

# DIFFERENCES IN SOME PARAMETERS OF SITUATION EFFICIENCY BETWEEN WINNING AND DEFEATED TEAMS AT TWO LEVELS OF COMPETITION

Alen Kapidžić<sup>1</sup>, Elvedin Mejremić<sup>2</sup>, Jasmin Bilalić<sup>3</sup>, Ervin Bečirović<sup>4</sup>

Faculty of physical education and sport, Tuzla University<sup>1,3</sup>

Euro-football Gračanica<sup>2</sup>

UG "Sportea" Tuzla<sup>4</sup>

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## Abstract

The main objective of this research is to determine the frequency of application of technical - tactical elements of soccer game, that estimate interaction of players, offensive and defensive elements of the game, which we determine to what variables are the winning teams superior by comparison with defeated, in this two levels of competition. For the purposes of this study (research), analyzed are the games national teams that participated at the European Football EURO 2008, in Austria and Switzerland, and teams that competed in the Premier League of Bosnia and Herzegovina in the 2008/2009 season. For the purposes of this study (research), we used T-test for small independent sample. The results obtained within this study (research) indicate the following:

- The results clearly indicate what would inferior teams, this especially applies for the teams that compete in the Premier League of B&H, should improve the technical-tactical elements, with greater emphasis on the situational variation to execute the same. This should reduce the possibility of tactical surprise of the match, because the team met with a number of problem situations at the game.
- For the defeated teams of the Premier League stands, need to improve interaction between players in order to better cooperation during the transition from defense to attack.
- Improving of individual and group tactics in order to achieve higher frequency of attacks and the arrival in to position for kicking the opponent's goal.

National teams that participated at the European Championship in 2008, differ in the variables of shooting at goal, so we can say: Defeated teams should raise the level of individual and group tactics, of which largely depends on the creation of positions for shooting at goal.

**Key Words:** Premier League, European Championship, soccer game, entities.

## INTRODUCTION

The importance of indicators that can be obtained in an experiment is a great situational application of research in the field of soccer, and the information that are obtained this way can greatly contribute to raising the quality of the soccer game. The main objective of this research is to determine the difference between winning and defeated teams that competed in the Premier League of Bosnia and Herzegovina in the 2008/2009 season, and differences in some parameters of situational efficiency between winning and defeated teams in the European Championships 2008 in Austria and Switzerland.

Research of this type will indicate the frequency of application of technical-tactical elements that estimate interaction between players, offensive and defensive elements of soccer game that we were able to determine which variables of the winning team are superior to the defeated, of these two levels of the competition. It is evident that the quality of the matches at the level of competition such as European Championship, much higher than the quality of the matches in the Premier League of B&H. For such a fine quality of the games, the quality of the teams was credited as well as less difference in quality between winning and defeated teams.

Data obtained by this research will contribute to find flaws the specific way that are present in B&H

soccer, in order to make possible corrections to improve the game of soccer with us, or to create a more efficient model of the game (Cotuk, B., Yavuz, E., 2007). Although the researches related to technical-tactical manifestations are not standardized, however, they provide very important information for the soccer game, especially because those information are obtained in the situational conditions (Rowlinson, M., O'Donoghue, 2007). This way we are trying to quantify the soccer game, but we cannot talk about an actual figure that will for a longer time of period reflect the application of technical-tactical operations because the soccer game very quickly evolving and improving.

Soccer game compared to an earlier period became much more dynamic, therefore the application of technical-tactical elements of all the players is more frequent (Janković, A. 2004.), since to achieve hits and defend their own goal requires cooperation of all members of a team. The reason that led us to this study is to determine the factors of situational effectiveness that determine the winning teams of defeated, all in regards to compare the winning and defeated teams at these two levels of the competition (Juan Merce et al. 2007).

