the countenance of the person before me, often precedes a discussion of my research interests. As an education researcher and meditator, I approach meditation research as an insider living the results of a practice and wondering why meditation is not a regular part of higher education today. Questions that arise from my ponderings include the following: What forces or factors drive the process of change in the academy? How do new classroom-based practices become accepted as legitimate and then incorporated throughout the education system?

Although these questions can be answered in many ways, a perspective emerged from my process, resulting in the consideration of two central concepts: (a) the role of scientific evidence in the institutional change process and (b) the role of higher education in solving current societal problems. The first notion is based on the premise that our society values the scientific method as a means for uncovering truth; therefore, institutional changes can be facilitated by the existence of scientific evidence that supports and validates the implementation of a proposed change. The second idea involves the role of institutions of higher education as problem-solving instruments of social change. Historically, the education system has changed with the changing times in an effort to meet the needs of the people. Therefore, if a proposed change is perceived as a solution to a current

problem, it becomes valued; the perception of value results in a change more readily implemented within the system. Taking these two factors into consideration, how might meditation come to be perceived as a solution to one of our current problems and what scientific evidence exists in support of the efficacy of meditation as a classroom-based practice?

A Current Problem

The world today is complex, turbulent, and more reliant on knowledge than ever before, influenced by a constantly changing, global, and knowledge-based economy. Within this context, society has even greater expectations for the role of education, not only to prepare students for the marketplace but also to educate students to become responsible, effective global citizens. Institutions of higher education face the pressure and challenge of functioning as problem-solving instruments of social change.

As a result, the cultivation of 21st-century skills has become a national educational concern. This desired skill set is broad; it includes educating students to become empowered, informed, and responsible citizens as well as cultivating complex cognitive skills (e.g., the ability to evaluate, analyze, interpret, reflect, and think critically and creatively). This contemporary skill set reflects an expansion of the goals of education beyond the acquisition of information. Many of these skills require awareness of one's own cognitive processes and the ability to regulate them (i.e., metacognition). Meditation is also considered a metacognitive skill; thus, it has the potential to address this current educational concern by facilitating development of this contemporary skill set.

Supportive Evidence

Meditation is generally understood as a practice that selfregulates the mind and body, effecting mental events by engaging a specific attentional set (Cahn & Polich, 2006). Scientific investigation of meditation in the West has been fostered and influenced by the XIVth Dalai Lama's work with American scientists and scholars over the past few decades. As a result, considerable research has been conducted to investigate the physiological and psychological effects of meditation and its application in the fields of medicine and psychology.

Numerous studies examining the psychophysiological effects of meditation have shown a variety of positive health-related outcomes such as the reduction of symptoms of depression (Brown, Ryan, & Creswell, 2007; Murphy & Donovan, 1997), anxiety (Edwards, 1991; Miller, Fletcher, & Kabat-Zinn, 1995), and stress (Astin, 1997; Kabat-Zinn et al., 1992) and improvements in immune function (Davidson et al., 2003) and pain management (Kabat-Zinn, Lipworth, & Burney, 1985). Furthermore, studies investigating the impact of meditation on cognition have found that meditation has the potential to enhance attention (Jha, Krompinger, & Baie, 2007; Valentine & Sweet, 1999), increase the speed of information processing (Slagter et al., 2007), and enhance problem-solving ability (Raingruber & Robinson, 2007). These research findings and others have fostered the migration of meditation into higher education settings.

Meditation in Higher Education

Meditation, as a new approach to learning, is a pedagogical tool used within contemplative education. Contemplative methods, such as meditation, incorporate subjective (firstperson), experiential examination within the classroom as an alternative way of knowing that complements traditional learning approaches. Scholars who advocate for the inclusion of contemplative methods in the classroom contend that the current accepted way of knowing (thirdperson) limits what we can know by limiting the ways in which we know. This consideration shifts the focus to how one learns rather than what one learns, challenging us to consider the epistemological value of other ways of knowing. Educators aligned with this perspective currently are implementing and actively investigating the infusion of contemplative methods in college and university classrooms across the country.

The majority of research examining the impact of meditation in higher education has been focused on reducing mental health symptoms and enhancing the psychological well-being of students. The results of these studies mirror positive findings stated earlier regarding meditation in medical and mental health settings. Research examining the impact of meditation on student learning and academic success has had mixed results. For example, in some studies, meditation training had no effect on grades or academic performance (Carsello & Creaser, 1978; Dodds, 1975), whereas in other studies, significant increases in cumulative grade-point average and improvements on exam grades occurred (Fiebert & Mead, 1981; Hall, 1999). Although positive evidence is mounting, more empirical research is needed to clarify the effectiveness of meditation as a tool to facilitate learning.

Measures of Mindfulness

Growing interest in meditation, and the need for empirical evidence, has spurred the development of psychometric tools to measure the construct of mindfulness, as an outcome of meditation. Mindfulness is a complex phenomenon involving the self-regulation of attention and presentmoment awareness. The facet structure of the construct itself includes observing internal and external experiences, describing internal experiences, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience (Baer et al., 2008). Analysis of these descriptors reveals their correspondence with metacognitive skills. In this way, the development of mindfulness instruments has given us the ability to quantify some of the outcomes of meditation, providing evidence in terms that are of value to educators and policymakers alike.

The utilization of measures of mindfulness in education research is in its infancy. Research thus far suggests that meditation cultivates mindfulness skills, which encourage positive psychological functioning (Baer, Smith, & Allen, 2004; Baer et al., 2008) and support various aspects of selfawareness and self-expression in students (Dekeyser, Raes, Leijssen, Leysen, & Dewulf, 2008). The relationship of the mindfulness construct to facets of learning and academic success has yet to be explored fully; research of this nature is just beginning to emerge.

Future Thoughts

Acceptance of meditation as a practical and powerful educational tool has not yet penetrated the strata of the higher education system. As a movement, contemplative education currently resides at the individual level, in the hands of educators who implement contemplative methods in their classrooms. By considering some driving forces of institutional change, we can reframe research in ways that address some pressing concerns of administrators and policymakers today. In doing so, we raise awareness of the utility of contemplative methods and increase their perceived value as an educational tool, aligned with the goals of contemporary education. Furthermore, by continuing to conduct empirically based research in this area, we facilitate an increasing acceptance of and legitimization of these methods. When we reflect deeply on the question, "What are the driving forces of change in the education system?" one answer becomes clear. We are that answer. We are the change.

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