

## ABSTRACT

**Title:** Influence of selected conditional factors on performance in white water slalom.

**Aims:** The aim of the study was to investigate the relationship of selected specific movement abilities being examined modified test battery with the performance of athletes in the water slalom.

**Methods:** It was used field measurements where the applied modified test battery. Using GPS module to determine the distance partial tests from battery. For measuring was used manual measurement. To determine the statistical correlation between the modified battery and performance ability of competitors was used two different coefficients of correlation and regression analysis. According to the order of the test and the race was used nonparametric correlation study - Spearman correlation coefficient. Determining the statistical significance of the relationship of measured times in tests and final time in the nomination races have used the Pearson correlation coefficient.

**Results:** For a statistically significant relationship was determined value when  $r \geq 0.8$ .

*Spearman's correlation coefficient:*

In the test at 40 m were obtained these correlation coefficients: Nomination races  $r_s = 0,380952$ , Czech cup  $r_s = 0,595238$ . In the test at 80 meters they were obtained these correlation coefficients: nomination races  $r_s = 0,857143$ , Czech cup  $r_s = 0,690476$ . In the test on 200 m were obtained these correlation coefficients: nomination races  $r_s = 0,833333$ , Czech cup  $r_s = 0,738095$ . The highest correlation values were obtained when taken into account the entire test battery: nomination races  $r_s = 0,90476$ , Czech cup  $r_s = 0,88095$ .

*Pearson's correlation coefficient:*

In the test at 40 m was reached value correlation coefficient  $r_p = 0,818$ . In the test at 80 m was reached value correlation coefficient  $r_p = 0,740$ . In the test at 200 m was reached value correlation coefficient  $r_p = 0,764$ . The highest correlation values were obtained when it was used in a test battery  $r_p = 0,838$ .

**Keywords:** white water slalom, Spearman correlation coefficient, Pearson correlation coefficient, the sports performance regression analysis, conditional factors, field measurements, test battery