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The effects of running on arithmetic problem solving

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Abstract

In this work, we propose to examine the effects of physical activity on academic performance as physical activity is shown to improve mood, energy levels, confidence, and memory retention. We propose to recruit a sample of 200 psychology students from Portland State University. Each student will be asked to take an arithmetic problem-solving test then asked to study the material for three weeks. Of the 200 students, 100 will be randomly assigned to a physical activity condition, in which they will be asked to run 30 minutes prior to studying, then all students will be asked to take a timed arithmetic problem-solving test. The hypothesis is that physical activity prior to studying for tests will offer statistically significant improved results in the scores. Results from this study may have implications regarding academic performance and the ability to achieve higher class standing in relation to physical activity and the performing-enhancing benefits.

Keywords: physical activity, academic, education, performance