



## THE PERFORMANCE OF THE CHANGES INTRODUCED IN SOME MORPHOLOGICAL AND BASIC MOTOR VARIABLES SPECIFIC TO BASKETBALL PLAYERS OF BOTH SEXES AGED 15-16 YEARS

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### Abstract:

The working-experimentation, treats young basketball players aged 15-16 years (boys and girls), who in addition to attending classes, physical education and sport in schools they practice basketball in Pristina. The working-experiment contains a total of 7 morphological variables and four tests of basic motor skills and seven variables are situational motor abilities. In this research, it applied methods of t-test between morphological variables and basic motor skills and specific. Experimentation in question includes the number of 70 entities of both sexes; the group of 35 boys and the other group consist of 35 girls who have undergone the tests provided for this experiment.

**Keywords:** entities, morphological variables, tests of basic motor skills of situational, means testing instruments, methods of t-test

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## **1. Introduction**

Recently, basketball as a sport is being adored by all ages, especially the young people of both sexes, who are finding meaningful companionship of the playing field between two baskets. Therefore, it is right and it is natural that young people in the future can achieve more advanced results in the sport of basketball. Age at issue, is really ideal for their selection, precisely characterizes this age of many features as meaningful indicators, to become more contemporary level basketball player. Basketball contemporary involves permanent complexity and variability of motor skills, which are aimed at achieving tempos, dynamics, attractiveness and personality of the player, to achieve high results in competitions at various levels.

### **1.1 The purpose of the paper-experimentation**

The aim of the research in this paper is the treating of change occurring in some morphological and basic motor variables and specific to young people aged 15-16 years. For this purpose is prepared group of 7 and 11 anthropometric variables of basic motor situational tests. The main goal will be to analyse and certification of changes through the method of t-test between the group and the group of young boys of the same age.

## **2. Basic hypothesis**

Based on research so far purpose and research problem to handle basic structure and anthropometric and situational motor to students in the game of basketball have submitted the following hypothesis:

H1 - will appear differences between anthropometric measurements of boys and anthropometric measurements of girls.

H2 - will be presented differences between the measurements of the basic motor skills and dexterity measurements situational between boys and girls.

## **3. The sample of entities – examinees**

The sample of examinees was young basketball players of both sexes aged 15-16 years, who practice basketball in clubs within the Pristina city. The sample test includes the number of 70 basketball players, young group of 35 girls and the group of 35 boys, who by morphological variables were tested in the morning, while in tests of basic motor and situational skills are tested during training in basketball. Tests-measurement was conducted during March 2017. All morphological variables tests and tests of basic

motor space situational were conducted in the presence of the professor of physical education and sport.

#### **4. The sample of variables**

##### **4.1 Morphological variables**

1. Body height - BH;
2. Body weight - BW;
3. Arm length- AL;
4. Leg length - LL;
5. Palm length - PL;
6. Palm width - PW;
7. Foot length - FL.

##### **4.2 Basic motor variables**

1. Running fast 20m - RF20m;
2. Jumping from place in height - JFPH;
3. Jumping from remote place - JFRP;
4. Throwing the medicinal filled ball - TMFB.

##### **4.3 Motor situational variables**

1. Free throw with the left hand - FTLH;
2. Free throw with the right hand - FTRH3m;
3. Side throw with the help of the table - STHT3m;
4. Side throw with the help of the table - GJTABM3m;
5. Throw for 3 points - TF3points;
6. Dribble with hurdles - DWH;
7. Round trip dribble - RTD.

##### **4.4 Methods of processing the results**

Based on the purpose and hypotheses, will apply methods of processing the results of which will enable the provision of sufficient information for the realization of this work. For confirmation of the changes between the two groups earned on anthropometric variables and the situational basic motor will apply the T-test analysis.

## 5. Interpretation of the results and their discussion

### 5.1 The changes introduced in the manifestos space

#### A. The test for anthropometric variables

To get to the verification of the statistical differences between the two groups as we have in this case the female and male pupils, the first group of female students compose and constitute the second group of male students. Based on the results presented in Table 1, we can conclude that in the space of anthropometric variables among the group of girls and those of boys, valuable changes are presented in six Anthropometric variables in favour of males, except variable of body weight, while other tests have shown validity as: BH, AL, LL, PL, PW and FL.

