Brain-Computer Interface and VR/AR for the Diagnosis and Intervention of ADHD and ASD: A Preliminary Review

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Abstract

To review current and past applications of brain-computer interfaces in combination with augmented or virtual reality technologies in the intervention of Attention-Deficit/Hyperactivity Disorder and Autism Spectrum Disorder, we reviewed the related literature during the past 13 years. The literature review was categorized based on the focus of the studies. While more investigation is needed to thoroughly investigate the results and impact of these experiments, it has been shown that the experiments tested in the literature are mostly successful in intervention and diagnosis. We discuss relevant observations that may help future studies and inspire collaboration among researchers and partitioners in the field.

Keywords: ADHD, ASD, brain-computer interface, virtual reality, augmented reality

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