Abstract:

Name: Influence of acceleration abilities on performance in agility tests (speed of change of direction of movement)

Objectives: The main goal of this work is to determine the level of agility performance with acceleration and maximum speed for football players of different age categories.

Methods: To solve the problem, I used a correlation analysis. The first measurement was acceleration and peak speed measurement using photocells. The second measurement was focused on performance in change of direction speed. The resulting data from photocell measurements was processed using IBM SPSS statistics 22 and Microsoft Excel.

Results: I have found that the greatest impact of the selected COD's tests has an illinois test at r = 0.596 with an almost 100% connection on the acceleration, maximum speed for 16-17 year old footballers. In addition, it was found that the 505 test had the best connection with the AR_5 test, r = 0.418 with almost 100% acceleration related. The third best result was the arrowhead test, which got r = 0.301, a small correlation value with 90% of the acceleration and maximum speed.

  The worst result was found in the hexagon test, which had negative r values, ie, an absolutely insignificant correlation.

Keywords: football, fitness, speed, COD's, agility, performance structure