

ISSN: 2148-1148



International Journal of Sport Culture and Science (IntJSCS)

International Refereed Scientific Journal

Volume 9 Issue 4
December 2021



International Refereed Scientific Journal



IntJSCS is an International Refereed Scientific Journal published quarterly by ISCSA.

IntJSCS is indexed/included in CrossRef, DOAJ, Google Scholar, Cite Factor, J-Gate, Research Bible, Mendeley, Open Access Journals, Academic Keys, Scientific Indexing Services, DRJI, Journal Index, ASOS, ÍSAM, Dergipark, Arastirmax; and it is also under evaluation by many other primary indexing services.

Call for papers

We invite high-quality articles, review papers, case studies of theoretical, and empirical, conceptual, and experimental research solely on sport-related themes in a properly formatted file as per the author guidelines. We do our best to have evaluated all the submissions through a fast double-blind review process by our international scientific board and publish them in the following issue. Articles submitted in IntJSCS for consideration should not have been published elsewhere and should not be submitted for review elsewhere during the duration of evaluation. As mentioned in the general scope of the journal, we value submissions from different regions of the world in order to reach a real international coverage. Last, but not the least, we promote researchers to use our open access articles in their researches and to contribute to the development of our journal through their citations.

International Editorial Board**Editor-in-Chief**

Dr. Taner BOZKUS, Assoc. Prof. (tanerbozkus(at)yahoo.com)
*Sports Science Faculty, Bartın University, **TURKEY***

Field Editors

Dr. Abdelmalik SERBOUT, Prof. (serbout4(at)gmail.com)
*Dean of Sports Faculty, University of DeJelfa, **ALGERIA***

Dr. Adel M. ALNASHAR, Prof. (elnashar841(at)hotmail.com)
*Coordinator of Graduate Studies, University of Bahrain, **BAHRAIN***

Dr. Ali OZKAN, Assoc. Prof. (ali_ozkan1(at)hotmail.com)
*Sports Science Faculty, Bartın University, **TURKEY***

Dr. Alin LARION (alinlarion(at)yahoo.com)
*Faculty of Physical Education and Sport, Ovidius University, Constanta, **ROMANIA***

Dr. Ayşegül OKSUZOĞLU, Assoc. Prof. (ayapici(at)msn.com)
*Sports Science Faculty, Pamukkale University, **TURKEY***

Dr. Amin AZIMKHANI (amin.azimkhani(at)hotmail.com)
*Faculty of Humanities, Imam Reza International University, **IRAN***

Dr. Angela MAGNANINI (angela.magnanini(at)uniroma4.it)
*Department of Sport, Health and Human Sciences, University "Foro Italico", Rome, **ITALY***

Dr. Ayad OMAR (humaomar(at)yahoo.com)
*Faculty of Physical Education and Sport Sciences, Al-Manar University, Tripoli, **LIBYA***

Dr. Bachir KHELIFI (bachirkhelifi(at)yahoo.fr)
*Faculty of Humanities and Social Sciences, University of Mascara, **ALGERIA***

Dr. Balkozar ADAM (badam60(at)gmail.com)
*School of Medicine, University of Missouri, Columbia, **USA***

Dr. Dusan MITIC, Prof. (dusan.mitic(at)fsfv.bg.ac.rs)
*Faculty of Sports and Physical Education, Belgrade University, **SERBIA***

Dr. Ferman KONUKMAN (fkonukma(at)brockport.edu)
*Qatar University, Sport Science Program, Doha, **QATAR***

Dr. Goran SPORIS, Prof. (goran.sporis(at)kif.hr)
*University of Zagreb, **CROATIA***

Dr. Jwo HANK, Prof. (t08006(at)ntnu.edu.tw)
*Department of Physical Education, National Taiwan Normal University, **TAIWAN***

Dr. Kalliope PAVLI (redionia(at)hotmail.com)
*Panteion University of Social & Political Sciences, Athens, **GREECE***

Dr. Khadraoui Mohamed HABIB (mhkhadhra(at)yahoo.fr)
*Institute of Animation for Youth and Culture, Tunis University, **TUNISIA***

Dr. Mitra Rouhi DEHKORDI (mitrarouhi(at)gmail.com)
*Physical Education of Nasibe Faculty, Farhangian University, **IRAN***

Dr. Nadim ALWATTAR, Prof. (nadhimyousif(at)yahoo.com)
*Physical Education and Sport College, University of Mosul, **IRAQ***

Dr.Ozkan ISIK, Assoc. Prof. (ozkanisik86(at)hotmail.com)
*Sports Science Faculty, Balikesir University, **TURKEY***

Dr.Pavlos OLHA, Assoc. Prof. (olha_slisenko(at)ukr.net)
*Athletics Department. Lviv State University of Physical Culture named after Ivan Bobersky, **UKRAINE***

Dr. Safet KAPO, Prof. (kapo.safet(at)gmail.com)
*University of Sarajevo, **BOSNIA HERZEGOVINA***

Dr.Simona PAJAUJIENE, Assoc. Prof. (simona.pajaujiene(at)lsu.lt)
*Department of Sports Coaching, Lithuanian Sports University, **LITHUANIA***

Dr. Sirajul Islam MOLLA (sim(at)icddrb.org)
*Managing editor of JHPN, **BANGLADESH***

Dr. S. O. BABATUNDE (bbtudolusola(at)yahoo.com)
*Faculty of Education, University of Lagos, **NIGERIA***

Dr.Vedat CINAR, Prof. (vcinar(at)firat.edu.tr)
*Sports Science Faculty, Firat University, **TURKEY***

Dr. Vladimir PUZOVIC (puzovic.vladimir(at)gmail.com)
*Belgrade Sports Academy, **SERBIA***

International Advisory Board

Chair of Board: Prof. Dr. Mehmet GUNAY (mgunay(at)gazi.edu.tr)
*Chairman of Board of Trustees, Faculty of Sport Sciences, Gazi University, Ankara, **TURKEY***

Prof. Dr. Erdal ZORBA (erdalzorba(at)hotmail.com)
*Faculty of Sport Sciences, Gazi University, Ankara, **TURKEY***

Prof. Dr. Benkazdali Hadj MOHAMED (beghadj(at)yahoo.fr)
*Director of Physical Education and Sport College, Mostaganem University, **ALGERIA***

Prof. Dr. Baojun ZHANG (doicae(at)qq.com)
*Director of Dep of Int Cooperation, Beijing Language and Culture University, **CHINA***

Prof. Dr. İ. Hakkı MİRİCİ (ismailm(at)tr.net)
*Former President/Board Member of World Council for Curriculum and Instruction, **TURKEY***

Prof. Dr. Daniela DASHEVA (dahsheva(at)nsa.bg)
*National Sports Academy, Vassil Levski, Sofia, **BULGARIA***

Prof. Dr. Dana BADAU (danab3377(at)yahoo.com)
*President of National Sport for All Federation, **ROMANIA***

Prof. Dr. Hayati BESIRLI (hayatibesirli(at)gmail.com)
*Head of Sociology Department, Manas University, Bishkek, **KYRGYZSTAN***

Prof. Dr. Ifet MAHMUTOVIC (ifetmahmutovic(at)gmail.com)
*University of Sarajevo, Sarajevo, **BOSNIA HERZEGOVINA***

Prof. Dr. Ju-Ho CHANG (changjuhd(at)hotmail.com)
*President of International Sport for All Federation (TAFISA), **S. KOREA***

Prof. Dr. Mona Saleh Al ANSARI (alansarim(at)edu.uob.bh)
*Dean of Physical Education and Physiotherapy College, University of Bahrain, **BAHRAIN***

Prof. Dr. Peter KAPUSTIN (peter.kapustin(at)uni-seeburg.at)
*Vice Rector, Privatuniversitat Schloss Seeburg, **AUSTRIA***

Prof. Dr. Robert SCNEIDER (rschneid(at)brockport.edu)
*The College at Brockport University of New York, **USA***

Prof. Dr. Yasuo YAMAGUCI (yasuoyama(at)nifty.com)
*President of National Sport for All Federation, **JAPAN***

Layout Editor

Caner CENGİZ, Research Assistant (caner.cengizz(at)gmail.com)
*Sports Science Faculty, Ankara University, **TURKEY***

TABLE OF CONTENTS

1)) *An Analysis of Youth Leadership Traits Among Students at Faculty of Sports Sciences, 354-369*

Asil ÇETİNKAYA, Tonguç Osman MUTLU, Halil Erdem AKOĞLU, Halil Evren ŞENTÜRK

Doi Number: <http://dx.doi.org/10.14486/IntJSCS.2022.650>

2)) *Does Floor Color Affect Athletes' Anticipation Time?, 370-375*

Kemal GÖRAL, Büşra SÖZLÜ, Ender ŞENEL

Doi Number: <http://dx.doi.org/10.14486/IntJSCS.2022.651>

3)) *Personality Traits of Veteran Folk Dancers and Their Participation Motivation in Sports, 376-386*

Aydiner Birsin YILDIZ, Gözde ALGÜN DOĞU

Doi Number: <http://dx.doi.org/10.14486/IntJSCS.2022.652>

4)) *The Comparison of Football Academy Systems between Turkey and England, 387-411*

Ender ŞENEL, Özcan SAYGIN

Doi Number: <http://dx.doi.org/10.14486/IntJSCS.2022.653>

5) *The Relationship between Ankle Proprioception and Dynamic Balance Performance in Wrestlers, 388-394*

Ayşegül Yapıcı Öksüzoğlu, Halit Egesoy, Berk Işıkol, Engin Güneş Atabaş

Doi Number: <http://dx.doi.org/10.14486/IntJSCS.2022.653>

REFEREES OF THIS ISSUE

Dr. Ali ÖZKAN
Dr. Baki YILMAZ
Dr. Erkal ARSLANOĞLU
Dr. Gökhan İPEKOĞLU
Dr. İlhan ADİLOĞULLARI
Dr. Övünç ERDEVECİLER
Dr. Serkan KURTİPEK
Dr. Velittin BALCI

An Analysis of Youth Leadership Traits Among Students at Faculty of Sports Sciences

Asil ÇETİNKAYA¹, Tonguç Osman MUTLU², Halil Erdem AKOĞLU², Halil Evren ŞENTÜRK¹

¹Muğla Sıtkı Koçman University, Muğla, TURKEY
<https://orcid.org/0000-0001-5497-4335>

¹Muğla Sıtkı Koçman University, Muğla, TURKEY
<https://orcid.org/0000-0003-1270-6978>

²Ankara Üniversitesi, Ankara, TURKEY
<https://orcid.org/0000-0002-0818-7143>

¹Muğla Sıtkı Koçman University, Muğla, TURKEY
<https://orcid.org/0000-0001-7402-0758>

Email: asilfener09@gmail.com, omutlu1907@hotmail.com, heakoglu@ankara.edu.tr,
halilevrensenturk@gmail.com

Type: Research Article (Received: 26.11.2021 - Accepted: 23.12.2021)

Öz

Youth is defined as a period between childhood and adulthood for personal and mental development and preparation for future life. Individuals who succeed in integrating their leadership skills during their childhood into their educational experiences during their youth improve their power in an area of specialization and activate their youth leadership skills. Thus, they become skilled individuals who can take responsibility easily against various events in their lives and manage and direct their respective organization. The present study aims to analyze youth leadership skills among students at Faculty of Sports Sciences based on various variables and to improve these students' leadership abilities through making a number of suggestions derived from the analysis findings. Survey was used as a research method in the present study. The population of the study consisted of students studying at Faculty of Sports Sciences at Muğla Sıtkı Koçman University, and the sample of the study consisted of 394 students studying at the same faculty and university. "Youth Leadership Scale" developed by Turan and Cansoy (2016) was used for data collection. A statistically significant difference was found between the participants' university departments and their determination/goal setting and trusting/reliability sub-dimension scores. In addition, a statistically significant difference was observed between the participants' grade levels and their communication sub-dimension scores. Similarly, there was a statistically significant difference between the participants' grade point average scores and their group skills and problem-solving sub-dimension scores. Finally, a statistically significant difference was found between students' participation in leadership classes and all scale sub-dimension scores. As a result, it was found that the students who participated in a leadership class displayed more leadership traits compared to those who did not take such classes.

