



Investigation of the Development of Track and Field Turkish Championships on the Basis of Branch

Atletizm Türkiye Şampiyonalarının Branş Bazında Gelişiminin İncelenmesi

ABSTRACT

Athletics is the branch that is extremely popular around the world and has the highest spectator rate, with 20% in the Olympic Games. It includes running, jumping, and throwing, walking, cross-country running, and road running tracks. This study it is aimed to examine the development of athletics in Turkey. For this purpose, the World Athletics scores obtained in the 100 m, 400 m, and 1500 m races in the Turkish Athletics Championships held in Turkey between 2011 and 2021 were considered. In the study, the World Athletics scores of the athletes in the big male and female categories who competed in the finals of the 100 m, 400 m, and 1500 m running competitions in the Turkish athletics championships held between 2011 and 2021 were used. The data used in the study were obtained from the website of the Turkish Athletics Federation. A total of 955 data were evaluated within the scope of the study. It was observed that World Athletics scores obtained from 100 m running in 2011, 2012, 2013, 2015, 2016, 2018, and 2019 were significantly lower than in 2021 ($p<0.001$). The mean World Athletics scores in 2021 were substantially higher than in 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2020 ($p<0.001$). The mean World Athletics scores in 2019 and 2021 were higher than the other years, and it was determined that the scores obtained from the 1500 m races differed significantly over the years ($p<0.001$). Female athletes achieved significantly higher World Athletics mean scores than men in the 100, 400, and 1500 m races of the Turkish athletics championships held between 2011 and 2021. As a result, there has been a development in athletics in Turkey over the years.

Keywords: Track and Field, Turkey, World Athletics,

ÖZET

Atletizm, dünya çapında son derece popüler olan ve olimpiyat oyunlarında %20 ile seyirci oranının en yüksek olduğu branştır. Koşular, atlamalar, atlamalar, yürüyüş, arazi koşusu ve yol koşu branşlarını içerir. Bu çalışmada Türkiye'deki atletizm sporumun gelişiminin incelenmesi amaçlanmaktadır. Bu amaçla 2011-2021 yılları arasında Türkiye'de düzenlenen Türkiye Atletizm Şampiyonalarının 100 m, 400 m ve 1500 m yarışmalarında elde edilen sonuçlar ile Dünya Atletizm birliğinin müsabaka derecelerine oranla belirlediği puanlar dikkate alınmıştır. Çalışmada 2011-2021 yılları arasında düzenlenen Türkiye atletizm şampiyonalarında 100 m, 400 m ve 1500 m koşu müsabakalarında finale kalan büyük erkek ve büyük kadın kategorilerindeki sporcuların sonuçları ile Dünya Atletizm birliğinin belirlediği müsabaka derecelerine orantılı puanlar kullanılmıştır. Araştırmada kullanılan veriler Türkiye Atletizm Federasyonu'nun internet sitesinden temin edilmiştir. Çalışma kapsamında toplam 955 veri değerlendirilmiştir. 2011, 2012, 2013, 2015, 2016, 2018 ve 2019 yıllarında 100 m koşudan elde edilen Dünya Atletizm puanlarının 2021 yılına göre anlamlı derecede düşük olduğu görüldü ($p<0,001$). 2021'deki ortalama Dünya Atletizm puanları, 2012, 2013, 2014, 2015, 2016, 2017, 2018 ve 2020'den önemli ölçüde daha yüksekti ($p<0,001$). 2019 ve 2021 yıllarında Dünya Atletizm puan ortalamalarının diğer yıllara göre daha yüksek olduğu ve 1500 m yarışlarından elde edilen puanların yıllara göre anlamlı farklılık gösterdiği belirlendi ($p<0,001$). 2011-2021 yılları arasında düzenlenen Türkiye Atletizm Şampiyonası'nın 100, 400 ve 1500 m yarışlarında kadın sporcuların Dünya Atletizm ortalama puanlarının erkeklerden önemli ölçüde daha yüksek olmasını görmüştür.

