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Relations between Basic and Specific Motor Abilities and Player Quality of Young Basketball Players

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A B S T R A C T

Subjects from 5 first league clubs from Herzegovina were tested with the purpose of determining the relations of basic and specific motor abilities, as well as the effect of specific abilities on player efficiency in young basketball players (cadets). A battery of 12 tests assessing basic motor abilities and 5 specific tests assessing basketball efficiency were used on a sample of 83 basketball players. Two significant canonical correlations, i.e. linear combinations explained the relation between the set of twelve variables of basic motor space and five variables of situational motor abilities. Underlying the first canonical linear combination is the positive effect of the general motor factor, predominantly defined by jumping explosive power, movement speed of the arms, static strength of the arms and coordination, on specific basketball abilities: movement efficiency, the power of the overarm throw, shooting and passing precision, and the skill of handling the ball. The impact of basic motor abilities of precision and balance on specific abilities of passing and shooting precision and ball handling is underlying the second linear combination. The results of regression correlation analysis between the variable set of specific motor abilities and game efficiency have shown that the ability of ball handling has the largest impact on player quality in basketball cadets, followed by shooting precision and passing precision, and the power of the overarm throw.

Key words*: basic and situational motor abilities, elite basketball players-cadet*

Introduction

Basketball is a complex sports game in which phases of defense and offense are differentiated. The phases alternate and complement each other. Each phase is differentiated by its specific motor movements, offensive as well as defensive. Movements without the ball are typical in the defense phase: diagonal and parallel defensive stance, defensive ball pressure, pass pressure, block out, and defensive rebound. Structures of movement with and without the ball are characteristic to the phase of offense during game play. Characteristic elements with the ball are advancing the ball, dribbling, passing the ball, set shot, lay-up shot and jump shot. Characteristic elements without the ball are elements of faking and opening, speeding up in offense, offensive rebound[1].

Evaluation of players' potential and quality, completion of the team, team selection and selection of the game concept is conducted in an organized manner, based on scientific, expert knowledge, intuition and experience of the coach. Indicators of potential quality are based on the developmental level of basic anthropological characteristics and basketball specific skills, traits, abilities and knowledge.

During their development, players go through at least 4 processes: the process of direction, the process of learning and training, the selection process and the process of specialization for player roles.

Rational management of sports preparation is not possible without the knowledge of athlete's biological maturity because this maturity determines the extent of the training capacity, and especially of energetic capacity of the player. In the period of growth and maturation, there are children who mature in the expected dynamics, but there are also children who are slower or quicker in their biological maturation[2].

Creating elite basketball players implies continuous and gradual basketball training in a universal sports

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school or mini-basket, basketball school of the 1st and the 2nd level, young cadet selection and cadet and junior selection. In a player creation model set in such a way, the role of the coach includes setting and enforcing such a system of sports preparation which should ensure the development of the whole potential and its transformation to player quality.

When working with young basketball players, one should take into consideration the training process which should be based on the improvement of basic motor abilities and the acquisition of technical-tactical knowledge.

Training processes lead to integration of basic and specific motor abilities into an anthropological set which predominantly determines basketball efficiency. This is why it is necessary to investigate the impact of basic and specific motor abilities on basketball efficiency.

The impact of biomotor status on situational efficiency has also been analyzed in other sports and sports games.

In karate: general motor efficiency is measured on the basis of explosive jumping power, repetitive core strength and coordination, followed by flexibility, static strength of the arms, and speed of movement frequency; in female karateka, integration of force, coordination, muscle tone regulation and speed is dominant for achieving success in karate. Female karateka use speed and fine muscle tone regulation more in their motor functioning, in relation to male karateka who use basic strength more[3].

By using regression correlation analysis in volleyball, it has been established that power and speed as regulation mechanisms are good predictors of player quality in young male and female players[4].

Blašković et al. (1982)[5] performed an analysis of reliability and factor validity of situational-motor tests in basketball. The analysis assessing factor validity has confirmed the hypothesis about the existence of 5 situational-motor factors which were named: passing precision, shooting precision, ball handling, player movement efficiency with and without the ball and power of the overarm throw.

Dežman (1982, 1993, 1995)[6–8] developed an expert system model which included the most important factors which indirectly affect the situational efficiency of playing in basketball. The model is applicable mostly in selection of young players and monitoring of training efficiency.

