

## RELATIONS OF SEVERAL MORPHOLOGICAL LINKAGES AND BASIC, MOTOR AND SITUATIONAL SKILLS OF YOUNG BASKETBALL PLAYERS OF BOTH GENDERS

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### Abstract

The study deals with young people aged 12 years (boys and girls), who in addition to attending the classes of Physical Education and Sports, they also practice basketball in private schools within the city. The experiment contains a total of 10 variables, of which five variables are the morphology and three tests of basic motor skills and both variables are situational motor abilities. In this research, it applied methods of T-test and correlations among variables morphological and basic motor skills and specific. The study includes a total of 60 entities of both sexes, the group of 30 boys and the other group consists of 30 girls who have undergone the tests provided for this study.

**Key words:** young basketball players, motor tests, situational tools, discriminative analysis, T-test.

### Introduction

Basketball as a sport apply to all ages of both sexes (male and female), it is a very attractive game, but also complexive based on unforeseen circumstances that occur during the game. Determination of youth to the sport of basketball, is conditioned by the desire of its young for this sport or through selection by the experts of the game of basketball, taking into account the morphological characteristics and skills basic motor and situational for this sport. Poly-structural movements basketball regards cyclic and acyclic complex, and counted in the category of attractive sports. Success in all sports so well in basketball, depends on many factors connected to one another such as morphological features, capabilities, basic motor and specific cognitive ability, psycho-physical preparation and technical and tactical to advance in this sport which arouses curiosity especially to young people to take the game of basketball.

### Aim of study

The purpose of this research is to ascertain the main morphological motor characteristics of the and 12 year old students of both genders important for the game of basketball. More specifically, the goal of this research is:

- In order to verify the level of coherence of morphological and basic motor specific variables.
- Confirmation of physical characteristics and basic motor and specific dimensions to boys group.
- Confirmation of characteristics, basic motor body and the specific dimensions to girls group.
- Confirmation of lidhmërive between physical characteristics and basic motor skills and specific boys and girls are important for orientation in the sport of basketball.

### Main hypothesis

In this study are presented the following three hypotheses:

- H<sub>1</sub>** – Assume that there are significant correlations between morphological variables and the basic motor skills specific to the two groups.
- H<sub>2</sub>** – Assume that there are significant differences between the group of boys and girls in the morphological characteristics.
- H<sub>3</sub>**–Assume that there are differences between the group of boys and girls in the specific basic motor space.

### Mode of study implementation

#### *The sample of entities*

The sample of entities includes 60 students (30 male students and 30 female students). Age of examinees is  $12 \pm 6$  months, who have been following the regular school basketball in the city of Pristina. Measurements were conducted during April-May 2017. morphological variables tests are done in the morning and basic motor skills tests and specific, are conducted during training in basketball.

#### *The sample of variables*

##### *Morphological variables*

Morphological tests are applied to five variables:

- Body height - **BH**
- Arm length - **AL**
- Foot length - **FL**
- Horizontal open arms length - **HOAL**
- Body weight - **BW**

##### *Basic motor variables*

Basic motor space used three variables:

- Running 20m - **RUN20m**
- Jumping in distance - **JID**
- Jumping in heights - **JIH**

**Specific motor variables**

Specific motor space applied two variables:  
 Throwing the medicinal filled ball in the distance from the chest height- **TMDCH**  
 Dribbling between obstacles 20m - **DBO20m**

**Methods of processing the results**

Based on the purpose and hypotheses are applied methods of processing the results that are achieved through descriptive analysis, matrix-correlative and discriminative analysis method T-test, which enables the provision of sufficient information for the realization of this study. *Interpretation of results* - Matrix connectivity among variables morphological and basic motor-specifically those in

the group of boys. The results of the cross-correlation registers group tests morphological and basic motor group and specific variables are presented in Table 1. The cross-correlation coefficients of the group of morphological characteristics and basic motor group of the specific variables indicate weak correlation between the two spaces. Weak correlation between morphological characteristics and basic motor and specific tests, it is understandable and certainly this should be sought in other morphological features of biomechanic of motor space.

Morphological parameters in this study are statistically significant coherence test in addition to dribble between obstacles 20meter (DBO20m).

Table 1. Matrix connectivity among variables morphological and basic motor-specifically those in the group of boys

	BH	AL	HOAL	FLM	BW
RUN20m	-.199	-.171	-.143	-.189	-.305
JID	.152	.049	-.004	.131	.194
JIH	.143	.116	.128	.118	.115
TMDCH	-.103	-.044	-.088	-.068	-.166
DBO20m	-.325*	-.371*	-.323*	-.326*	-.407**

*Matrix connectivity among variables morphological and basic motor-specifically those in the girls group*

The results of the cross-correlation registers group tests morphological and basic motor group and specific variables are presented in table 2. The cross-correlation coefficients of the group of

morphological characteristics and basic motor group of the specific variables, show weak correlation statistically insignificant between the two spaces. Therefore, these features should be sought in other morphological tests of specific and basic motor.

Table 2. Matrix connectivity among variables morphological and basic motor-specifically those in the girls group

	BH	AL	HOAL	FLM	BW
RUN20m	.221	.068	.046	.198	.287
JID	-.232	-.158	-.113	-.198	-.288
JIH	-.093	.103	.052	-.065	-.228
TMDCH	-.028	-.007	.059	-.018	.009
DBO20m	.038	-.127	-.062	.010	.250

Differences between morphological and basic motor and specific variables

In table 3 are presented the values of arithmetic averages differences between the group of boys and girls in the group of morphological variables. There are differences between boys and girls in

morphological variables, the expressed level of probability (p <0:01). Differences between some parameters morphological between boys and girls aged 12 years show that growth and development of children of female stages of puberty starts earlier than boys, therefore, show that the values obtained in the group of girls are higher.