Keywords: Youth, Leadership, Youth Leadership, Sports Sciences.

Introduction

UNESCO and the United Nations have determined the age range for youth as 15-24 (UN, 2020, UNESCO, 2016). Turkey, on the other hand, adopted the age of 15-24 as the youth period determined by the UN. During this period, young individuals receive education in different areas of specialization in order to meet their needs and improve their skills, thus advancing their life knowledge in this process of learning. From their birth to their death, due to some genetic traits (Freedman, 1974) and environmental factors (Skinner, 2002), individuals are likely to display many different behaviors in terms of managing various situations in their lives (Buss, 2011; Kandler and Papendick, 2017). Therefore, it is important to identify the reasons for these differences and help young individuals to overcome difficulties in their lives, which will eventually prepare them for their future career (Cansoy and Turan, 2016). Most leadership development targets youth, a "fuzzy category" that includes pre-teens, adolescents, students, and young or developing adults (Carroll and Frith, 2020). Youth leadership development research has been an issue that has been emphasized for a long time. Youth leadership and policy have long recognized the value of connecting schools, young people, parents, families and communities (Bezinde, Foroughi and Godwyll, 2018; Carroll and Firth, 2021; Marsh, Strunk, Bush-Mecenas and Huguet, 2015; Seemiller, 2020; Thompson and Miller, 2017). In this respect, the determination and improvement of young individuals' leadership traits have become a crucial research topic.

Youth Leadership

In order to understand the concept of youth leadership, firstly, what is the concept of leadership should be looked at. Northouse (2004) proposes leadership as a process in which an individual influence a group of people to achieve a common goal. Chemers (2002) suggests that leadership is a process of social impact in which one can get the help and support of others to accomplish a common task.

There are differences between adult leadership and youth leadership. Unlike adult leadership, youth leadership focuses on methods in which leadership can be discovered, taught or experienced by young people (Redmond and Dolan, 2016). While these methods are based on learning by experience, they not only develop skills, but also impose the opportunity to practice using original and meaningful ways (MacNeil, 2006).

The widely used definition of youth leadership development by Zeldin and Camino (1999) is known as "providing experiences that help young people develop the qualities necessary to lead others, from highly structured to highly informal". According to Jolly and Kettler (2004), individuals with youth leadership traits are defined as individuals who who has the ability to guide and direct members of youth communities within the framework of various activities in those communities. Similarly, youth leadership focuses on working together for a common target or cause as well as young leaders in a certain organization (Redmond and Dolan, 2016). Leadership development is generally considered to involve focusing on decision-making skills, communication skills, feedback skills, awareness of the group's initiative, and self-awareness (Sibthorp, Paisley and Gookin, 2007). Those with increased leadership abilities through specific leadership experiences may be more likely to participate in leadership positions in the future and pass on what they learn to others (Allen-Craig and Hartley, 2012). As a result of the literature reviews on youth leadership, "problem solving skills (Connelly et al., 2000; Karnes and Bean, 1990; Meyer, 1995; Mumford et al., 2000), goal setting (Addison, 1985; Anyon et al., 2007), decision-making skills (Anyon et al., 2007; Fertman and Linden, 1999; Joy, Yang and Farzanehkia, 2000), group skills (Conner and Strobel, 2007; Kouzes and Posner, 2006), knowing individual and group values (Amirianzadeh, 2012; Henderson,

Whitaker, Bialeschki, Scanlin and Thurber, 2007; Kouzes and Posner, 2006), written and verbal communication skills (Zimmerman and Burkhardt, 1999a, 1999b; Conner and Strobel, 2007), motivation (Amirianzadeh, 2012; Anyon et al., 2007; Özgün et al., 2017; Henderson, Whitaker, Bialeschki, Scanlin and Thurber, 2007), social and moral responsibility, sense of commitment (Addison, 1985), conflict management and solving (Fertman and Long, 1990; Zimmerman and Burkhardt, 1999a, 1999b), stress management (Fertman and Long, 1990; Fertman and Linden, 1999), self-knowledge (Amirianzadeh, 2012; Anyon et al., 2007; Conner and Strobel, 2007; Meadows, 2012), self-directedness (Garrison, 1997), emotional intelligence (Antonakis, Ashkanasy and Dasborough, 2009; George, 2000; Kul et al., 2014; Kerr et al., 2006), self-regulation (Ent, Baumeister and Vonasch, 2012; Moss, Downing and Callanan, 2009), management (Mabey and Lee, 2007, Smircich and Morgan, 1982), modeling (Kouzes and Posner, 2006), critical thinking (Anyon et al., 2007; Conner ve Strobel, 2007), risk-taking (Drum, 1988; Kouzes ve Posner, 2006), the ultimate goal of the leaders to cause positive change (Rosch ve Anthony, 2012) are the treats of youth leadership.

Liu et al. (2020) argue that there are windows of opportunity for leadership development throughout life, and each stage offers unique opportunities to encourage this development. Especially adolescence is the time to develop many important life skills, including leadership skills (Bates, Anderson-Butcher, Ferrari and Clary, 2020). Various positive experiences such as being respected in a circle of friends during childhood, being surrounded by classmates in the classroom during early school period or being selected as the classroom president by influencing classmates thanks to genetic features, charisma and self-confidence can be considered as indicators of an individual's innate leadership traits (Edelman et al., 2004). Young individuals need to direct their life towards their respective goals and wishes in order to realize their leadership potentials and, after this stage, they are expected to influence people around them and display their leadership for those people. Finally, their leadership traits are completed when they meet the needs of members in a certain group or organization in relation with organizational goals (McCauley et al., 2010).

The nature and form of leadership is changing in today's dynamic sports industries. The traditional management of the industrial era in the past no longer makes sense at the individual and organizational levels in current sports organizations, given the competitive market and economic uncertainty (Megheirkouni, 2018). Physical education and sports teachers, sports managers, coaches and recreation specialists are trained in universities to overcome these problems. The prevalence of sports activities in the whole world and indispensable role of sports organizations in economic and political contexts underline the importance of taking sports into account in political and economic decision-making processes. There is no doubt that individuals who are expected to undertake active roles in future sports organizations are candidates of physical education and sports teacher, sports manager, coach and recreation expert. In this respect, university students' theoretical education during their university years must be integrated into an active worklife, and their willingness to participate in research activities must be encouraged through related activities in order to help them keep up with the innovations in the world (Bozyiğit and Çetin, 2019).

The present study aims to draw attention to the potential leadership of students at Faculty of Sports Sciences, as they are expected to take part in and lead various sports organizations and thus contribute to the development and success of these sports organizations in the future. This is because, in addition to their roles as a teacher, candidates of physical education and sports teacher who will work at schools affiliated with Ministry of National Education need to become a responsible leader for their students. Similarly, candidates of sports managers, coaches and recreation experts who will be employed in central and local institutions

affiliated with Ministry of Youth and Sports need to act as responsible leaders who guide their respective communities. Considering the complexity of these roles, it is of vital importance for students who study at faculties of sports sciences to gain active and effective leadership traits and skills during their education, to guide and direct a certain sports organization and members of that organization through their related qualities in the future, and, finally, to contribute to the achievement of organizational goals. In the light of these points, the present study aims to evaluate students studying at Faculty of Sports Sciences in terms of their youth leadership traits based on various variables and improve these students' youth leadership skills through practical suggestions based on the obtained findings.

Material Method

Research Model

Survey was used as a research method in the present study. The questionnaire consisted of two parts. In the first part, participants' demographic information such as sex, age, department, grade level, grade point average (GPA) and history of participation in a leadership class was obtained. In the second part, "Youth Leadership Scale" developed by Seevers et al. (1995) adapted into Turkish by Cansoy and Turan (2016) was used.

Participants

The population of the study consisted of students studying at Faculty of Sports Sciences at Muğla Sıtkı Koçman University. The sample of the study consisted of 394 students, 134 female and 260 males, who study at the same faculty and university and voluntarily participated in the survey.

Measures

Developed by Seevers et al. (1995), adapted into Turkish by Turan and Cansoy (2016) "Youth Leadership Scale" with 40 questions and 7 sub-dimensions was used in the present study. Item 1, 2, 3, 4, 5, 6 and 7 belong to "Determination/Goal Setting" sub-dimension, Item 8, 9, 10, 11, 12, 13 and 14 belong to "Communication" sub-dimension, Items 15, 16, 17, 18, 19, 20 and 21 belong to "Group Skills" sub-dimension, Item 22, 23, 24, 25, 26 and 27 belong to "Trusting/Reliability" sub-dimension, Item 28, 29, 30 and 31 belong to "Decision-making" sub-dimension, Item 32, 33, 34 and 35 belong to "Problem-Solving" sub-dimension and Item 36, 37, 38, 39 and 40 belong to "Responsibility" sub-dimension.

Procedure

A reliability test was performed in order to calculate Cronbach alpha coefficients of the data obtained from the present study. In addition, a normality test was also applied to the obtained data to reveal whether they displayed a normal distribution, and parametric tests were applied due to the normal distribution of the obtained data. After data frequency values were calculated, a T-test was applied between sex and history of participation in a leadership class and scale sub-dimensions. One-way analysis of variance was used between age, department, grade level and GPA and scale sub-dimensions.

