The aim of technical training is to strengthen and develop sports skills. The basic information is acquired from senses (visual, audio, locomotives and positional). The purpose of the study was to test professional soccer players’ dribbling, passing, receiving, and shooting in complex, applied into two forms (with and without competitive activity) to determine the impact of the two situations on player’s technical sense.

Material and methods. We studied the results of 140 elite male soccer players aged 20 ± 4, with body mass 77.9 ± 5.9kg and body height of 1.71 ± 1.55. The study took place in the OPAPS «PE Institute» laboratory in the University of Mostaganem during 2016–2017 academic year.

Results and discussion. According to our data a significantly more total time was required for soccer players in the situation two compared with traditional situation one in all parameters studies. These results were confirmed by the Paired T-test and correlation Paired Samples Test set and showed an inverted strongly significant correlation between these two situations. It was difficult for players to perform technical actions under pressures integrated into situation two. Comparing the total time and the time for performing each skill due to pressure situations we suppose that a coach needs a valid method to analyse the adequacy of training.

The obtained results showed difficulty to perform technical actions under pressures integrated into situation two. We concluded that a coach needed a valid method to analyse if their technique components are on the right pathway compared to their purely physical variables. Our protocol test confirmed that a player’s acts to solve his problems require well-developed neuromuscular function which in turn demands form players to read the environment variables for better concordances as a strategy to improve his dynamic decision making including continual decisions concomitant with task-related trade-offs, found on its operational cognitive functions communication based on its visual processing, timing, reaction time perception, and anticipation.

Conclusion. The study results gave accurate indicators for better playing strategy and comprehension which are necessary for the player during the match. We consider that further studies should deal with methods for judging players mental abilities associated with their actions.

Keywords: skills, technical sense, tests, strategies, achievement.

Introduction. According to Anderson et al (2016) in a soccer game, four basic skills must be mastered by player. They include: dribbling the ball, passing the ball, receiving the ball and shooting the ball and should be operated at the higher levels of the game [1]. The most significant error is a quick decision for a penetrating dribble pass or shooting during a soccer match [2]. The ability of a soccer players relative to running sprints, dribbling, pivoting, cutting, jumping, landing, heading and kicking a ball which emphasizes their ability to read the game and make the decision [3]. Whereas these decisions depend predominantly on whether other attackers or defenders are moving inside the player’s zone games aimed at gaining possession of the ball and moving forward by understanding all the connections existing [4].

The subject of recent studies was concentrated on the fact that valid evaluation approach must provide a comprehensive training or test approach, which tests or builds players’ physical abilities as well as the soccer-specific skills required for dribbling, tackling, passing, heading, shooting, and goalkeeping. It was confirmed by drills as an indispensable tool for coaching to interpret soccer player’s performance based on match analyse as a valid measuring tool commended in recent years [5].

This method was also supported by the combination of multiple variables situations such as physical levels [6], competition [7], the adversary’s [4], post-game [8], playing style [9], marking and demarcation.
of player/team [10], the origin of the players [11] and the time with and without the ball [8]. Physical condition, the quantity, and the intensity of the efforts are demanded during the competition.

However, all recent studies confirmed that performance analysis was principally focused on physical demands, yet less attention was paid to technical and tactical factors, because indicators of success in soccer were compared to purely physical variables. Thus, the question of technical and tactical actions remained unresolved [12].

Studies of professional soccer training report positive relation between technical and tactical skills with physical demands in competitions and classification of teams in the championship [3]. According to Bradley et al., (2015) sustenance by the additional tactical variables does not support the same results [13].

In this study we checked playing performance and technical sense under pressure with the help of real measurement that assumed and interpreted the results of soccer players. Cardoso, et al. (2018) compared success in soccer to purely physical variables. We also estimated the relationship between physical demand and technical-tactical action aspects of game demands with and without technical-tactical problems. Our conclusions are supported by comprehensive test approach, that examined player’s physical abilities allied to the soccer-specific skills such as dribbling, passing and shooting. The coaches and physical trainers should take into account the data regarding the physical variables allied with technical and tactical actions during training, testing or the competition. The means of other performances, included as indicators practical approach, that exam player’s physical abilities concomitant to the soccer-specific skills, according to Iaia and Bangsbo, (2009) [14].

