

ANALYSIS OF QUANTITATIVE CHANGES OF RESEARCHED ANTHROPOLOGICAL SPACES IN BASKETBALL PLAYERS AT JUNIOR AGES

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Abstract

For the purpose of improving young basketball players quality of playing and aim of gaining situational efficiency, behind basic fitness training, it is necessary to practice and provide as many situational games (game with two baskets), because training methods are building up and developing specific situational elements of basketball game. The aim of this research is to determine the effects training model on the transformation of morphological characteristics of young junior basketball players.

Keywords: basketball, transformations, situational training, training process, junior age

INTRODUCTION

Necessity of researching linked to this topic, it is special refers to transformation morphological characteristics, motorics and situational-motoric skills of basketball players junior ages, under the influence applied program of situational training. It was necessary to research, find and get important informations that can greatly improve training process of basketball players, and as a final result to have a positive impact to overall anthropological status of them same, so as improve situational efficiency in basketball. So, basketball as an integral part of the wide area physical education and sport doubtless presents at the same time and tool for energetic-motoric and intellectual activity. From the point of movement and the structure of the game situation, basketball is one the most complex team where fast transformations from action to action are dominating, what actually necessary leads to transformations in anthropological status of participants of basketball.

TECHNIQUE OF SCIENTIFIC WORK

This research has a longitudinal character in order to be in time different two points determine the transformation changes of anthropological status of basketball players junior ages under situational basketball training impact at a certain pattern examiner.

Sample of examiners

Population from which it was pulled out of the sample entities for this research, it was defined such as sample of young basketball players junior ages (from 16 to 18 ages), who play and train in next basketball clubs in Herzegovina: KK „Brotinjo“ from Čitluk, KK „Čapljina“ from Čapljina, OKK „Mostar 05“ from Mostar, KK „Ljubuški“ from Ljubuški and KK „Turbina“ from Jablanica.

Due to submitted data and founded number of named clubs and players, there was included 102 subjects, who trained regularly and competed for their clubs in planned researching time. There was no

additional limiting conditions regarding the validity of the sample.

Sample of variables

Morphologically access was covered with the next variables: body height (BH), length hands (LH), weight (W), wrinkle of subcutaneous fat on the back (WSCFOTB), wrinkle of subcutaneous fat on the upper arm (WSCFOTU), wrinkle of subcutaneous fat on the stomach (WSFOTS), wrinkle of subcutaneous under knee (WSUK), volume of upper arm (WOUA), volume of thorax (VOT), volume of upper knee (VOUK) and volume of under knee (VOUK).

Measurements are done due to International biological program-IBP instructions. Selected tests are satisfying metric characteristics, they are standardized, previously calibrated, daily controlled before using and published in publications.

RESULTS AND DISCUSSIONS

In order to determine quantitative differences, actually partial quantitative effects of changes resulted under the influence of applied situational training program in basketball, in relationship results of initial and final measurements 102 examiners, basketball players junior ages, it is applied univariate level of testing (T-test for depended samples).

Analysis of quantitative changes in researched anthropological spaces is done during three individual sections applying by T-test because of the same transparency and better analysis of data.

Analysis quantitative changes of researched morphological characteristics basketball players junior ages

Analysis quantitative changes 12 researched morphological characteristics of 102 basketball players junior ages resulted under applied training program influence of situational training method, is done we already said by T-test.

From resulted arithmetic means value of results researched morphological characteristics, on initial and final measurement, then on basis of importance changes (differences found) tested by T-test for dependent samples (Table 25), it is clearly to see

that applied program situational training in basketball in its own bigger part produced statistic im-

portant partiant quantitative effects, it means changes in postive way.

Table 1. Quantitive changes of researched morphological characteristics

Variables		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
P1	ATVIS – F	-,20588	,62280	,06167	-,32821	-,08355	-3,339	101	,001
P2	TETEZ – F	,75882	1,52928	,15142	,45845	1,05920	5,011	101	,000
P3	DŽRUK – F	-3,38235	4,41205	,43686	-4,24896	-2,51574	-7,742	101	,000
P4	RARUK – F	-1,97549	3,66507	,36290	-2,69538	-1,25560	-5,444	101	,000
P5	OGRKO –F	-1,14216	2,02139	,20015	-1,53920	-,74512	-5,707	101	,000
P6	ONADL –F	-2,44412	2,37331	,23499	-2,91028	-1,97796	-10,401	101	,000
P7	ONKOL –F	-,76471	1,28884	,12761	-1,01786	-,51155	-5,992	101	,000
P8	OPOKL –F	,20784	2,20525	,21835	-,22531	,64099	,952	101	,343
P9	KNLEĐ –F	,10961	,20222	,02002	,06989	,14933	5,474	101	,000
P10	KNNDL –F	,11039	,15396	,01524	,08015	,14063	7,241	101	,000
P11	KNTRB –F	,22667	,22799	,02257	,18189	,27145	10,041	101	,000
P12	KNPTK - F	,18196	,22433	,02221	,13790	,22602	8,192	101	,000

From results, it can be assumed that applied program situational training in basketball caused statistic important changes in all variables, used for assesment morphological space, except in variable OPOKL- volume of under knee (Sig=343).

Analysis of quantitative changes researched motoric capabilities basketball players junior ages

It is done analysis quantitative changes 12 variables in further processing of datas, which we used for assesment researched motoric status 102 basketball players junior ages. The aim of this analysis was to determine quantitative changes under researched motoric space under influence applied training program in basketball, and in the same purpose is also used statistic- mathematic method of T-test.

