

Effects of A Dual-Task Intervention in Postural Control and Cognitive Performance in Adolescents

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The aim was to assess dual- versus single-task training for motor performance and cognitive performance in adolescents. Two experiments were performed. In the first, 30 adolescents were randomized to three groups to determine the effect of dual-task difficulty on postural control: λ -scaling and root mean square (RMS). In the second, 20 adolescents were randomized to two groups to determine the effect of dual-task practice to improve working memory. RMS in the post-test was lower than the pre-test in both dual-task groups, while λ -scaling was lower in post-test than pre-test only in the high-difficulty dual-task group. A practice effect was observed on the percentage of correct answers only in the dual-task group ($p = 0.035$). Thus, dual-task training could enhance motor and cognitive performance more than single-task training.