



Life Gets Even More Beautiful, During Extended 90 + Minutes

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Abstract

In the 2022 Qatar World Cup, FIFA increased additional time by adding every moment when the ball isn't played to the play time as an allowance for time lost. This also increased the number of goals scored during additional time. This research studies the impact of goals scored during additional time on match results caused by this extension in the second half of matches in Turkish Male Football Super League. Quantitative and qualitative methods were used. 250 matches played on weeks 1st-30th of 2022-2023 season of Turkish Spor Toto Male Football Super League were analyzed with document analysis, a qualitative research method. The matches, results, additional time, and goals scored during additional time were recorded. Then matches were separated into two equal-numbered groups including before and after the 2022 Qatar World Cup. The 125 matches on weeks 1st-14th and the 125 matches on weeks 14th-30th were analyzed for the number of total goals, total additional time, and the number of total goals scored during additional time with causal-comparative research model as a quantitative research method. In this research, Frequencies Analysis chosen from statistical analyses, Paired Sample t-Test and Pearson Correlation Analysis were used. According to the results, especially after the 2022 Qatar World Cup, the matches aren't only ninety minutes for footballers any more. The matches may approach two hours with extended additional time. As a conclusion of this research, teams can be suggested to consider this situation and properly organize training plans and programs.

Keywords: Football, Goal, Ninety plus, Life, Super League

Özet

Hayat Bir Başka Güzelleşir, Uzayan 90 +'larda

2022 Katar Dünya Kupasında, maçlarda topun oyunda olmadığı her anın, normal süreye kayıp zaman olarak eklenmesi konusunda FIFA tarafından hakemlere verilen talimatla, duraklama süreleri artmıştır. Bu durum, duraklamalarda atılan gollerin sayısının da artmasını sağlamıştır. Yapılan bu araştırmanın amacı; Türkiye Erkek

Futbol Süper Lig maçlarının ikinci yarısında, normal oyun süresine eklenen kayıp zaman için verilen ek sürenin uzamasıyla, bu sürede atılan gollerin, maç sonuçlarına etkisini ortaya koymaktır. Araştırmada, nicel ve nitel araştırma yöntemleri kullanılmıştır. Nitel araştırma yöntemi olan doküman analizi ile Türkiye Spor Toto Erkek Futbol Süper Liginin 2022–2023 sezonunda 1.–30. haftaları arasındaki 250 maç incelenmiştir. Yapılan maçlar, sonuçlar, duraklama süreleri ve duraklamalarda atılan goller kaydedilmiştir. Daha sonra bu maçlar, 2022 Katar Dünya Kupası'ndan önce ve sonra oynananlar olmak üzere eşit sayıda iki gruba ayrılmıştır. Ligin 1.–14. haftaları arasındaki 125 maç ile 14.–30. haftaları arasındaki 125 maç, nicel araştırma yöntemi olan nedensel karşılaştırma modeli kullanılarak; toplam gol sayıları, toplam duraklama süreleri ve duraklamalarda atılan toplam gol sayıları açısından incelenmiştir. Araştırmada, istatistiksel analizlerden Frekans Analizi, Eşleştirilmiş t-Testi ve Pearson Korelasyon Analizi yapılmıştır. Analizlerden elde edilen bulgulara göre, özellikle 2022 Katar Dünya Kupası'ndan sonra, futbolcular için maçların artık doksan dakikadan ibaret olmadığı görülmektedir. Maçlar, uzayan duraklama süreleriyle birlikte iki saate yaklaşmaktadır. Araştırmanın sonucu olarak; takımların bu durumu dikkate alıp, antrenman plan ve programlarını buna göre düzenlemeleri gerektiği söylenebilir.

Anahtar Kelimeler: Futbol, Gol, Doksan artı, Hayat, Süper lig

INTRODUCTION

Johan Huizinga (1872–1945), a Dutch history professor, defined the term of play as “a voluntary action or activity associated with the conscience of being different from ordinary life with stress and happiness, automatically having a purpose, performed in definite time and place limits, freely consented but under completely commanding rules” in ‘Homo Ludens: Proeve eener Bepaling van het Spel-element der Cultuur’ (8) he wrote and published in Dutch for the first time in 1938 (10).

Football is an area where moral practices became concrete in some way successively. It is meaningful that French author and philosopher Albert Camus (1913–1960) who is also the Nobel Laureate in Literature specifically emphasized morality of football. Camus suggested humanity the simple morals of football instead of confusing and complicated morals of politics (21). He said, “Everything I know about morality and the obligations of men, I owe it to football” by observing all opportunities of existence in Football (4). The worldwide popularity of football results from easiness of following the play, performing the rules and comparatively cheap equipments it requires. Scoring a goal, the purpose of the play, is the most exciting feature of football since it determines which team wins the game (14).

Professionalization process has turned sports activities into an economically performed area from being a play only. As a result, capitalist system values have dominated the sports. Today football has also turned into a business organization under the name of industrial football which was originated as a folk sport. In the new sense of football, rapidly industrializing, not only the soul of football but also its place in social life has started to change (17). Personally, and socially positive results of sports like football mustn't be ignored though negative results it concluded like class inequality production specifically that is emphasized by Marxist and critical theory in terms of social order, gender apartheid, exploitation, anesthesia function, culture industry, and power-sport connection. Football is one of the areas in which people are interested as a remedy for isolation in so called modern societies. A person who supports a football team identifies with victories and failures of that team. Muted feelings are expressed by the way of belonging to social groups (21).

