



TRANSFORMING SCIENCE EDUCATION TO AFFORD MINDFUL, HARMONIOUS, AND HEALTHY LIFESTYLES

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Abstract

Within a context of sociocultural frameworks I will present research on meditation, mindfulness, and wellness and its implications for science education. The presentation will draw on more than 15 years of research I have done on emotional expression of teachers and students we learned about the production of emotions and ways in which they are associated with physiological change – such as pulse rate and oxygenation of the blood. When emotions such as fear, anger, anxiety, and stress built to high levels, the changes in pulse rate and oxygenation were often alarming. Findings such as these catalyzed foci on ways to ameliorate emotions to minimize the possibility of health problems.

My presentation will examine specific ways in which we designed, enacted, and researched interventions that ameliorated emotional buildups in science classrooms. The interventions included breathing meditation and increased mindfulness. In our search for ways to reduce emotions and their impacts on the body we noted that humans use their fingers, hands, legs, and feet to touch and hold specific locations on the back and front of the body. These practices and positions on the body are consistent with an ancient system of medical knowledge known as Jin Shin Jyutsu. We studied this knowledge system and successfully used it as a basis for design of interventions to identify disharmonies and restore the body to harmony – assisting participants to remain well and ensuring that excess emotions neither disrupted learning nor created serious health problems.

As an example of the ways in which science education and science educators need to transform what they are and what they do I will present a multilogical model consisting of complementary medical knowledge systems used in conjunction with Western medicine to benefit wellness. I will address issues of incommensurability in multilogical approaches to social inquiry.

Keywords: meditation • mindfulness • wellness • emotions • multilogicality • Jin Shin Jyutsu