Anahtar Kelimeler: Atletizm, Türkiye, Dünya Atletizm

INTRODUCTION

Athletics is the branch that is extremely popular around the world and has the highest spectator rate, with 20% in the Olympic Games. It includes running, jumping and throwing, walking, cross-country running, and road running tracks. The athletics branch is managed by the World Athletics (Timika et al., 2014). Athletes are evaluated according to the distance they run, throw, or jump in the athletics branch. With the World Athletics's published score table, each athlete's performance score can be determined from the World Athletics score table, depending on their grade (Tilahun Muche et al., 2021).

Athletics is the bodywork based on the development of physical abilities such as agility, and agility strength, which is performed by running, throwing, and jumping movements and performed alone in various branches (Yapıcı & Ersöz, 2003; Zorlu et al., 2020).

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Athletics, accepted as the main branch of sports, develops the human organism best and ensures the optimum level of body functions with the training methods selected by the purpose and age in body training (Suna & Isildak, 2020). Athletics, spreading and attracting considerable attention worldwide, is a sport with millions of amateur practitioners and spectators. This interest in athletics has carried to schools and clubs and turned it into a part of daily life (Yapıcı & Ersöz, 2003).

Athletics is the most critical element of the modern Olympics. Athletics is a challenge that shows human beings the last limit of their abilities, which is said to be "cannot be reached any further," and that limits are pushed once again and are crossed from time to time (Şinoforoğlu, 2020).

It is known that the entry of athletics into Turkey resulted from the work of foreign faculty members and students working at Galatasaray High School and Robert College in the 1900s. The Turkish Athletics Federation was officially established on August 10, 1922 (Erturan et al., 2012; Oguz & Oguz, 2017). While the first Turkish Athletics Championship was held in Eskişehir on September 5, 1924, Turkey became a member of the International Association of Athletics Federations (World Athletics) in the same year (TAF, 2003).

Our athletics athlete Elvan ABEYLEGESSE, who broke new ground in 2004, broke the world record in 5000 m and 10000 m (Şengül, 2013). Although the success rate of the Turkish Athletics Federation in international competitions increased in the 2000s, it left 90 years behind in 2012. Hosting the World Indoor Athletics Championships held in Istanbul in 2012, the Athletics Federation started to get good results in such essential organizations (TAF, 2021).

Turkey, which rose to the top in European cross-country competitions in 2016 and always stood out from the top in such Balkan championships, has become an essential power in the field of athletics in the eyes of the countries around it (TAF, 2021). Ramil GULİYEV became the first person to win the senior world championship in London in 2017. Ramil Guliyev also won the Islamic Solidarity Games the same year, the Mediterranean Games a year later, and the European Championship in Berlin (Mirzoev, 2018).

Thanks to these successes that Turkey has recently increased in international competitions, it has become one of the leading athletics countries in Europe. (TAF, 2021). With more than 180 thousand licensed athletes and more than 1000 clubs, athletics has become one of Turkey's most popular sports branches. The Turkish Athletics Federation (TAF), which operates more than 200 annually, implements dozens of overseas programs and nine separate league competition programs in its country (TAF, 2021).

In our country, the problem with this sport is growing daily. Saving measures arising from the economic crisis in our country in recent years and reflected in sports and especially amateur sports, as in every field, are the trainers, facilities, materials, etc. While troubles affect all amateur branches, athletics, and gymnastics also get their share. The indifference of the media and the audience to such amateur branches affects this branch even more negatively. Sometimes, although various successes are achieved in some branches of athletics, these successes cannot be sustained, and successful athletes cannot be trained among us (Göktaş et al., 2006).

When the studies in the literature are examined, it is expected that the studies based on the development of Turkish athletics will be insufficient and that the results obtained in today's studies will gain original value in bringing different perspectives. This study it is aimed to examine the development of athletics in Turkey. For this purpose, the World Athletics scores obtained in the 100 m, 400 m, and 1500 m races in the Turkish Athletics Championships held in Turkey between 2011-2021 were considered.