## METHODS

### Entity sample

For the purposes of this study, we analyzed the games of the national teams that participated in

European Championship 2008, in Austria and Switzerland, and teams that competed in the Premier League of Bosnia and Herzegovina in the 2008/2009 season. The national teams and other teams represent the entities that competed at the two levels of competition within each of the analyzed games, so that in one game we have two entities i.e. the winning and the defeated team. So for this study we have 26 entities i.e. national teams that are analyzed in thirteen games played, as well as 24 entities i.e. teams that were analyzed in twelve Premier League of B&H games played. Data on the situational efficiency of the national teams that participated at the European Championship 2008 were obtained from the official web site of European football championship 2008 ([www.euro2008.com](http://www.euro2008.com)) showing official statistics from the championship. Data on the situational efficiency of the teams that participated in the Premier League of Bosnia and Herzegovina in the 2008/2009 season were collected by the timekeepers, the way they analyzed recorded games and in specially adapted forms entered data on the situational effectiveness of teams. Before start analyzing recorded matches and entering data, timekeepers' team has conducted a trial measuring of specific technical-tactical elements of situational efficiency, i.e. variables that are defined for this study. This way, the timekeepers are familiar with the variables that need to be monitored and tracked thru the form; all criteria were explained to them, for all the variables that need to be followed in order to reduce the possibility of error occurrence during the analysis of games. The timekeeper's team was constituent of: five professors of physical education and sport and five trainers of School of soccer "Euro-football". Timekeepers were divided after trial measuring into two groups and each group of timekeepers was analyzing all twelve matches. After analyzing was done, results of each group of the timekeepers were recapitulated and comparison was done, in order to achieve much objective indicator. Comparing the obtained data, which tells us that the criteria of these two groups of timekeeper's were equable, and as a valid data, we took a small numerical value for each of the variables applied.

#### *Variable sample*

Within this study variables constitute the elements of the game play that are used by the team during the play. These statistical indicators FIFA promotes for all competitions that are played under its patronage (auspices). For the purposes of this study, we took a sample of twenty-one (21) variables estimating technical-tactical elements that are applied during the game. To estimate the technical-tactical elements of pass on the ball, or elements that evaluate player's interaction, we applied the following variables:

- KRAPAS – short distance passage,
- PRKRAPAS – accurate short passes,
- SREPAS – medium distance passes,

- PRSREPAS – accurate medium distance passes,
- DUGPAS – long distance passes,
- PRDUGPAS – accurate long distance passes.

To estimate the structural components of the game, we used the following variables:

- NAPLSTR – offense by the left side (and/or left side offense),
- NAPSRED – offense thru the center,
- NAPDSTR – offense by the right side (and/or right side offense).

To estimate the technical-tactical elements of shooting from different distances, following variables were applied:

- ŠNGU16M – shot in the goal within the 16 meters,
- ŠPGU16M – shot aside the goal within the 16 meters,
- ŠNGV16M – shot in the goal outside the 16 meters,
- ŠPGV16M – shot aside the goal outside the 16 meters.

To estimate the technical-tactical elements to achieve the hit, following variables are applied:

- POGU16M – number of goals scored within the 16 meters,
- POGV16M – number of goals scored outside the 16 meters.

To estimate the technical-tactical elements of the defense of the goal, following variables are implemented:

- ODBR – total number of the balls defended from the goalkeeper,
- BŠU16M – shot blocked inside the 16 meters,
- BŠV16M – shot blocked outside the 16 meters.

To estimate the technical-tactical elements of throwing the ball in a game, following variables are used:

- PRPRPET – number of violations incurred,
- KOR – number of executed corner kicks,
- BRAUT – number throw-outs performed.

## **RESULTS AND DISCUSSION**

*The differences in variables of situational efficiencies between winning and defeated teams, that competed at the Premier League of Bosnia and Herzegovina in 2008/2009 season.*

Based on the results of T-test, table 2, we can see that in thirteen (13) out of twenty-one (21) variables implemented, there are significant differences between winning and defeated that competed in the Premier League of Bosnia and Herzegovina in the 2008/2009 season. Results in table 1, shows us that the winning teams are better in following variables: accurate medium distance passes, offense by the left side, offense thru the center, offense by the right side, shot in the goal within the 16 meters, shot aside the goal within the 16 meters, shot in the goal outside the 16 meters, number of executed

corner kicks, throw-outs performed, number of goals scored within the 16 meters, number of goals scored outside the 16 meters.

Defeated teams are better in two variables: shot blocked inside the 16 meters, total number of the balls defended from the goalkeeper. Based on the results, we can see that the winning teams are better in variables that estimate interaction of a team player; they had a higher number of organized offenses during the match and had a greater number of pitching a ball from the corner and the throw-outs (Mustafa Ferit Acar et al. 2007.).

