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## **EFFECTS OF MOTORIC ABILITIES ON THE SPECIFIC MOTORIC ABILITIES OF FOOTBALL PLAYERS AGED BETWEEN 14 AND 16**

### **Introduction**

In various articles and papers we often come across the statement “football – the most important secondary thing in the world”. This in simple terms explains the great popularity that football enjoys.

Modern football players need to possess the following distinctions: morphological characteristics, motoric and specific motoric abilities, situation judging abilities and certain psychological characteristics.

The research goal of this article is to examine the effects of motoric abilities on the specific motoric abilities of football players aged from 14 to 16.

In line with the research goal, the following task was set: to establish the influence of the predictor system of six motoric tests on the two-criterion specific motoric tests of agility and coordination.

### **Methods**

The group of tested persons in this research consists of 54 male football players aged from 14 to 16 who have active training in football club in Prishtina. Their active football experience was two years at least.

The sample of variables covers 6 motoric and 2 specific motoric tests.

From motoric tests the following items were used (as a predictor system of variables):

1. Long jump (LJ);
2. 20-meter running (20M);
3. Throwing medical ball (TMB);
4. Sit-ups (SU);
5. Raising the trunk in 30 seconds (RT); and
6. Hanging shaft. (HS).

From the specific motoric tests for agility and coordination the following was used as a criteria variable:

1. T-test (TT); and
2. Illinois test (IT).

For each space individually calculation was carried out for basic statistic indexes and the effects of the motoric abilities on the specific motoric abilities are established through linear regression analysis.

The data has been analysed using statistic software Statistics 7.0.

## Results

From the obtained results presented in two tables (table 1 and table 2), the conclusion is the following: the motoric variables have significant participation in the prediction of success in acquiring specific motoric abilities that are an important part of football playing.

The predictor system of six motoric variables has statistically significant influence on the criterion variable T-test.

In the first case (table 1) the influence is at level 0, 05 ( $p=0, 05$ ). The coefficient of multiple correlations is 0, 48 and the coefficient of the determination is 0, 27 and explained in percentage it is 27%.

Individually significant influence on the criterion has the variable Hanging shaft (HS) –  $p\text{-level}=0, 03$ .

**Table 1. Regressive analysis for criteria variable T-test (TT)**

R = 0,48	RI = 0,27	F(6,47) = 2,30	p < 0,05
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Variables	Beta	Partial Cor.	t(47)	p-level
1. LJ	-0,10	-0,10	-0,66	0,51
2. 20M	0,11	0,11	0,77	0,44
3. TMB	0,23	0,25	1,73	0,09
4. SU	0,03	0,03	0,20	0,84
5. RT	-0,05	-0,05	-0,37	0,71
6. HS	-0,33	-0,31	-2,26	0,03

\* R - coefficient of multiple correlation; RI - coefficient of determination; F - F-test; p - level of significance; Beta - standardized beta coefficient; Partial Cor. - coefficient of partial correlation; t - t-test; and p-level - level of significance for predictor variable.

The predictor system of six motoric variables has statistically significant influence on the criterion variable Illinois test.

In the second case (table 2) the influence is at level 0, 00 ( $p=0, 00$ ). The coefficient of multiple correlation is 0, 55 and the coefficient of the determination is 0, 31 and explained in percentage it is 31%.

Individually significant influence on the criterion has the variable Long jump (LJ) –  $p\text{-level}=0, 00$ .

On the ground of the modest contribution that this completed research can offer, we think that the used predictor variables are adequately counted.

They can certainly be used for assessing (in prediction) the specific motoric of football players.

**Table 2.** Regressive analysis for criteria variable Illinois test (IT)

R = 0,55	RI = 0,31	F(6,47) = 3,43	p < 0,01
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Variables	Beta	Partial Cor.	t(47)	p-level
1. LJ	-0,56	-0,51	-4,01	0,00
2. 20M	-0,02	-0,03	-0,19	0,85
3. TMB	0,13	0,15	1,05	0,30
4. SU	0,07	0,09	0,59	0,56
5. RT	0,03	0,03	0,23	0,82
6. HS	0,08	0,08	0,56	0,58

\* R - coefficient of multiple correlation; RI – coefficient of determination; F – F-test; p – level of significance; Beta – standardized beta coefficient; Partial Cor. – coefficient of partial correlation; t – t-test; and p-level – level of significance for predictor variable.

### Discussion

Results similar to the ones obtained in this research are also present in the works of Malina (2003), Swenson & Drust (2005), Vaeyens et al. (2006), Reilly et al. (2000) and other eminent authors. We can confidently state that activities in which the trained football players were engaged in show promise of high sport achievements.

### References

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### EFFECTS OF MOTORIC ABILITIES ON THE SPECIFIC MOTORIC ABILITIES WITH FOOTBALL PLAYERS AGED BETWEEN 14 AND 16.

*Introduction: The research issue of this work is to examine the effect of motoric abilities on the specific motoric abilities with football players aged from 14 to 16. According to the research issue, the following task was set: to establish the influence of the predictor system of six motoric tests on the two-criterion specific motoric tests. Methods: The group of tested persons in this research consists of 54 male football players aged from 14 to 16, who had active training in football club Prishtina. Their active football experience was two years at least. The sample of variables covers 6 motoric and 2 specific motoric variables. For each space individually there are*

calculated basic statistic indexes and the effect of the motoric abilities on the specific motoric abilities is established through the linear regressive analysis. Results: From the obtained results, presented in the 3 tables, the conclusion follows that the motoric variables had significant participation in the prediction of success in acquiring specific motoric abilities that are an important part of football. Discussion: Results similar to those obtained in this research are also evident with: Malina (2003), Swenson, & Drust (2005), Vaeyens, et al. (2006), Reilly, et al. (2000) and other eminent authors. We can confidently state that activities in which the trained football players were engaged show promise of high sports achievements. References: Malina RM (2003). Growth and maturity status of young soccer players. In T Reilly & AM Williams (eds.) Science and Soccer. Routledge, New York. Reilly T, Williams AM, Nevill A, Franks A (2000). Journal of Sport Sciences, 18, 695-702. Svensson M, Drust B (2005). Testing soccer players. Journal of Sports Sciences, 23(6), 601-18. Vaeyens R, Malina R M, Janssens M (2006). Br J Sports Med, 40, 928-34.

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## Prihvaćena 102 rada iz 25 država

U Podgorici će se od 3. do 6. aprila 2014. godine održati 11. međunarodna konferencija o transformacionim procesima u sportu "Sportska dostignuća" i 10. kongres Crnogorske sportske akademije (CSA). Konferencija će se odvijati u nekoliko sek-

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- Prijava radova završena je još 15. januara, a recenzenti su od velikog broja pristiglih prihvatili 102 naučna rada, čiji autori



Bjelica

su ispunili precizno formulisane propozicije. Prihvaćeni su radovi iz 25 zemalja, a najviše ih je iz Turske i Irana, koji su zastupljeni sa po 17 autora. Osim ličnog izlaganja i prezentacije radova, neki od autora odlučili su se za „poster prezentacije“, što je Crnogorska sportska akademija prvi put ponudila - kazao je predsjednik CSA, prof. dr **Duško Bjelica**.

Poput prethodnih, i radovi prezentirani ove godine će biti štampani u Zborniku, kao i u renomiranom crnogorskom časopisu "Sport Mont", na našem i engleskom jeziku.

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