

Abstract

Title: Evaluation of selected motor tests and anthropometric indicators in young swimmers

Objectives: The purpose of the diploma thesis is to evaluate selected motor tests and determine the level of selected anthropometric, explosive and strength endurance indicators in young swimmers aged 8 to 15 years, for which we compare whether and to what extent they influence each other.

Methods: Data collection was performed by direct measurements in laboratories where somatic and conditioning parameters were measured. The data obtained by testing were processed using descriptive statistics in Microsoft Office Excel 2016. Summary tables and scatter plots were chosen for a clear representation of the data.

Results: A total of 17 children aged 8 to 15 years of both sexes were included in the testing, which were divided by grade into group A (2008–2010) and group B (2011–2012). Based on the results, it was found that the arm span is closely related to the body height of the proband. The mean body height (group A–160.5 cm) and (group B–150.8 cm) were almost identical to the average arm span of these groups (group A–159.9 cm) and (group B–150.3 cm). In all probands, the laterality of the right arm was confirmed, and based on this finding, we found a link between laterality, stroke performance and force of pressing of the right upper limb (HK) in more than 80 % of probands. No greater correlation was found between the size of the HK area and the laterality of the proband. When testing the endurance in the pull-up, average values were measured for group A (25.9 s) and for group B (19.1 s). Compared to the general population of the same age, from both groups consisted of 9 probands (year 2008 and 2012) are among the above-average, 5 probands between average and 3 below-average.

Keywords: Biokinetic, body composition, somatic and conditioning parameters