Results

Table 1. Participants’ demographic information

	<i>Variable</i>	<i>f</i>	<i>%</i>
Sex	Female	134	34
	Male	260	66
Age	18-19	98	24.9
	20-21	159	40.4
	22-23	101	25.6
	24 and over	36	9.1
Department	PE Teaching	57	14.5
	Sports Management	175	44.4
	Coaching	55	14.0
	Recreation	107	27.2
Grade Level	Freshman	118	29.9
	Sophomore	94	23.9
	Junior	105	26.6
	Senior	77	19.5
Grade Point Average	1.99 or lower	22	5.6
	2.00-2.49	109	27.7
	2.50-2.99	133	33.8
	3.00-3.49	93	23.6
	3.50 or higher	37	9.4
Have you ever taken a class on leadership?	Yes	133	33.8
	No	261	66.2
Total		394	100%

As seen in Table 1, 34% of the participants were female students, while 66% of them were male students. 40.4% of the participants were aged 20-21, 25.6% of them were aged 22-23, 24.9% of them were aged 18-19 and 9.1% of them were aged 24 or over. 44.4% of the participants studied Sports Management, 27.2% of them studied Recreation, 14.5% of them studied Physical Education and Sports Teaching and 14% of them studied Coaching Education. %29.9 of the participants were freshman students, 23.9% of them were sophomore students, 26.6% of them were junior students and 19.5% of them were senior students. 33.8% of the participants had a GPA of 2.50-2.99, 27.7% of them had a GPA of 2.00-2-49, 23.6% of them had a GPA of 3.00-3.49 and 9.4% of them had a GPA of 3.50 and higher, while only 5.6% of them had a GPA of 1.99 or lower. Finally, while 33.8% of the participants stated that they took a class on leadership in the past, 66.2% of them answered in the negative.

Table 2. The Cronbach Alfa, skewness and kurtosis coefficients of scale sub-dimensions

Sub-dimension	Items	N	X	Std. D.	Cronbach Alfa	Skewness	Kurtosis
Determination / Goal setting	7	394	3,9511	,68070	,878	-,792	,844
Communication	7	394	3,8390	,69223	,862	-,507	,344
Group Skills	7	394	4,0664	,60446	,857	-1,135	1,119
Trusting / Reliability	6	394	4,1510	,61537	,778	-1,091	1,407
Decision-making	4	394	4,0742	,63384	,811	-,701	,788
Problem-solving	4	394	4,0977	,63754	,802	-,727	,779
Responsibility	5	394	4,0264	,65032	,768	-,860	1,150

When sub-dimension reliability scores of the data obtained from “Youth Leadership Scale” in the present study were analyzed, it was observed that Cronbach alpha coefficients of determination/goal setting, communication, group skills, trusting/reliability, decision-making, problem-solving and responsibility sub-dimensions were calculated as .87, .86, .85, .77, .81,

.80 and .76, respectively. Cronbach's alpha values for all the constructs were $>.70$ indicating the reliability of the scale (Nunnally, 1978). Therefore, it can be stated that while responsibility and trusting/reliability sub-dimensions of the scale had high Cronbach alpha values, decision-making, problem-solving, group skills, communication and determination/goal setting sub-dimensions had excellent Cronbach alpha values. In addition, it was observed that the normality test applied to mean scale and sub-dimension scores in the present study displayed a distribution varying between $+1.5$ and -1.5 . According to Tabachnick and Fidell (2013), a distribution value between $+1.5$ and -1.5 was considered as an indicator of normal data distribution. Therefore, it is evident that mean scale scores in the present study displayed a normal distribution.

Table 3. The results of T-test between the participants' mean scale and sub-dimension scores in terms of gender

Variable	Sex	N	Mean	Std. D.	df	p
Mean Scale Score	Female	134	4.0922	.46942	392	.031*
	Male	260	3.9798	.51696		
Determination / Goal setting	Female	134	4.0416	.63474	392	.051
	Male	260	3.9044	.69983		
Communication	Female	134	3.9083	.66371	392	.146
	Male	260	3.8033	.70507		
Group Skills	Female	134	4.1407	.56413	392	.071
	Male	260	4.0280	.62181		
Trusting / Reliability	Female	134	4.2027	.57458	392	.217
	Male	260	4.1244	.63480		
Decision-making	Female	134	4.1530	.62971	392	.076
	Male	260	4.0337	.63335		
Problem-solving	Female	134	4.1437	.64261	392	.307
	Male	260	4.0740	.63485		
Responsibility	Female	134	4.1299	.57583	392	.017*
	Male	260	3.9731	.68048		

($p < .05$ * $p < .01$ **)

According to Table 3, female participants' mean scale scores significantly differed from those of male participants. In addition, only in terms of responsibility sub-dimension, female participants significantly differed from male participants.

Table 4. The results of one-way analysis of variance among the participants' mean sub-dimension scores in terms of department

Variable	Department	N	Mean	Std. D.	p	Tukey
Mean Scale Score	A PE Teaching	57	3.8281	.53959	.013*	A<B,C,D
	B Sports Management	175	4.0781	.44678		
	C Coaching	55	4.0150	.58738		
	D Recreation	107	4.0224	.50730		
Determination / Goal setting	A PE Teaching	57	3.6942	.79376	.014*	A<B,C,D
	B Sports Management	175	4.0310	.58198		
	C Coaching	55	3.9558	.77317		
	D Recreation	107	3.9546	.69172		
Communication	A PE Teaching	57	3.6216	.67412	.082	
	B Sports Management	175	3.8873	.64864		
	C Coaching	55	3.8597	.71982		
	D Recreation	107	3.8652	.74278		
Group skills	A PE Teaching	57	3.9398	.58774	.193	
	B Sports Management	175	4.1273	.53921		

	C	Coaching	55	4.0779	.65224		
	D	Recreation	107	4.0280	.67960		
Trusting / Reliability	A	PE Teaching	57	3.9678	.66177	.030*	B > A
	B	Sports Management	175	4.2362	.55343		
	C	Coaching	55	4.0939	.67796		
	D	Recreation	107	4.1386	.63547		
Decision-making	A	PE Teaching	57	3.8772	.69937	.080	
	B	Sports Management	175	4.1257	.59383		
	C	Coaching	55	4.0955	.66578		
	D	Recreation	107	4.0841	.63315		
Problem-solving	A	PE Teaching	57	3.9518	.64337	.310	
	B	Sports Management	175	4.1271	.60699		
	C	Coaching	55	4.1364	.68180		
	D	Recreation	107	4.1075	.65796		
Responsibility	A	PE Teaching	57	3.8421	.67690	.088	
	B	Sports Management	175	4.0754	.61047		
	C	Coaching	55	3.9709	.77691		
	D	Recreation	107	4.0729	.61699		

($p < .05$ * $p < .01$ **)

It can be understood from Table 4 that the participants studying Physical Education and Sports Teaching significantly differed from other participants and had a lower mean scale score in terms of determination/goal setting sub-dimension. However, in terms of trusting/reliability sub-dimension, the participants studying Sports Management significantly differed from those studying Physical Education and Sports Teaching and had a higher mean scale score. The results of one-way analysis of variance between mean scale score and departments indicated that Physical Education and Sports Teaching department significantly different from other departments and had a lower mean scale score.

Table 5. The results of one-way analysis of variance among the participants' mean sub-dimension scores in terms of grade level

<i>Variable</i>		<i>Grade Level</i>	<i>N</i>	<i>Mean</i>	<i>Std. D.</i>	<i>p</i>	<i>Tukey</i>
Mean Scale Score	A	Freshman	118	4.0100	.51661	.215	
	B	Sophomore	94	3.9327	.56209		
	C	Junior	105	4.0679	.51244		
	D	Senior	77	4.0666	.37325		
Determination / Goal setting	A	Freshman	118	3.9794	.67247	.490	
	B	Sophomore	94	3.8860	.79099		
	C	Junior	105	4.0150	.62331		
	D	Senior	77	3.8998	.62273		
Communication	A	Freshman	118	3.8668	.71969	.015*	D > B
	B	Sophomore	94	3.6505	.63599		
	C	Junior	105	3.8789	.72079		
	D	Senior	77	3.9722	.63973		
Group skills	A	Freshman	118	4.0351	.61066	.462	
	B	Sophomore	94	4.0076	.64719		
	C	Junior	105	4.1048	.63650		
	D	Senior	77	4.1336	.48575		
Trusting / Reliability	A	Freshman	118	4.1031	.64085	.228	
	B	Sophomore	94	4.0780	.68727		
	C	Junior	105	4.2254	.61498		
	D	Senior	77	4.2121	.45694		
Decision-making	A	Freshman	118	4.0530	.66494	.632	
	B	Sophomore	94	4.0372	.66797		

Problem-solving	C	Junior	105	4.0714	.63711	.470
	D	Senior	77	4.1558	.53502	
	A	Freshman	118	4.0911	.69543	
	B	Sophomore	94	4.0160	.65048	
Responsibility	C	Junior	105	4.1405	.60040	.476
	D	Senior	77	4.1494	.57677	
	A	Freshman	118	4.0068	.67580	
	B	Sophomore	94	3.9638	.72198	
	C	Junior	105	4.1048	.60389	
	D	Senior	77	4.0260	.57706	

($p < .05$ * $p < .01$ **)

It can be seen in Table 5 that senior students significantly differed from sophomore students in terms of communication sub-dimension and had a higher mean scale score. However, no statistically significant differences were found in one-way analysis of variance between mean scale scores and grade levels.

Table 6. The results of T-test among the participants' mean sub-dimension scores in terms of history of participation in a leadership class

Variable	<u>Have you ever taken a class on leadership?</u>	<u>N</u>	<u>Mean</u>	<u>Std. D.</u>	<u>df</u>	<u>p</u>
Mean Scale Score	Yes	133	4.1897	.36575	392	.000**
	No	261	3.9306	.54089		
Determination / Goal setting	Yes	133	4.0827	.57338	392	.003**
	No	261	3.8840	.72116		
Communication	Yes	133	4.0559	.59757	392	.000**
	No	261	3.7285	.71183		
Group Skills	Yes	133	4.2299	.46552	392	.000**
	No	261	3.9830	.64932		
Trusting / Reliability	Yes	133	4.3233	.43362	392	.000**
	No	261	4.0632	.67380		
Decision-making	Yes	133	4.2124	.52809	392	.001**
	No	261	4.0038	.67153		
Problem-solving	Yes	133	4.2820	.49754	392	.000**
	No	261	4.0038	.68006		
Responsibility	Yes	133	4.2180	.51136	392	.000**
	No	261	3.9287	.69147		

($p < .05$ * $p < .01$ **)

It is evident in Table 6 that a statistically significant difference was found between the participants' mean scale and sub-dimension scores and their history of participation in a leadership class in the past.

Discussion and Conclusion

It was observed in the present study that 40.4% of the participants were aged 20-21, 25.6% of them were aged 22-23, 24.9% of them were aged 18-19 and 9.1% of them were aged 24 or over. UNESCO (2016) and UN (2020) also point out, individuals aged between 15 and 25 are accepted as "young". It can be thus said that the students who participated in the present study conform to the definition of "youth" given above.

The results of T-test between the participants' sex and mean scale scores demonstrated that female participants differed from male participants significantly. However, in terms of sub-dimension scores, female participants differed significantly from male participants only in responsibility sub-dimension. Brick (1998), Chan (2000), Dugan and Komives (2007), and Çelik and Durmuş (2011) reported that women displayed more youth leadership traits compared to men. Again, Osmane and Brennan (2018) concluded in their study that the leadership skills of women are higher than that of men. Therefore, the findings of the present study overlap with those of the above-mentioned studies. The fact that women displayed more youth leadership traits compared to men can be associated with their higher participation in collaborative activities and studies, while men usually tend to participate in activities requiring individual physical strength for the improvement of their youth leadership traits (Mullen and Tuten, 2004). Studies in the literature suggest that men and women develop different aggression or cooperative tendencies. Men exhibit more competitive behaviors and women more collaborative behaviors (Balliet et al., 2011; Nichols, 2015; Van Vugt, 2009; Van Vugt & Spisak, 2008). Previous research in the literature reveals a number of sociocultural barriers that may explain women's underrepresentation in leadership, particularly male-dominated networks, social stereotyping, gender discrimination, and women's excessive workload due to greater family responsibilities. (Huang and Aaltio 2014; Zhao and Jones, 2017).