The purpose of this study was to test professional soccer players’ dribbling, passing, receiving, and shooting in complex, applied into two forms (with and without competitive activity) to determine the impact of the two situations on player’s technical sense. We projected their employment as a crucial tool to understand a player decision-making during the game of football.

This research also aims to understand player acting to solve the play’s problems.

Participants. Laboratory OPAPS «PE Institute» in the University of Mostaganem approved this study for the academic year 2016-2017. The protocol was accepted by the Institute of PE, conducted in accordance with the Declaration of Helsinki. The research samples comprised 140 elite male soccer players aged 20 ± 4, with body mass 77.9 ± 5.9kg and body height of 1.71 ± 1.55 who voluntarily accepted to participate in this experiment. Their results are recorded in Table 1.

Table 1 – Present variable studies according to our protocol

<table>
<thead>
<tr>
<th>variables</th>
<th>Mean ± SD</th>
<th>T</th>
<th>p ≤ 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situation one Total time</td>
<td>4.75 ± 1.02(s)</td>
<td>9.95</td>
<td>0.00</td>
</tr>
<tr>
<td>Situation two Total time</td>
<td>6.04 ± 2.66(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation one dribbling</td>
<td>1.79 ± 0.55(s)</td>
<td>3.23</td>
<td>0.00</td>
</tr>
<tr>
<td>Situation two dribbling</td>
<td>2.33 ± 0.32(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation one passing</td>
<td>1.58 ± 0.24(s)</td>
<td>3.54</td>
<td>0.00</td>
</tr>
<tr>
<td>Situation two passing</td>
<td>2.22 ± 0.44(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation one receiving</td>
<td>1.08 ± 0.12(s)</td>
<td>2.88</td>
<td>0.00</td>
</tr>
<tr>
<td>Situation two receiving</td>
<td>1.44 ± 0.09(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation one scoring</td>
<td>140 ± 0.00 (point)</td>
<td>54.62</td>
<td>0.00</td>
</tr>
<tr>
<td>Situation two scoring</td>
<td>78 ± 0.00 (point)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measures

Test protocol

Our protocols are based on a modified traditional dribbling test composed of the following situations. Situation one: we asked players to dribble two plates, pass the ball to the player at his left and receive it before plate number 4, dribble plate number 5 and pass the ball to a player in his right, receive the ball at penalty points and score it. Situation two: we replaced plates with manikin and we integrated active goalkeeper (see Figure 1). All participants are entitled to three trials in each proposed situation.

![Figure 1. The protocol used in this study](https://via.placeholder.com/150)

Design and Procedures

To be able to review the tests we filmed the progress of the experiment as a method already used in previous studies [3] and reported as reliable and valid...
systems to reviewers the actions [13]. In this study we examined the total time and time of each skill performance in recording, checked the obtained data and analyzed the reports.

**Data Analysis**

In statistical processing, we used the paired T-test and correlation paired Samples Test to confirm or reject the causal relationship between two situations. The computer program for processing data was IBM SPSS v.22 statistical program with a significance level fixed at \( p < 0.05 \).

**Results.** Data analysis showed significantly more total time in the situation two compared with traditional situation one in all parameters studies (see Table 1). The obtained results were confirmed by the Paired T-test and correlation Paired Samples Test set in Table 2 and showed an inverted strongly significant correlation between these two situations.

**Table 2 – Present correlation values between variable studies according to our protocol**

<table>
<thead>
<tr>
<th>Physical variable</th>
<th>Success variable</th>
<th>( R )</th>
<th>( p \leq 0.05 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situation one &amp; two</td>
<td>Dribble Total time</td>
<td>–0.94</td>
<td>0.00</td>
</tr>
<tr>
<td>Passes</td>
<td>Total time</td>
<td>–0.82</td>
<td>0.00</td>
</tr>
<tr>
<td>receive</td>
<td>Total time</td>
<td>–0.85</td>
<td>0.00</td>
</tr>
<tr>
<td>scoring</td>
<td>Total score</td>
<td>–0.92</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The obtained results showed a difficulty for players to perform technical actions under pressures integrated into situation two. Based on the total time and time for each skill as additional time reaction owed due to pressure situations we can judged that a coach needs a valid method to analyse if their technique components are on the right pathway compared to their purely physical variables. Some authors consider it an unresolved question the case of technical and tactical actions [13].