Football is a sports branch involving very severe physical activities depending on aerobic and anaerobic performance requiring physical qualities like technical skill, power, agility and endurance (13). As a versatile sports branch, football requires high performance components. A successful match includes activities which are needed to be performed with a level of technique and tactics and very high speed, sprint, shoot, pass in a short time. In order to overcome these loads and maintain performance during the match the football player needs to have developed endurance (16). Football is a play which lasts at least 90 minutes excluding additional time, sometimes even 120 minutes. Players in football matches cover a distance of 10–12 kilometers making a high effort. Thus, football is a long-term endurance sport and requires very well motor skills. The most important factor affecting endurance performance in football is aerobic endurance (19). Thus, during additional time added to the ordinary play time in football, players must preserve their physical and mental

endurance not only personally but also as a team. In the study that includes the analysis of the goals scored by Beşiktaş, Galatasaray, Fenerbahçe and Trabzonspor teams, which completed the 2020-2021 season of Turkish Male Football Super League in the top 4 places, throughout the season; It has been found out that 21 of the total 291 goals scored by these teams, that is approximately 7%, were scored during additional time (90 +). It may be assumed that this could have a direct impact on determining the league rankings (5).

In The Qatar World Cup in 2022 additional time minutes were increased with instructions given by FIFA to the referees by adding every moment when the ball is not played to the ordinary play time as allowance for time lost (22). This also caused an increase in the number of goals scored during additional time. This study aims to research the impact of goals scored during additional time on the match results caused by extension of allowance for time lost which is added to the ordinary play time and called as additional time at the second half of football matches. When the goal, the indispensable purpose of football, is scored during additional time and changes the match result, this may enable to increase the level of joy provided by football.

The hypothesis of the research is that extension of additional time during football matches causes to increase the number of goals scored during this time and change the match result even more.

METHOD

Research Model

While a total of 312 minutes (an average of approximately 5 minutes per game) of additional time was given in the 64 matches played in the 2018 Russia World Cup, a total of 447 minutes (an average of approximately 7 minutes per match) of additional time was given in the 64 matches played in the 2022 Qatar World Cup (24, 25). In the Turkish Male Football Super League, at the matches played after the 2022 Qatar World Cup, additional time minutes added to the ordinary match time especially at the second half of the match increased (23). In this research, quantitative and qualitative methods are used. 250 matches played during the 1st-30th weeks of 2022-2023 season of Turkish Spor Toto Male Football Super League were analyzed with the document analysis which is a qualitative research method (12). The matches, results, additional time and goals scored during additional time were recorded. Then these matches were separated into two equal- numbered groups including before and after the 2022 Qatar World Cup. The first 125 matches on the 1st-14th weeks of the league and the last 125 matches on the 14th-30th weeks were analyzed for the number of total goals, total additional time and number of total goals scored during additional time with the causal comparative research model as a quantitative research method (6).

Collecting Data

Research data were collected from official web sites of the Turkish Football Federation and beIN Sports, the broadcaster (26, 27). The match results, additional time and goals scored during additional time were recorded and demonstrated in tables.

Table 1: 2022-2023 Turkish Spor Toto Male Football Super League, the 1st-14th Weeks

| N. | MATCH | SCR. 1 | 90 + DUR. ² | 90 + G. ³ | N. | MATCH | SCR. 1 | 90 + DUR. ² | 90 + G. ³ |
|-----|------------------------|-----------|---------------------------|-------------------------|-----|---------------------------|-----------|---------------------------|-------------------------|
| 1. | İstanbul – Trabzon | 0 – 2 | 4:56 | | 64. | Kasımpaşa – Gaziantep | 1 – 0 | 7:02 | |
| 2. | Sivas – Gaziantep | 1 – 1 | 5:07 | | 65. | Ankaragücü – Başakşehir | 1 – 2 | 6:00 | |
| 3. | Beşiktaş – Kayseri | 1 – 0 | 9:28 | + | 66. | Kayseri – Trabzon | 1 – 2 | 10:05 | |
| 4. | Karagümrük – Alanya | 2 – 4 | 6:01 | + | 67. | Adana Demir – Galatasaray | 0 – 0 | 9:20 | |
| 5. | Giresun – Adana Demir | 2 – 3 | 5:30 | + | 68. | Alanya – Giresun | 1 – 1 | 6:02 | |
| 6. | Antalya – Galatasaray | 0 – 1 | 5:03 | | 69. | Sivas – Hatay | 1 – 2 | 5:00 | |
| 7. | Başakşehir – Kasımpaşa | 4 – 0 | 2:56 | | 70. | Konya – Ümraniye | 1 – 0 | 7:10 | |
| 8. | Ankaragücü – Konya | 0 – 0 | 4:43 | | 71. | Beşiktaş – Fenerbahçe | 0 – 0 | 4:19 | |
| 9. | Fenerbahçe – Ümraniye | 3 – 3 | 7:14 | + | 72. | Karagümrük – İstanbul | 1 – 2 | 4:57 | |
| 10. | Trabzon – Hatay | 1 – 0 | 7:05 | | 73. | Gaziantep – Adana Demir | 1 – 1 | 8:00 | |
| 11. | Kayseri – İstanbul | 1 – 0 | 6:25 | | 74. | İstanbul – Ankaragücü | 1 – 2 | 11:56 | + |
| 12. | Galatasaray – Giresun | 0 – 1 | 8:06 | | 75. | Antalya – Konya | 1 – 1 | 9:48 | + |
| 13. | Adana Demir – Sivas | 3 – 0 | 3:02 | | 76. | Giresun – Beşiktaş | 0 – 1 | 6:49 | |
| 14. | Ümraniye – Antalya | 0 – 1 | 7:14 | | 77. | Ümraniye – Kayseri | 2 – 2 | 5:40 | |