According to the one-way analysis of variance between the classes of the individuals participating in the study and the sub-dimensions of the scale, as the class in which they study increases, the ability of individuals to communicate also increases. However, according to the results of one-way analysis of variance, no statistically significant differences were found between mean scale scores and grade levels. The present study also found a statistically significant difference between the participants' departments and mean scale scores. It is seen that the leadership traits of the departments where the education is taken are higher in the participants who study in the sports management department. This may be due to the fact that the courses that can develop leadership qualities in the curriculum of the students who study in the department of sports management are more intense.

The results of T-test between the participants' history of participation in leadership classes and mean sub-dimension scores demonstrated that the participants who took a leadership class significantly differed from those who did not take such a class in terms of all scale sub-dimensions. Durlak and Weissberg (2007) reported that individuals who took part in various activities to improve their leadership abilities increased their performance compared to those who did not. Many studies in the literature have shown that youth leadership programs contribute significantly to the leadership characteristics of individuals (Bates et al., 2020; Osmane & Brennan, 2018; Puxley & Chapin, 2020; Sewell et al., 2020; Sherif, 2019). Parkhill, Deans, and Chapin (2018) stated that leadership programs have the potential to enable adolescents to create and discover their own personal and group identities, to gain self-confidence and to act in an original way. These findings suggest that community-based group programs have the potential to significantly allow adolescents to acquire and practice leadership skills before and potentially. It was also observed that young individuals who participated in leadership-oriented activities improved their leadership abilities (NCYD, 2011). Therefore, the present study is supported by the findings of the above-mentioned studies in terms of the argument that individuals who take leadership classes display more leadership behaviors.

In conclusion, it was found in the present study that female students had more leadership traits compared to male students, that the students studying at the department of sports management had more leadership traits compared to the students studying at other departments, that the senior students had more communication abilities compared to the sophomore students, that the students who took a leadership class had more youth leadership traits compared to those who did not take any leadership classes.

Suggestions

- The integration of a mandatory leadership course into undergraduate curricula at different departments of sports sciences will contribute to the development of young individuals' active leadership skills for their prospective positions in related sports organizations and institutions.
- The present study may be conducted on an experiment and control group.
- The present study may be conducted at different faculties of different universities in different geographical regions of Turkey.

REFERENCES

- Addison, L. (1985). *Leadership skills among the gifted and talented*. ERIC Clearinghouse on Handicapped and Gifted Children.
- Allen-Craig, S., & Hartley, C. (2012). Exploring the long-term effects for young women involved in an outdoor education program. *Journal of Outdoor Recreation, Education, and Leadership*, 4(2), 88-91.
- Amiriazadeh, M. (2012) 'Hexagon theory-student leadership development', *Procedia-Social and Behavioral Sciences*, 31, 333-339.
- Antonakis, J., Ashkanasy, N. M., & Dasborough, M. T. (2009). Does leadership need emotional intelligence?', *The Leadership Quarterly*, 20(2), 247-261.
- Anyon, Y., Brink, K., Crawford, M., Fernández, M., Hofstedt, M., Osberg, J., & Strobel, K. (2007). *A Handbook for Program Staff, Teachers, and Community Leaders*. (Retrieved August, 20, 2014).
- Balliet, D., Li, N. P., Macfarlan, S. J., & Van Vugt, M. (2011). Sex differences in cooperation: a meta-analytic review of social dilemmas, *Psychological Bulletin*, 137(6), 881.
- Bates, S., Anderson-Butcher, D., Ferrari, T., & Clary, C. (2020). A comparative examination of how program design components influence youth leadership-skill development. *Journal of Youth Development*, 15(6), 91-115.
- Bozyiğit, E., & Çetin, E. (2019). Examination of self-leadership levels of sports sciences students. *Spormetre The Journal of Physical Education and Sport Sciences*, 17(1), 78-87.
- Brick, T. A. (1998). *A national survey of FFA member's self-perceived leadership skills* [Doctoral dissertation] Retrieved from ProQuest Dissertations and Theses. (UMI No: 9915210)
- Buss, D. (2011). *Psychology: the evolution of a science*. In Buss, D (Ed), *Evolutionary Psychology: The New Science of the Mind* (pp. 9-10). USA: Pearson.
- Buzinde, C., Foroughi, B., & Godwyll, J. (2019). Youth leadership programs for community development and social action: a pedagogical approach. *Community Development Journal*, 54 (4), 677-694.
- Cansoy, R., & Turan, S. (2016). The youth leadership qualities scale: reliability and validity study. *Türk Eğitim Dergisi*, 1(1), 19-39.
- Carroll, B., & Firth, J. (2020). Leading or led? A critical exploration of youth leadership development. *Management Learning*, 52(1), 6-25.

- Çelik, C., & Sünbül, Ö. (2008). Education and gender factor in perceptions of leadership: a field study in Mersin', Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 13 (3): 49-66.
- Chan, D. W. (2000). Assessing leadership among Chinese secondary students in Hong Kong: the use of the roots rating scale for leadership. *Gifted Child Quarterly*, 44(2), 115-122.
- Chemers, M. M. (2002). *Efficacy and effectiveness: Integrating models of leadership and intelligence*. In *Kravis-de Roulet leadership Conference*, 9th, Apr, 1999, Claremont McKenna Coll, Claremont, CA, US. Lawrence Erlbaum Associates Publishers.
- Chung, J., & Personette, L. K. (2019). Youth and undergraduate leadership experiences as pathways to leadership education. *New Directions for Student Leadership*, 164, 55-69. <https://doi.org/10.1002/yd.20358>
- Connelly, M. S., Gilbert, J. A., Zaccaro, S. J., Threlfall, K. V., Marks, M. A., & Mumford, M. D. (2000). Exploring the relationship of leadership skills and knowledge to leader performance. *Leadership Quarterly*, 11(1), 65–86. [https://doi.org/10.1016/S1048-9843\(99\)00043-0](https://doi.org/10.1016/S1048-9843(99)00043-0)
- Conner, J. O., & Strobel, K. (2007). Leadership development: an examination of individual and programmatic growth. *Journal of Adolescent Research*, 22(3), 275-297.
- Des Marais, J., & Farzanehkia, F. (2000). Service-learning leadership development for youths. *Phi Delta Kappan*, 81(9), 678-680. <https://digitalcommons.unomaha.edu/slcestgen/65>
- Drum, J. (1988). *Youth Leadership. Insights into issues in Education*. Stanley Foundation, Muscatine, IA.
- Dugan, J. P., & Komives, S. R. (2007). Developing leadership capacity in college students. College Park, MD: National Clearinghouse for Leadership Programs.
- Edelman, A., Gill, P., Comerford, K., Larson, M., & Hare, R. (2004). *Youth development and youth leadership: a background paper*. Institute for Educational Leadership. National Collaborative on Workforce and Disability for Youth, Washington, DC.
- Ent, M. R., Baumeister, R. F., & Vonasch, A. J. (2012). Power, leadership, and self-regulation. *Social and Personality Psychology Compass*, 6(8), 619-630.
- Fertman, C. I., & Long, J. A. (1990). All students are leaders. *The School Counselor*, 37(5), 391-396.
- Fertman, C. I., & Van Linden, J. A. (1999) 'Character education for developing youth leadership. *The Education Digest*, 65(4), 11-16.
- Freedman, D. G. (1974). *Human Infancy*. New York: Halsted Press.

- Garrison, D. R. (1997). Self-directed learning: toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18-33.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human relations*, 53(8), 1027-1055.
- Henderson, K. A., Whitaker, L. S., Bialeschki, M. D., Scanlin, M. M., & Thurber, C. (2007). Summer camp experiences: parental perceptions of youth development outcomes. *Journal of Family Issues*, 28(8), 987-1007.
- Huang, J., & Aaltio, I. (2014). Guanxi and social capital: Networking among women managers in China and Finland. *International Journal of Intercultural Relations*, 39, 22-39. <https://doi.org/10.1016/j.ijintrel.2013.09.002>
- Jolly, J., & Kettler, T. (2004). Authentic assessment of leadership in problem-solving groups. *Gifted Child Today*, 27(1), 32-39.
- Kandler, C., & Papendick, M. (2017). *Behavior genetics and personality development: a methodological and meta-analytic review*. In *Personality development across the lifespan* (pp. 473-495). Academic Press.
- Karnes, F. A., & Bean, S. M. (1996). Leadership and the gifted. *Focus on Exceptional Children*, 29(19), 1-12.
- Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership & Organization Development Journal*, 24(4), 265-279.
- Kouzes, J. M., & Posner, B. Z. (2006). *The leadership challenge* (Vol. 3). John Wiley & Sons.
- Kul, M., Bozkus, T., Erol, Z., & Elci, G. (2014). A research on the comparison of the multiple intelligence types of the candidates who succeeded and failed in the entrance exams of physical education and sports school. *Int. J. Sci. Culture and Sport (IntJSCS)*, Special Issue 1, 891-897.
- Liu, Z., Venkatesh, S., Murphy, S. E., & Riggio, R. E. (2020). Leader development across the lifespan: a dynamic experiences-grounded approach. *The Leadership Quarterly*, 101382. <https://doi.org/10.1016/j.leaqua.2020.101382>
- Mabey, C., & Lees, T. F. (2007). *Management and leadership development*. Sage.
- MacNeil, C. A. (2006). Bridging generations: applying “adult” leadership theories to youth leadership development. *New Directions for Youth Development*, 109, 27-43. <https://onlinelibrary.wiley.com/doi/abs/10.1002/yd.153>

- Marsh, J. A., Strunk, K. O., Bush-Mecenas, S. C., & Huguette, A. (2015). Democratic engagement in district reform: The evolving role of parents in the Los Angeles Public School Choice Initiative. *Educational Policy*, 29(1), 51-84.
- McCauley, C. D., Velsor, E. V., & Ruderman, M. (2010). *The center for creative leadership handbook of leadership development*. San Francisco: Jossey-Bass.
- Meadows, F. M. (2012). *No student leader left behind: Developing student leadership programs for marginalized students in secondary schools*. University of Southern California.
- Megheirkouni, M. (2018). Self-leadership strategies and career success: insight on sports organizations. *Sport, Business and Management: An International Journal*, 8(4), 393-409.
- Meyer Sr, E. D. (1995). *Leadership academy: Effectiveness of leadership skills development in eighth-grade students*. Drake University.
- Moss, S. A., Dowling, N., & Callanan, J. (2009). Towards an integrated model of leadership and self regulation. *The Leadership Quarterly*, 20(2) 162-176.
- Mullen, C. A., & Tuten, E. M. (2004). A case study of adolescent female leadership: Exploring the "light" of change. *The Journal of Educational Thought*, 38(3), 291-320.
- Mumford, M. D., Marks, M. A., Connelly, M. S., Zaccaro, S. J., & Reiter-Palmon, R. (2000). 'Development of leadership skills: Experience and Timing. *Leadership Quarterly*, 11(1), 87-114.
- National Collaboration on Youth Development [NCYD]. (2011). The impact of youth development programs on student academic achievement. (Arrived date: 08.11.2020) <https://www.nationalassembly.org/wp-content/uploads/2018/07/schoolsuccessbrief.pdf>
- Nichols, A. L. (2016). What do people desire in their leaders? the effect of leadership experience on desired leadership traits. *Leadership & Organization Development Journal*, 37(5), 658-671.
- Northouse, P. (2004). *Leadership: Theory and Practice*, 3rd edition. Thousand Oaks, CA: Sage
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Osmane, S., & Brennan, M. (2018). Predictors of leadership skills of Pennsylvanian youth. *Community Development*, 49(3), 341-357.
- Özgün, A., Yaşartürk, F., Ayhan, B., & Bozkuş, T. (2017). Examination of handball players' levels of sports-specific achievement motivation and happiness. *International Journal of Cultural and Social Studies (IntJCSS)*, Volume 3 (Special Issue 2), 83-94.
- Parkhill, A., Deans, C. L., & Chapin, L. A. (2018). Pre-leadership processes in leadership training for adolescents. *Children and Youth Services Review*, (88), 375-379.

