ORGINAL SCIENTIFIC PAPER

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RELATIONS OF MOTOR ABILITY WITH SITUATION-MOTOR ABILITY OF YOUNG FOOTBALLERS

Summary:

The main objective of this research is to determine the correlation of motor skills and situational-motor skills of young footballers aged 9 to 10 years. The relationship between predictor variables and criterion variables is determined by regression analysis. A statistically significant connection of the space of motor skills with a criterion variable has been established. Observing the individual connection of the variables with the criterion, only the variable sprint 10 meters with a high start has achieved a statistically significant connection.

Keywords: football, motor ability, situational-motor ability, relations, regression analysis

INTRODUCTION

The population that is treated in this paper is in the pre-puberty period, in which boys begin transforming themselves into an adult. The result should not be a priority in the development and training of this population, but the continuous development of footballers, who in their later years will demonstrate top-notch soccer in dynamic conditions and a game with maximum display of fitness and quality. Coaches of younger categories should possess an optimal level of knowledge from the methodology of development of investigated motor skills, especially with the age that is the subject of this work. When we look at the motor skills that were explored in this paper, I can warn that their development is tempestuous but still harmonious, can control, the development of speed, explosive power and agility in this period is significant. Stević, et al. (2012) also found that the relationship between the criterion variable and the slalom with a ball with predicates variables has been linked to the problem of the correlation between motor abilities and situational abilities. This proves the interconnection of motor situations with situational and motor skills. Smajić, et al., (2008) show that footballers with higher dimensionality of skeletons, higher explosive forces and better speed stamina, achieve better results in tests of specific precision in football. Molnar et al. (2008) found that boys in a soccer school who achieved poorer results in all types of ball strikes, as well as in the running of the ball and the speed of running with the change in the direction of movement were those who also had unfavorable morphological measures, and a higher amount of subcutaneous fatty tissue, that is, better results were achieved by boys who have better motor skills.

The problem of this research is to determine whether there is a connection between motor skills with situational and motor skills of young footballers aged 9 to 10 years

The subject of this research is the motor and situational-motor skills of young footballers

The aim of this research was to investigate certain physical abilities of young footballers aged 9-10 years, that is, to determine the connection of motor skills with situational and motor skills.

Based on the subject, problems and goals of the research, the following hypothesis was posed: "There is a statistically significant correlation of motor skills with the situational and motor skills of young footballers aged 9 to 10 years.

RESEARCH METHODOLOGY

The sample of examinees

The sample of examinees consists of 25 selected subjects aged 9 to 10 years.

The Sample of variables

Tests of motor skills, predicate set:

1. 10 m sprint-high start   (M10s)

2. 20 m sprint-flying start   (M20LS)

3. 30 m sprint   (M30S)

4. Zig-zag test without ball   (MCC)

5. A jump from a squat without a hand swing with hands on the sides   (MVSP)

6. Jump with a swing with swinging hands   (MVSZR)

7. Test 7 consecutive jumps   (M7US)

Criterion variable: zig-zag test with a ball   (MCCL)

Data processing methods:

A regression analysis was used to determine the relationship between predictor variables with the criterion variable

RESULTS AND DISCUSSION

On the sample of 25 young selected footballers from the school Olimp from Pale, a survey was conducted with the aim of determining the connection of motor skills with situational and motor skills. The relationship between the motor and situational-motor skills of the students of the football school "Olimp" from Pale was processed by regression analysis. On the basis of Table 1, we can conclude that statistically significant connection of predictor variables with criterion was established. The coefficient of multiple correlation R = .820 and shows the relation between the predictor variables and the criterion variable as seen on the level of significance p = .003. Based on 7 variables of basic motor abilities, 67% of the total variation of the Critical Variable Zigzag with a Ball was explained. The remaining 23% in explaining common variability can be attributed to some other anthropological characteristics and abilities of respondents that were not the subject of this research. From the set of applied basic motor variables (Table 2) the largest and statistically significant influence on the criterion variable was realized by the variable M10M (BETA) =. 495, which is significant at the level p = .02. Such results of the partial correlation coefficients are logical, as these tests hypothetically cover the speed range, and the speed of the speed depends to a large extent on the success of the running ball with the change of direction.