MATERIAL AND METHODS

Obtaining Data

In the study, the World Athletics scores of the athletes in the big male and female categories who competed in the finals of the 100 m, 400 m and 1500 m running competitions in the Turkish athletics championships held between 2011 and 2021 were used. The data used in the study were obtained from the website of the Turkish Athletics Federation. A total of 955 data were evaluated within the scope of the study.

Statistical Analysis

The data obtained from the study were analyzed using the SPSS 25.0 (Statistical Package for Social Sciences) package program. One-way analysis of variance (One Way ANOVA) was used to determine whether there was a differentiation between World Athletics scores by years, and Dunnett's T3 test was used to determine the groups with difference. Mann Whitney U test was used to determine whether there was a difference between World Athletics scores according to gender. Obtained results were evaluated at 95% ($p < 0.05$) significance level.

RESULTS

When the World Athletics scores obtained from the 100 m races of the Turkish athletics championships are evaluated over the years, it has been observed that there is an increase in the World Athletics scores over the years in general. It was observed that World Athletics scores obtained from 100 m running in 2011, 2012, 2013, 2015, 2016, 2018 and 2019 were significantly lower than in 2021 ($p < 0.001$) (Table 1; Figure 1).

It was determined that female athletes achieved significantly higher World Athletics mean scores than men in the 100 m races of the Turkish athletics championships held between 2011 and 2021 (Table 2; Figure 2).

Table 1. Comparison of WORLD ATHLETICS scores from 100 m races by year

	N	\bar{x}	SD	Min.	Max.	p
2011	28	770,17 ^a	209,07	136	1080	.000
2012	31	816,00 ^b	120,31	605	1062	
2013	22	899,54 ^c	148,15	294	1061	
2014	15	907,66	60,10	826	1027	
2015	23	881,08 ^d	71,24	668	990	
2016	41	902,14 ^e	95,03	686	1047	
2017	10	880,30	86,12	676	993	
2018	21	929,33 ^{a,b}	73,62	808	1063	
2019	23	947,13 ^{a,b}	80,50	792	1099	
2020	17	929,47	114,59	631	1053	
2021	30	983,06 ^{a,b,c,d,e}	68,46	807	1115	
Total	261	892,39	127,73	136	1115	

Note: The difference between the same exponential letters is significant

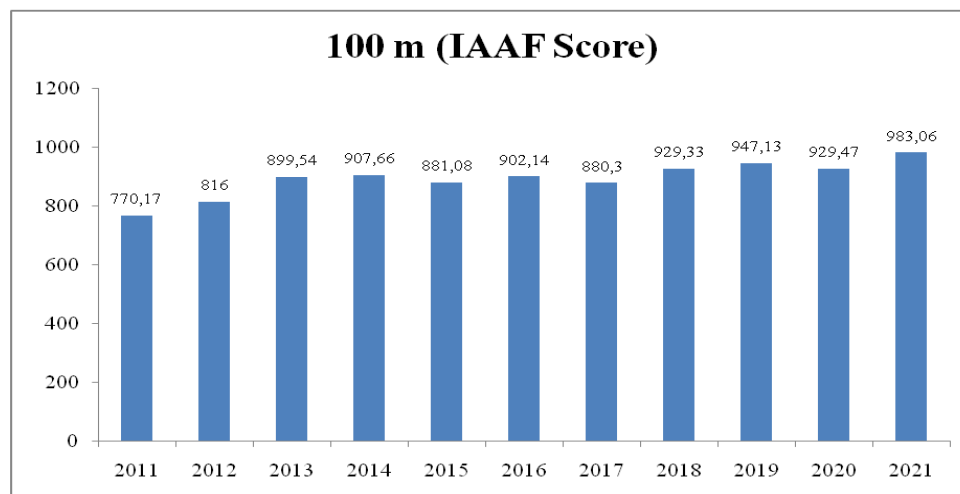


Figure 1. World Athletics scores from 100 m races by year

Table 2. Comparison of World Athletics scores from 100 m races by gender

	N	\bar{x}	SD	p
WORLD ATHLETICS Score	Male 163	873,15	147,22	.022
	Female 98	924,39	76,68	

