

The effects of working memory trainings with game elements for children with ADHD. A meta-analytic review

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Abstract

Working memory trainings have been proposed to remediate ADHD symptoms and to improve functioning by targeting the underlying neuropsychological deficits. However, relatively few studies have been written on analyzing the effects of working memory trainings in ADHD children, notwithstanding the relevant implications of gamified working memory trainings on cognitive processes. The main purpose of this meta-analytical review was to examine the effects of working memory trainings with game elements. The analysis of the 11 selected studies explored the availability of game elements to enhance cognitive performance of children with ADHD. Potential moderator factors were examined such as different types of interventions, the amount of game elements, type of outcome (three levels: cognitive, behavioral, socio-emotional and academic performance). Results indicated a small potential importance of game elements and little possible benefits of gamified working memory trainings. There is much uncertainty related to working memory trainings and ADHD.

Keywords

ADHD, working memory, working memory training, gamification