

Abstract

Title: The impact of technical exercise – alternating circling of the upper extremities – to technical part and performance of swimming style crawl, observed in Charles' University students of the Faculty of Physical Education and Sport

Objectives: The aim of this thesis is to determine whether the *exercise alternating circling of the upper extremities* in standing applied during the swimming lessons has impact on improving technically swimming style crawl.

Methods: The research involved 28 probands of the 1st degree of Faculty of Physical Education of Sport Charles University who have never taken part in swimming training. During the research was used only non-invasive methods. The measurement of height of body, upper extremity range and body composition on TANITA device. Testing was carried out in the laboratories of sports motorics at Faculty of Physical Education of Sport in Charles' University. Than testing in swimming pool was attended a swimming test at the distance of 25 and 50 m. Probands were testing in time and it was calculated number of strokes in a swimming test at the distance of 25 to 50 m.

Results: Based on testing, we can say that intervention of the exercise *alternating circling the upper extremities* in probands of intervention group had a statistically significant reduction in the average number of strokes in a swimming test at the distance of 50 m. At the same time, the number of strokes significantly closer to the average. In the swimming test at 25 m there was no statistically significant difference in the number of strokes between the intervention and control groups. Strokes of the intervention group were nearer the average. In neither of the tests there was no statistically significant acceleration of the intervention group.

Key words: crawl, alternate circling of the upper limbs, technique, velocity

