Motor Landmarks of the UNEFS Bucharest Students, Practitioners of Football Game

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Abstract

http://dx.doi.org/10.15405/epsbs.2016.06.9

Current requirements of professional football game involve that the players have high speed in the implementation of actions carried out in attack and defence, optimal exercise capacity, the ability to effectively solve duels that they have with the opponent, taking into account the lack of space and time, and the high stakes of the games they are playing. This study aims to highlight the correlation between the motor profile of UNEFS students practicing football game (the future teachers-coaches) and the current international trend linked with the possibility to demonstrate, with a raised index of speed, strength, endurance and coordination, the content of this sports game. To this purpose, we applied to our students a series of trials and tests to determine the expression level of their conditional and coordination capacities. Thus, we believe that the data obtained, illustrated by specific graphs, will help strengthen the relationship of the future graduate with the young football coach.

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Keywords: Coach; football; motor model; students; training.

1. Introduction

Motor aptitudes are endogenous-type premises that allow the formation of motor abilities and constitute a set of fundamental motor predispositions or potentialities of the individual, being different from the learned motor abilities (Manno, 1996).

Motor qualities are integrated as organic parts into the specific structure of football game, the interrelation consisting in the fact that no technical element can exist apart from speed, endurance, strength (Cojocaru, 2002).

In current football, the spectacular level is closely related to the fact that the game technique is expressed in the context of increased indices of the main conditional capacities. The mastery consists in

the fact that the motor act executed with accuracy, in the shortest time possible, during all game long and in a direct adversity relationship, leads to achieving the proposed purpose – winning the victory.

Through this research, we aim to identify the motor level of UNEFS students, practitioners of football game, and to see if this level allows them to demonstrate technical procedures and tactical actions (learning-consolidation-improvement) in conformity with the requirements of modern football.

The activity of the young student, a future specialist, also consists in the ability to transmit specific information with increased motor indices, being closely linked to his personality, which, according to Gerhard (2009), has the following characteristics: fight for the targeted goal, temperament, risk taking, assumption of responsibility, mental stability, resistance to stress, openness, ability to criticize (the others and oneself), will, spontaneity, consciousness, cooperativeness, telling the truth, honesty.

2. Materials and methods

2.1. Research methods

Achieving this paper required the following research methods: observation method, recording, statistical and mathematical processing, graphical method.

2.2. Purpose

This research on the motor abilities of UNEFS students aimed at identifying some essential aspects, from this point of view, based on 8 indicators that we considered important in practicing the profession of football teacher-coach.

The **trials** used were the following:
- for speed:
- 50m speed run;
- 30m ball driving at fast speed (a specific trial).
- for strength:
- take-off;
- kicking the ball with right foot;
- kicking the ball with left foot;
- heading the ball.
- for endurance:
- a specific trial that consists in kicking consecutively 8 balls placed on the penalty area line (the ball will be in the air when entering the goal), followed by a movement to the middle of the field.
- for mobility:
- mobility of the spine, measured at the gym bench with a ruler.

2.3. Subjects

The research subjects are represented by students in the 1st, 2nd and 3rd years of study, and IFR (part-time) students, Bachelor cycle (80 subjects), football game practitioners, who have chosen or will choose football specialization.

3. Results

Table 1. General results – Speed

	50m speed			Specific speed		
	Max	Min	**Average**	Max	Min	**Average**
1st year	6.3	6.8	**6.58**	4.2	4.95	**4.7**
2nd year	6	7.3	**6.76**	4.5	5.4	**4.87**
3rd year	6.25	6.8	**6.51**	4.4	4.9	**4.67**
IFR	6	7.1	**6.62**	4.3	5	**4.75**

The relatively poor results achieved by the subjects for "50m speed run" were partially due to the fact that this trial was performed under conditions specific to football game (on the playing field – irregular surface). Maximal values were recorded by the 2nd year and IFR students (6 sec.), while the highest arithmetic average was obtained by the 3rd year students (6.51 sec.).

The values obtained in this specific trial (30m ball driving) represent an extremely important indicator, particularly in the context of current football, where this technical element is achieved with increased indices of speed and skill. Analysing Table 1, it has been noticed that the maximal value (4.2 sec.) belongs to the 1st year students, while the minimal value is recorded by the 2nd year students (5.4 sec.). As in the previous trial, the highest arithmetic average is obtained by the 3rd year students (4.67 sec.).

Table 2. General results – Strength

	Take-off			Kicking the ball						Heading the ball		
				with right foot			with left foot					
	Max	Min	**Average**	Max	Min	**Average**	Max	Min	**Average**	Max	Min	**Average**
1st year	55	46	**49.75**	54	28	**42.37**	49	17	**31**	11	5	**8.43**
2nd year	57	34	**46**	58	24	**42.93**	52	10	**35.68**	16.5	8	**10.66**
3rd year	49	40	**44.28**	53	27	**44.28**	50	10	**26**	10.5	6	**8.64**
IFR	52	38	**45.3**	55	29	**44.6**	55	13	**33.3**	13	8	**9.72**

As can be seen from Table 2, the highest arithmetic average is recorded by the 1st year students (49.75cm), followed by the 2nd year (46cm) and IFR students (45.3cm). Maximal values belong to the 2nd year (57cm) and 1st year students (55cm), while minimal values are recorded by the IFR (38cm) and 2nd year students (34cm).