- Puxley, S. T., & Chapin, L. A. (2020). Building youth leadership skills and community awareness: Engagement of rural youth with a community-based leadership program. *Journal of Community Psychology*, (2020), 1-16.
- Redmond, S., & Dolan, P. (2016). Towards a conceptual model of youth leadership development. *Child & Family Social Work*, 21 (3), 261-271.
- Rosch, D. M., & Anthony, M. D. (2012). Leadership pedagogy: Putting theory to practice. *New Directions for Student Services*, 140, 37-51.
- Seemiller, C., & Whitney, R. (2020). Creating a taxonomy of leadership competency development. *Journal of Leadership Education*, 19(1), 119-130.
- Seevers, B. S., Dormody, T., J., & Clason, D. L. (1995). Developing a scale to research and evaluate youth leadership life skills development. *Journal of Agricultural Education*, (36), 28-34.
- Sewell, K. M., Fredericks, K., Mohamud, A., Kallis, J., & Augimeri, L. K. (2020). Youth Experiences in Evaluating the Canadian SNAP® Boys Youth Leadership Program. *Child & Adolescent Social Work Journal*, 37(3).
- Sherif, V. (2019). Modeling Youth Leadership: An Integration of Personality Development Theories and Ethics. *Journal of Leadership Education*, 18(2), 1-11.
- Sibthorp, J., Paisley, K., & Gookin, J. (2007). Exploring participant development through adventure-based programming: A model from the National Outdoor Leadership School. *Leisure Sciences*, 29(1), 1-18.
- Skinner, B. F. (2002). *Beyond freedom and dignity*. Hackett Publishing.
- Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. *The Journal of applied behavioral science*, 18(3), 257-273.
- Thompson, S. A., & Miller, K. L. (2018). Disruptive trends in higher education: Leadership skills for successful leaders. *Journal of Professional Nursing*, 34(2), 92-96.
- UN (2020), United States World Youth Repots 2020. [Online], <https://www.un.org/development/desa/youth/wp-content/uploads/sites/21/2020/07/2020-World-Youth-Report-FULL-FINAL.pdf>. [Retrieved from: 01.01.2021].
- UNESCO (2016). By youth, with youth, for youth. [Online], Available: [https://en.unesco.org/youth#:~:text=Welcome%20to%20the%20UNESCO%20Youth%20Programme&text=The%20United%20Nations%20defines%20'youth,aged%20between%2015%20and%2024.&text=To%20this%20end%2C%20UNESCO%20also,ensuring%20their%20recognition%20and%20visibility](https://en.unesco.org/youth#:~:text=Welcome%20to%20the%20UNESCO%20Youth%20Programme&text=The%20United%20Nations%20defines%20'youth,aged%20between%2015%20and%2024.&text=To%20this%20end%2C%20UNESCO%20also,ensuring%20their%20recognition%20and%20visibility.). [Retrieved from: 01.01.2021].

Van Vugt, M. (2009). Averting the tragedy of the commons: Using social psychological science to protect the environment. *Current Directions in Psychological Science*, 18(3), 169-173.

Van Vugt, M., & Spisak, B. R. (2008). Sex differences in the emergence of leadership during competitions within and between groups. *Psychological Science*, 19(9), 854-858.

Zeldin, S., & Camino, L. (1999). Youth Leadership: Linking research and program theory to exemplary practice. Research and practice: completing the circle. *New Designs for Youth Development*, 15(1), 10-15.

Zhao, J., & Jones, K. (2017). Women and leadership in higher education in China: Discourse and the discursive construction of identity. *Administrative Sciences*, 7(3), 21.

Zimmerman-Oster, K., & Burkhardt, J. (1999a). *Leadership in the making: Impact and insights from leadership development programs in US colleges and universities*. WK Kellogg Foundation.

Zimmerman-Oster, K., & Burkhardt, J. C. (1999). Leadership in the making: A comprehensive examination of the impact of leadership development programs on students. *Journal of Leadership Studies*, 6(3-4), 50-66.

Does Floor Color Affect Athletes' Anticipation Time?

Kemal GÖRAL¹, Büşra SÖZLÜ², Ender ŞENEL³

Muğla Sıtkı Koçman University

<https://orcid.org/0000-0001-8030-2276>

Muğla Sıtkı Koçman University

<https://orcid.org/0000-0002-0273-3078>

Muğla Sıtkı Koçman University

<https://orcid.org/0000-0001-6276-6704>

Email: kgoral1980@yahoo.com, sozlubusra63@gmail.com, endersenel@mu.edu.tr

Type: Research Article (Received: 16.09.2021 - Accepted: 30.10.2021)

Abstract

The primary purpose of this study is to reveal the differences between different ground colors and the anticipation times of university athletes who do team and individual sports and investigate the relationships. Fifty student-athletes engaged in individual and team sports participated in the study voluntarily. Bassin Anticipation Timer device was used to determine the sensing time of the athletes. The results showed no significant difference between individual and team athletes' perception time values according to sports age and different ground colors. In addition, while there was a significant relationship between the sensing times of the athletes participating in the test on the red and orange background, no significant association was found on the other ground colors. Consequently, although the floors used in the sports are seen as separated from each other according to the colors, it is found that different floor colors do not affect the anticipation time of the individuals engaged in individual and team sports.

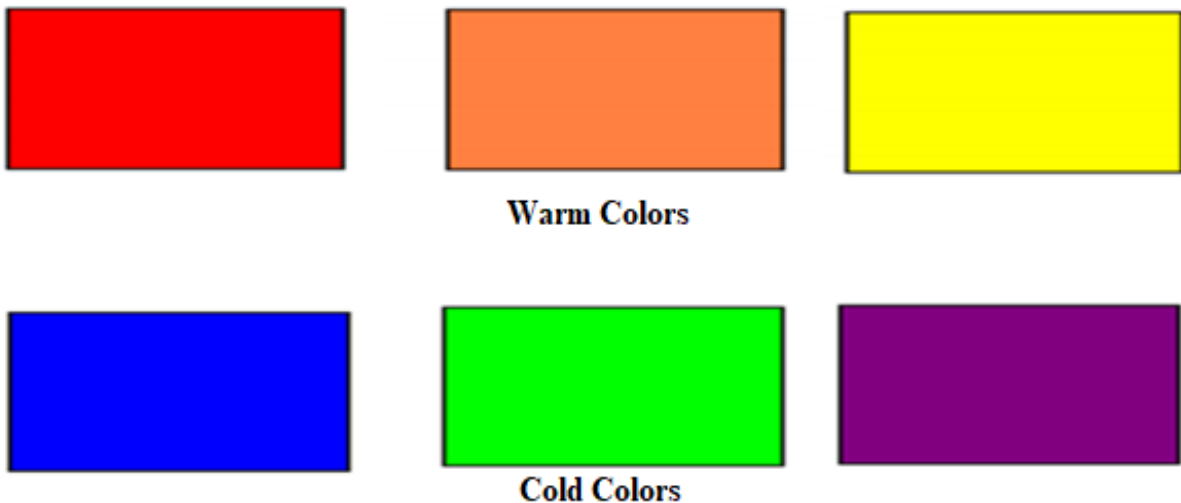
Keywords: Sport, Floor, Color, Anticipation Time

Introduction

Anticipation time is defined as the ability to predict when an object or image will reach a specified target point in time and space. Anticipation is expressed as the ability of an athlete to predict how an action will result and to apply this prediction by the purpose in terms of duration, frequency, and time (Weineck, 2011; Williams et al., 2000).

In sportive tasks where strict temporal constraints are imposed on athletes, the ability to accurately predict an action that is about to occur can be shown as a prerequisite for sporting excellence (Roca et al., 2011). Furthermore, the ability to predict what an opponent will do next is crucial, especially in sports where there are significant time pressures. In summary, talented athletes can minimize uncertainty and reduce cognitive load by assigning a hierarchy of probabilities based on possible event scenarios (Williams & Jackson, 2019).

Much of an individual's sensory interaction with his environment is based on his visual perceptions of light and color stimuli. Colors, which are caused by the concentration of light frequency at a specific rate, impact human psychology and behavior with their low or high vibrational energies. The psychological effects of colors affect mental activities, physical performance level, and psychosocial status (Duran Sağocak, 2005).



Uçar (2004) states that colors are classified as warm and cold colors: red, orange, and yellow are warm colors; blue, green, and purple are cold colors. On the other hand, red, orange, and yellow colors, which are warm, can be perceived more quickly than cold colors. Özdemir (2005) also emphasizes that it has been proven today that those colors have many psychological effects such as "warmth, coldness, activity, passivity, lightness, stimulation, relaxation, joy, sadness" that differ in terms of type, value, and saturation.

The colors preferred by the athletes in sports environments generally focus on red, blue, and white. When an evaluation is made primarily in the football branch, it is seen that red, blue, and white colors are mainly used in shorts, T-shirts, and leggings (Yamaner and İmamoğlu, 2018). Almost all organizations, such as schools, universities, and sports clubs, have a specific color to express themselves and an emblem or flag that carries this color (Özdemir, 2005).

The sports environment is differentiated from each other according to the different floors used in the sports branch. For example, a football field with green grass ground as a ground color is among the cold colors, and an orange athletic field is among the warm colors. Therefore, this study examines the anticipation times of student-athletes who do team sports and individual sports on different floor colors.

Material and Method

Study Group: 29 student-athletes engaged in team sports (football, volleyball, basketball) and 21 student-athletes involved in individual sports (athletics, boxing, tennis) voluntarily participated in the study.

Table 1. Comparison of athletes' age and experience

Age	Team	29	21,41	2,71	-,893	,376
	Individual	21	22,28	4,19		
Experience	Team	29	8,58	3,43	,764	,449
	Individual	21	7,81	3,69		

There is no significant difference between the two groups, indicating that the groups are similar.

