

THE INFLUENCE OF SOME ANTROPOLOGICAL FEATURES ON SPECIFIC TESTS WITH YOUNG BASKETBALL PLAYERS

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Original scientific paper

Abstract

According to the 68 entities, of 16 years old males, it has been realized the morphological aspect of consisting 10 tests, the motile aspect consisting four specific tests as criterion. If we consider the results of this experiment, we can conclude that it is achieved the main objective of this experiment. As far as the morphological aspect is concerned, all variables have realized relevant correlations. In addition, the aspect of motile tests has realized most of the significant correlations. In the procedure of the regressive analysis have been examined the influence of the testing in the manifesto field and prediction of the results of motile tests through morphological and predictable test. From the tests treated as connection criterion, regressive importance with morphological tests have shown the tests such as, free hitting, throwing with a jump, dribble and hitting in the cage, and going and coming dribble that shows resistance in speed. Finally, we have the persuasive tests, where the explosive force and specific speed are the main significant factors to guide the players in a basketball game. Even, the exactness dimension represents an important dimension in the basketball game because the main purpose of this game is to score as much as possible in order to win the game.

Key words: *basketball, regression, explosiveness, speed, winning*

Introduction

Even in nowadays, basketball game is one of the favorite games for most of the people especially for young people. These young people enjoy the devotion towards this preferred sport. As time goes by, it raises the number of people who express interest to learn, enjoy and relax while experiencing this game.

Considering the experiments that we have done until now, we can say that fulfilling different motile tasks depend on the structure of the morphological dimensions. We know this because by focusing on other experiences, the presentation of this problem in explorative, scientific, and methodological terms turns to be the main point for defining the structure of the anthropological status of young people. The aim of this experiment is noticing some relevant and morphological characteristics as predisposition and specific criteria. In other words, the aim of this research is to verify the characteristic connection between the morphological and motile tests concerning basketball players. In fact, it aims to verify some specific mobile tests considered as criterion in morphological tests as predisposition.

Methods

The experiment covers 68 entities of young males, around 16 years old, who have been practicing basketball in the city of Prishtina. The testing is done during January until February of 2008. Furthermore, the morphological tests have been done during the morning hours, whereas the mobile tests have been done during the basketball practice time. The all tests have been done in the sports center. There are set three hypotheses considering this experiment, which can be read as it follows. The first one is the significant correlations that exist between morphological variability tests. Next, I suppose that there are correlations between motile variability of basic and specific tests. Finally, there is valuable and regressive connection between the morphological, mobile, and specific tests as criterion. The results are elaborated in the following programs, SPSS version 16, 0 and statistics version 5, 0 of windows. The analyses are done in the manifesto areas. In order to set the morphological area, it has been applied 10 tests, which are: body weight (AAW), body height (AAH), hand length (AHL), leg length (ALL), foot length (AFL), palm length (APL), palm width (APW), arm perimeter (AAP),

thigh perimeter (ATP), femur perimeter (AFP). In the motor area, it has been applied 4 situated mobile tests (criteria). The situated tests were: dribble by hitting in the cage (SDC), free hitting (SFH), hitting the cage with a jump (SHJ), going and coming dribble (SDR).

Results and discussion

If we look at the correlative matrix between morphological variables in the first table, we can notice that from 45 possible coefficients of the correlation, only 32 coefficients are relevant or 75 %. In the first group belong the tests, which determine the longitudinal dimension of the skeleton. These are, body height, hand length, leg length, and foot

length, which realize the correlation with the high values of 61-80, whereas the palm width, as a pointer for transversal dimension, realizes the correlation with the lowest value of 54-61. This can be explained through the fact where the test that shows the transversal dimension is loaded with error variation. Additionally, this has the value lower in relation with other tests. In the second group belong the tests that determine circular dimension which are the arm perimeter, thigh perimeter, femur perimeter, and body weight.

The body weight with the correlation coefficient has the value from 70 -71, hence, the high correlation of the body weight in the two groups can be explained as a linear combination of many variables.