| | | | | | | | | | |
|-----|--------------------------|-------|-------|------|------|--------------------------|-------|-------|----|
| 15. | Gaziantep – Ankaragücü | 1 – 0 | 6:48 | | 78. | Hatay – Alanya | 1 – 0 | 7:51 | |
| 16. | Alanya – Beşiktaş | 3 – 3 | 8:25 | + | 79. | Fenerbahçe – Karagümrük | 5 – 4 | 10:43 | + |
| 17. | Konya – Başakşehir | 0 – 0 | 4:13 | | 80. | Trabzon – Kasımpaşa | 0 – 0 | 5:30 | |
| 18. | Kasımpaşa – Fenerbahçe | 0 – 6 | 2:14 | + | 81. | Başakşehir – Sivas | 0 – 2 | 8:14 | |
| 19. | Ümraniye – Galatasaray | 0 – 1 | 5:58 | | 82. | Alanya – Antalya | 3 – 2 | 8:00 | |
| 20. | Giresun – Kasımpaşa | 1 – 0 | 4:21 | | 83. | Karagümrük – Hatay | 3 – 0 | 9:02 | + |
| 21. | Hatay – Gaziantep | 1 – 2 | 6:51 | | 84. | Kasımpaşa – Adana Demir | 1 – 4 | 3:00 | |
| 22. | Antalya – Trabzon | 5 – 2 | 8:26 | ++ * | 85. | Konya – Gaziantep | 0 – 1 | 7:00 | |
| 23. | Başakşehir – Kayseri | 2 – 0 | 4:10 | | 86. | Kayseri – Galatasaray | 2 – 1 | 5:20 | |
| 24. | Beşiktaş – Karagümrük | 4 – 1 | 3:18 | | 87. | Başakşehir – İstanbul | 2 – 0 | 3:58 | |
| 25. | Sivas – Alanya | 1 – 1 | 5:01 | + | 88. | Beşiktaş – Trabzon | 2 – 2 | 8:00 | |
| 26. | İstanbul – Konya | 0 – 4 | 2:15 | | 89. | Sivas – Giresun | 3 – 0 | 3:32 | |
| 27. | Fenerbahçe – Adana Demir | 4 – 2 | 6:12 | | 90. | Ankaragücü – Fenerbahçe | 0 – 3 | 4:03 | + |
| 28. | Gaziantep – Antalya | 5 – 2 | 7:01 | | 91. | Antalya – İstanbul | 2 – 1 | 10:00 | + |
| 29. | Karagümrük – Ankaragücü | 4 – 1 | 5:00 | | 92. | Ümraniye – Karagümrük | 1 – 3 | 6:00 | + |
| 30. | Alanya – İstanbul | 0 – 1 | 12:15 | | 93. | Trabzon – Sivas | 1 – 0 | 5:31 | |
| 31. | Adana Demir – Ümraniye | 1 – 0 | 5:53 | | 94. | Fenerbahçe – Başakşehir | 1 – 0 | 6:15 | |
| 32. | Kasımpaşa – Hatay | 1 – 0 | 5:10 | | 95. | Kasımpaşa – Kayseri | 0 – 1 | 7:28 | |
| 33. | Kayseri – Giresun | 3 – 0 | 4:11 | | 96. | Adana Demir – Konya | 1 – 1 | 9:00 | |
| 34. | Trabzon – Galatasaray | 0 – 0 | 6:14 | | 97. | Galatasaray – Alanya | 2 – 2 | 6:47 | + |
| 35. | Konya – Fenerbahçe | 1 – 0 | 6:36 | | 98. | Giresun – Ankaragücü | 1 – 1 | 5:57 | |
| 36. | Beşiktaş – Sivas | 3 – 1 | 4:07 | | 99. | Hatay – Beşiktaş | 2 – 1 | 6:39 | |
| 37. | Ümraniye – Trabzon | 0 – 1 | 5:05 | | 100. | Karagümrük – Galatasaray | 0 – 2 | 3:52 | |
| 38. | Sivas – Karagümrük | 0 – 0 | 6:05 | | 101. | Konya – Kasımpaşa | 1 – 1 | 11:07 | |
| 39. | Başakşehir – Alanya | 2 – 0 | 4:28 | | 102. | Alanya – Gaziantep | 2 – 0 | 3:56 | |
| 40. | Fenerbahçe – Kayseri | 2 – 0 | 5:00 | | 103. | Ankaragücü – Hatay | 4 – 1 | 6:58 | + |
| 41. | Giresun – Konya | 0 – 1 | 8:23 | | 104. | Beşiktaş – Ümraniye | 5 – 2 | 3:03 | |
| 42. | Hatay – Adana Demir | 1 – 1 | 10:35 | + | 105. | Kayseri – Adana Demir | 2 – 2 | 5:00 | |
| 43. | Antalya – Kasımpaşa | 0 – 2 | 10:27 | | 106. | İstanbul – Fenerbahçe | 2 – 5 | 4:03 | |
| 44. | Ankaragücü – Beşiktaş | 2 – 3 | 8:45 | | 107. | Sivas – Antalya | 0 – 2 | 5:57 | |
| 45. | Galatasaray – Gaziantep | 2 – 1 | 6:42 | + | 108. | Başakşehir – Giresun | 3 – 1 | 5:00 | |
| 46. | Alanya – Ankaragücü | 2 – 1 | 4:58 | | 109. | Ümraniye – Alanya | 3 – 1 | 2:57 | |
| 47. | Konya – Hatay | 1 – 0 | 4:01 | | 110. | Kasımpaşa – Ankaragücü | 1 – 1 | 6:09 | |
| 48. | Karagümrük – Giresun | 1 – 1 | 6:37 | + | 111. | Giresun – İstanbul | 3 – 2 | 7:11 | |
| 49. | Sivas – İstanbul | 1 – 1 | 7:37 | | 112. | Galatasaray – Beşiktaş | 2 – 1 | 5:39 | |
| 50. | Gaziantep – Ümraniye | 1 – 1 | 9:45 | | 113. | Gaziantep – Kayseri | 1 – 2 | 6:00 | |
| 51. | Kasımpaşa – Galatasaray | 2 – 3 | 5:54 | | 114. | Antalya – Karagümrük | 4 – 2 | 6:06 | |
| 52. | Kayseri – Antalya | 1 – 0 | 6:36 | | 115. | Trabzon – Konya | 2 – 2 | 11:29 | |
| 53. | Beşiktaş – Başakşehir | 0 – 1 | 8:02 | | 116. | Fenerbahçe – Sivas | 1 – 0 | 8:00 | |
| 54. | Adana Demir – Trabzon | 3 – 2 | 4:43 | + | 117. | Hatay – Başakşehir | 3 – 3 | 4:00 | + |
| 55. | Galatasaray – Konya | 2 – 1 | 11:31 | | 118. | Alanya – Adana Demir | 0 – 0 | 6:06 | |
| 56. | Hatay – Kayseri | 0 – 4 | 2:51 | | 119. | Ankaragücü – Trabzon | 1 – 1 | 7:39 | |
| 57. | Ümraniye – Kasımpaşa | 1 – 2 | 9:08 | + | 120. | Sivas – Ümraniye | 2 – 2 | 4:18 | |
| 58. | Antalya – Adana Demir | 0 – 3 | 4:34 | | 121. | Fenerbahçe – Giresun | 1 – 2 | 6:15 | |
| 59. | İstanbul – Beşiktaş | 2 – 2 | 6:37 | | 122. | Başakşehir – Galatasaray | 0 – 7 | 1:54 | |
| 60. | Trabzon – Gaziantep | 3 – 2 | 12:30 | + | 123. | Karagümrük – Gaziantep | 3 – 3 | 8:16 | |
| 61. | Başakşehir – Karagümrük | 0 – 0 | 6:00 | | 124. | İstanbul – Hatay | 0 – 1 | 6:17 | |
| 62. | Ankaragücü – Sivas | 2 – 1 | 8:43 | | 125. | Kayseri – Konya | 1 – 2 | 7:22 | |
| 63. | Fenerbahçe – Alanya | 5 – 0 | 4:07 | | | TOTAL ⁴ | 356 | 802 | 25 |