Data Collection Tools: Bassin Anticipation Timer device (Lafayette Instrument Company, Model 50575) was used for anticipation time measurement, while demographic information was collected using the personal information form.

Data Collection: The Bassin Anticipation Timer device was placed on the table and introduced to the participants in the laboratory environment. The anticipation time values of the athletes participating in the research were measured at a speed of 5mph. After every ten repetitions, the floor color and background color of the table are changed.



Analysis of the data: The obtained data were analyzed in the SPSS 18.0 program. The Shapiro Wilk test was used to determine the data's normality distribution, the t-test was used for comparisons between groups, and the Pearson correlation test was used to examine the relationships between variables.

Findings

In this section, the results are presented with comparison and relational analysis.

Table 2. Comparison of individual athletes and team athletes' anticipation times on different floor colors

Variables	Group	N	Mean	SD	t	p
Red	Team	29	0,024	,030	-1,113	,271
	Individual	21	0,077	,032		
Green	Team	29	0,059	,017	-,188	,852
	Individual	21	0,049	,023		
Blue	Team	29	0,049	,014	,686	,496
	Individual	21	0,080	,017		
Orange	Team	29	0,069	,038	-1,385	,172
	Individual	21	0,074	,041		

No significant differences were found between the team and individual athletes' anticipation times on different floor colors ($p > 0,05$).

Table 3. The relationship between anticipation time on different colors and experience

Variable		Age	Experience	Red	Green	Blue
Experience	r	,243				
	p	,089				
	n	50				
Red	r	,096	,012			
	p	,506	,934			
	n	50	50			
Green	r	-,028	,018	-,187		
	p	,845	,899	,193		
	n	50	50	50		
Blue	r	,147	,194	-,018	,187	
	p	,307	,177	,901	,193	
	n	50	50	50	50	
Orange	r	,297*	,133	,384**	,049	-,075
	p	,036	,358	,006	,736	,605
	n	50	50	50	50	50

Examining the responses by the athletes on different floor colors in anticipation time, a significant relationship was found between orange and red. In contrast, no significant association was found between other colors ($p > 0,05$). In addition, no relationship was found between the experience and the responses given to different ground colors ($p > 0,05$).

Discussion and Conclusion

This study was carried out to examine the differences between the different floor colors selected among the warm and cold colors and the anticipation times of the student-athletes engaged in the team and individual sports. No difference was found between the anticipation times of team

and individual athletes according to different floor colors. However, in terms of athletes' anticipation time scores, there was a significant relationship between the orange and the red. Still, no significant relationship was found between the experiences and the responses on different floor colors.

Duran Sağocak (2005) emphasizes that color contributes to human object-environment harmony, as it is an essential stimulus in terms of the individual's physical, mental, and psychological characteristics. İmamoğlu (2019) emphasized that warm colors such as yellow and pink should be preferred for sports floors since there are areas with high energy, and color design can be made by considering the training of children and adults when arranging the interiors of sports facilities. It has been stated that these colors should be warm in young children and cooler in adolescents.

In a study by Akbulut, Aktağ, and Akpınar (2015), the anticipation times of team and individual athletes were examined. It was determined that individual athletes had a significantly better anticipation time than team athletes. Özbay, Ulupınar, and Özkara (2018) drew attention to the importance of anticipation in athletes and stated that an athlete could have the ability to change direction very quickly and very well. Still, if the anticipation is not sufficient, the athlete should not be described as agile.

Ceylan and Günay (2020) stated that it is significant for trainers or exercise experts to consider this issue, especially when planning specific perceptual-cognitive exercises, for athletes to achieve optimal cognitive performance. According to Runswick, Roca, Williams, and North (2020), skilled players in sports such as baseball, cricket, or tennis can hit fast-moving objects with extremely high levels of accuracy. The ability to predict a possible situation is essential to superior performance.

Consequently, although the floors used in sports are seen to be separated from each other with different colors, it can be said that different floors do not affect the anticipation time of team and individual athletes. Therefore, future studies should research the relationship between different floor colors and athlete performance.

REFERENCES

- Akbulut, M.K., Aktağ, I., & Akpınar, S. (2015). Takım sporu ile bireysel spor yapan öğrencilerin sezinleme zamanlarının incelenmesi. *Spor Bilimleri Dergisi*, 26(4), 154-164.
- Ceylan, H.İ., & Günay, A.R. (2020). The Effects of Time of Day and Chronotype on Anticipation Timing Performance in Team Sports Athletes. *International Journal of Applied Exercise Physiology*, 9(7), 19-29.
- Duran Sağocak, M. (2005). Ergonomik Tasarımda Renk. *Trakya Üniversitesi Fen Bilimleri Dergisi*, 6(1), 77-83.
- İmamoğlu, M. (2019). Renklerin Sporda Kullanımları. İçinde S.Özdenk ve O.Yılmaz (Editörler), *Spor ve Rekreasyon Araştırmaları Kitabı*, ss. 53-68, Çizgi Kitabevi, Konya.
- Özbay, S., Ulupınar, S., ve Özkara, A.B. (2018). Sporda Çeviklik Performansı. *Ulusal Spor Bilimleri Dergisi*, 2(2), 97-112.
- Özdemir, A. (2005). Tasarımda Renk Seçimini Etkileyen Kriterler. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 14(2), 391-401.
- Roca, A., Ford, P.R., McRobert, A.P., & Williams, A.M. (2011). Identifying the processes underpinning anticipation and decision-making in a dynamic time-constrained task. *Cognitive Processing*, 12(3), 301-310. doi: 10.1007/s10339-011-0392-1.
- Runswick, O.R., Roca, A., Williams, A.M., & North, J.S. (2020). A Model of Information Use During Anticipation in Striking Sports (MIDASS). *Journal of Expertise*, 3(4), 197-211.
- Weineck, J. (2011). *Futbolda kondisyon antrenmanı*. Tanju Bağırhan (Çev.). Ankara: Spor Kitapevi.
- Williams, A.M., Davids, K., & Williams, J.G. (2000) *Visual perception and action in sport*. New York: Routledge.
- Williams, A.M., & Jackson, R.C. (2019). Anticipation in sport: Fifty years on, what have we learned and what research still needs to be undertaken? *Psychology of Sport and Exercise*, 42, 16-24.
- Yamaner, F., & İmamoğlu, G. (2018). Sporcularda renklerin etkilerinin performanslarına yansımaları. *Turkish Studies*, 13(15), 509-520.

Personality Traits of Veteran Folk Dancers and Their Participation Motivation in Sports

Aydiner Birsin YILDIZ¹, Gözde ALGÜN DOĞU²

¹Ankara Yıldırım Beyazıt University, Ankara, Turkey
<https://orcid.org/0000-0002-3767-1057>

² Ankara Yıldırım Beyazıt University, Ankara, Turkey
<https://orcid.org/0000-0003-0988-4765>

Email: aydinerbirsinyildiz@hotmail.com, gzdalgn@hotmail.com

Type: Research Article (Received: 20.12.2020 - Accepted: 24.12.2020)

Abstract

The purpose of this research is to examine the personality traits of veteran folk dancers and their participation motivation in sports. The study group of the research consists of 136 (66 female, 70 male) veteran folk dancers who voluntarily participated in the research from among the veteran folk dancers who took part in the Local Branch Folk Dances Competition in line with the easily accessible sampling method. In this descriptive study conducted in the scanning model, data has been collected by means of using the Participation Motivation Scale in Sports developed by Gill et al. (1983) and reported to be valid and reliable in Turkish by Oyar et al. (2001) as well as Ten-item Personality Scale developed by Gosling et al. (2003) and reported to be valid and reliable in Turkish by Atak (2013). According to the results obtained, it can be stated that gender is not a determinant factor in the personality formation and participation motivation in sports in veteran folk dancers and that sportive success / status seeking of veteran folk dancers continues despite their advancing age in line with emotional stability, which is a dominant personality traits of veteran folk dancers.

Keywords : Folk dances, Personality, Sports, Participation motivation in sports

Introduction

Different disciplines deal with personality and it has a rich content structure and for this reason, personality is a concept that is often defined based on these characteristics (Schultz & Schultz, 2017). Personality, according to a generally accepted definition, is the fixed characteristics that direct the manners and behaviours of the individual (Horzum, Ayas, & Padir 2017). It is the basic element that creates the compatibility between the attitudes of the individual (Burger, 2008). Personality is composed of all of the physical, mental and spiritual characteristics that create the thoughts, beliefs, attitudes and behaviours that provide originality and make the individual different from others (Weinstein, Capitanio, & Gosling, 2008; Richards & Schmidt, 2002). It also plays a role in reactions, decision-making styles (Buss 2008) and determining the preferences (Weinstein, Capitanio, & Gosling, 2008). In this direction, it arouses curiosity for researchers in every situation where the decision mechanism takes place. In this study, the relationship between personality and participation motivation in sports is examined.

Motivation consists of the internal or external factors that motive people to work and determine the intensity, frequency and continuity of the effort (Aydın, 2001). It plays a role to bring the decisions taken into action. When the participation motivation in sports is determined, it enables to have information about the reasons for participating in sports activities. The information obtained is also important in terms of promoting sports activities.

In today's modern and fast life conditions, the absence of sports is associated with the existence of an unhealthy life (Yalçın et al., 2017). Because it is known that sedentary life is the main cause of many diseases such as coronary heart disease (Joki, Sethi and Cooper, 2004). Considering the diseases that may be caused by physiological changes that occur especially in advancing ages, the high physiological activities of active people creates an advantage compared to sedentary individuals (Özdemir & Ersoy, 2009). On the other hand, since sports provide opportunities for re-socialization in advancing ages and contribute to the solution of social problems of middle-aged and older individuals (Lee et al., 2014), physical activity should be encouraged in advancing ages and veteran athletes (Genç, Yıldırım, & Müftüoğlu, 2018), who are defined as middle-aged and older individuals and actively interested in sports, should be given opportunities and they should be directed and be a subject for research.

In this context, when the literature is examined, it draws attention that there are few studies that take middle-aged and older individuals into consideration. Due to the high interest of veteran participants, folk dances (Bozkuş, 2013) defined as “the body of measurable and regular movements that reflect the cultural values of the society to which it belongs and that express an event, a joy and sadness and that find its origins in religion and magic and that are performed accompanied by music, individually or in groups” (Eroğlu, 1999) should also be considered within this framework.

Researchers state that the sources of participation motivation in sports can be very various and that they can be fed from multiple sources (Weinberg & Gould, 1995; Özgün et al., 2017), and that it is not easy to determine them (Leblanc & Dickson, 2005). In this context, it is thought that it is important to investigate the participation motivation in sports in different groups and at different times in order to follow the changing conditions. The results obtained in this framework can contribute to have the knowledge needed to turn the physical activity into a lifestyle. From this point of view, it is important to discuss the participation motivation in sports not only in young people but also in adults (Oyar, Aşçı, Çelebi, & Mülazımoğlu, 2011). With reference to this information, in this study, it has been aimed to examine the

personality traits of veteran folk dancers and their participation motivation in sports. It is thought that the results obtained will contribute to update the existing information and to reveal the cultural differences and to develop the current and limited literature for which has not been shown enough interest.