Variables where the better teams are defeated ones represents variables that estimate the elements of the defense of their own goals, and considering that the winning team had a number of corners and

outs, it tells us that the defeated team were forced to the defensive play during these matches.

Had the defeated teams were in a subordinate position is the fact that the winning teams were better in the interaction variables (passage), we can notice from the values of arithmetic means. The winning teams were having 50% greater frequency of passes at the medium distances, and the passes at this distance are of exceptional significance for fast transformation from defense to offense. The difference is notable between winning and defeated teams at this level of competition. This difference can be result of great variation at this level of technical preparedness as well as tactical calculated applications which were caused by individual and group tactics, teams that competed at the Premier League of Bosnia and Herzegovina, in 2008/2009 season.

Table 1.  
Descriptive Statistics of the analyzed variables for both groups of teams

Variables	Groups	N	Mean	Std. Deviation	Std. Error Mean
KRAPAS	Winning teams	24	71.88	63.937	13.051
	Defeated teams	24	62.29	63.106	12.881
PRKRAPAS	Winning teams	24	36.08	61.540	12.562
	Defeated teams	24	27.75	69.676	14.223
SREPAS	Winning teams	24	275.38	21.860	4.462
	Defeated teams	24	249.63	17.738	3.621
PRSREPAS	Winning teams	24	223.25	16.741	3.417
	Defeated teams	24	190.00	10.975	2.240
DUGPAS	Winning teams	24	42.79	11.598	2.367
	Defeated teams	24	44.29	11.304	2.307
PRDUGPAS	Winning teams	24	14.67	4.958	1.012
	Defeated teams	24	12.33	4.156	.848
NAPLSTR	Winning teams	24	13.88	5.294	1.081
	Defeated teams	24	8.00	3.464	.707
NAPSRED	Winning teams	24	12.29	5.752	1.174
	Defeated teams	24	7.46	3.551	.725
NAPDSTR	Winning teams	24	12.96	5.009	1.022
	Defeated teams	24	8.71	4.359	.890
ŠNGU16M	Winning teams	24	3.79	2.570	.525
	Defeated teams	24	1.54	1.615	.330
ŠPGU16M	Winning teams	24	4.17	2.761	.564
	Defeated teams	24	1.17	1.308	.267
ŠNGV16M	Winning teams	24	4.54	2.340	.478
	Defeated teams	24	2.54	1.560	.318
ŠPGV16M	Winning teams	24	3.67	2.334	.477
	Defeated teams	24	3.21	1.503	.307
BŠU16M	Winning teams	24	2.04	1.944	.397
	Defeated teams	24	4.04	2.386	.487
BŠV16M	Winning teams	24	1.25	1.032	.211
	Defeated teams	24	1.96	1.628	.332
PRPRET	Winning teams	24	23.54	7.229	1.476
	Defeated teams	24	19.92	6.782	1.384
KOR	Winning teams	24	6.83	3.703	.756
	Defeated teams	24	2.71	1.574	.321
UBAUT	Winning teams	24	29.71	6.025	1.230
	Defeated teams	24	24.79	6.420	1.310
ODBR	Winning teams	24	5.96	2.941	.600
	Defeated teams	24	11.00	4.443	.907
POGU16M	Winning teams	24	1.96	1.301	.266
	Defeated teams	24	.50	.780	.159
POGV16M	Winning teams	24	.50	.590	.120
	Defeated teams	24	.13	.448	.092

Table 2  
(The differences in variables of situational efficiencies between winning and defeated teams, that competed at the Premier League of Bosnia and Herzegovina in 2008/2009 season)

