



Evaluating Tactical Skills of Amateur Soccer Players with Respect to Their Positions

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Abstract

The aim of this study is to evaluate tactical skills of amateur soccer players with respect to their positions. A total of 255 amateur soccer players were examined. These soccer players are playing in different amateur leagues of Turkey. The tactical skill Inventory was used for soccer players. Forwards and Central Defenders had higher tactical skills than did External Defenders, Central Midfielders, and External Midfielders in the positioning and deciding ($P<0.05$). Also, Forwards had higher tactical skills than did External Defenders, Central Midfielders, and External Midfielders in the knowing about ball actions ($P<0.05$). Central Defenders had higher tactical skills than did Goalkeepers, Central Midfielders, External Midfielders, and Forwards in the acting in changing situations ($P<0.05$). The knowing about others soccer players were not statistically significant in the case of all positions ($P>0.05$). In conclusion, it is considered that the tactical skills of the stoppers and forward players are better than the other players. However, it is seen that the tactical understanding of the players has not changed in terms of the knowing about other soccer players.

Keywords: Team performance, factors in sport performance, tactical skills, team tactic, sport

INTRODUCTION

In team sports tactical skills means the skill of a player to realize the right actions at a right time, and to adapt rapidly to the new game configurations and circulation of the ball (7, 10). In order for a player to give a successful performance at the right time or to realize the right action with the result, the game should be understood in a right way. Elite players are athletes that have not just well developed physiological and technical properties but also improved tactical skills (8, 17, 24, 26, 33). As the environment is continuously changing in sports branches, they mandate that the decision are made fast and accurately and require improved tactical skills. This mandate is especially valid for contest sports like football where there is a completion on the same action field (20). A football player needs, besides the skill to realize necessary movements, the

skill to realize these movements at the right time, i.e. perfect tactical skill (23). Tactical skills are based on a series on cognitive competences including game knowledge, skills and knowledge to monitor goals and actions, and knowledge of action regarding the game (28). These cognitive skills are typically are categorized as declarative and procedural knowledge (1, 29, 30). Declarative knowledge: the declarative in the quality of declaration, is acquired to indicate the knowledge on the game rules and purposes and thus means "to know what to do" (8, 22, 34). Procedural knowledge: is defined as the selection of a proper action regarding the game, in other words "to do this" (22). In football, cognitive processes underlying the tactical skills and decision making are considered as fundamental requirements for perfection in sports performance. During a game of which the frequency, chronological order and complexity cannot be

estimated, there shall many situations that occur. At every stage of the game, according to the tactics of the rival team, the players and teams are expected to show great adaptation skills and momentary responses (12, 3). The tactical situations in a football match are rather distinct: Taking in account the motions of the ball, the motions of the teammates and opponents according to their alternatives and the conditions of the match, they can be observed via regional organization of the players on the field.(6, 3).This tactical approach especially emphasize the movements and positioning on the field that highlight the skills of the players to close gaps and/or create gaps according to the appropriate tactic principles for that moment (3). In football, the optimum improvement of the skills, controlling the opponents for each player and the efficient organization of the team for a successful resolution of a game are mandatory. Therefore, the players are selected for specific positions in order to fulfill specific duties (13). Each player position has different functions and purposes during a match (33). Defense organization is structured more normative compared to attack formation. Due to the emphasis on flexibility, creativeness and improvisation, probably the attacking game is much less structured. It is reported that each position in football has different technical and tactical aspects (11, 27). In this regard, this study aims to examine the tactical skills of the amateur football players based on their positions.

METHODS

Participants

Amateur male soccer players (N = 255) of Goalkeepers (Goalkeepers, n = 35, mean (SD) age was 28.54±6.86 years, height was 183.51±5.71 cm, and BW was 79.06±8.59 kg), Central Defenders (Central Defenders, n = 40, mean (SD) age was 28.78±6.68 years, height was 182.43±4.88 cm, and BW was 75.25±10.62 kg), External Defenders (External Defenders, n = 43, mean (SD) age was 26.47±7.01 years, height was 174.91±5.05 cm, and BW was 66.86±6.15 kg), Central Midfielders (Central Midfielders, n = 54, mean (SD) age was 28.46±6.89 years, height was 176.50±5.47 cm, and BW was 70.65±6.46 kg), External Midfielders (External Midfielders, n = 41, mean (SD) age was 27.44±6.73 years, height was 174.66±4.97 cm, and BW was 67.68±9.29 kg), and Forwards (Forwards, n = 42, mean (SD) age was 28.19±6.86 years, height was 178.81±5.44 cm, and BW was 75.05±7.11 kg) positions playing participated in this study. The participants were part of fifteen different amateur teams, training and