Table 3. Differencies in morphological variables between boys and girls

	Paired Differences Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	t	df	Sig. (2-tailed)
BHD – BHV	-2.41	1.13	.179	-2.77 -2.04	-13.4	39	.000
ALD –ALV	-1.60	1.61	.254	-2.12 -1.08	-6.30	39	.000
HOALD – HOALV	-1.48	1.94	.307	-2.10 -.859	-4.82	39	.000
FLMD –FLMV	-2.33	1.39	.220	-2.78 -1.89	-10.6	39	.000
BWD –BWV	-2.85	.646	.102	-3.05 -2.64	-27.8	39	.000

*Analysis and verification of hypotheses*

Based on the study hypothesis submitted conclude as follows:

- H1 - The first hypothesis is partially realized.
- H2 - The second hypothesis is fully realized.
- H3 - The third hypothesis is fully implemented

**Conclusion**

Based on the results achieved, we managed somehow to get accomplish determining and influencing factors, morphological and motor in performing specific tasks important to the game of

basketball, and the difference between children aged 12 years (group of 30 girls and the group 30 boys) in the morphological development and the specific motor skills important for the sport of basketball. Thus, detection of morphological factors and implementation of tasks assigned to the sport of basketball, are valid and effective selection, diagnostics, programming and control of the leadership training sessions in basketball. The study has been testing task ot-measurements of some morphological characteristics and basic motor skills and specific to young people of both sexes aged 12 years.

The sample group included 30 boys and 30 girls group, a total of 60 students, who in addition to regular hours of physical education, leisure them after learning process, exercised near the clubs within the city. Based on the results obtained in this study, we conclude that there is a significant difference between the group of boys and group-age girls in question, is because the phase of puberty starts earlier in girls therefore, the values obtained are in good group of girls. To succeed age in question specifically in the sport of basketball, we need to offer better conditions as infrastructure and real professionalism.

## References

- Adam, C., Klissouras, V., Ravazzolo, M., Renson, R., & Tuxworth, W. (1988). *Eurofit: European Test of Physical Fitness*. Rome: Council of European Committee for Development of Sport.
- Arben, J. (2005). *Teoria dhe metodologjia e stërvitjes sportive* [Theory and methodology of sports training. In Albanian.]. *Tiranë, 1*, 177-250.
- Bompa, T. (2006). *Periodization (Theory and methodology of trening)*. New York: Human Kinetics.
- Erculj, F. (2010). Morfoloske značilnosti kosarkaric, starih 14 in 15 let, ki nastopajo v skupinah A in B Evropskega prvenstva [Morphological characteristics of basketball players aged 14 and 15, who play in groups A and B of the European Championship. In Slovenian.]. *Sport, 1-2*, 63-67.
- Ferragut., C., Rodriguez, N., & Vila, H. (2011). Force generation in male basketball players. *Journal of Sport Sciences Portuguese, 11*, 81-84.
- Kavaja, G. (1994). *Perfecting the training bases, primary request for the level growth of the basketball game*. Tirana: Ombra.
- Salihu, H. (2012). The impact of the teaching process on students considering some movement variables. *Acta Kinesiologica, 6(2)*, 63-65.
- Salihu, H. (2015). Značajne performanse u nekim morfološkim varijablama kod mladih košarkaša [Significant performances in some morphological variables in young players In Croatian.]. In: *Proceedings of 8<sup>th</sup> international congress "Sport and health", October 2th-3th, 2015. Faculty of Physical Education and Sport. Tuzla. Bosnia and Herzegovina*. Tuzla: Faculty of P.E. (pp. 45-48).
- Salihu, H. (2015). Importance of valuable some basic motor variables and specific to young people aged 14-15. In: *Proceedings of International "Balkan Sport Sciences Congress and 8<sup>th</sup> International Kirkpinar Symposium, 3-6 May 2015, Edirne, Turkey*. (pp. 69-72).
- Salihu, H. (2016). Specificities presented in some basic and specific motor skills of variables to young basketball players. *European Journal of Physical Education and Sport Science, 1(4)*, 63-70.

## RELACIJE NEKIH MORFOLOGIJSKIH VEZA I BAZIČNIH MOTORIČKIH I SITUACIJSKIH VJEŠTINA MLADIH KOŠARKAŠA OBA SPOLA

### Sažetak

Studija se bavi mladim ljudima u dobi od 12 godina (dječaci i djevojčice), koji osim što pohađaju nastavu tjelesnog odgoja i sporta, također praktikiraju košarku u privatnim školama unutar grada. Eksperiment sadrži ukupno 10 varijabli od kojih su pet morfoloških varijabli, tri testa temeljnih motoričkih sposobnosti, a dvije varijable su situacijske motoričke sposobnosti. U ovom je istraživanju primijenjena metoda T-testa i korelacije između varijabli morfoloških i osnovnih motoričkih i specifičnih dimenzija. Studija obuhvaća ukupno 60 subjekata oba spola, od čega skupinu od 30 dječaka, i drugu skupinu od 30 djevojaka, koji su prošli testove predviđene za ovu studiju.

**Ključne riječi:** mladi košarkaši, testovi motorike, situacijski alati, diskriminativna analiza, T-test.

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