Variables	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Upper	Lower
KRAPAS	.057	.812	1.404	46	.167	25.750	18.337	-11.161	62.661
			1.404	45.992	.167	25.750	18.337	-11.161	62.661
PRKRAPAS	.408	.526	1.752	46	.086	33.250	18.976	-4.946	71.446
			1.752	45.308	.086	33.250	18.976	-4.962	71.462
SREPAS	1.010	.320	1.668	46	.102	9.583	5.746	-1.984	21.150
			1.668	44.129	.102	9.583	5.746	-1.997	21.163
PRSREPAS	.817	.371	2.039	46	.047	8.333	4.086	.108	16.558
			2.039	39.688	.048	8.333	4.086	.073	16.594
DUGPAS	.048	.827	-.454	46	.652	-1.500	3.306	-8.154	5.154
			-.454	45.970	.652	-1.500	3.306	-8.155	5.155
PRDUGPAS	.651	.424	1.767	46	.084	2.333	1.321	-.325	4.992
			1.767	44.640	.084	2.333	1.321	-.327	4.994
NAPLSTR	3.753	.059	4.549	46	.000	5.875	1.291	3.275	8.475
			4.549	39.644	.000	5.875	1.291	3.264	8.486
NAPSRED	12.569	.001	3.503	46	.001	4.833	1.380	2.056	7.611
			3.503	38.306	.001	4.833	1.380	2.041	7.626
NAPDSTR	1.529	.223	3.136	46	.003	4.250	1.355	1.522	6.978
			3.136	45.139	.003	4.250	1.355	1.521	6.979
ŠNGU16M	4.569	.038	3.631	46	.001	2.250	.620	1.003	3.497
			3.631	38.705	.001	2.250	.620	.996	3.504
ŠPGU16M	6.108	.017	4.811	46	.000	3.000	.624	1.745	4.255
			4.811	32.825	.000	3.000	.624	1.731	4.269
ŠNGV16M	5.257	.026	3.484	46	.001	2.000	.574	.844	3.156
			3.484	40.067	.001	2.000	.574	.840	3.160
ŠPGV16M	4.240	.045	.809	46	.423	.458	.567	-.682	1.599
			.809	39.273	.424	.458	.567	-.688	1.604
BŠU16M	.806	.374	-3.183	46	.003	-2.000	.628	-3.265	-.735
			-3.183	44.198	.003	-2.000	.628	-3.266	-.734
BŠV16M	4.286	.044	-1.800	46	.078	-.708	.393	-1.500	.084
			-1.800	38.917	.080	-.708	.393	-1.504	.088
PRPRET	.026	.871	1.792	46	.080	3.625	2.023	-.448	7.698
			1.792	45.814	.080	3.625	2.023	-.448	7.698
KOR	8.825	.005	5.023	46	.000	4.125	.821	2.472	5.778
			5.023	31.046	.000	4.125	.821	2.450	5.800
UBAUT	.253	.618	2.736	46	.009	4.917	1.797	1.299	8.534
			2.736	45.816	.009	4.917	1.797	1.299	8.535
ODBR	4.210	.046	-4.636	46	.000	-5.042	1.088	-7.231	-2.852
			-4.636	39.911	.000	-5.042	1.088	-7.240	-2.843
POGU16M	1.511	.225	4.708	46	.000	1.458	.310	.835	2.082
			4.708	37.640	.000	1.458	.310	.831	2.086
POGV16M	12.470	.001	2.480	46	.017	.375	.151	.071	.679
			2.480	42.932	.017	.375	.151	.070	.680

Based on the results of the T-tests (table 4), we see that the statistically significant differences between winning and defeated teams are established in only three variables: shot in the goal within the 16 meters, number of goals scored outside the 16 meters and number of goals scored inside 16 meters. The results in Table 3, tells us that the observed differences are in favor of the first group, i.e. national teams defeated opponent while played matches.

Based on acquired results, we can see that the winning and defeated national teams from the European Championships 2008, does not differ in variables related to the interaction of players of the same team, the structure of the flow of action, as the case is with teams that competed in the Premier League of B&H. National teams that participated in

the European Soccer Championships 2008, were equally well prepared technically since they are not noticed significant differences between winning and defeated teams in the way of passes of a ball. Also, teams are equal in frequency of offenses generated by the left and right sides, and through the midfield. The winning and defeated national teams do not differ in any variables that evaluate the technical-tactical elements of the defense of their own goal, and everything indicates that the victorious and the defeated team in the application of these technical-tactical elements do not differ.

As we see, what distinguishes winning from defeated national teams is shooting at the goal, a confirmation of this are in some previous studies (Zubillaga, A., Gorospe, G., Mendo, A.H., Vilasenor, A.B., 2007). A shot on goal was the final element in

the game of soccer and its realization largely depends on individual and group tactics, so we can say precisely that these tactical calculations greatly affect the creation of spaces for shooting, differ winning out of defeated teams. We noticed that on average more goals were achieved within 16 meters by one match, than outside 16 meters (Sajadi, N. Rahnama, N.,2007). A lot of these scores were

accomplished by shooting „at first“, i.e. without receiving the ball, because the players do not have as much time for the shooting, which is probably associated with the level of technical preparation. Therewith, we can say that the experience of the offense in achieving the goals is very important factor that differentiates the winning from the defeated teams.