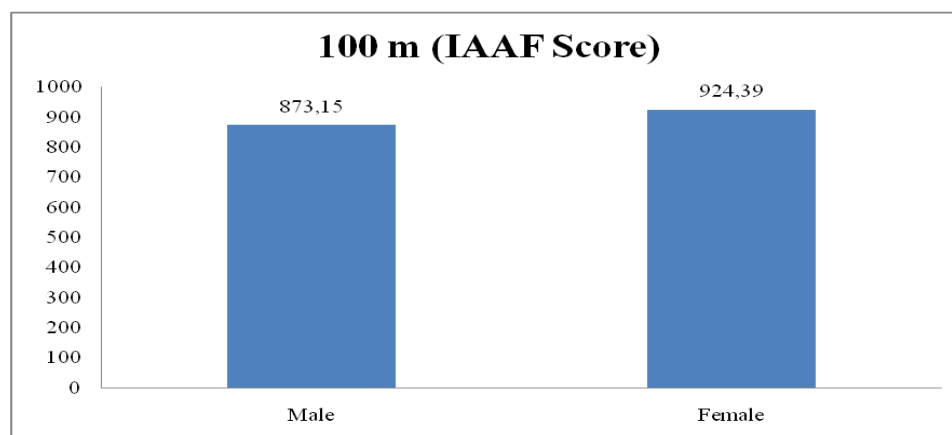


Figure 2. World Athletics scores from 100 m races by gender

When the World Athletics scores obtained from the 400 m conditions in the Turkish athletics championships were compared by years, it was found that the mean World Athletics scores in 2021 were significantly higher than in 2012, 2013, 2014, 2015, 2016, 2017, 2018 and 2020 (Table 3; Figure 3).

It was determined that female athletes achieved significantly higher World Athletics mean scores than men in the 400 m races of the Turkish athletics championships held between 2011 and 2021 (Table 4; Figure 4).

Table 3. Comparison of World Athletics scores from 400 m races by year

	N	\bar{x}	SD	Min.	Max.	p
2011	16	845,50	185,44	566	1116	.000
2012	30	878,36 ^a	126,64	648	1083	
2013	44	816,02 ^b	184,05	413	1075	
2014	33	846,72 ^c	157,06	244	1074	
2015	44	771,00 ^d	211,42	133	1027	
2016	52	897,55 ^{d,e}	119,88	646	1103	
2017	29	838,86 ^f	85,00	707	982	
2018	43	768,83 ^e	161,06	371	1010	
2019	29	845,89	94,05	713	1014	
2020	55	769,41 ^d	194,23	317	1092	
2021	22	1003,09 ^{a,b,c,d,e,f}	60,30	915	1099	
Total	397	832,81	167,01	133	1116	

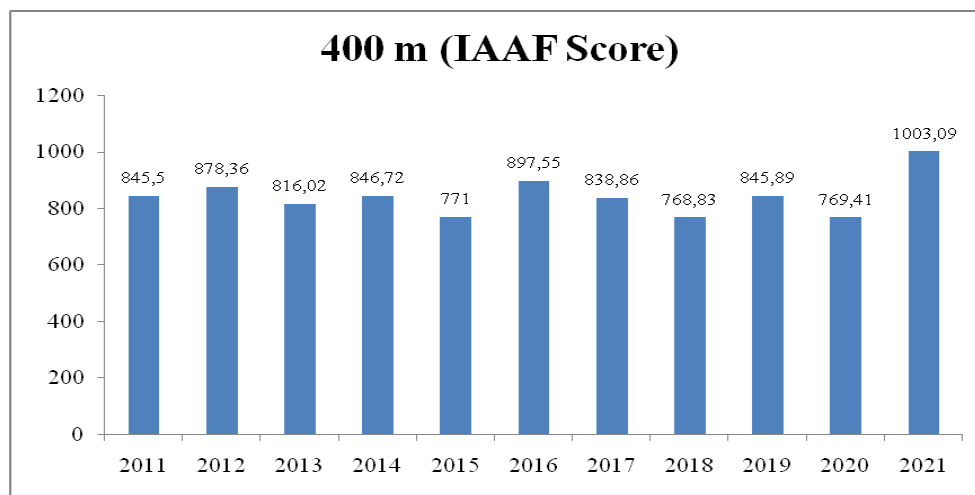


Figure 3. World Athletics scores from 400 m races by year

Table 4. Comparison of World Athletics scores from 400 m races by gender

		N	\bar{x}	SD	p
WORLD ATHLETICS Score	Male	263	810,01	166,91	.000
	Female	134	877,56	158,49	