Based on his three-year long testing, conducted on American college basketball players, Swalgin (1994)[9] determined the norms for evaluating situational efficiency of players in a basketball game in relation to the positions and playing time during the game.

On a sample of 87 junior and cadet basketball players, Jakovljević (1995)[10] applied a battery of 15 tests for assessing specific motor abilities (ball control, dribbling, passing, shooting, movement with and without the ball) and tests for assessing cognitive abilities.

Abdelkrim et al. (2007)[11] used a sample of 38 elite basketball players aged 19 to determine the impact of a large number of physiological factors on game intensity during competition.

Salihu et al. (2008)[12] investigated a morphological space of 10 variables with 4 tests assessing specific motor abilities used as a criterion, on a sample of 68 basketball players. The following tests showed significance: free shots, jump shots, dribbling, shot in the paint and speed of advancing the ball.

Erčulj & Šupej (2009)[13] determined the effects of fatigue on shooting precision, jump shot height and disturbed coordination i.e. performance mechanics of the jump shot in an elite NBA player. Significant differences in precision, jump shot height and shot mechanics were found by measuring heart rate and lactates during maximum fatigue.

Erčulj et al. (2009)[14] have established and analyzed the status of motor abilities using a sample of 65 elite female basketball players aged 14.5 and 15, from 27 countries. By using 8 tests for assessing motor abilities, the status of the following variables was defined: sprinting explosive power, agility, throwing explosive power, jumping explosive power. The results confirmed the existence of differences between the players in different player positions in the sample of young female basketball players.

Abdelkrim et al. (2010)[15] determined the differences between anthropometric characteristics, explosive power, speed and agility, using a sample of elite basketball players divided into three categories: juniors, seniors under the age of 20 and seniors.

Karalejić et al. (2011)[16] used a sample of 118 competitive basketball players of younger and older pioneer age to determine some relations between anthropometric characteristics and technical skills. Players who expressed high values of anthropometric dimensions, particularly of longitudinality, had high results in technical skills tests.

Torres-Unda et al. (2012)[17] investigated the relationship between anthropometric characteristics, physiological tests and maturation to basketball efficiency, using a sample of young elite basketball players aged 13 and 14. Players who were born in the first half of the year, showed better results in physiological tests and expressed higher values of anthropometric characteristics. The obtained results could be useful to coaches in the selection of young basketball players.

The aim of this research was to determine the relations between basic motor abilities and specific motor abilities, as well as the impact of specific motor abilities on basketball efficiency in youth players.

Materials and Methods

Study subjects

The subject sample included 83 young basketball players (cadets) aged 13–15, of average height 174.8 cm, average weight 63.6 kg and average Body Mass Indeks 20.81, from five first-league clubs (HKK Široki, HKK Brotnjo, HKK Zrinjski, KK Leotar and HKK Čapljina) from Herzegovina. Participants were included in the active training process for 2–4 years.

Instruments

A battery of 12 motor tests was used for assessing the motor status: side steps for assessing movement agility, obstacle-course backwards for assessing coordination, seated straddle stretch for assessing flexibility, standing on one leg lengthwise on a bench for assessing balance, shooting a target for assessing precision, arm plate tapping and foot tapping for assessing movement frequency, standing long jump for assessing jumping explosive power, 20 m dash for assessing sprinting explosive power and/or anaerobic ability, 2 kg supine medicine ball throw for assessing throwing explosive power, crossed-arms sit-ups for assessing repetitive strength, bent arm hang for assessing static strength and/or muscle endurance.

The following tests were used for assessing specific motor abilities:

1. Passing precision. Four concentric circles are marked in the central circle of the basketball court. The radius of the smallest circle is 20 cm, of the bigger one 40 cm, followed by 60 and 80 cm circles. A 1 m throw line is marked 10 meters from the center of the circle. The subject assumes a diagonal stance behind the throw line and shoots the ball at the concentric circles 10 times in a row using a technique of the overarm throw with one hand sideways (push-pass technique). Each shot to the smallest circle is scored 8 points, while the other shots in each consecutive circle is scored 2 points less (6,4,2). The result is the sum of points scored in 10 shots, and the test is performed three times. This test defines the factor of passing precision, according to Blašković et al. (1982)[5].