Table 1. Correlation of the Morphological Tests

	AAW	AAH	AHL	ALL	AFL	APL	APW	AAP	ATP	AFP
AAW	1.00	0.70	0.79	0.79	0.60	0.23	0.56	0.30	0.34	0.47
AAH		1.00	0.57	0.56	0.40	0.19	0.52	0.63	0.65	0.69
AHL			1.00	0.71	0.59	0.13	0.47	0.25	0.24	0.38
ALL				1.00	0.50	0.20	0.55	0.19	0.31	0.43
AFL					1.00	0.04	0.48	0.21	0.15	0.25
APL						1.00	0.12	0.16	0.02	0.15
APW							1.00	0.37	0.36	0.40
AAP								1.00	0.65	0.60
ATP									1.00	0.67
AFP										1.00

If we look at the correlative matrix in the table, we can notice that from 45 of possible correlative coefficients, 20 of them or 44 % are important. These important correlations are realized by the tests such as: the jump from the main spot to a distance, the jump from the main spot to highness, and the 20 meters running, with a high value of -.47-.75.

The test called throwing the medicinal ball in a distance does not realize correlation with the test of 20 meters running, with low value of .25- .29. The test called throwing the ball in a distance, realizes correlation with the test of high jump and throwing the medicinal ball with optimal value of .29- 53. The next test for the strength of the stomach muscle does not realize correlation with two tests but it has connection with other tests with optimal value of -.35- -.48. Furthermore, the dribble by hitting in the cage, has correlation with the tests as it follows, the jump from the main spot to a distance, the jump from the main spot to highness, the 20 meters running and

the test for the strength of the stomach muscle, with the value from -.32- -50. The test called hitting through a jump, has correlation with only one test, which is the jump from the spot to a distance with a low value of .24-.28. Finally, the test going and coming dribble realizes correlation with the following tests, the jump from the main spot to a distance, the jump from the main spot to highness, throwing the medicinal ball in a distance, the test for the strength of the stomach muscles, and dribble by hitting in the cage with optimal value of -.27- -.46.

In the third table are shown the results of the regressive analysis, where as a criteria are applied the motile tests. Here we have the ball dribbling and hitting in the cage, whereas as a predicates are used the morphological tests. According to the multiple correlation value which is .38, might be explained the common variability of the predictable system and criterion variability in the level of importance of P= 0000.

Regression analyses

Table 1. dribble by hitting in the cage (SDC)

	Beta	P
AAW	0.29	0.03
AAH	0.17	0.14
AHL	-0.30	0.00
ALL	-0.29	0.00
AFL	0.17	0.03
APL	0.09	0.13
APW	-0.14	0.08
AAP	-0.26	0.00
ATP	-0.11	0.25
AFP	0.31	0.00

R= .38073835 R²= .14496169
 Adjusted R²= .11317588
 F(10,269)=4.5606 p<.00001

Table 2. free hitting (SFH)

	Beta	P
AAW	-0.04	0.78
AAH	0.04	0.75
AHL	-0.09	0.39
ALL	0.04	0.66
AFL	-0.13	0.11
APL	0.15	0.02
APW	0.26	0.00
AAP	0.05	0.59
ATP	0.03	0.76
AFP	0.04	0.65

R= .35512081 R²= .12611079
 Adjusted R²= .09362420
 F(10,269)=3.8819 p<.00006

Table 3. hitting the cage with a jump (SHJ)

	Beta	P
AAW	0.35	0.01
AAH	-0.36	0.00
AHL	-0.15	0.14
ALL	0.03	0.80
AFL	-0.04	0.61
APL	0.07	0.28
APW	0.13	0.11
AAP	0.21	0.02
ATP	0.01	0.91
AFP	0.05	0.61

R= .30857466 R²= .09521832
 Adjusted R²= .06158331
 F(10,269)=2.8309 p<.00232

Table 4. going and coming dribble (SDR)

	Beta	P
AAW	0.00	0.98
AAH	0.24	0.04
AHL	-0.24	0.02
ALL	-0.10	0.33
AFL	0.10	0.22
APL	0.11	0.08
APW	-0.09	0.23
AAP	-0.04	0.64
ATP	-0.23	0.01
AFP	0.10	0.29

R= .29648705 R²= .08790457
 Adjusted R²= .05399768
 F(10,269)=2.5925 p<.00513

Concerning the predictable variables, the highest value is shown by the body height, hand length, leg length, foot length, arm perimeter, and femur perimeter. From this, we can conclude that the tests that have the biggest influence should be considered during the orientation and selection of young children for the basketball game. The results, in the forth table show that according to the coefficient value of the multiple correlations .35, it can be explained the general variability of the criterion variable in order to influence the predictable test, whereas the other part of the variability can be interpreted with the help of other factors of the anthropological status.