(<https://www.tff.org/default.aspx?pageID=1628>), (<https://beinsports.com.tr/mac-ozetleri-goller/super-lig>).

¹ Score: Match result.

² 90 + Duration: Additional time were recorded as Minute:Second.

³ Minutes involving goals scored during additional time were recorded.

⁴ Total number of goals scored at matches, total additional time and total number of goals scored during additional time were recorded.

* One team scored 2 goals at once during additional time at 1 match in total.

Table 2: 2022–2023 Turkish Spor Toto Male Football Super League, the 14th–30th Weeks

| N. | MATCH | SCR. 1 | 90 + DUR. ² | 90 + G. ³ | N. | MATCH | SCR. 1 | 90 + DUR. ² | 90 + G. ³ |
|-----|--------------------------|-----------|---------------------------|-------------------------|------|---------------------------|-----------|---------------------------|-------------------------|
| 1. | Antalya – Ankaragücü | 0 – 2 | 11:36 | + | 64. | Alanya – Sivas | 0 – 3 | 5:06 | |
| 2. | Ümraniye – Başakşehir | 1 – 3 | 7:00 | + | 65. | Karagümrük – Beşiktaş | 1 – 1 | 6:00 | |
| 3. | Hatay – Giresun | 1 – 1 | 9:28 | | 66. | Kasımpaşa – Giresun | 5 – 1 | 3:46 | |
| 4. | Kasımpaşa – Sivas | 1 – 2 | 9:53 | | 67. | Gaziantep – Hatay | 4 – 1 | 7:26 | |
| 5. | Trabzon – Fenerbahçe | 2 – 0 | 11:23 | + | 68. | Trabzon – Antalya | 2 – 0 | 7:51 | + |
| 6. | Adana Demir – Karagümrük | 2 – 1 | 6:51 | | 69. | Galatasaray – Ümraniye | 3 – 2 | 5:56 | |
| 7. | Gaziantep – Beşiktaş | 1 – 1 | 7:43 | | 70. | Kayseri – Başakşehir | 1 – 0 | 6:00 | |
| 8. | Konya – Alanya | 2 – 2 | 16:31 | + | 71. | Konya – İstanbul | 0 – 1 | 10:32 | |
| 9. | Galatasaray – İstanbul | 2 – 1 | 9:50 | | 72. | Adana Demir – Fenerbahçe | 1 – 1 | 11:07 | |
| 10. | Ankaragücü – Ümraniye | 1 – 2 | 8:32 | | 73. | Ankaragücü – Karagümrük | 0 – 2 | 5:56 | |
| 11. | Başakşehir – Antalya | 2 – 0 | 5:33 | | 74. | Sivas – Beşiktaş | 1 – 0 | 8:54 | |
| 12. | Fenerbahçe – Hatay | 4 – 0 | 7:00 | + | 75. | Antalya – Gaziantep | 1 – 0 | 10:10 | |
| 13. | Alanya – Kayseri | 3 – 1 | 9:08 | | 76. | İstanbul – Alanya | 2 – 1 | 6:56 | |
| 14. | İstanbul – Kasımpaşa | 2 – 1 | 10:38 | | 77. | Hatay – Kasımpaşa | 1 – 0 | 8:57 | + |
| 15. | Karagümrük – Trabzon | 4 – 1 | 10:00 | | 78. | Galatasaray – Trabzon | 2 – 1 | 12:58 | |
| 16. | Sivas – Galatasaray | 1 – 2 | 17:54 | ++ * | 79. | Giresun – Kayseri | 1 – 2 | 9:00 | |
| 17. | Giresun – Gaziantep | 2 – 1 | 9:22 | + | 80. | Fenerbahçe – Konya | 4 – 0 | 3:57 | |
| 18. | Beşiktaş – Adana Demir | 1 – 0 | 6:02 | | 81. | Ümraniye – Adana Demir | 1 – 1 | 8:45 | |
| 19. | Ümraniye – Hatay | 2 – 2 | 10:28 | | 82. | Beşiktaş – Antalya | 0 – 0 | 12:10 | |
| 20. | Antalya – Fenerbahçe | 1 – 2 | 13:26 | | 83. | Alanya – Başakşehir | 1 – 0 | 10:34 | |
| 21. | Kasımpaşa – Alanya | 4 – 1 | 7:58 | + | 84. | Karagümrük – Sivas | 4 – 3 | 9:01 | ++ * |
| 22. | Kayseri – Karagümrük | 2 – 4 | 10:00 | | 85. | Trabzon – Ümraniye | 1 – 2 | 9:05 | |
| 23. | Galatasaray – Ankaragücü | 2 – 1 | 6:45 | | 86. | Kayseri – Fenerbahçe | 1 – 2 | 5:50 | + |
| 24. | Konya – Sivas | 2 – 2 | 7:00 | | 87. | Konya – Giresun | 0 – 0 | 9:20 | |
| 25. | Gaziantep – Başakşehir | 1 – 1 | 8:24 | + | 88. | Beşiktaş – Ankaragücü | 2 – 1 | 7:33 | |
| 26. | Trabzon – Giresun | 3 – 0 | 7:55 | | 89. | Kasımpaşa – Antalya | 3 – 1 | 5:03 | |