competing regularly in the Turkey local competition (2018/2019 season).After a detailed explanation of the goals, benefits, and risks involved in this investigation, all participants signed a written informed consent. Additionally, soccer players were informed that they were free to withdraw at any time without any penalty. The study protocol conformed to the Declaration of Helsinki and was approved by the ethics committee of the Sport Sciences Faculty (Osmaniye, Turkey).

Procedure

The Sport Tactical Skills Inventory:

The inventory developed by Elferink-Gemser et al. (7) and was adapted to Turkish version Yarayan et al. (31) examining tactical skills Inventory for sports used four skill factors: The positioning and deciding, the knowing about ball actions, the knowing about others, and the acting in changing situations.

Table 1. Descriptive statistics and internal consistencies (α) of four subscales of the tactical skills inventory for sport (Elferink-Gemser et al. 2004).

Scale Factors	Mean±SD	α
1. Positioning and deciding	3.79±0.61	0.89
2. Knowing about ball actions	4.11±0.62	0.75
3. Knowing about others	3.74±0.67	0.74
4. Acting in changing situations	4.15±0.69	0.72
Σ of Scales	3.95±0.51	0.91

Table 2. For our study, descriptive statistics and internal consistencies (α) of four subscales of the tactical skills inventory for sport (N = 255).

Scale Factors	Mean±SD	α
1. Positioning and deciding	39.01±7.252	0.70
2. Knowing about ball actions	18.44±3.242	0.79
3. Knowing about others	13.33±2.700	0.81
4. Acting in changing situations	17.32±3.779	0.80
Σ of Scales	88.10±14.653	0.81

Statically Analysis

Mean scores and standard deviations for the four subscales and physical characteristic of soccer players were calculated. To explain differences between tactical skills in positions playing, one-way analysis of variance was used according to the results of the test of normality, and Tukey test from post hoc multiple comparisons tests was used according to the results of the homogeneity of variance. We used reliability analysis for tactical skills scale. The significance level was taken as 0.05.

RESULTS

Table 3. Age, height, BW (mean ± SD) and number according to players' playing positions.

Variables	Age (y) Mean±SD	Height (cm) Mean±SD	BW (kg) Mean±SD
Goalkeepers(N = 35)	28.54±6.86	183.51±5.71	79.06±8.59
Central defenders (N = 40)	28.78±6.68	182.43±4.88	75.25±10.62
External defenders (N = 43)	26.47±7.01	174.91±5.05	66.86±6.15
Central midfielders (N = 54)	28.46±6.89	176.50±5.47	70.65±6.46
External midfielders (N = 41)	27.44±6.73	174.66±4.97	67.68±9.29
Forwards (N = 42)	28.19±6.86	178.81±5.44	75.05±7.11

The mean (SD) age was 28.54±6.86 years, height was 183.51±5.71 cm, and BW was 79.06±8.59 kg for the 35 goalkeepers; the mean (SD) age was 28.78±6.68 years, height was 182.43±4.88 cm, and BW was 75.25±10.62 kg for the 40 central defenders; the mean (SD) age was 26.47±7.01 years, height was 174.91±5.05 cm, and BW was 66.86±6.15 kg for the 43 external defenders; the mean (SD) age was 28.46±6.89 years, height was 176.50±5.47 cm, and BW was 70.65±6.46 kg for the 54 central midfielders; the mean (SD) age was 27.44±6.73 years, height was 174.66±4.97 cm, and BW was 67.68±9.29 kg for the 41 external midfielders; the mean (SD) age was 28.19±6.86 years, height was 178.81±5.44 cm, and BW was 75.05±7.11 kg for the 42 forwards (Table 3).