The obtained results are supported by the inverse strong correlation between our two situations, set in Table 2. Having analyzed video matches we understood that there was a positive relation between the team's actions linked to the individual and collective ball position times allied to physical demands in a competition and classification of teams in their championship [1]. It was supported by the attachment of decision-making skills such as game sense and awareness, anticipation, and general game understanding [3] reported as technical-tactical elements of particular play situation variables that do not support the same results, according to Bradley et al [13]. The case of this study is supported by the differences in records between proposed two situations. In the situation two we can see the ability of players to synchronize their movements’ strategies under pressure, small group and team tactics which enables meta-cognitive awareness through dynamic environment [2]. We recommend the trainers to focus their attention on the ability of players to consistently make the correct decision after perceiving all the external factors which is fundamental to the game, and is directly connected with efficiency of game activity, the specific player position related to the end of the ball possession relative to shot efficacy percentages [15].

**Discussion.** From the point of view, that pure measurement in soccer is possible only through playing performance, the physical requirements were estimated during the competitions inside the experts’ soccer championship divisions by several researches [16]. The latter were assessed by various measurements or methods of checking the covered distance and/or their speed ranges [8]. The most needed technical and tactical factors for particular players were also examined [17]. In the study we also investigated the relation between the physical and tactical demands with and without technical problems. Our results confirmed that a valid method to analyze the performance should consider the technical and tactical factors, indicators of the ability of players to consistently make the correct decision after perceiving all the external factors which are more important to the game compared to purely physical variables.

Some authors report that the case of technical and tactical actions in pressure situations remains an unsolved question. The experiments were based on the efficacy of analysing small-sided games that permit the trainer to examine the player’s physical abilities concomitant to the soccer-specific skills required for mastering dribbling, passing and shooting [13]. M. Zerf and W. Beboucha indicated small group and team tactics to be the techniques basic tactics and strategies under pressure [18]. Our results support the results obtained in study Bartosz, et al (2018) that soccer match analysis requests future studies able to analyse the validity of technology alongside from other gold standard measures such as time gates and laser and radar guns, during specific soccer circuits [3]. The case of this study can only measure certain abilities with and without a ball such as endurance, strength, speed, etc. The video match analysis which concentrated on physical demands during the competition [6] showed that soccer players covered during the competition the distance above all, at high intensity [16]. It was denied by Bradley, et al (2015) through the analyses of other aspects of the game such as players’ strategy [2]. Our study showed the inverse relationship between reactions of players in pressure situations to be more important than technique in isolation, set in Table 2. The results were confirmed through the
References


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УДК 796.332(651)