| 27. | Adana Demir – İstanbul | 6 – 0 | 6:00 | | 90. | Giresun – Karagümrük | 2 – 2 | 7:55 | |
| 28. | Hatay – Antalya | 0 – 0 | 5:58 | | 91. | Antalya – Kayseri | 4 – 0 | 7:42 | + |
| 29. | Beşiktaş – Kasımpaşa | 2 – 1 | 7:00 | | 92. | Galatasaray – Kasımpaşa | 1 – 0 | 12:02 | |
| 30. | Karagümrük – Konya | 3 – 3 | 10:50 | + | 93. | Ankaragücü – Alanya | 2 – 0 | 5:11 | |
| 31. | Ankaragücü – Kayseri | 2 – 1 | 6:37 | | 94. | Trabzon – Adana Demir | 4 – 1 | 8:33 | + |
| 32. | Giresun – Ümraniye | 0 – 1 | 7:11 | | 95. | Başakşehir – Beşiktaş | 0 – 2 | 7:58 | |
| 33. | Fenerbahçe – Galatasaray | 0 – 3 | 10:45 | + | 96. | İstanbul – Sivas | 3 – 0 | 5:55 | |
| 34. | Başakşehir – Adana Demir | 2 – 1 | 9:34 | | 97. | Konya – Galatasaray | 2 – 1 | 9:32 | + |
| 35. | Alanya – Trabzon | 5 – 0 | 6:52 | | 98. | Kasımpaşa – Ümraniye | 1 – 1 | 6:15 | |
| 36. | İstanbul – Gaziantep | 1 – 1 | 13:51 | + | 99. | Adana Demir – Antalya | 2 – 0 | 6:16 | |
| 37. | Kayseri – Sivas | 4 – 1 | 5:55 | | 100. | Beşiktaş – İstanbul | 3 – 1 | 6:59 | + |
| 38. | Galatasaray – Hatay | 4 – 0 | 4:09 | | 101. | Sivas – Ankaragücü | 2 – 0 | 8:02 | |
| 39. | Antalya – Giresun | 2 – 2 | 13:29 | | 102. | Karagümrük – Başakşehir | 2 – 2 | 5:08 | ++ * |
| 40. | Adana Demir – Ankaragücü | 3 – 1 | 8:06 | | 103. | Alanya – Fenerbahçe | 1 – 3 | 11:41 | + |
| 41. | Konya – Beşiktaş | 1 – 2 | 6:54 | + | 104. | Başakşehir – Ankaragücü | 1 – 0 | 9:12 | |
| 42. | Trabzon – Başakşehir | 1 – 0 | 7:16 | | 105. | Trabzon – Kayseri | 3 – 4 | 10:05 | |
| 43. | Ümraniye – İstanbul | 0 – 2 | 6:22 | | 106. | Galatasaray – Adana Demir | 2 – 0 | 12:58 | + |
| 44. | Kasımpaşa – Karagümrük | 2 – 2 | 14:15 | + | 107. | Ümraniye – Konya | 2 – 2 | 7:34 | + |
| 45. | Gaziantep – Fenerbahçe | 1 – 2 | 11:06 | + | 108. | Giresun – Alanya | 2 – 2 | 9:01 | |
| 46. | Adana Demir – Giresun | 1 – 1 | 12:04 | | 109. | Fenerbahçe – Beşiktaş | 2 – 4 | 6:03 | ++ * |
| 47. | Kasımpaşa – Başakşehir | 1 – 3 | 12:00 | ++ * | 110. | İstanbul – Karagümrük | 0 – 1 | 7:22 | |
| 48. | Galatasaray – Antalya | 2 – 1 | 10:36 | | 111. | Konya – Antalya | 1 – 1 | 10:35 | |
| 49. | Gaziantep – Sivas | 1 – 2 | 6:22 | | 112. | Ankaragücü – İstanbul | 3 – 2 | 11:31 | |
| 50. | Alanya – Karagümrük | 2 – 2 | 8:56 | | 113. | Kasımpaşa – Trabzon | 2 – 0 | 6:28 | |
| 51. | Kayseri – Beşiktaş | 0 – 2 | 5:58 | | 114. | Sivas – Başakşehir | 1 – 1 | 4:55 | |
| 52. | Trabzon – İstanbul | 4 – 0 | 4:55 | | 115. | Beşiktaş – Giresun | 3 – 1 | 5:02 | |
| 53. | Konya – Ankaragücü | 0 – 1 | 5:58 | | 116. | Kayseri – Ümraniye | 3 – 1 | 10:20 | + |
| 54. | Ümraniye – Fenerbahçe | 1 – 2 | 16:16 | | 117. | Karagümrük – Fenerbahçe | 1 – 2 | 6:11 | |
| 55. | Beşiktaş – Alanya | 3 – 0 | 7:02 | | 118. | Antalya – Alanya | 3 – 1 | 4:59 | |
| 56. | Sivas – Adana Demir | 1 – 2 | 4:47 | | 119. | Galatasaray – Kayseri | 6 – 0 | 4:11 | |
| 57. | Hatay – Trabzon | 2 – 1 | 12:31 | | 120. | İstanbul – Başakşehir | 1 – 0 | 9:21 | |
| 58. | Ankaragücü – Gaziantep | 0 – 2 | 9:06 | + | 121. | Adana Demir – Kasımpaşa | 5 – 0 | 5:02 | + |
| 59. | Antalya – Ümraniye | 3 – 2 | 9:29 | + | 122. | Fenerbahçe – Ankaragücü | 2 – 1 | 12:09 | + |
| 60. | Giresun – Galatasaray | 0 – 4 | 6:17 | + | 123. | Giresun – Sivas | 1 – 0 | 8:48 | |
| 61. | İstanbul – Kayseri | 2 – 4 | 7:59 | | 124. | Trabzon – Beşiktaş | 0 – 0 | 5:13 | |