From the predictable tests, the highest values are shown by the palm length and breadth, as indicatory tests of the preciseness of the hitting in the cage, where preciseness is a sensible motile dimension. According to the results in the fifth table, the coefficient value of the multiple correlations .31 is possible for a general explanation of the variables with influence in the predictable system. From the predictable tests, the highest value has created the following tests such as, body height, body weight, and the arm perimeter. By being based in the sixth table, we can notice the coefficient value of the multiple correlations .30, refers that the general variability of the criterion test can be explained with the influence of the predictable variable system, where the left part of the variability can be explained with the help of the other factors of the anthropological status. From the predictable variables, the highest values have shown the following tests: the body weight, hand length and thigh perimeter.

Conclusion

Concerning this experiment there are three hypotheses, where the first hypothesis is partially proved because according to the results, only ten morphological tests have realized correlation with optimal value. In addition, the second hypothesis is partially proved in relation with the optimal value of the motile and specific tests. Finally, in the third hypothesis, according to the regressive analysis and achieved results, we can conclude that this hypothesis is proved entirely, because there have been four motile and specific tests as criteria, achieved through the predictable and morphological system. According to the 68 entities, of 16 years old males, it has been realized the morphological aspect of consisting 10 tests, the motile aspect consisting four motile and specific tests as criterion, and six other basic tests. If we consider the results of this experiment, we can conclude that it is achieved the main objective of this experiment.

As far as the morphological aspect is concerned, all variables have realized relevant correlations. In addition, the aspect of motile tests has realized most of the significant correlations. In the procedure of the regressive analysis have been examined the influence of the testing in the manifesto field and prediction of the results of motile tests through morphological and predictable test. From the tests treated as connection criterion, regressive importance with morphological tests have shown the tests such as, free hitting, throwing with a jump, dribble and hitting in the cage, and going and coming dribble that shows resistance in speed. Finally, we have the persuasive tests, where the explosive force and specific speed are the main significant factors to guide the players in a basketball game. Even, the exactness dimension represents an important dimension in the basketball game because the main purpose of this game is to score as much as possible in order to win the game.

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Received: August, 23. 2008.

Accepted: December, 10. 2008.

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UTJECAJ NEKIH MORFOLOŠKIH DIMENZIJA NA SPECIFIČNE MOTORIČKE TESTOVE KOD MLADIH KOŠARKAŠA

Sažetak

S uzorkom od 68 entiteta uzrasta 16 godina muškog spola, realizirano je istraživanje morfološkog aspekta od 10 varijabli uz 4 specifična motorička testa koji su poslužili kao kriteriji. Na temelju rezultata bilo je moguće zaključiti da je ostvaren cilj eksperimenta. Sve morfološke varijable su pokazale značajne korelacije. Nadalje, motorički testovi su pokazali značajne relacije. Regresijskom analizom je utvrđen utjecaj prediktivnih morfoloških mjera na rezultate motoričkih testova. Posebno su značajni testovi: slobodno bacanje, skok-šut, dribling i šut iz reketa kao i dribling kao mjera održavanja brzine kretanja s loptom. Konačno, imamo uvjerljive pokazatelje, gdje eksplozivnost i specifična brzina predstavljaju glavne faktore koji vode igrača u košarkaškoj igri. Štoviše, ove dimenzije predstavljaju dominantne sposobnosti u košarci jer ostvaruju glavnu svrhu igre a to je pogađanje što predstavlja pretpostavku pobjede.

Ključne riječi: košarka, eksplozivnost, brzina, pobjeda