2. Shooting precision. Positions for long shots are marked 5 m from the basket. Five shots are made from each position, using a jump-shot technique. The subject makes five shots from each position, and the number of points scored from each position is noted, and the sum of all shots from all positions is used in data analysis. This test defines the factor of shooting precision, according to Blašković et al. (1982)[5].

3. Speed of movement with a ball. Baseline, free throw line and central line of the basketball court are used in the performance of this test. The subject's task is to run the distance to the central line and back, then to the free throw line and back, with maximum speed, while advancing the ball. Time of each of the three performances is recorded. This test defines the factor of movement efficiency with the ball, according to Blašković et al. (1982)[5].

4. Ball handling. The test is performed in the circle of the free throw lane. The subject drives the ball with his eyes closed, moving back and forth, left-right, for 30 seconds. If the subject loses control of the ball before the 30 seconds is up, a number of the contacts with the ground made until that moment will be recorded. The test is performed 3 times, and the result is the sum of contacts of the ball and the ground in 30 seconds. This test defines the factor of the ability of ball handling, according to Blašković et al. (1982)[5].

5. Power of the overarm throw. The subject assumes the parallel stance behind the free throw line, facing the basket. The task requires for him to throw the ball as far as possible using the two-hand chest throw technique, without moving his feet from the ground. A 3 m line is marked 10 m from the free throw line, and behind it, identical lines are marked every 10 cm, up to 18 m. The result of the test is the length measured from the free throw line to the spot where the ball has contacted the ground. The test is performed 6 times. This test defines the factor of power of the overarm throw, according to Blašković et al. (1982)[5].

Data analysis

Methods of data analysis involved calculating the parameters of descriptive statistics: mean ($\overline{X}$), standard deviation (SD), minimum (Min) and maximum (Max) result, measure of asymmetry (skew), measure of distribution peakedness (Kurt) and calculating the Maxd value for determining the normal distribution of variables by using a KS-test.

Canonical correlation analysis was used to determine the effect of basic motor abilities of young cadet basketball players on the level of their specific abilities. Regression correlation analysis was then used to determine the effect of specific motor abilities on basketball efficiency as a criterion.

Results and Discussion

Table 1 shows the results of descriptive statistics of general and specific motor abilities variables of 83 basketball players aged 13 to 15. Analysis of distribution parameters indicates that there were no significant deviations from normal distribution in any variable, which means that all variables are suitable for further multivariate statistical analysis. The normality of the distribution was tested by Kolmogorov-Smirnov test with a critical value of 0.13 for the significance level of 0.05.

Two significant canonical factors shown in Table 2 were obtained by canonical correlation analysis between the tests assessing basic motor abilities and tests assessing specific motor abilities in young basketball players. Canonical correlation of these two variable sets was 0.83 and 0.66, which explains 70% that is 44% of the variance.

The first canonical dimension isolated from the variable set assessing motor abilities was defined by the projections of variables assessing jumping explosive power, movement frequency of arms, static strength of the legs, and/or muscle endurance and coordination. This canonical dimension defines the general factor of motor functioning in young basketball players which is based on the set of explosive power, psychomotor speed and coordination. In other sports games (volleyball, handball), the isolated basic motor factors, particularly the explosive po-

TABLE 1
DESCRIPTIVE STATISTICS OF VARIABLES OF BASIC AND SPECIFIC MOTOR ABILITIES IN BOYS AGED 13–15 (N=38)

Variables	$\bar{X}$	SD	Min	Max	KS	Skew	Kurt
Side steps#	8.64	0.90	6.55	12.30	0.08	0.62	1.98
Obstacle-course backwards#	13.62	3.01	8.00	20.89	0.09	0.42	–0.62
Seated straddle stretch	74.23	16.72	40.00	115.00	0.11	0.96	2.45
Standing on a bench	12.64	13.05	0.00	77.89	0.15	3.12	12.88
Shooting a target	50.96	8.90	40.00	68.00	0.13	0.65	–0.96
Arm plate tapping	31.57	3.48	23.00	40.00	0.09	0.19	–0.10
Foot tapping	20.12	1.84	16.00	25.00	0.12	0.30	–0.01
Standing long jump	203.27	25.83	149.00	267.00	0.07	0.19	–0.32
20 m dash#	3.53	0.26	2.97	4.16	0.08	0.04	–0.57
Supine medicine ball throw	599.18	187.74	270.00	1010.00	0.06	0.15	–0.85
Crossed–arms sit-ups	42.50	9.05	19.00	65.00	0.06	–0.06	0.34
Bent arm hang	33.66	29.95	0.00	92.00	0.11	0.75	–0.15
Passing precision	68.14	15.87	27.00	93.00	0.13	–0.63	–0.52
Shooting precision	11.74	1.90	8.00	16.40	0.07	–0.07	–0.27
Ball handling	10.62	0.73	8.95	12.42	0.04	0.17	–0.07
Movement efficiency#	10.27	3.01	3.00	17.00	0.11	–0.13	–0.50
Power of the overarm throw	33.00	14.22	4.00	60.00	0.10	–0.23	–0.88
						test	=0.13

