Abstract

Title: The influence indicators explosive force on the acceleration abilities

Objectives: The main aim of this work is to find out the degree of relatedness indicators explosively force abilities with an acceleration and maximum velocity of soccer players of different ages.

Another aim was to determine the degree of correlation between the acceleration rate AR5 (5 m) and the maximum velocity of MR20 (20 m).

Methods: To solve the problem was used the method of measurement. The first measurement was the measurement of the maximum and acceleration velocity by using photocells. Second measurement was explosively-force abilities at assisting Kistler plate.

The data measurement by the photocells and Kistler plate I processed by using IBM SPSS Statistic 22.

The data from the program IBM SPSS Statistic 22 were statistically processed by Cohen’s d.

Results: It was detected that indicators of explosively-force skills CMJ such as maximum height and maximum power have a high effect on the acceleration abilities for footballers aged 15-16.

Furthermore, i was found that the greatest change indicators annual increases explosively-force capabilities occurs with SJ.

Finally, it was found that the degree of connection between the AR5 and MR20 is low (r = 0.35).

Keywords: football, fitness ability, speed, strength, performance structure