| | | | | | | | | | |
|-----|------------------------|-------|------|---|------|-----------------------|-------|------|----|
| 62. | Fenerbahçe – Kasımpaşa | 5 – 1 | 6:03 | + | 125. | Karagümrük – Ümraniye | 4 – 2 | 9:11 | |
| 63. | Başakşehir – Konya | 2 – 0 | 9:58 | | | TOTAL ⁴ | 388 | 1058 | 41 |

(<https://www.tff.org/default.aspx?pageID=1628>), (<https://beinsports.com.tr/mac-ozetleri-goller/super-lig>).

¹ Score: Match result.

² 90 + Duration: Additional time were recorded as Minute:Second.

³ Minutes involving goals scored during additional time were recorded.

⁴ Total number of goals scored at matches, total additional time and total number of goals scored during additional time were recorded.

* 2 goals were scored during additional time at 5 matches in total. When both teams scored 1 goal reciprocally at 3 of these matches, one team scored 2 goals at once at 2 of these matches.

Data Analysis

Statistical analyses of research data were carried out with the Statistical Package for the Social Sciences (SPSS) 26.0 package program. Arithmetic average and standard deviation values were calculated with the Frequencies Analysis. Then, Paired Sample t-Test was used to test relevance of the difference between arithmetic averages of two groups. Pearson Correlation Analysis was applied at the end of this test to define the power of relation between parameters determining relevant relation according to $p < 0,05$.

FINDINGS

Frequencies Analysis

Table 3: Frequencies Analysis Results of the First 125 Matches

| Variables | N | Mean | SD |
|-----------------------|-----|--------|--------|
| Total Number of Goals | 125 | 2,85 | 1,94 |
| Additional Time | 125 | 6'25'' | 2'17'' |
| 90 + Number of Goals | 125 | 0,20 | 0,42 |

When average total number of goals was found out 2,85 according to the Frequencies Analysis of the first 125 matches, average additional time was found out 6'25'' and average number of goals scored during additional time was found out 0,20 in Table 3.