#variable with opposite metric orientation

X – arithmetic mean, SD – standard deviation, Min – minimum result, Max – maximum result, KS – kolmogorov-Smirnov test, Skew – coefficient of asymmetry, Kurt – coefficient of kurtosis

wer factor, and speed and coordination, are also significant in determining the technical efficiency[18–20].

The first canonical dimension in the space of specific motor abilities is defined by high projections of the following variables: speed dribbling, two-hand chest pass and shooting precision, which can be named the general specific factor predominantly responsible for movement efficiency and power of the overarm throw, and shooting precision, ball handling and passing precision. The following basic motor abilities are underlying those specific abilities: explosive power, speed of movement frequency and coordination.

Underlying the first pair of canonical factors is the determination of basic motor abilities of jumping explosive power (less of throwing explosive power), movement speed and static strength of the upper extremities and coordination which define the general motor efficiency of cadet basketball players with the general specific basketball factor, dominantly with movement efficiency and the power of the overarm throw.

Explosive power is actually the most important motor ability for the performance of speed of movement with the ball and the power of the overarm throw. Also, it is important in those activities which require great acceleration of the body mass, mass of particular body parts or the external object, as well as the activities of jumping and ball throwing in basketball.

The second canonical dimension, isolated from the variable set of basic motor abilities, is bipolar and it dif-

TABLE 2
CANONICAL RELATIONS BETWEEN THE VARIABLES OF BASIC AND SPECIFIC MOTOR ABILITIES

Variables	CAN 1	CAN 2
Side steps#	–0.60	–0.36
Obstacle-course backwards#	–0.67	–0.27
Seated straddle stretch	0.25	0.07
Standing on a bench	0.38	0.44
Shooting a target	0.35	0.59
Arm plate tapping	0.82	0.16
Foot tapping	0.50	0.20
Standing long jump	0.84	0.19
20 m dash#	–0.13	–0.29
Supine medicine ball throw	0.56	–0.59
Crossed-arms sit-ups	0.21	0.19
Bent arm hang	0.70	0.26
Ball handling	0.69	0.56
Power of the overarm throw	0.80	–0.40
Movement efficiency#	–0.83	0.14
Shooting precision	0.71	0.63
Passing precision	0.64	0.70
Can R	0.83	0.66
Can Rsq	0.70	0.44
p	0.00	0.00

#variable with opposite metric orientation ferentiates precision, balance and, to a certain extent, agility from the throwing explosive power. Accordingly, this canonical dimension differentiates basketball players with above average abilities of primarily precision and balance and below average throwing explosive power from basketball players with above average throwing explosive power and below average precision and balance.

The second canonical dimension in the space of specific motor abilities is also bipolar and on its positive pole, it is defined by fairly high projections of variables assessing passing and shooting precision and ball handling, while on it negative pole, it is defined to a lesser extent by the power of the overarm throw.

A dominantly positive effect of basic motor abilities: precision (shooting a target), balance and agility on specific motor abilities of passing and shooting precision and ball handling is underlying the second canonical linear combination, while there is a negative effect, although smaller, on the power of the overarm throw. However, in a small number of basketball players, opposite characteristics can be noticed. They are above average in explosive power and below average in precision and balance, but above average in the power of the overarm throw and below average in passing and shooting precision and ball handling. The positive pole of the second canonical correlation is much better defined, and considering that the mechanism of synergetic movement regulation is responsible for basic motor abilities of precision and balance, it can be concluded that this mechanism is also responsible for the manifestation of specific motor abilities in basketball, which are: passing and shooting precision and ball handling.

