

THE EFFECTS OF A MODEL OF EXPLOSIVE STRENGTH ON THE DEVELOPMENT OF MOTOR AND FUNCTIONAL ABILITIES AMONG SCHOOLCHILDREN

Summary

The aim of the research was to determine the quantitative differences between motor and functional abilities under the influence of an experimental model of training for the development of explosive type strength. The selected sample of subjects was defined as the population of male schoolchildren, aged 14 and 15. A total of 38 students from Belgrade participated in the experiment, all of whom participated in training in their sport sections at school. The measuring instruments for the evaluation of motor skills consisted of seven variables which define segmental speed, repetitive and explosive power. The system for the evaluation of functional abilities consisted of four variables: Resting heart rate, Vital lung capacity, Systolic and Diastolic arterial blood pressure. The research was longitudinal and lasted over a period of eight weeks, numbering a total of 32 hours of training. The T-test for small dependent samples was used for the analysis of any possible differences between the initial and final measuring of motor and functional abilities, as well as the Canonical discriminate analysis. It was concluded at the end of the experiment, that a statistically significant difference existed between the transformational process of the experimental model of explosive type strength in the case of repetitive and explosive strength, vital lung capacity and systolic and diastolic blood pressure.

Key words: *model of explosive type strength, motor and functional abilities, the training process, elementary school children*
