RELATIONS BETWEEN VARIABLES OF BODY VOLUME AND MOTOR ABILITIES WITH PRIMARY SCHOOL GIRLS

Abstract

The system of 18 variables in total, among them 6 morphological variables of body volume and 12 variables of motor abilities was applied to the sample consisting of 203 girls, aged 11-12, in order to determine their mutual relations and the data obtained were processed by using canonic coorelation analysis. During determination of statistically important relations, two pairs of statistically important canonic correlations were obtained. Since the structure of the first canonic factor in the scope of morphology variables is consisted of all the variables applied, it was interpreted as the canonic factor of body volume whereas the second canonic factor could not be interpreted due to its weak informatical values. In the scope of motor abilities, the first canonic factor was interpreted as dynamic power and the second one as motor agility due to the fact that its structure was consisted of applied variables of body coordination, speed of movement frequency, explosive strength in lower part extremities and repetitive strength of trunk. On the basis of the analysed calculated matrices of the structure of canonic factors, the results showed that when girls were involved, there existed some statistically important coorelations (p=.00) between the canonic factor of body volume and dynamic power amounting .73 (Rc=.73), whereas the canonic correlation amounting only .42 (Rc=.42) was obtained with the second pair of canonic factors, which is statistically important at the level .03 (p=.03). It probably resulted in this way because the structure of the first canonic factor was formed by all the applied variables referring to body volume, being in relations, in the first place, only with dynamic power, whereas agility referring to this sex and age, was probably in statistically important relations with some other morphological features.

Key words: *body volume, movement ability, relations, girls, age of 11-12*