Material and Method

This research is a descriptive research conducted in the scanning model aiming to examine the personality traits of veteran folk dancers and their participation motivation in sports.

The data obtained within the scope of the research have been obtained by means of using easily accessible sampling method. In this context, a working group has been composed of 136 (66 female, 70 male) folk dancers who voluntarily participated in the research from among veteran folk dancers participating in the Local Branch Folk Dances Competition. Data have been collected from the study group by using the Participation Motivation Scale in Sports and the Ten-Item Personality Scale.

Participation Motivation Scale in Sports: It has been developed by Gill et al. (1983), and its Turkish validity and reliability has been reported by Oyar et al. (2001). The scale, which has 8 sub-dimensions in its structure, consists of 30 items that are subject to 3-point Likert type evaluation. Its 8 sub-dimensions are called Achievement / Status, Team Membership / Team Spirit, Physical Fitness / Energy Expenditure, Entertainment, Friend, Competition, Movement / Activeness and Skill Development. High scores obtained from the sub-dimensions mean the participation motivation in the dominant sport.

Ten-Item Personality Scale: It has been developed by Gosling colleagues (2003), and its Turkish validity and reliability has been reported by Atak (2013). The scale, which has five basic personality traits, consists of 10 items that are subject to 7-point Likert-type evaluation. The five personality traits in its structure are called Openness to Experience, Peacefulness, Emotional Stability, Responsibility and Extraversion. High scores obtained from personality trait dimensions mean dominant personality trait.

The research data collection process has been carried out by the researchers themselves. In this context; veteran folk dancers, who participated in the Local Branch Folk Dance Competition and who wanted to participate voluntarily in the research as a result of the announcement made, have been asked to give answer to the relevant scales. Before answering the scales, they have been informed on the research and it has been stated that the answers obtained would not be used outside of the research and would not be shared with third parties and that they can withdraw from answering the questions at any stage and that they can leave the research. In this direction, the internal consistency of the answers obtained within the scope of the research has been evaluated with the Cronbach Alpha coefficient and it has been determined as .95 for Participation Motivation Scale in Sports and as .76 for the Ten-Item Personality Trait Scale. The distributions of the obtained data have been examined with skewness and kurtosis values and it has been evaluated that they showed normal distribution. In this context, independent groups t-test analysis has been performed and Pearson correlation coefficient has been calculated. All analyses have been performed by using the SPSS 24 package program by means of taking the significance level of $p < 0.05$ into account.

Bulgular
Table 1. Descriptive statistics about the data obtained within the scope of the research

	Dimension	N	\bar{X}	Ss	Skewness	Kurtosis
Personality Traits	Openness to Experience	136	8,74	3,68	-,066	-1,08
	Peacefulness	136	9,79	2,95	-,043	-1,14
	Emotional Stability	136	10,14	2,44	-,731	,638
	Responsibility	136	10,05	2,51	-,151	-,989
	Extraversion	136	9,88	2,55	-,353	-,572
Participation Motivation in Sports	Achievement/Status	136	22,55	3,09	-,927	-,533
	Team Membership/Team Spirit	136	18,25	2,04	-,828	-,740
	Physical Fitness/Energy Expenditure	136	17,93	1,53	-,461	-,611
	Entertainment	136	13,34	2,01	-,161	-,893
	Friend	136	13,34	2,01	-,957	-,422
	Competition	136	13,75	1,15	-,114	-1,54
	Movement/Activeness	136	13,69	1,54	-,810	-,447
	Skill Development	136	13,20	1,87	-1,12	1,09
	Participation Motivation in Sports	136	75,93	11,51	-,214	-1,53

When table 1 is examined, it is seen that the most dominant personality trait of the veteran folk dancers is emotional stability ($\bar{X}=10,14$ and that this personality trait is followed respectively by responsibility ($\bar{X}=10,05$), extraversion ($\bar{X}=9,88$), peacefulness ($\bar{X}=9,79$) and openness to experience ($\bar{X}=8,74$) personality traits. When participation motivations in sports of the veteran folk dancers forming the study group are examined, it is observed that the achievement motivation ($\bar{X}=22,55$) is the most dominant participation motivation in sports and that this motivation is followed respectively by team membership ($\bar{X}=18,25$), physical fitness ($\bar{X}=17,93$), competition ($\bar{X}=13,75$), activeness ($\bar{X}=13,69$), entertainment and friend ($\bar{X}=13,34$) and skill ($\bar{X}=13,20$) motives. In addition, it has been determined that the participation motivation score in sports obtained ($\bar{X}=75,93$) indicates a high motivation. On the other hand, when the skewness and kurtosis values obtained were examined, it has been evaluated that the data used in the analysis of the research showed a normal distribution (George ve Mallery, 2010).

Table 2. Comparison of personality and participation motivations in sports in terms of gender variable

	Dimension	Gender	N	Average.	Ss.	t	P
Personality Traits	Openness to Experience	Male	70	8,81	3,95	,232	,817
		Female	66	8,66	3,41		
	Peacefulness	Male	70	9,95	2,95	,662	,509
		Female	66	9,62	2,96		
	Emotional Stability	Male	70	10,11	2,62	-,161	,873
		Female	66	10,18	2,25		

	Responsibility	Male	70	10,02	2,50	-,109	,913
		Female	66	10,07	2,54		
	Extraversion	Male	70	9,90	2,64	,083	,934
		Female	66	9,86	2,47		
Participation Motivation in Sports	Achievement/Status	Male	70	22,41	3,07	-,532	,596
		Female	66	22,69	3,12		
	Team Membership/Team Spirit	Male	70	18,14	2,05	-,673	,502
		Female	66	18,37	2,03		
	Physical Fitness/Energy Expenditure	Male	70	22,24	2,16	-,705	,482
		Female	66	22,50	2,07		
	Entertainment	Male	70	17,71	1,66	-1,73	,086
		Female	66	18,16	1,36		
	Friend	Male	70	13,30	2,09	-,271	,787
		Female	66	13,39	1,94		
	Competition	Male	70	13,65	1,15	-,967	,335
		Female	66	13,84	1,15		
	Movement/Activeness	Male	70	13,61	1,58	-,596	,552
		Female	66	13,77	1,51		
	Skill Development	Male	70	13,14	1,88	-,402	,689
		Female	66	13,27	1,88		

When table 2 is examined, the results of the t-test performed for the comparison of the personality traits of veteran folk dancers and their participation motivation in sports in terms of gender variable are seen. According to the results obtained, it has been determined that gender was not a determinant factor for the characteristics discussed ($p < 0,05$).

Table 3. Evaluation of the Relationship Between Personality and participation motivation in sports

	2	3	4	5	6	7	8	9	10	11	12	13
1.O.E.	,62**	,73**	,45**	,58**	-,12	-,45**	-,48**	-,45**	-,45**	-,54**	-,30**	-,24**
2.P.	1	,48**	,17**	,33**	,26**	-,12	-,39**	-,38**	-,20*	-,26**	,08	,18*
3.E.S.		1	,53**	,30**	-,22**	-,39**	-,48**	-,43**	-,43**	-,57**	-,36**	-,35**
4.R.			1	,17*	-,20*	-,26**	-,39**	-,04	-,25**	-,18*	-,60**	-,43**
5.E.				1	-,07	-,28**	-,23**	-,33**	-,27**	-,30**	-,04	0,5
6.A.					1	,77**	,52**	,36**	,51**	,67**	,74**	,76**
7.T.M.						1	,79**	,49**	,76**	,65**	,70**	,65**
8.P.F.							1	,49**	,82**	,50**	,74**	,68**
9.E.								1	,35**	,63**	,24**	,27**
10.F.									1	,45**	,59**	,66**

11.C.		1	,50**	,59**
12.A.			1	,89**
13.S.D.				1

Personality Traits: 1. Openness to Experience 2. Peacefulness 3. Emotional Stability 4. Responsibility 5. Extraversion

P. Motivation in Sports: 6. Achievement 7. Team Membership 8. Physical Fitness 9. Entertainment 10. Friend 11. Competition 12. Activeness 13. Skill Development

When Table 3 is examined, the results of the correlation analysis between the personality traits of veteran folk dancers and their participation motivation in sports are seen. According to the results, a negative and moderate level ($r=-,45$; $p<0,01$) relationship has been determined between openness to experience and team membership, a negative and moderate ($r=-,48$; $p<0,01$) relationship has been determined between openness to experience and physical fitness, a negative and moderate level ($r=-,45$; $p<0,01$) relationship between openness to experience and entertainment has been determined, a negative and moderate level ($r=-,54$; $p<0,01$) relationship has been determined between openness to experience and friends, a negative and low level ($r=-,30$; $p<0,01$) relationship has been determined between openness to experience and activeness, a negative and low level ($r=-,24$; $p<0,01$) relationship has been determined between openness to experience and skill development. A positive and low level ($r=,26$; $p<0,01$) relationship between peacefulness and success, a negative and low level ($r=-,39$; $p<0,01$) relationship has been determined between peacefulness and physical fitness, a negative and low level ($r=-,38$; $p<0,01$) relationship has been determined between peacefulness and entertainment, a negative and a negative and moderate level ($r=-,20$; $p<0,05$) relationship has been determined between peacefulness and friend, a negative and low level ($r=-,26$; $p<0,01$) relationship has been determined between peacefulness and competition and a positive and low level ($r=,18$; $p<0,05$) relationship has been determined between peacefulness and skill development. A negative and low level ($r=-,2$; $p<0,01$) relationship has been determined between emotional stability and success, and a negative and low level ($r=-,39$; $p<0,01$) relationship has been determined between emotional stability and team membership, a negative and moderate ($r=-,48$; $p<0,01$) relationship has been determined between emotional stability and physical fitness, a negative and moderate relationship ($r=-,43$; $p<0,01$) has been determined between emotional stability and entertainment, a negative and moderate ($r=-,57$; $p<0,01$) relationship has been found between emotional stability and competition, a negative and low level ($r=,36$; $p<0,01$) relationship has been determined between emotional stability and activeness, a negative and low level ($r=-,35$; $p<0,01$) relationship has been determined between emotional stability and skill development. A negative and low level ($r=-,45$; $p<0,05$) relationship has been determined between responsibility and success, negative and low level ($r=-,26$; $p<0,01$) relationship has been determined between responsibility and team membership, a negative and low level ($r=-,39$; $p<0,01$) relationship has been determined between responsibility and physical fitness, a negative and low level ($r=-,25$; $p<0,01$) relationship has been determined between responsibility and friend, a negative and low level ($r=-,18$; $p<0,05$) relationship has been determined between responsibility and competition, a negative and strong relationship ($r=-,60$; $p<0,01$) has been determined between responsibility and activeness and a negative and moderate ($r=-,43$; $p<0,01$) relationship has been determined between responsibility and skill development. A negative and low level ($r=-,28$; $p<0,01$) relationship has been determined between extraversion and team membership, a negative and low level ($r=-,23$; $p<0,01$) relationship has been determined between extraversion and physical fitness, a negative and moderate ($r=-,33$; $p<0,01$) relationship has been determined between extraversion and entertainment, a negative and low level ($r=-,27$; $p<0,01$) relationship has

been determined between extroversion and friend and a negative and low level ($r=-,33$; $p<0,01$) relationship has been determined between extraversion and competition.

