RELATIONS OF SOME ANTHROPOMETRIC CHARACTERISTICS AND MOTOR ABILITIES WITH A LONG JUMP

INTRODUCTION
The qualitative planning and programming of the work in the fields of education and sports, i.e. the modeling of the sports and recreational, educational or training programs is not possible without an objective definition of the initial features and characteristics of the person. The choice of an individual with optimal anthropological features for a certain sports branch or discipline, in accordance with the individual preconditions, is one of the biggest problems in the process of orientation and selection. It is well known that in some sports branches, the individuals with certain anthropometric features and motor abilities have better results in comparison with those who do not possess them. The definition of the condition, influence, relation of the anthropometric characteristics and motor abilities, with the result in a certain sports branch or discipline and their constant monitoring is a basic and current practical and theoretical problem in the process of optimal orientation, selection, planning, programming and controlling the training process of young athletes. The basic goal of our research is the definition of the relations between the applied anthropometric measures and motor abilities and their influence on the result in the athletic discipline, long jump.

WORKING METHODS
The representative sample consisted of 70 students, male at the age of 13 ± 6 months, who regularly attended classes in physical and health education. For the assessment of the anthropometric and motor space, the following variables were applied: body height (ATV), arm length (ADR), leg length (ADN), shinbone size (AOPK), size of relaxed forearm (AOPL), shoulder size (AOR), body mass (ATT), wrist diameter (ADRZ), knee-joint diameter (ADZK), standing long jump (MSDM), standing triple jump (MTSM), 10m running (MTR10m), 30m running (MTR30m), 60m running (MTR60m), half-kneeling 15 seconds (MPK15), push-ups on the floor for 15 seconds (MSP15), body lifting (stomach) for 15 seconds (MPTM15), body lifting (back) for 15 seconds (MPTG15), throwing an exercise ball by lying on the back (MFML). For a complete implementation of the goal and tasks of our research, basic descriptive statistical parameters have been calculated for all of the applied variables. The definition of the relations between the applied anthropometric measures and motor variables in the athletic discipline Long Jump (MSDCZ), was defined by a regressive analysis.

RESULTS AND DISCUSSION
Table 1 presents the results of a regressive analysis of the system of anthropometric measures and the athletic discipline Long Jump (MSDCZ). The quotient value of the multiple determination is not statistically significant at the level of 0.00, which leads to the conclusion that there is no statistically significant connection between the dependent variable and the system of independent variables.

From the analysis of the partial values of the regression quotients, we can conclude that the variable shinbone size (AOPK) has an individual significant influence on the predictor anthropometric variables over the criterion variable, the athletic discipline Long Jump (MSDCZ), the other variables did not show statistically significant influence over the criterion variable.

Table 2 contains the results of regressive analysis of the motor test system and the athletic discipline Long Jump (MSDCZ). The information is obtained for
significant multiple correlation between the system of predicative variables and the criterion, which is R= 0.74. Based on the determination quotient (R Square which is 0.55), it can be concluded that the predicative variables system defines 55% common variability with the criterion, and the other 45% is under the influence of other factors which were not included in this test. Regarding the fact that the obtained quotient value of the multiple determination is statistically significant at the level of 0.00, it can be concluded that there is a statistically significant connection between the dependent variable and the system of independent variables.

From the analysis of the partial values of the regression quotients, we can conclude that the variable Standing Long Jump with hand swing (MSDM) has an individual significant influence on the predictor motor variables over the criterion variable, the athletic discipline Long Jump (MSDCZ), the other variables did not show statistically significant influence over the criterion variable.

**CONCLUSION**

Considering the obtained indicators from the applied statistical procedure for regressive analysis of the anthropometric and motor variables and the results in the athletic discipline Long Jump with the students, it can be concluded that the indicator Standing Long Jump, which is a test for assessment of the explosive force, is of primal importance for better results in the athletic discipline Long Jump.

**REFERENCES**


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(Пријателско соодветство)

Лила Петрушевска Алексовска
Основно училиште “Гоце Делчев” Скопје, Македонија

Анetermination

На пример од 70 испитаници на возраст од 13 години спроведено е истражување со цел да се утврдат релациите на антропометриските карактеристики и моторните способности како предикторски систем со резултатите во скок во далечина како критерум. За проценка на антропометричкот и моторниот простор беа применети 9 антропометрички мерки и 10 моторни тестови. Влијанието на антропометричкот и моторниот простор врз резултатот во скок во далечина, беше утврдено со регресивна анализа. Резултатите од испитуването покажаа дека предикторскиот систем на моторички варијабли статистички значајно влијае врз критерумот (упехот во скокот во далечина).

Ключни зборови: ученици, физичко образование, тестови, селекција на скоковачи во далечина, предикторски варијабли, критерумска варијабла, регресивна анализа

Correspondence:
Lila Petrushevska Aleksovska
“Goce Delchev”- Primary school
9 Str. nn, Municipality of Ilinden,
1000 Skopje, Macedonia
E-mail: lila.petrusevska@hotmail.com