

The Art and Science of Yoga as Contemplative Practice: Academia Meets Mindful Yoga Practice



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Introduction

We had each been practicing yoga for some years when we came to work together. Libby Tisdell began practice Bikram Yoga in 2013, and found the deep sweating of this hot yoga, combined with the intensity of the poses to ultimately be one of the best antidotes to anxiety, and has practiced Bikram Yoga ever since. Philomena Behmer came to the practice of yoga after a running injury. So transformed by the practice, she became an Evolution Yoga teacher in 2013 and eventually a teacher trainer.

Philomena, was teaching as an anatomy and physiology (A & P) instructor at a local college aimed at educating health professional when she began to pursue a doctorate in a Lifelong Learning and Adult Education at Penn State University where Libby Tisdell was a professor in the program. After studying embodied learning as part of the program, Philomena decided to pursue a dissertation (completed in 2019) exploring how yoga teacher-training students learn A&P for sustainable body alignment and how it connects to a more substantial embodied experience. The purpose of this article is for Philomena to summarize the findings of her academic study, and then for Libby (Tisdell), who was Philomena's dissertation supervisor, to explain what she learned about both the science of yoga and yoga as contemplative practice because of supervising Philomena's study. As such, given space limitations and to avoid the confusion in the following two sections we speak in separate voices.

Philomena Behmer's Study and Findings

As those who study yoga are aware, sustainable alignment involves moving and positioning the body in ways that yield

optimal musculoskeletal strength and flexibility while mitigating potential injuries. I drew on the embodied learning literature to develop a curriculum and to teach anatomy and physiology to emerging yoga teachers. Embodied learning is the process of creating new knowledge through body engagement [1-4].

As part of the dissertation work and considering having twenty-five years of human biology related teaching experience in both formal and nonformal academic settings, I wrote a curriculum for this yoga teacher-training program which consisted of A&P focused yoga classes. Lessons were delivered through a cycle of lecture, written activities, body movement exercises, and class discussions. I used the curriculum as an intervention for a mixed method study during which I investigated the understanding of A&P training on nineteen female students. Quantitative data from pre- post-test result analysis yielded a significant increase of A&P knowledge (34%). I drew on the qualitative research literature [5,6] to collect and analyze qualitative data, and coded data from journal responses, teaching observations and transcribed interviews. Findings indicated that participants prefer more engaging activities, and they established an unfolding understanding of A&P knowledge and embodied learning. Participants also expressed a greater integration with yoga over time by applying A&P knowledge to achieve sustainable body alignment.

Yoga is also a meditative practice; hence later in 2019, I also wrote an article exploring the meditative aspects of yoga and movement as a means of mindfulness and embodied movement learning [7]. In some ways this article is a continued exploration

and discussion with my mentor about the ongoing meaning making process of yoga as contemplative practice.

Elizabeth Tisdell's Reflections

I have supervised more than 50 doctoral dissertations in my career. They are always a cognitive learning experience for me, as I explore research findings with my students, not only of their own studies but of the studies they cite. Yet there are only a few dissertations that have caused me to reflect in a more contemplative way, and Philomena's is one of those, since I too had been practicing (Bikram) yoga for some years. Not only were there particular pieces that she cited that were particularly inspiring [8], I knew that once I had learned the poses and the rhythm of Bikram yoga practice (to say nothing of surviving the heat!), I learned to approach my own yoga practice as a meditation, that seemed to have a transformative effect on body's recovery from anxiety. It is like a 90-minute "re-set". Being introduced to the science of yoga through Philomena's dissertation helped explain why and made it an even deeper contemplative and meditative practice. I teach a graduate level class called "Meditation, and Mindfulness, Embodied Learning, and Health" and have been doing so since 2018. Whether I am teaching that class in higher education, or leading a meditation elsewhere, I always say to learners: "meditation is about four things: intention, attention, attitude, and attunement" and then go about leading them through a process that first focuses on those four elements, which serves as lead-in to a deeper meditation.

In the time that I was supervising Philomena's dissertation in 2017-2019, I began to approach my own practice that way, and continue to do so: I set an intention at the beginning of each session, and then focused my attention on my breathing. Third I attempt to adjust my attitude to an "attitude of gratitude" and focus on the way that I'm grateful for breath, and heat, and the business of the day. Finally, I try to attune to the atmosphere of the room, and to the teacher and other learners. In this way, yoga becomes another of my meditation activities throughout the day. Combining this process with being introduced to some of the science of how yoga works initially through Philomena's dissertation, and then through my own further study and a deepening yoga practice has helped me better understand and facilitate its profound effects.

Over time I have learned how breath, yoga and other contemplative practices affect the vagus nerve which affects the parasympathetic nervous system, which is activated by both deep, full breath and movement [9]. This led me to [10] work on polyvagal theory, and to [11] work on how to draw on polyvagal theory in treatment practice. This also led me to psychiatrist Bessel van der Kolk's multiple studies summarizing the effects of yoga on trauma partially summarized in his often-cited book [12]. Given that I am a strong believer in science and neuroscience, the findings of these studies give some explanation to the science of the effects of yoga on my own nervous system and nervous

system that has substantially increased my quality of life. This gives further reason for me to approach my yoga practice as a meditation, because meditation and spiritual development has been a centerpiece of my life's work that connects body, mind, and spirit, and science and spirituality [13].

Conclusion

Doctoral students do a dissertation often seeking a credential. But some doctoral students do research that unites their life passions and brings them together, which was the case for Philomena: it united her interest and belief in yoga with her love of teaching, so she works doing two things that she loves. But sometimes the dissertation also profoundly affects the dissertation advisor as was the case here. The effects and the work did not end with the dissertation defense and affected the student and the teacher. This is where the student becomes the teacher, and where the understanding of science leads to further contemplative practice. It is the paradox of dialectical thinking that pulls us open to new learnings on the path! Indeed, we are grateful for our meeting.

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