The results of regression correlation analysis between the variable set of specific motor abilities and basketball efficiency as the criterion variable are presented in Table 3.

The first factor defined as the ability of ball handling has the greatest impact on player quality, followed by shooting precision, power of the overarm throw and passing precision.

All the above mentioned parameters have high impact on basketball efficiency and are mutually correlated, which makes it difficult to observe them separately.

The importance of ball handling related to passing precision (assists) has proved itself as the key parameter which differentiated successful and unsuccessful teams in the Olympic basketball tournament in Beijing[21].

Lyons et al. (2006)[22] also investigated passing precision and established a negative impact of fatigue on its performance.

The phenomenon of basketball precision as one of the most important motor abilities and the key factor of successful basketball playing was investigated by Erčulj et al. (2009)[13].

TABLE 3
THE RESULTS OF REGRESSION ANALYSIS BETWEEN VARIABLE SETS OF SPECIFIC MOTOR ABILITIES AND PLAYER QUALITY IN BASKETBALL: CADETS

Factor	r	β	p
1. Ball handling	0.35	0.40	0.00
2. Power of the overarm throw	0.26	0.13	0.02
3. Shooting precision	0.25	0.24	0.02
4. Movement efficiency#	–0.01	0.00	0.89
5. Passing precision	0.25	0.24	0.03
ρ		0.92	
δ		0.85	$p<0.000$

#variable with opposite metric orientation

Determining players' shooting precision imposes itself as se as the imperative for coaches, especially because it is known that precision of shooting a basket is one of the discriminatory factors of successful and less successful basketball teams[23].

The results of regression analysis in the space of five tests assessing specific motor abilities indicate the importance of specific ability of ball handling, followed equally by the importance of shooting precision and passing precision and power of the overarm throw. Basic motor abilities of coordination, precision and throwing explosive power underlie these specific motor abilities.

Similar results were obtained by Dežman in his research on a sample of young basketball players aged 11 to 14[6].

Similar dimensions were also found in other sports games (handball) on a sample of elite female handball players: factor of specific agility with explosiveness and factor of specific precision with ball handling[19–21].

Movement efficiency, i.e. specific agility is most certainly crucial and important for basketball efficiency; however, results of this study do not confirm that. Jakovljević et al. (2012)[24] used a sample of 117 elite basketball players to compare the relationship between speed and agility.

They have established that in basketball players of younger age categories, 30 m and 50 m dash should be applied more frequently, and the agility training should include specific basketball movements and activities.

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REFERENCES

1. MATKOVIĆ B, Relations between anthropometric characteristics and motor abilities in young basketball player. MS thesis. Relacije antropometrijskih karakteristika i motoričkih sposobnosti kod košarkaša kadetskog uzrasta. (University of physical education, Zagreb 1984). — 2. TRNINIĆ S, Selekcija, priprema i vođenje košarkaša i momčadi. (Vikta-Marko, Zagreb, 2006). — 3. KATIĆ R, JUKIĆ J, MILIĆ M, Coll Antropol,