Table 3.  
Descriptive Statistics of the analyzed variables for both groups of teams

Variables	Groups	N	Mean	Std. Deviation	Std. Error Mean
KRAPAS	Winning teams	26	101.23	18.003	3.531
	Defeated teams	26	95.92	17.378	3.408
PRKRAPAS	Winning teams	26	77.58	15.193	2.980
	Defeated teams	26	72.12	15.024	2.946
SREPAS	Winning teams	26	270.42	59.766	11.721
	Defeated teams	26	262.54	58.817	11.535
PRSRPAS	Winning teams	26	220.88	59.754	11.719
	Defeated teams	26	210.31	58.576	11.488
DUGPAS	Winning teams	26	92.35	16.199	3.177
	Defeated teams	26	91.23	15.446	3.029
PRDUGPAS	Winning teams	26	53.04	15.999	3.138
	Defeated teams	26	52.77	12.669	2.485
NAPLSTR	Winning teams	26	5.15	2.541	.498
	Defeated teams	26	5.23	2.776	.544
NAPSRED	Winning teams	26	4.04	2.425	.475
	Defeated teams	26	3.77	2.250	.441
NAPDSTR	Winning teams	26	4.92	2.682	.526
	Defeated teams	26	4.85	2.838	.557
ŠNGU16M	Winning teams	26	3.35	2.314	.454
	Defeated teams	26	1.96	2.144	.421
ŠPGU16M	Winning teams	26	2.31	2.074	.407
	Defeated teams	26	2.00	1.766	.346
ŠNGV16M	Winning teams	26	3.58	3.088	.606
	Defeated teams	26	2.77	2.122	.416
ŠPGV16M	Winning teams	26	4.08	2.331	.457
	Defeated teams	26	4.50	2.760	.541
BŠU16M	Winning teams	26	.42	.643	.126
	Defeated teams	26	.50	.949	.186
BŠV16M	Winning teams	26	1.85	1.120	.220
	Defeated teams	26	1.77	1.394	.273
PRPRET	Winning teams	26	17.35	4.399	.863
	Defeated teams	26	16.85	4.173	.818
KOR	Winning teams	26	5.27	2.721	.534
	Defeated teams	26	4.65	2.331	.457
UBAUT	Winning teams	26	20.00	6.645	1.303
	Defeated teams	26	21.85	6.485	1.272
ODBR	Winning teams	26	3.85	2.222	.436
	Defeated teams	26	4.42	2.595	.509
POGU16M	Winning teams	26	1.54	1.140	.223
	Defeated teams	26	.42	.703	.138
POGV16M	Winning teams	26	.65	.892	.175
	Defeated teams	26	.15	.368	.072

Table 4  
The differences in variables of situational efficiencies between winning and defeated teams,  
that competed at the European Soccer Championship 2008