**Table 1:** T-test between the two groups tested anthropometric variables

	Groups	N	Mean	Std. Deviation	Sig. (2-tailed)
BW	Female	35	57,4000	8,74657	,061
	Male	35	61,6250	11,02372	
BL	Female	35	164,9750	4,68214	,000
	Male	35	172,2500	7,53709	
AL	Female	35	69,4500	6,40092	,000
	Male	35	75,9875	3,05607	
LL	Female	35	94,7000	4,87379	,027
	Male	35	97,5250	6,25110	
PL	Female	35	17,9000	1,16685	,000
	Male	35	19,1875	1,08420	
PW	Female	35	7,9375	,71779	,000
	Male	35	8,7125	,74151	
FL	Female	35	26,0000	1,19829	,000
	Male	35	28,4250	1,35661	

#### B. T- test for basic motor variables

Based on the results presented in table 2, we can conclude that statistically valid changes in basic motor space between the two groups are presented valuable changes in all variables, also in favour of boys group, who have shown higher results, is expected due to the nature and development of motor skills of boys group.

**Table 2:** T-test between the two groups in basic motor space

	Groups	N	Mean	Std. Deviation	Sig. (2-tailed)
<b>RF20m</b>	Girls	35	457,3750	30,38614	,000
	Boys	35	368,5250	25,54131	
<b>JFPH</b>	Girls	35	29,1250	6,35363	,000
	Boys	35	44,8250	9,80028	
<b>JFRP</b>	Girls	35	135,1250	10,33339	,000
	Boys	35	180,6250	19,15482	
<b>TMFB</b>	Girls	35	3,9480	,32346	,000
	Boys	35	5,2463	,54507	

### C. T-test for motor situational variables

Based on the results presented in Table 3 we can conclude that valid statistical changes in the motor space situational between the two groups are presented valuable changes in all variables except to GJMMDM3m test, which shows the scores are similar, while other results are in favour of boys group, who showed higher scores on situational motor tests.

**Table 3:** T-test between the two groups in space situational motor

Group Statistics					Sig. (2-tailed)
	Groups	N	Mean	Std. Deviation	
<b>FHLH3m</b>	Girls	35	,7000	,79097	,116
	Boys	35	1,0250	1,02501	
<b>FTRH3m</b>	Girls	35	1,0500	1,01147	,001
	Boys	35	1,8750	1,06669	
<b>STHT3m</b>	Girls	35	,4750	,67889	,000
	Boys	35	1,2500	,83972	
<b>GJTABM</b>	Girls	35	,1500	,53349	,000
	Boys	35	1,0500	,81492	
<b>TF3points</b>	Girls	35	,6000	,63246	,001
	Boys	35	1,2500	1,03155	
<b>DWH</b>	Girls	35	15,6975	,87269	,000
	Boys	35	12,6465	,80939	
<b>RTD</b>	Girls	35	14,3385	1,21228	,000
	Boys	35	11,3293	,88748	

### 5.2 Analysis and verification of hypotheses

Based on data from this study and the submission of the following hypotheses:

H1 - The first hypothesis is fully certified for all variables changes in anthropometric addition to body weight.

H2 - The second hypothesis is entirely fulfilled, because here are shown changes in all basic motor variables, and situational.

## 6. Conclusions – summary

Based on the main goal that is addressed in this paper, and based on the results obtained from measurements performed, it is confirmed some changes in the appearance of morphological and basic motor variables and specific to students aged 15-16 years. The results are processed of 7 and 11 anthropometric variables of basic motor situational tests. We have applied the method of T-test, which has proven the goal, submitted valid values between variables anthropometric among the group of boys and girls, in addition to the variables of body weight, while the others are all in favour of a group of boys in the basic motor space situational variables all showed higher values.

This research has achieved the goal of this paper and we can say that we managed to determine all our expectations in relation to the realization of tests by students of both sexes, given their age, nothing is definitive, because they are still at the stage of puberty.

Specific practical values of the research will be a function of selecting the operators and kinesiological stimulators in accordance with the age and orientation for the sport of basketball.

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