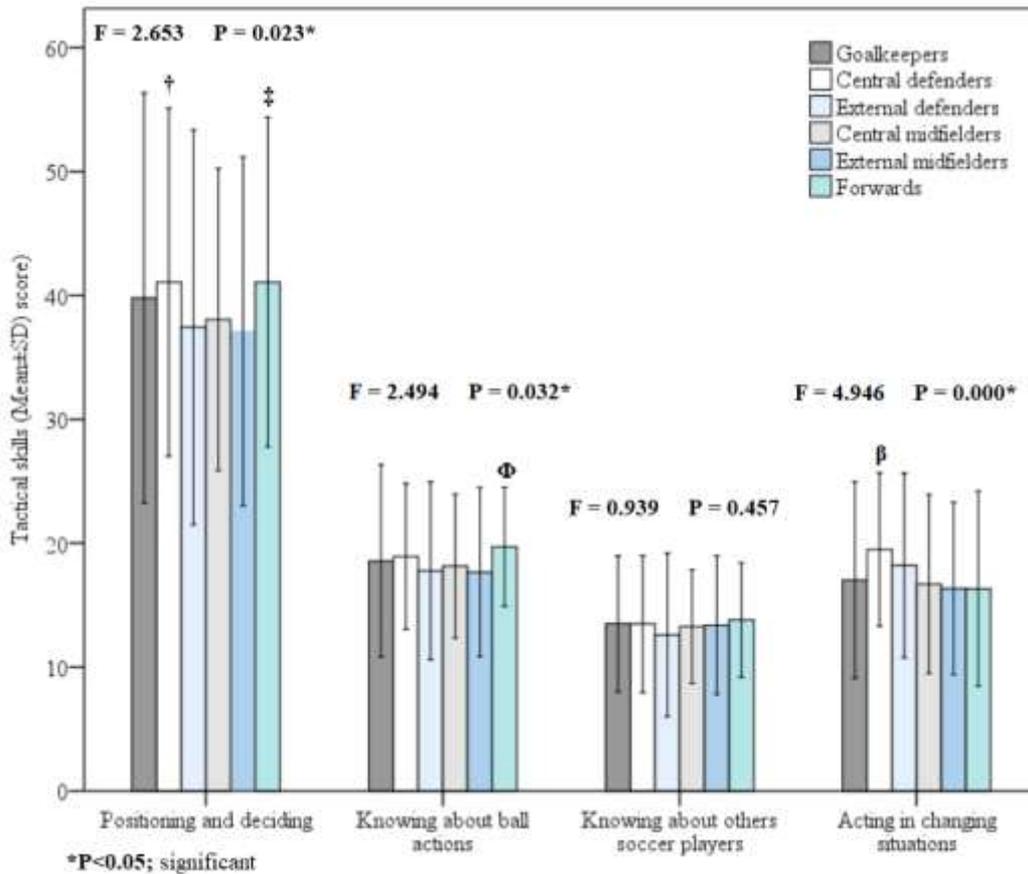


Figure 1. Comparison of tactical skills factors of soccer players, classified according to their playing positions (analysis of variance)

Forwards and Central Defenders had higher tactical skills than did External Defenders, Central Midfielders, and External Midfielders in the positioning and deciding (P<0.05). Also, Forwards had higher tactical skills than did External Defenders, Central Midfielders, and External Midfielders in the knowing about ball actions (P<0.05). Central

Defenders had higher tactical skills than did Goalkeepers, Central Midfielders, External Midfielders, and Forwards in the acting in changing situations (P<0.05). The knowing about others soccer players were not statistically significant in the case of all positions (P>0.05) (Figure 1).

DISCUSSION

In this study conducted to assess the tactical skills in amateur football players based on their positions, it is seen that the positioning skills of the stoppers and forward players are better than the defensive players, side middle field and central middle field players. Regarding the knowledge on the movements of the ball, it is seen that forward players are better than the defensive players, side middle field players and central middle field players. Regarding being familiar with the opponents, no difference was found between the positions. Regarding the actions based on changing situations it is seen that stoppers are better than goal keepers, side middle field players, central middle field players and forward players.

Soccer requires from players not only strength and velocity, but also coordination and, particularly, that the behavior presents tactic intelligence. This one is expressed in the relation of cognitive processes of perception and decision-making, necessary to the solution of match problem. These elements appear during the matches in individual actions, in small groups' actions and in tactic equip actions as a whole. These last are particularly complex, because individual actions in the group request dynamic strategies of this equip that need to be rearranged to counter to the strategies adopted by the opponent equip (9).