Variables	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Upper	Lower
KRAPAS	.275	.602	1.082	50	.285	5.308	4.907	-4.549	15.164
			1.082	49.938	.285	5.308	4.907	-4.549	15.164
PRKRAPAS	.145	.705	1.303	50	.198	5.462	4.190	-2.955	13.878
			1.303	49.994	.198	5.462	4.190	-2.955	13.878
SREPAS	.608	.439	.479	50	.634	7.885	16.445	-25.146	40.915
			.479	49.987	.634	7.885	16.445	-25.146	40.916
PRSREPAS	.564	.456	.645	50	.522	10.577	16.410	-22.384	43.538
			.645	49.980	.522	10.577	16.410	-22.384	43.538
DUGPAS	.209	.650	.254	50	.800	1.115	4.390	-7.702	9.932
			.254	49.887	.800	1.115	4.390	-7.702	9.933
PRDUGPAS	.013	.911	.067	50	.947	.269	4.002	-7.769	8.308
			.067	47.504	.947	.269	4.002	-7.780	8.318
NAPLSTR	.082	.775	-.104	50	.917	-.077	.738	-1.559	1.405
			-.104	49.614	.917	-.077	.738	-1.559	1.406
NAPSRED	.210	.649	.415	50	.680	.269	.649	-1.034	1.572
			.415	49.725	.680	.269	.649	-1.034	1.572
NAPDSTR	.224	.638	.100	50	.920	.077	.766	-1.461	1.615
			.100	49.841	.920	.077	.766	-1.461	1.615
ŠNGU16M	.644	.426	2.238	50	.030	1.385	.619	.142	2.627
			2.238	49.713	.030	1.385	.619	.142	2.628
ŠPGU16M	.980	.327	.576	50	.567	.308	.534	-.765	1.381
			.576	48.764	.567	.308	.534	-.766	1.381
ŠNGV16M	3.450	.069	1.099	50	.277	.808	.735	-.668	2.284
			1.099	44.313	.278	.808	.735	-.673	2.288
ŠPGV16M	.477	.493	-.597	50	.553	-.423	.709	-1.846	1.000
			-.597	48.636	.553	-.423	.709	-1.847	1.001
BŠU16M	1.011	.319	-.342	50	.734	-.077	.225	-.528	.375
			-.342	43.979	.734	-.077	.225	-.530	.376
BŠV16M	3.184	.080	.219	50	.827	.077	.351	-.628	.782
			.219	47.783	.827	.077	.351	-.629	.782
PRPRET	.000	.987	.420	50	.676	.500	1.189	-1.889	2.889
			.420	49.861	.676	.500	1.189	-1.889	2.889
KOR	.306	.583	.876	50	.385	.615	.703	-.796	2.027
			.876	48.851	.385	.615	.703	-.797	2.028
UBAUT	.003	.953	-1.014	50	.316	-1.846	1.821	-5.504	1.811
			-1.014	49.970	.316	-1.846	1.821	-5.504	1.811
ODBR	.490	.487	-.861	50	.393	-.577	.670	-1.923	.769
			-.861	48.840	.393	-.577	.670	-1.923	.769
POGU16M	11.281	.002	4.248	50	.000	1.115	.263	.588	1.643
			4.248	41.613	.000	1.115	.263	.585	1.645
POGV16M	23.654	.000	2.643	50	.011	.500	.189	.120	.880
			2.643	33.271	.012	.500	.189	.115	.885

With this research, we have got results that indicate the fact of teams that competed at the Premier League of Bosnia and Herzegovina in the 2008/2009 season, are significantly different in the quality of soccer game, which refers to the interaction of the players of one team and the structure of action. When we look at the analyzed matches, we see that in all the matches the winning team was the home team, which has become the practice in soccer in our country, and one of the reasons for this may be a criterion for trial in our country.

It is evident that the teams that compete in the Premier League of B&H are equally well prepared technically (Hughes, M., Maloney, C. 2007), so there are significant differences in variables to

estimate the interaction of a team player, in favor of the winning team. The difference at the level of technical preparedness may be the result of differences in training of young players in the youth selections of the clubs that have been analyzed in this study. This statement cannot be applied for the national teams from the European Championship because the winning and defeated national teams are not perceived significant differences in these variables. Previous studies in some better levels of competition identified differences and only the number of short distances passes (Melih Balyanl et al., 2007).

The winning teams have had a greater frequency of organized offenses, in relation to defeated team of Premier League, which indicates a massive

application of tactical calculations of the winning team in the course of a soccer match. Also, neither of these statements cannot be applied to the national teams from the European Championship because the winning and defeated teams are not noticed significant differences in the frequency of organization of the offense.

The winning teams have had a greater frequency of shooting at each match, so we can again speak about variety of application of tactical calculations that cause the creation of space for shooting the opponent's goal. National teams that participated in the European Soccer Championships, also differ in ŠNGU16M variables, so the previous statement can be applied to this level of competition. It should be noted importance of the experience to achieve goals, which includes the possibility of anticipation of players in such situations. Anticipation of achieving goals is essential, and can be anticipated: position goalkeeper at the goal line, number of opposing players in front of the players who are in position for shooting and their arrangement, the allocation (arrangement) of the teammates, the position of a player who shoots in relation to the opponent's goal. Data that were obtained and these statements have their own foundation shows some previous studies that were conducted at better levels of competition, which indicate the difference between winning and defeated teams in the shooting variables (Kapidžić, A., Bečirović, E., Imamović, J., 2009; Kapidžić, A., Mujanović, E., Nožinović, F., 2006; Zubillaga, A., Gorospe, G., Mendo, A.H., Vilasenor, A.B., 2007).