36 (2012) 556. — 4. KATIĆ R, GRGANTOV Z, JURKO D, Coll Antropol 30 (2006) 103. — 5. BLAŠKOVIĆ M, MILANOVIĆ D, MATKOVIĆ B, Kinesiology, 14 (1982) 131. — 6. DEŽMAN B, Changes in relations between some morpologic and motor variables in basketball players of ages 11 to 14 years. MS thesis. Spremembe V relacijah med nekaterimi morfoloskimi in motoricnimi spemljivkami kosarkarjev starih 11, 12, 13 in 14 let. (Faculty of Kinesiology, Zagreb, 1982). — 7. DEŽMAN B, LESKOŠEK B, Expert system of evaluation of children talent for playing basketball. In: Proceeding (2. International symposium »Sport of the young«, Ljubljana-Bled, 1993). — 8. DEŽMAN B, ERCULJ F, The applicability of the expert system-model for prognosis of success of young basketball players. In: Proceedings (The International Conference on »Science In Sports Team Games«, Biala Podlaska, 1995). — 9. SWALGIN K, The basketball evaluation system: a scientific approach to player evaluation. In: KRAUSSE J (Ed) Coaching Basketball (Master Press, Indianapolis, 1994). — 10. JAKOVLJEVIĆ S, Physical culture, 49 (1995) 217. — 11. ABDELKRIM BN, EL FAZAA S, EL ATI J, Brit J Sport Med, 41 (2007) 69. DOI: 10.1136/bjsm.2006.032318 — 12. SALIHU H, AMETI V, ISMAILI H, ADEMI A, Sport Science, 1 (2008) 50. — 13. ERČULJ F, SUPEJ M, J Strength Cond Res, 23 (2009) 1029. — 14. ERČULJ F, BLAS M, ČOH M, BRAČIČ M, Kinesiology, 41 (2009) 203. — 15. BEN ABDELKRIM N, CASTAGNA C, JABRI I, BATTIKH T, EL FAZAA S, EL ATI J J Strength Cond Res, 24 (2010) 2330. doi: 10.1519/JSC.0b013e3181e381c1 — 16. KARALEJIĆ M, JAKOVLJEVIĆ S, MACURA M, J Sports Med Phys Fitness, 51 (2011) 103. — 17. TORRES-UNDA J, ZARRAZGUIN I, GIL J, RUIZ F, IRAZUSTA A, KORTARAJENA M, SECO J, IRAZUSTA J, J Sport Sci, 2 (2013) 196.DOI: 10.1080/02640414.2012.725133. — 18. MILIĆ M, GRGANTOV Z, KATIĆ R, Coll Antropol, 36 (2012) 959. — 19. ČAVALA M, ROGULJ N, SRHOJ V, SRHOJ LJ, KATIĆ R, Coll Antropol, 32 (2008) 231. — 20. ČAVALA M, KATIĆ R, Coll. Antropol, 34 (2010) 1355. — 21. POJSKIĆ H, ŠEPAROVIĆ V, UŽIČANIN E, Acta Kinesiologica, 3 (2009) 110. — 22. LYONS M, AL-NAKEEB Y, NEVILL A, J Sport Sci Med, 5 (2006) 215. — 23. TRNINIĆ S, DIZDAR D, LUKŠIĆ E, Coll Antropol, 26 (2002) 521. — 24. JAKOVLJEVIĆ S, KARALEJIĆ M, PAJIĆ Z, MACURA M, ERČULJ F, J Strength Cond Res 26 (2012) 2453. DOI: 10.1519/JSC.0b013e31823f2b22.

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RELACIJE BAZIČNIH I SPECIFIČNIH MOTORIČKIH SPOSOBNOSTI I IGRAČKA KVALITETA KOŠARKAŠA KADETSKOG UZRASTA

S A Ž E T A K

U svrhu utvrđivanja relacija između bazičnih i specifičnih motoričkih sposobnosti, te utjecaj specifičnih sposobnosti na uspjeh u igri kod košarkaša kadetskog uzrasta izvršeno je testiranje ispitanika iz 5 prvoligaških klubova na području Hercegovine. Na uzorku od 83 košarkaša primijenjen je skup od 12 testova bazične motorike i 5 specifičnih testova za procjenu uspjeha u košarkaškoj igri. Dvije značajne kanoničke korelacije, odnosno linearne kombinacije objasnile su povezanost između skupa od dvanaest varijabli bazičnog motoričkog prostora i pet varijabli situacijske motorike. U osnovi prve kanoničke linearne kombinacije je pozitivan utjecaj generalnog motoričkog faktora definiranog dominantno eksplozivnom snagom tipa skoka, brzinom pokreta ruku, statičkom snagom ruku i koordinacijom na specifične sposobnosti: efikasnost kretanja, snagu izbačaja lopte, preciznost ubacivanja i dodavanja i vještinu manipuliranja loptom. U osnovi druge linearne kombinacije je utjecaj bazičnih motoričkih sposobnosti preciznosti i ravnoteže na specifične sposobnosti preciznosti dodavanja i šutiranja i na manipulaciju loptom. Rezultati regresijske korelacijske analize, između skupa varijabli specifične motorike i uspjeha u igri, su pokazali kako kod košarkaša kadeta sposobnost manipuliranja loptom ima najveći utjecaj na kvalitetu igrača, zatim slijedi preciznost ubacivanja i preciznost dodavanja, te snaga izbačaja lopte.