Used in the phase prior to finalization (crossing) and in the finalization phase (shot on goal), but also near the own goal (clearance), the ball kicking is an extremely important indicator in current football game, the force imparted to the ball being conditioned, on the one hand, by the biomechanical aspects, and on the other hand, by the power exerted on it.

The results achieved by the 80 subjects in the two trials (kicking the ball with right foot and left foot) emphasize the preponderance of right-footed versus left-footed, but also gaps from the technical and biomechanical points of view, for some of them (ball sent to a very short distance).

Also, Table 2 shows that the highest arithmetic averages belong to the IFR students (44.6m), and the lowest ones, to the 1st year students (42.3m). The longest distance at which the ball was sent across the air was achieved by a 2nd year student (58m), and the shortest one, by one of his colleagues in the same year of study (24m).

The arithmetic averages of the results obtained in this trial were lower by far than those obtained in the previous trial, an aspect also confirmed by the table. Thus, the averages were framed between 35.68m (the highest one, achieved by the 2nd year) and only 26m (achieved by the 3rd year).

In football game, heading the ball is almost as natural as kicking the ball. The practical value of this element mainly consists in its tactical content; thus, heading the ball may become, depending on the phase requirements, a short or middle-distance pass, a ball clearance after crossings performed by the opponent, and most often, a direct shot on goal (Ciolcă, 2008), the use of this trial in our research aiming to highlight all these aspects.

Maximal value was achieved by a 2nd year student (16.5m), while minimal value was recorded by a 1st year student (5m). The highest arithmetic averages can be noticed in the 2nd year students (10.66m), followed by the IFR (9.72m) and 3rd year students (8.64m).

Table 3. General results – Endurance and mobility

	Specific endurance			Specific endurance - Mistakes			Mobility		
	Max	Min	**Av**	Max	Min	**Av**	Max	Min	**Av**
1st year	2.12	2.53	**2.25**	5	1	**2.62**	-20	-5	**-11.25**
2nd year	2.06	3.14	**2.34**	5	0	**2.33**	-14	0	**-7.6**
3rd year	2.21	2.45	**2.42**	4	1	**2.42**	-16	0	**-8.42**
IFR	2.18	2.56	**2.31**	4	0	**2.2**	-12	1	**-6.5**

In football game, endurance is defined as the player's ability to sustain game efforts with increased efficiency throughout the match, without the onset of fatigue (Grigore, 2011). The trial used in our research emphasizes the importance of this conditional capacity in football game, due to its specificity: the players had to move from the middle of the field to the ball placed on the penalty area line, to send it into the goal across the air, then to return to the starting point (the route was covered 8 times).

As to the obtained results, also highlighted in Table 3, the best arithmetic averages were achieved by the 1st year students (2.25 min.), followed by the IFR (2.31 min.) and 2nd year students (2.34 min.); the route was covered in the shortest time by a 2nd year student (2.06 min.), and in the longest time, by one of his colleagues in the same year of study (3.14 min.).Within the route described above, we considered it necessary to count the errors (mistakes) made by the subjects, namely the balls that were not in the air when entering the goal or the balls that did not catch the frame of the goal. The average values are close, being comprised between 2.2 and 2.62 mistakes, and most of them are made by the 1st and 2nd year students (5 shots missed out of 8).

In this trial, the highest average values are found in the 1st year students (-11.25cm), and the lowest ones, in the IFR students (-6.5cm). Maximal value was obtained by a 1st year student (-20cm), and minimal value, by an IFR student (+1cm).

4. Discussions and conclusions

1. As regards the results achieved in the proposed trials, we emphasize the following aspects:

- *for speed* – the investigated students' results are close to the average for 50m speed run and specific speed; but, in this context, the 3rd year students have reached notable performances in both trials;

- *for strength* – the three trials performed show an optimal manifestation level, but, in terms of homogeneity, the students show a lower level; on these coordinates, we can also say that the 3rd year students have not achieved notable results in any of the trials;

- *for endurance* – the students investigated in this trial specific to football game have satisfactory results, which can be improved through optimal physical preparation, given that physical activity within the practical-methodical lessons is not at a high level; it is worth mentioning that the 1st year students have obtained the best results;

- *for mobility* – the results achieved by the investigated subjects are deemed satisfactory in the football game context, the 1st year students reaching higher performances.

2. Referring to the homogeneity of the researched group, we highlight two aspects:

- by year of study, homogeneity is good and very good;

- for the investigated subjects, homogeneity is framed between moderate and low.

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