Tactical skill is an important parameter that affects performance as well as physical and physiological factors for athlete performance. In line with this, athletes with a good understanding of tactical skills do not make a positional mistake as they make a quick decision during the game and think more quickly. Tactical knowledge involves not only the ability to determine what strategy is most appropriate in a given situation, but also whether the strategy can be successfully executed within constraints of the required movements. Thus, tactical expertise in sport is quite different than nonmotor performance domains in that physiological and technical limitations constraint the strategic options available to performers (18).

In a study aimed to analyze tactical behaviors performed by youth soccer players of different age groups according to ten core tactical principles of the game, in order to understand characteristics of each age group and their differences. It was found that as the age group increased, the players had a greater participation in the game, namely by performing of

more tactical actions. In addition, the U15 and U17 groups presented no statistical differences in the efficiency of their tactical behaviors, while the U17 and U20 groups exhibited the biggest differences in the tactical performance indices (4). In a previous study shown that variability of tactical performance measures within and between games was similar for Under-17 and Under-19 (25). In a study, a model to assess whether tactical skills change over time in each field position was developed using multilevel analysis. The models indicated that defenders and midfielders did not improve their tactical skills, whereas attackers increased their tactical skills from ages 14 to 18 years. The representing part of tactical skills for defenders is "Acting in Changing Situations", for midfielders Positioning and Deciding, whereas "Knowing About Ball Actions" was the qualifying factor for attackers. Possible explanations for these differences in tactical skills among elite youth soccer players are the selection procedures at a younger age and task-specific experiences (21). Positioning and deciding appeared to be the tactical skill that best predicts adult performance level ($P < 0.05$). This is especially true for midfielders, with the correct classification of elite youth players in the range of 80%. For players scoring high on this skill, the odds ratios indicated a 6.60 times greater chance that a player became a professional than players scoring low ($P < 0.05$) (19). In a study aimed to explore the influence of the affective decision-making on tactical behavior in soccer players under the age of 15 years old. The low ($\leq 25\%$) and high ($\geq 75\%$) groups, according to offensive, defensive and game tactical behavior, were compared and shown to be different. Statistically significant differences between the groups were observed for Defensive Tactical Behavior ($Z = -3.133$; $p = 0.002$; $r = -0.355$) and Game Tactical Behavior ($Z = -2.267$; $p = 0.023$; $r = -0.260$) (5). Else a study, signal detection skills were found to affect the tactical behavior efficiency of young soccer players (16). Other a study compared the visual search strategy and anticipation between two groups of young players of different efficiencies in tactical behavior. The soccer players were divided into two groups based on their tactical behavior results into those more efficient and those less efficient. The results showed that soccer players with higher efficiency in tactical behavior were better at anticipating and performed a higher number of shorter visual fixations and a greater average amount of fixations per location (32). A study showed that no differences were found between declarative tactical knowledge

and positions field ($p = 0,902$), but differences at coaches' subjective evaluation for all categories. There were moderate positive correlations ($r = 0,412$) between declarative tactical knowledge and age. The results suggest that age increase implies a higher declarative tactical knowledge performance (2). Other a study, taking the results into account we can take into consideration the following aspects: from the comparison of the Declarative Tactical Knowledge per category, the differences shown by the sub-14 category, for the sub-15 category ($p=0,001$) and category sub-14 ($p=0,003$), however significant differences between the sub-15 category ($p=0,001$) and the sub-17 category were not found. When soccer players got into groups for specific positions, significant differences of Declarative Tactical Knowledge were not found between them, even though there was an advantage by the descriptive scores for middle-field players and forward players (15). Gonzaga et al. (14) based on the results in their study, it is possible to conclude that the under-15 soccer players from different positions did not show differences in tactical behavior, demonstrating that their level of tactical knowledge does not vary significantly depending on the different positions. Furthermore, it is possible to state that players in this category are not yet specialized by positions, being able to perform tactical actions and functions inherent to different positions. In conclusion, it is considered that the tactical skills of the stoppers and forward players are better than the other players. However, it is seen that the tactical understanding of the players has not changed in terms of the knowing about other soccer players.

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