Table 1.Regression analysis of the criterion variableMCCL-running the zig-zag with ball
R = .820 R$_\xi$ = .673 Adjusted R$_\xi$ = .539 F (7.17) = 5.019 p <.003 Std.Error of estimate: .514

	BETA	St. Err. of BETA	B	St. Err. of B	t(17)	p-level
Intercpt			10.327	4.805	2.148	.046
M10M	.495	.196	2.767	1.099	2.517	.022
M20M	-.278	.255	-1.081	.991	-1.091	.290
M30M	.116	.172	.004	.006	.676	.507
MCC	-.012	.239	-.029	.576	-.051	.959
MVSP	-.353	.219	-.087	.054	-1.608	.126
MVSZR	-.405	.269	-.085	.056	-1.507	.150
MUS7	-.052	.203	-.010	.042	-.257	.799

Legend / Legend: R - Multiple corelation coefficient (Multiple coefficient of correlation); R Square - Determination coefficient (Determination coefficient); Adjusted R Square - Adjusted determination coefficient (Adjusted coefficient of determination); Std. Error of the Estimate

By a further statistical procedure (analysis of multiple regression variance), Table 2 shows the significance of the multiple regression link, from which it can be seen that the values of the explained (regression) variability are less than the unexplained (residual). The value of the F test is 4.235, and the achieved significance level p = 0.003 shows that there is a statistically significant difference between the explained and unexplained part of the total multi-regression variance, ie that the explained variability is statistically significantly lower than the unexplained variability. Therefore, it can be concluded that the information provided by the multiple determination coefficient (R^2) is confirmed

Table 2.ANOVA Critical Variables: MCCL

	Sums of Squares	df	Mean Squares	F	p-level
Regress.	9.288	7	1.326	5.019	.003
Residual	4.493	17	.264		
Total	13.781				

Legend / Legend: Sum of Squares; df - Degrees of freedom; Mean Square (Mean square value); F - Fisher's test for statistical significance determination (Fischer test for determining statistical significance); Sig. - Signifi cance (Level of statistical significance of the multivariate test)

CONCLUSION

The connection of the predictor variables with the criterion variable velocity of the ball is confirmed at the multivariate level, while the variation of the variation is determined individually only in the sprint 10-meter high-starting variable. The connection of the predictor variables with the criterion variable at the multivariate level has been achieved, so that the motor skills are in direct proportionality with the result of the test of the situational-motor skills of the respondents and it can be concluded that the subjects with a better starting speed will have better results in the specific motor test in football. These results are also logical in view of the structure of the exercises in football, which require good speed, coordination of the movement, as well as a certain level of power. The results we have come to this paper are similar to the results of previous studies that confirm that the starting speed in football is one of the most important motor skills, and that it is directly related to the success in position speed with the ball. Respondents who were the subject of work are in the period of the sensitive phases of stated motor skills, which points to the possibility of maximum development of these motor skills in these age categories. Space velocity, although genetically conditioned, can be enhanced by special programs for improving the frequency of movement, length of steps and running technique, so that the lifetime in which the respondents find it should be used to develop the stated motor abilities, the level of which is one of the most important in modern football . One of the possible methods is the SAQ method, a method that trainers increasingly use in the population analyzed in this paper. Compared to the model for this age category (Serbia's model of representation), we can say that students of the football school "Olimp" are at a satisfactory level of speed and agility, while the space of explosive force is underdeveloped. On the basis of the information received, the trainers should approach the correction of the program and try to raise this motor capability to a higher level, of course taking into account the quality and selection in the football school "Olimp". Based on these results, trainers who implement the school football program and program have an insight into the current skills of their participants and the differences that have been identified, the trainers should give each individual an indication of what should be improved, both through team and individual training, and which motor competency should be maximally developed in this period. The trainers should give each participant recommendations for further development of abilities that are below average in comparison with the best result, recommendations containing exactly defined exercises that will be continuously applied over a time interval of about three months after which re-testing

is recommended. Monitoring of the development of the child's organism and the sensitive phases in which the organism of the tested athletes is currently in need should be continuously and implemented at each individual training, and compared with the models every six months, in order to be able to analyze and modify the development and training programs in order to properly develop and progress these respondents in their future football career. If the investigated spaces are not properly developed during this period of sensitive phases, their further progress at a later age will be limited.

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