Table 4: Frequencies Analysis Results of the Last 125 Matches

| Variables | N | Mean | SD |
|-----------------------|-----|--------|--------|
| Total Number of Goals | 125 | 3,10 | 1,56 |
| Additional Time | 125 | 8'28'' | 2'46'' |
| 90 + Number of Goals | 125 | 0,33 | 0,55 |

When average total number of goals was found out 3,10 according to the Frequencies Analysis of the last 125 matches, average additional time was found out 8'28'' and average number of goals scored during additional time was found out 0,33 in Table 4.

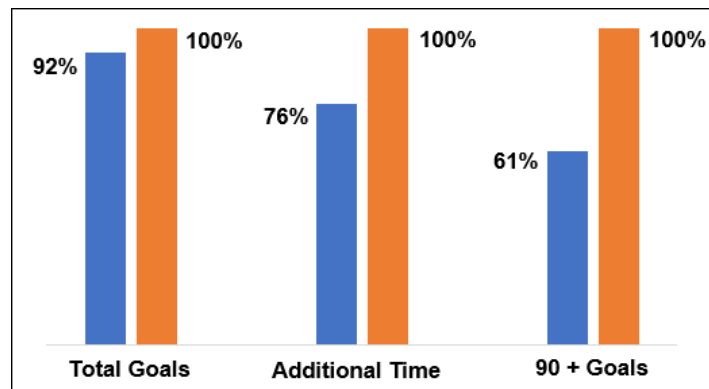


Figure 1: Percentage Value Comparison of the First 125 and the Last 125 Matches

Comparative percentage values of total number of goals, total additional time and total number of goals scored during additional time at the first 125 and the last 125 matches were given in Figure1.

1. When total number of goals were 388 at the last 125 matches, they were 356 (92%) at the first 125 matches.

2. When total additional time minutes were 1058 at the last 125 matches, they were 802 (76%) at the first 125 matches.

3. When total number of goals scored during additional time were 41 at the last 125 matches, they were 25 (61%) at the first 125 matches.

Paired Sample t-Test

Table 5: Paired Sample t-Test Results of the First 125 and the Last 125 Matches

| Compared Parameters | t | p |
|---|--------|--------|
| Total Number of Goals of the First 125 Matches Total Number of Goals of the Last 125 Matches | -1,109 | 0,270 |
| Additional Time of the First 125 Matches Additional Time of the Last 125 Matches | -6,226 | 0,000* |
| The First 125 Matches 90 + Number of Goals The Last 125 Matches 90 + Number of Goals | -2,093 | 0,038* |

*p<0,05

Below given results were collected according to the Paired Sample t-Test in Table 5:

1. With regards to additional time; relevant relation was found out between the first 125 and the last 125 matches according to $p < 0,05$.

2. With regards to the number of goals scored during additional time; relevant relation was found out again between the first 125 and the last 125 matches according to $p < 0,05$.

Pearson Correlation Analysis

The correlation analysis used to examine the relationships between evaluation parameters was based on the Pearson correlation coefficient (r) value. The correlation strength (absolute value of r) was determined using Evans' 1996 guideline. According to this; 0,00–0,19 is expressed as very low, 0,20–0,39 as low, 0,40–0,59 as medium, 0,60–0,79 as high and 0,80–1,00 as very high correlation (7).

Table 6: Results of Pearson Correlation Analysis

| Correlations | 1 | 2 | 3 | 4 | 5 |
|--|---------|---------|--------|---------|---------|
| 1 Total Number of Goals of the First 125 Matches | 1 | | | | |
| 2 Additional Time of the First 125 Matches | -0,094 | 1 | | | |
| 3 The First 125 Matches 90 + Number of Goals | 0,364** | 0,252** | 1 | | |
| 4 Total Number of Goals of the Last 125 Matches | -0,083 | – | -0,094 | 1 | |
| 5 Additional Time of the Last 125 Matches | – | -0,062 | – | -0,082 | 1 |
| 6 The Last 125 Matches 90 + Number of Goals | 0,078 | – | 0,028 | 0,271** | 0,246** |

**p<0,01 and *p<0,05

Below given results were collected according to the Pearson Correlation Analysis in Table 6:

1. At the first 125 matches; a high level of correlation ($r=0,364$) was found out between total number of goals, and total number of goals scored during additional time.
2. At the last 125 matches; a high level of correlation ($r=0,271$) was found out between total number of goals, and total number of goals scored during additional time.
3. At the first 125 matches; a low level of correlation ($r=0,252$) was found out between number of goals scored during additional time, and additional time minutes.
4. At the last 125 matches; a high level of correlation ($r=0,246$) was found out between number of goals scored during additional time, and additional time minutes.

DISCUSSION

The value given to the fact that 'goal', the key determinant in football game format, can't be easily achieved, and the instinctive importance given to the effort to reach the goal attribute football a quiet different qualification compared to other sports branches (18). Thus, the joy of a goal in football lasts longer than other sports branches. For example, volleyball or a basketball player can't become happy for so long after a point or a basket, because they have to immediately go back to their positions and defense due to the game rules. Besides, scores of these matches don't consist of little numbers like football.

