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AI-Enabled and Brain-Based Teaching for Multilingual Learners

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Abstract

This paper focuses on addressing work that is directly related to the improvement of learning in real-world contexts across diverse educational settings and diverse demographics. The underlying basic tenet is highlighting opportunities for inclusive, optimal learning experiences for Multilingual Learners (MLs). Utilizing AI and Brain-based practices can situate, inform, and deepen our understanding of the practical day-to-day requirements for successful teaching. This synthesis of the two offers a new way to view their roles in teaching, learning, research, and how schooling is perceived through multiple lenses. It is designed to celebrate opportunities and to enhance challenges in working with MLs. Further, it highlights the importance of classrooms that are interactive, engaging, and helping educators truly consider themselves as members of a professional learning community in which we are all truly working together for positive outcomes in order to be able to serve our multilingual learners. Many teachers enter the classroom without cultural or linguistic capital and their students are left with navigating the schooling process in an environment where they feel marginalized. Research on AI and Brain- based studies frames this paper by a careful selection of some of those current opportunities and challenges in today's classrooms. The foundations of the paper rest on brain-based learning as multidimensional and it empowers everyone to better understand preferential learning via multimodal (one or more mode of communication to create meaning) and multisensory (engaging all the senses) applications. Further, it embraces digital inclusion as demonstrated by the equalization of AI to increase differentiation.

Keywords: Diverse; Inclusive; Innovative; Learning; Multidimensional