ТЕХНИЧНА ПІДГОТОВКА ТА ЇЇ ВПЛИВ НА ТОЧНІСТЬ РЕАГУВАННЯ Й ЕКОНОМІЮ ЗУСИЛЬ У ПРОФЕСІЙНИХ АЛЖІРСЬКИХ ФУТБОЛІСТІВ

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Резюме. Метою технічної підготовки є зміцнення та розвиток спортивних навичок. Основна інформація надходить через органи чуття (візуальні, звукові, тактильні і позиційні). Мета цього дослідження полягала в тому, щоб перевірити, як професійні футболісти здійснюють дриблянг, пас, прийом і забивання голу в двох формах (в змагальнях діяльність і без неї), щоб визначити вплив цих двох ситуацій на технічну підготовку гравців. Були вивчені результати 140 елітних футболістів чоловічої статі від 20 ± 4 років, з масою тіла 77,9 ± 5,9 кг і зростом 1,71 ± 1,55. Дослідження проходило в лабораторії ОПАПС «Інститут ФК» у вітчизняній Мостані протягом 2016–2017 навчального року. За нашими даними, футболістам в ситуації 2 знадобилося значно більше загального часу по всіх параметрах на відміну від традиційної ситуації 1. Ці результати були підтверджено набором п'ятий тестів і кореляційних тестів п'ятий зразків, і показали зворотну кореляцію між цим двома ситуаціями. Гравцям було важко виконувати технічні дії в умовах стресу, який був присутній в другій ситуації. Порівнюючи загальний час і час виконання кожного навику в стресовій ситуації, ми припускаємо, що тренеру потрібен правильний метод для аналізу адекватності тренувань в обох ситуаціях. Отриманий результати покидають складність виконання технічних дій в ситуації стресу. На наш тестовий протокол підтверджив, що дія гравця для прийняття рішення вимагають добре розвиненого нерво-м'язової функції, яка, в свою чергу, вимагає від гравців враховувати зміну ситуації для кращого вибору стратегії і для більш якісного прийняття рішення, включення оперативно-кохітівних зв'язків на основі візуальної обробки ситуації, часу сприйняття, реакції і очікування. Результати дослідження дали точні показники для кращої стратегії гри, що важливо для гравця під час матчу. Ми вважаємо, що подальше дослідження повинні стосуватися методів оцінки розумових здібностей гравців, пов'язаних з швидкістю їх реакції і прийняттям рішення.

Ключові слова: навички, технічна підготовка, тести, стратегії, досягнення.

УДК 796.332(651)

ТЕХНИЧЕСКАЯ ПОДГОТОВКА И ЕЕ ВЛИЯНИЕ НА ТОЧНОСТЬ ОТВЕТА И ЭКОНОМИЮ СИЛЫ У ПРОФЕССИОНАЛЬНЫХ АЛЖИРСКИХ ФУТБОЛИСТОВ

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Резюме. Целью технической подготовки является укрепление и развитие спортивных навыков. Основная информация поступает через органы чувств (визуальные, звуковые, тактильные и позиционные).
Цель данной работы посвящена исследованию, как профессиональные футболисты осуществляют дриблинг, пас, прием и забивание гола в двух формах (в соревновательной деятельности и без нее), с целью определить влияние этих двух ситуаций на техническую подготовку игрока. Были изучены результаты 140 элитных футболистов мужского пола в возрасте 20 ± 4 года, с массой тела 77,9 ± 5,9 кг и ростом 1,71 ± 1,55. Исследование проходило в лаборатории ОПАПС «Института ФК» университета Мостаганем в течение 2016–2017 учебного года. По нашим данным, футболистам в ситуации 2 потребовалось значительно большее общего времени по всем параметрам, в отличие от традиционной ситуации 1. Эти результаты были подтверждены набором парных T-тестов и корреляционных тестов парных образцов, и показали обратную корреляцию между этими двумя ситуациями. Игрокам было трудно выполнять технические действия в условиях стресса, который присутствовал во второй ситуации. Сравнивая общее время и время выполнения каждого навыка в стрессовой ситуации, мы предполагаем, что тренеру нужен правильный метод для анализа адекватности тренеровок в обеих ситуациях.

Полученные результаты показали сложность выполнения технических действий в ситуации стресса. Наш тестовый протокол подтвердил, что действия игрока для принятия решения требуют хорошо развитой нервно-мышечной функции, которая, в свою очередь, требует от игроков учитывать перемену ситуации для лучшего выбора стратегии и для более качественного принятия решений, включения оперативно-когнитивных связей на основе визуальной обработки информации, времени восприятия, реакции и ожидания. Результаты исследования дали точные показатели для лучшей стратегии игры, что важно для игрока во время матча. Мы считаем, что дальнейшие исследования должны касаться методов оценки умственных способностей игроков, связанных с быстрой их реакции и принятием решений.

Ключевые слова: навыки, техническая подготовка, тесты, стратегии, достижения.

The authors of this study confirm that the research and publication of the results were not associated with any conflicts regarding commercial or financial relations, relations with organizations and/or individuals who may have been related to the study, and interrelations of coauthors of the article.