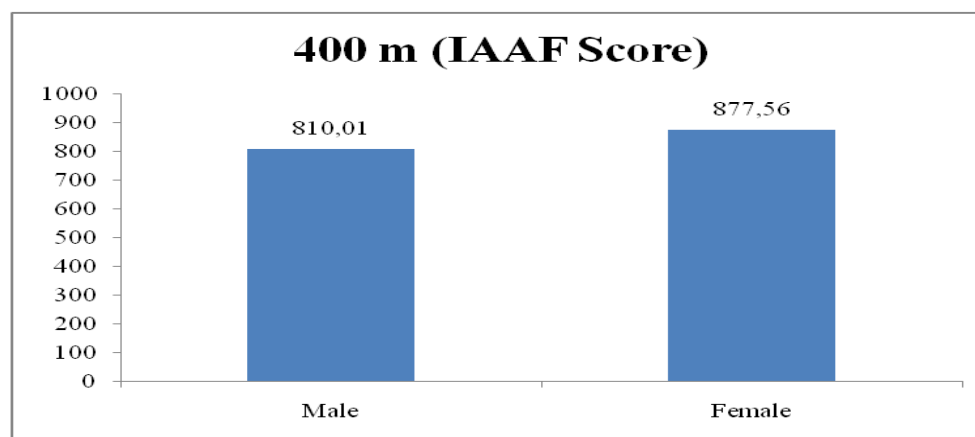


Figure 4. World Athletics scores from 400 m races by gender

When the World Athletics scores obtained from the 1500 m conditions in the Turkish athletics championships were compared according to the years, it was seen that the mean World Athletics scores in 2019 and 2021 were higher than the other years, and it was determined that the World Athletics scores obtained from the 1500 m races differed significantly over the years ($p < .001$) (Table 5; Figure 5).

It was determined that female athletes achieved significantly higher World Athletics mean scores than men in the 1500 m races of the Turkish athletics championships held between 2011 and 2021 ($p < .05$) (Table 6; Figure 6).

Table 5. Comparison of World Athletics scores from 1500 m races by year

	N	\bar{x}	SD	Min.	Max	p
2011	13	870,23	113,10	689	1064	.000
2012	28	850,46	144,00	604	1103	
2013	42	819,09 ^a	195,50	298	1098	
2014	10	899,60	74,74	806	1028	
2015	29	850,10	159,79	470	1072	
2016	88	872,46 ^b	131,30	554	1091	
2017	26	898,65 ^c	84,82	741	1035	
2018	31	834,22 ^d	147,82	489	1024	
2019	19	940,36 ^{a,b,d}	59,035	799	1017	
2020	53	791,30 ^{c,e}	161,91	448	1034	
2021	17	927,17 ^e	72,69	819	1048	
Total	356	856,03	145,36	298	1103	