International Football Association Board (IFAB) published a handbook called Laws of the Game for season 2022–2023. In this handbook, the article number 3 called Allowance for time lost' under Law 7: The Duration of the Match is as follows: *Allowance is made by the referee in each half for all playing time lost in that half through: • substitutions • assessment and/or removal of injured players • wasting time • disciplinary sanctions • medical stoppages permitted by competition rules, e.g. 'drinks' breaks (which should not exceed one minute) and 'cooling' breaks (ninety seconds to three minutes) • delays relating to VAR 'checks' and 'reviews' • any other cause, including any significant delay to a restart (e.g. goal celebrations). The fourth official indicates the minimum additional time decided by the referee at the end of the final minute of each half. The additional time may be increased by the referee but not reduced (11).*

Aforementioned rules published by IFAB have been followed more carefully after the Qatar World Cup with instructions given by the Turkish Football Federation to the referees. In this regard, this research studied the matches in season 2022–2023 in Turkish Spor Toto Male Football Super League. The match results, additional time durations and goals scored during additional time were analyzed. According to the results obtained, in the matches played after the Qatar World Cup, although average additional time durations in the second half increased 32%, number of goals scored during additional time increased exactly 64%. This double difference had an impact on more match results and points of the teams. Thus, the hypothesis of this research was verified.

When other studies in the literature are viewed, since the topic of this research is very new, no studies on this topic were found. However, there are recent studies on goal analyses of the matches. In the analysis of the goals scored in the 2022 Qatar World Cup, Arı and Apaydın (2023) stated that the teams that advanced to the next round scored more goals as a result of organized attacks due to their tactical game structure, and conceded fewer goals from the defense center, organized attack and free kicks with the help of effective team defense (2). Arı et al. (2022) suggested that in the football season 2021–2022, in Turkish Super League, the first seven teams generally became successful by scoring more goals during the first half of the games and conceding fewer goals in the second half (3). Ağyol and Tanyeri (2022) found out that the goals scored during 2020 Europe Football Championship were more in the second half of the games and they were scored by midfield players with backward passing and as a result of organized offence starting from the midfield (1). Yavuz and Saygın (2021) concluded that teams of the British Premiere League were more successful than other teams in the league in Europe in respect to offence preparation and goal formation parameters (20). Hadi and Göral (2020) suggested that minutes between 46th–60th are when goals are scored most in 2020 Europe Football

Championship, and teams completing the first half as the leading team and the ones scoring the first goal generally won in all matches (9).

According to the conclusion of this research, especially after the 2022 Qatar World Cup, the matches aren't only ninety minutes for footballers. The matches may last up to two hours with additional time. The teams should consider this and organize training plans and programs. Considering recently extended additional time durations, it can be suggested that teams should put up more concentration, and physical and mental defense resistance in the second half. In addition to this, considering that second half of the games are almost one hour without any breaks, with extended additional time, teams which need goal also need more physical and mental endurance with regards to increasing fatigue, in order to be successful in offence variations.

At the end of this research, football teams may be given some suggestions because of extended additional time. Especially when additional time at the second half of the matches is extended, physical and mental endurance may become insufficient due the impact of increasing tiredness of footballers. Thus, teams may be suggested to appropriately organize training programs, and goalkeepers, who are important elements of teams during additional time, may be suggested to keep their tactical motivation levels high in order that teams can be more successful at offence variations and resist more during defense. In parallel with the topic, researchers may be suggested to analyze lower leagues in Turkey or other countries' leagues for future studies.

CONCLUSION

In the movie 'Dar Alanda Kısa Paslaşmalar' which was about the impact of football on human life and released in 2000, following lines are like a metaphor on the relation between life and football with regards to duration; "... life extremely resembles football. Football requires individual skills. It doesn't change. It is another kettle of fish. But it is also a game played collectively which means played as a team. Isn't life like this, too? It doesn't matter how talented you are. If you don't have a good team, it is nonsense. You will fail. Life extremely resembles football; four correct passes 90% make a goal ..." (15). This expression is in fact like a metaphor for the relation between life-football with regards to duration. A football match is 90 minutes and there are +s, just like 90 years and +s possible in human life.

Edwin Buzz Aldrin; the second person to walk on the moon, who got married on his 93rd birthday (90+3), John Bannister Goodenough; winning the Nobel Prize in Chemistry at the age of 96 (90+6), Fauja Singh; running a marathon at the age of 100 (90+10), Ingeborg Syllm-Rapoport; receiving a Doctorate degree at the age of 102 (90+12), Ruth Larsson; skydiving at the age of 103 (90+13), Muazzez İlmiye Çığ; the Sumerologist, still working at the age of 109 (90+19) and Natabay Tinsiew; living until the age of 127 and being the oldest person to have ever lived in the world (90+37) are only a few of these people.

"This research, which enables us to make an inference between football and life, emerged as follows:" On the match between Hatay-Kasımpaşa on February 5, 2023, the referee extended the match by six minutes. At 90 + (6:50) minutes the team Hatay won the match 1-0 with the goal scored by 'Christian Atsu Twasam' with a free kick. This goal which brought three points to the team became the last goal of Atsu who died almost ten hours later than the match due to the earthquake in Hatay. The last goal, which came during the extended 90 + minutes bringing felicity, of a person who doesn't know that he is living final hours of his life! If there weren't such an instruction about additional time after the Qatar World Cup in 2022, Atsu wouldn't probably have experienced this happiness during the final hours of his life. And what is more, Atsu was only 31 years old.

Life gets even more beautiful, during extended 90 + minutes...

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