## CONCLUSION

Based on the gained results, we could provide some guidelines that could contribute to raising the quality of the soccer game in Bosnia and Herzegovina:

- These results clearly indicate that the inferior team, which is especially worth for teams competed at the Premier League of Bosnia and Herzegovina, should improve from the technical-tactical elements, with greater

emphasis on the situational variability of performing the same. This should reduce the possibility of tactical surprise of the match, because the team meets with a number of problem situations of the game.

- For the defeated teams at the Premier League we can say, they need to improve interaction between players in order to better co-operation during the transition from defense to offense.
- Improving of individual and group tactics in order to achieve higher frequency of offenses and the arrival in the position for shooting into the opponent's goal.

National teams that participated at the European Championships in 2008, they differ in the variables of shooting at the goal, so we can say:

- The defeated teams should raise the level of individual and group tactics, of which largely depends the creation of positions for shooting at the goal.

When compare the values of arithmetic means, the teams that competed in the Premier League and national teams from European Championship, we can see that in the variables to estimate the technical-tactical elements of passes, the better teams are the once that participated at the European Championships. Comparing the values of arithmetic means, we can see that the Premier League teams had a higher frequency of offences and a higher frequency of shooting at the goal. Given that the approximately equal number of goals scored within the 16 meters and outside the 16 meters, comparing these two level of competition we can say that the players of Premier League of B&H are less effective than the players participated at the European Soccer Championship 2008, that could be associated with individual quality of the players who participated at the European championships. We also can see that the Premier League teams have a higher frequency of sustained offense, corners and throw-outs, which indicates that the effective duration of the match much is lesser with the teams in Premier League, in relation to the national teams that competed at the European Championships.

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## RAZLIKE U NEKIM PARAMETRIMA SITUACIONE EFIKASNOSTI IZMEĐU POBJEDNIČKIH I PORAŽENIH EKIPA NA DVA NIVOVA TAKMIČENJA

Originalni naučni članak

### **Sažetak**

Osnovni cilj ovog istraživanja jeste utvrditi učestalost primjene tehničko-taktičkih elemenata nogometne igre, koji procjenjuju interakciju igrača, napadačke i odbranbene elemente igre, čime smo utvrdili u kojim varijablama su pobjedničke ekipe superiornije u odnosu na poražene, na ova dva nivoa takmičenja. Za potrebe ovog istraživanja analizirane su utakmice reprezentacija koje su učestvovala na evropskom nogometnom prvenstvu 2008. godine u Austriji i Švicarskoj, i ekipe koje su se takmičile u Premijer ligi BiH u sezoni 2008/2009. Za potrebe ovog istraživanja korišten je T-test za male nezavisne uzorke. Dobijeni rezultati unutar ovog istraživanja ukazuju na slijedeće:

- Rezultati jasno ukazuju šta bi inferiornije ekipe, posebno vrijedi za ekipe koje se takmiče u Premijer ligi BiH, trebale usavršavati od tehničko-taktičkih elemenata, sa naglaskom na što veću situacionu varijativnost izvođenja istih. To bi trebalo smanjiti mogućnost taktičkog iznenađenja na utakmici, jer se ekipa upoznaje sa većim brojem problemskih situacija same igre.
- Za poražene ekipe premijer lige vrijedi, da poboljšaju interakciju igrača u cilju kvalitetnije saradnje prilikom tranzicije iz odbrane i napad,
- Poboljšanje individualne i grupne taktike u cilju ostvarivanja veće frekvencije napada i dolazka u poziciju za šutiranje na protivnički gol.

Reprezentacije koje su učestvovala na evropskom prvenstvu 2008 godine, vidjeli smo da se razlikuju u varijablama šutiranja na gol, pa možemo reći:

- Porazene ekipe bi trebale podići nivo individualne i grupne taktike, od kojih u velikoj mjeri ovisi i stvaranje pozicije za šutiranje na gol.

**Ključne riječi:** Premijer liga, evropsko nogometno prvenstvo, nogometna igra, entiteti.

### Correspondence to:

Alen Kapidžić, PhD  
Faculty of physical education and sport,  
Tuzla University  
Bosnia and Herzegovina  
e-mail: alen.kapidzic@untz.ba