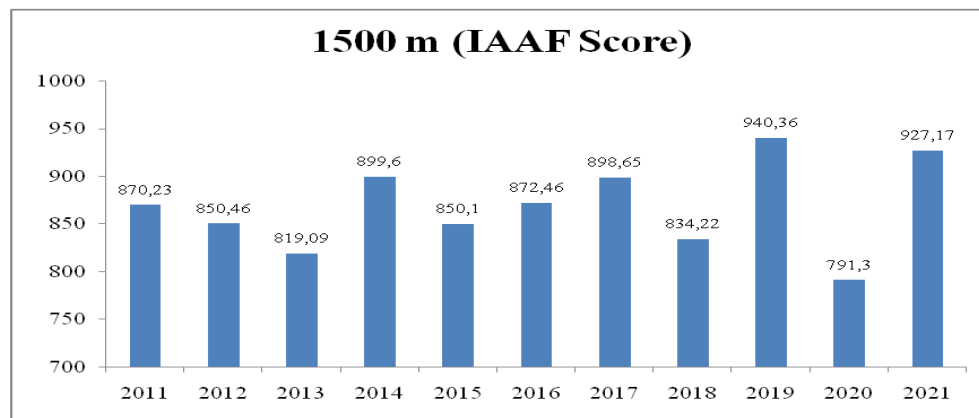


Figure 5. World Athletics scores from 1500 m races by year

Table 6. Comparison of World Athletics scores from 1500 m races by gender

		N	\bar{x}	SD	p
WORLD ATHLETICS	Male	252	837,21	154,36	.001
Score	Female	104	901,63	108,60	

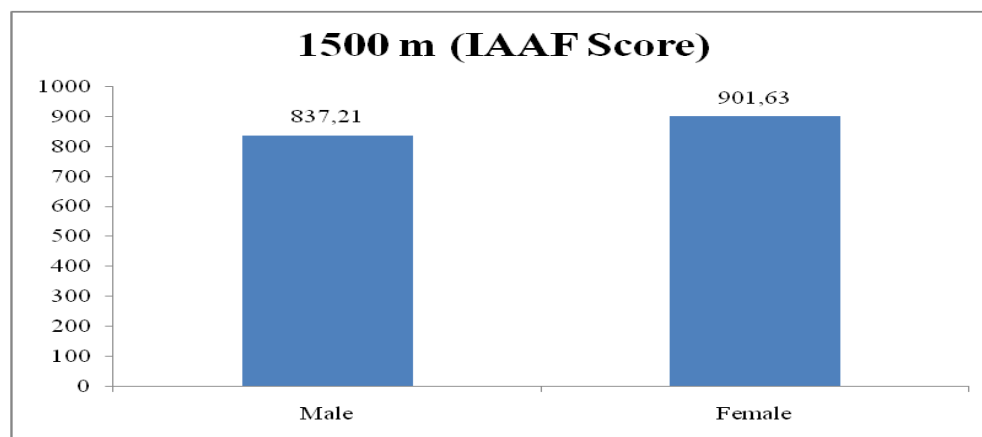


Figure 6. World Athletics scores from 1500 m races by gender

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Athletics, which started in our country with the practice of French physical education teacher Monsieur Curel in the Mekteb-i Sultani (Galatasaray High School) towards the end of the 19th century, started to train in the athletics branch of Tatavla Heraklis Club (today's Kurtuluş Sports Club), founded by the Greeks in 1896. Competing in the 5th Summer Olympics held in Stockholm in 1912, Mıgırdıç Mıgıryan and Vahram Papazyan became Turkey's first Olympic athletes.

Athletics, a critical unit within the Turkish Training Associations Alliance formed in 1922, gained a federation structure in this way. While the first Turkish Athletics Championship was held in Eskişehir on September 5, 1924,

Turkey became a member of the World Athletics in the same year. Since then, interest and investments in athletics have increased in Turkey.

Especially in the last 20-25 years, it is seen that the athletes' success has started to increase gradually, together with the fact that the athletes have more opportunities and facilities. The data obtained from our study also supports this. It has been determined that the World Athletics scores obtained by the athletes from the 100, 400, and 1500 m races in the Turkish championships have increased over the years between 2011 and 2021. This shows that investments in athletics have increased in Turkey. At the same time, developments in the field of technology are effective in increasing the performance of athletes.

Recommendations

We believe that it is important to make more investments in this field, especially to implement practices that encourage sponsorship agreements, in order for athletics to become more widespread in our country and to increase the number of successes achieved worldwide. In addition, we think that directing children to sports from a very young age and supporting those who have interest and skills in this field will ensure the development of athletics in Turkey.

In addition to all these, coaches are the greatest architects of success in sports, in the education of athletes, regardless of their sports branch and for whatever purpose. For this reason, more opportunities should be provided to train athletic trainers at universities.

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