Table 2. Quantitive changes of researched motoric capabilities

Varijables		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
P 1	MVTAP - F1	-3,38235	3,75498	,37180	-4,11990	-2,64480	-9,097	101	,000
P 2	MVTAN - F2	-2,56863	2,90275	,28741	-3,13878	-1,99847	-8,937	101	,000
P 3	MVPZD - F3	-1,57843	2,37744	,23540	-2,04540	-1,11146	-6,705	101	,000
P 4	MVFIP - F4	4,02941	6,65628	,65907	2,72199	5,33683	6,114	101	,000
P 5	MVDUS - F5	-10,86275	7,59369	,75189	-12,35429	-9,37120	-14,447	101	,000
P 6	MVDST - F6	-7,22549	7,29968	,72278	-8,65928	-5,79170	-9,997	101	,000
P 7	MESDM - F7	-4,25490	8,48608	,84025	-5,92173	-2,58808	-5,064	101	,000
P 8	MVSAR - F8	-4,44118	6,01578	,59565	-5,62279	-3,25957	-7,456	101	,000
P 9	ME20V - F9	,08569	,13142	,01301	,05987	,11150	6,585	101	,000
P10	MVSKL - F10	-2,51961	4,84764	,47999	-3,47177	-1,56744	-5,249	101	,000
P11	MVDTL - F11	-2,42157	6,24331	,61818	-3,64787	-1,19527	-3,917	101	,000
P12	MVBML - F12	-,61824	1,28319	,12705	-,87028	-,36619	-4,866	101	,000

From resulted arithmetic means reserched of researched motoric variables in a researched sample of basketball players junior ages examiners, on ini-

tial and final measurement, then on the basis of statistical signifiacnce occurred changes (differences) tested by T-test for dependent samples (ta-

ble 26), it is clearly seeing that applied program of situational training from basketball resulted with statistic important partial quantitative effects, actually changes. Examining the table 26, clearly t can be concluded that changes resulted in all researched variables under researched motoric space young basketball players junior ages.

Analysis of quantitative changes researched situational-motoric capabilities basketball players junior ages

It is done analysis of quantitative changes 5 variables in further processing datas, which we used for assesment situational-motoric status researched sample examiners basketballplayers junior ages. The aim of this analysis was to determine quantitative changes under researched situational-motoric space under applied situation training influence in basketball and for that purpose is also used statistic-mathematic method of T-test.

Table 3. Quantitive changes of researched motoric capabilities

Varijables	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
P 1 OLT30 – F	-1,45098	2,61612	,25903	-1,96484	-,93712	-5,601	101	,000
P 2 DUD2R – F	-,68627	1,66490	,16485	-1,01329	-,35926	-4,163	101	,000
P 3 ŠIK30 – F	-,68627	1,65894	,16426	-1,01212	-,36043	-4,178	101	,000
P 4 SKVSL – F	1,75510	2,41393	,23901	1,28096	2,22924	7,343	101	,000
P 5 KDŠ30 – F	-1,68627	3,03113	,30013	-2,28164	-1,09090	-5,619	101	,000

From resulted arithmetic means researched situational-motoric variables at researched sample of basketball players junior ages examiners, on initial and final measurement , and on the situational significance occurred changes (differences) tested by T-test for dependent samples (Table 27), it is clearly seeing that applied program of situational training from basketball resulted with statistic important partial quantitative effects, actually changes, in all researched variables.

From the results we obtained, we can conclud that three month basketball program of situational training, together with playing preparation friendship mathces, also with selected contents and volume of work, then qualitat and appropriate training tools and complications, produced statistic very important positive changes under researched antropological spaces.

The results show that there has been important improving in all variables researched antropological spaces, not just in volume of under knee OPOKL - in space of researched morphological characteristics.

According to results applied transforming process, changes are realised in all their variables, what will have for a consequence that applied program situational training in whole reflected on positive transformation researched antropological spaces od basketball players junior ages.

CONCLUSION

In order to determine partial quantitative differences (partial quantitative effects of changes) and particulary for changes in tests for assesment researched antropological spaces, it is applied univariate level of testing (T-test for dependent samples).

On the basis of the results arithmetic means of researched morphological variables on initial and final measurement for selected sample examiners basketball players junior ages, then on the basis of importance, changes (differences) tested by T-test for dependent samples, it is clearly seeing, that applied program situational training produced statistic important partial quantitative effects (changes) under researched moprophological space.

With rsults of T-test researched morphological characteristics, statistic important differences between initial and final measurement are reached in all researched variables, just not in once, variable volume of underknee (OPK).

On the basis of these and there likely results we concluded that applied program of situational training, produced statistic important partial quantitative effects insde researched morphological space.

With results of T-test researched motoric variables, statistic important difference between initial and final measurement are achieved in all researched variables, so we can conclude that applied program situational training produced statistic important partial quantitative effects inside researched motoric space.

On the basis of the results T-test researched situational-motoric variables statistic important differences between results obtained on initial and

final testing are achieved in all researched variables, so we can conclude that applied program situational training produced statistic important partial quantitative effects inside researched situational-motoric space.

So, according to global assesment qualitat and justification of applied chosen program situational training, we can generally conclude that the same lead to transformation researched antropological spaces basketball players junior ages.

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