CHALLENGES TO IMPLEMENTING SCIENTIFIC TEACHING IN SOUTH KOREA

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ABSTRACT

The idea that giving lectures is not the best mode of teaching has been an established premise for over twenty years in STEM education in the US. With this understanding in hand, American STEM education has undergone a profound shift in emphasis away from traditional lecture formats to more hands-on approaches that strive to maximize feedback for students while simultaneously emphasizing skill development. Scientific teaching and active learning have been two of the most successful platforms to emerge in this effort. Despite having important advantages that have been demonstrated empirically in contemporary education research literature, the adoption of scientific teaching and active learning on a wider scale has been slow, even in the US, where the National Academy of Sciences and the Howard Hughes Medical Institute (HHMI) have been very active in promoting their use. This article reviews the advantages of the two systems as well as some of the challenges to their implementation on an institutional scale. Some of the known solutions to these challenges are discussed, culminating in a review of recent literature on South Korean classroom culture. With this review as a base, we offer a short commentary on what might need to be done to nurture a greater dissemination of scientific teaching and active learning in South Korea.

Keywords: STEM education, South Korea, education policy, scientific teaching, active learning.