

Abstract

Title: Organizational forms of strength training and their impact on explosive power.

Thesis: Using statistical analysis to assess the immediate effect of different organizational forms of strength training on explosive power.

Methods: Selected probands underwent three resistance training sessions with different organizational forms. Before and after the strength training sessions, all participants underwent trap bar jump testing. The output from the test was maximum and mean velocity. Based on the data obtained, statistical analysis was performed using R studio software.

Results: According to the statistical analysis, the most significant influence on the explosive power is the following trisets. This was followed by supersets, and the smallest difference in explosive power before and after training was observed with traditional sets. The highest decrease in mean velocity was observed after completing resistance training with trisets. In the case of maximal velocity, the highest decrease was for supersets, but the trisets lagged behind by only 0.1 %. The smallest effect in both cases was for the traditional sets.

Keywords: Resistance training, sets, mean and maximal velocity