Discussion and Conclusion

In this study, which aims to examine the personality traits of veteran folk dancers and their participation motivation in sports, it has been determined that the most dominant personality trait of veteran folk dancers is emotional stability. Emotional stability has been followed by responsibility, extraversion, peacefulness and openness to experience, respectively. There are research results in the literature showing that positive personality such as compatibility, responsibility and emotional stability are more dominant traits in middle age and older athletes. (Zekioğlu & İnallı, 2020). It is known that individuals, who are more emotionally unstable, become more aggressive, sensitive and anxious. Individuals, who have low emotional stability, get angry easily and express their anger (Özyeşil 2011). These and similar conditions may also be the cause of conflicts in interpersonal relationships (Furnham, Eraleous, & Chamorro-Premuzic, 2009). Individuals, who can protect their emotional balance, are relaxed, calm and harmonious (Cooper 2002). The fact that veteran folk dancers are still a participant in the sports environment, which requires more positive emotions such as happiness, vitality, optimism, high energy, and less negative emotions such as fear, anxiety, cruelty, anger and guilt feelings (Costa and McCrae 1992), may be put forward as an evidence that they have these personality traits. Indeed, the aforementioned features are related to the personality traits of extraversion and emotional stability (Costa & McCrae 1992). This relationship can be explained by the contribution of high extraversion and emotional stability to the individual's readiness to participate in sports activities (Nia & Besharat 2010). This relationship can be explained by the fact that extraversion and emotional stability make the individual ready to participate in sports activities. Considering that the study group consists of veteran folk dancers, who come together for purposes such as socialization and the evaluation of leisure time on the basis of voluntary participation, it is thought that their dominant personality traits show parallelism with the general acceptance. As a matter of fact, middle-aged and older athletes are more organized, determined, humble, altruistic, calm and self-confident (Zekioğlu & İnallı, 2020).

When the participation motivations in sports of the study group were evaluated, it has been determined that obtained results emphasized high motivation and that the highest participation motivation in sports was high achievement / status motivation. Success / status motivation was followed by team membership / team spirit, physical fitness / energy expenditure, competition, movement / being active, entertainment, friend and skill development motivations, respectively. The fact that the study group has a high achievement / status motivation as the dominant participation motivation in sports can be associated with their participation in an activity that requires high rehearsal loyalty such as folk dance. When it is known that regular exercise can cause an internal motivation at the level of necessity (Bossman, 2012), it can be said that the study group will have a high participation motivation in sports due to internal reasons such as learning new skills, being successful in the activity and enjoying this activity as a product of internal regulation (Aktürk, 2017).

When the personality traits of veteran folk dancers and their participation motivation in sports were compared in terms of gender, it has been found that gender was not a determinant in the differentiation of personality and participation motivation in sports. When the literature is examined, it has been determined similarly to the results obtained that there are research results showing that gender is not a determinant of the participation motivation in sports

(Aktürk, 2017; İlhan & Gencer, 2007; Ryckman & Hamel, 1993; Gill, Gross & Huddleston, 1983). In addition, the findings stating that personality does not show differentness in terms of gender are also supported by previous research results (Altıparmak, 2019; Sağlam, 2017; Topçu, 2017). When it is considered that there are research results reporting the opposite of both results in the literature, it can be said that the current situation may be arisen from the differences in the research groups.

The last finding obtained within the scope of the research is that there is a statistically significant relationship between personality traits and participation motivation in sports. When the results obtained are evaluated together with the literature, it can be said that there is no complete agreement. In this context, it can be stated that personality, which is a determinant in every decision taken, is also a determinant in the participation motivations in sports and that it is essential to make more research in order to evaluate it in terms of veteran folk dancers.

As a result, it can be stated that gender is not a determinant factor in the personality formation and participation motivation in sports in veteran folk dancers and that sportive success / status seeking of veteran folk dancers continues despite their advancing age in line with emotional stability, which is a dominant personality traits of veteran folk dancers.

REFERENCES

- Aktürk, A. (2017). Examination of exercise motivation and basic psychological needs in exercise in the elderly candidate and the elderly. Master's thesis, Kırıkkale University.
- Altıparmak, Y. (2019). Imagination and personality: A research on athletes dealing with contact and non-contact sports. Master's thesis., Ege University.
- Atak, H. (2013). Adaptation of the ten-item personality scale to Turkish culture. *Nöropsikiyatri Arşivi*. 50:312-319.
- Aydın, A. (2001). *Developmental and Learning Psychology*, Alfa Yayınları, İstanbul, s. 144.
- Bossmann, A. (2012). Continuation of running after a six-week running clinic: A longitudinal study on the effects of self-determination factors and running identity. Master thesis. Wageningen University. *Health and Society*.
- Bozkuş T, (2013). An evaluation of the relationship between physical activity healthy lifestyle behaviors anaerobic performance muscle strength and sprint performance in folk dancers. *International Journal of Academic Research*, 5, 151-157.
- Burger, J. M. (2008). *Personality*. Belmont: Thomson Higher Education.
- Buss, D. M. (2008). Human nature and individual differences: Evolution of human personality, içinde *Handbook of personality: Theory and research*, ss. 29–60, John, O. P., Robins, R. W., Pervin, L. A. (Ed.). The Guilford Press.
- Cooper, C. (2002). *Individual differences (Vol. 2)*. London: Arnold.
- Eroğlu, T. (1999). *Folk Dance Handbook*. İstanbul: Mars Basımevi.
- Eysenck, H. J. (1992). A reply to Costa and McCrae. P or A and C—the role of theory. *Personality and Individual Differences*, 13(8), 867-868.
- Furnham, A., Eraleous, A., Chamorro-Premuzic, T. (2009). Personality, motivation and job satisfaction: Hertzberg meets the big five. *Journal of Managerial Psychology*, 24 (8), 765-779.
- Genç, N., Yıldırım, Y., Müftüoğlu, N. E. (2018). The relationship between Goal Orientations and Life Satisfaction in Veteran Badminton Players. *Türkiye Spor Bilimleri Dergisi*, 2(1), 26-33.
- Gill, D. L., Gross, J. B., Huddleston, S. (1983). Participation Motivation in Youth Sports; *International Journal of Sport Psychology*; 14, 1–14.
- Gosling, S. D., Rentfrow, P. J., Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37(6), 504-528.
- Horzum, M. B., Ayas, T., Padır, M. A. (2017). Adaptation of big five personality traits scale to Turkish culture. *Sakarya University Journal of Education*, 7(2), 398-408.
- İlhan L., Gencer E. (2017) Determination of Sports Participation Motivation of Athletes-Students Participating in High School Badminton Competitions. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 18(1-4), 1-6.

- Jokl P., Sethi P. M., Cooper A. J. (2004). Master's performance in the New York City Marathon 1983-1999. *Br J Sports Med*, 38(4), pp. 408- 412, 2004.
- Leblanc, J., Dickson, L. (2005). *Kids and Sport*. Ankara: Bağırgan Yayımevi.
- Lee, K., Kim, K.R., Yi, E. (2014). The Effect of Push Factors in the Leisure Sports Participation of the Retired Elderly on Re-socialization Recovery Resilience. *Journal of Exercise Rehabilitation*, 10(2), 92-99.
- Nia, M. E, Besharat, M. A. (2010). Comparison of athletes' personality characteristics in individual and team sports. *Procedia-Social and Behavioral Sciences*, 5, 808-812.
- Oyar, B. Z., Aşçı, H. F., Çelebi, M., Mülazımoğlu, M. (2001). Validity and Reliability Study of the Sport Participation Motivation Scale. *Hacettepe Spor Bilimleri Dergisi*, 12(2), 21-32.
- Özdemir G., Ersoy G. (2009). The benefits of exercise and healthy nutrition in the aging process. Ankara: İlksan Matbaacılık.
- Özgün, A., Yaşartürk, F., Ayhan, B., & Bozkuş, T. (2017). Examination of handball players' levels of sports-specific achievement motivation and happiness. *International Journal of Cultural and Social Studies (IntJCSS)*, Volume 3 (Special Issue 2), 83-94.
- Özyeşil, Z. (2011). *Öz- Understanding and Conscious Awareness* (1. basım). Ankara: Maya Akademi Yayınevi.
- Richards, J. C., Schmidt, R. (2002). *Longman dictionary of language teaching & applied linguistics*. (3rd Edition). London: Pearson Education.
- Ryckman, R. M., Hamel, J. J. (1993). Perceived Physical Ability Differences in The Sport Participation Motives of Young Athletes; *International Journal Of Sport Psychology*; 24(3), 270-283.
- Sağlam, M. H. (2017). Personality traits and servant leadership behaviors of administrators according to teacher perceptions. Master's thesis. Marmara University.
- Schultz, D.P., Schultz, S.E., (2017). *Theories of personality*. 11. Boston: Cengage Learning.
- Topçu, F. (2017). Investigation of the predictive effect of five factor personality traits on the psychological resilience levels of university students.. Master's thesis, Fatih Sultan University.
- Weinberg, R., Gould D (1995). *Foundations of Sport and Exercise Psychology*. Human Kinetics. p.: 60- 72.
- Weinstein, T. A. R., Capitanio, J. P., Gosling, S. D. (2008). Personality in animals. In O. P. John, R. W. Robins and L. A. Pervin (Eds). *Handbook of personality: theory and research* (p.328-350). New York: The Guilford Press.
- Yalçın, İ., Turğut, M., Gacar, A., Çalık, F. (2017). Investigation of sports participation motivations of female athletes studying in physical education and sports school according to some variables. *Uluslararası Kültürel ve Sosyal Araştırmalar Dergisi (UKSAD)*, 3(Special Issue 2), 201-210.

Zekiođlu, A., İnalı, Ç. (2020). Humanistic Perspective Journal of International Psychological Counseling and Guidance Researches Uluslararası Akademik Psikolojik Danıřma ve Rehberlik Arařtırmaları Dergisi.

The Comparison of Football Academy Systems between Turkey and England

Ender ŞENEL¹, Özcan SAYGIN²

Muğla Sıtkı Koçman University, Faculty of Sport Sciences, Turkey

<https://orcid.org/0000-0001-6276-6704>

Muğla Sıtkı Koçman University, Faculty of Sport Sciences, Turkey

<https://orcid.org/0000-0003-0380-586X>

Email: endersenel@mu.edu.tr, osaygin@mu.edu.tr

Type: Research Article (Received: 17.09.2021 - Accepted: 18.11.2021)

Abstract

A football Academy and the lack of football players grown consistently from this Academy has been the biggest problem that has existed since the existence of Turkish football. The struggle to create a team structure with external transfers in various teams competing at different levels brings a significant economic burden. On the other hand, it is known that the Academy of the teams that have achieved success in European football is strong. The purpose of this research is to propose a system for Turkish football by examining English Football Academy System including the number of football players present in the Academy, the footballers raised in the history of the clubs, the market values and the highest market values of these footballers, the goals scored in the club careers and the number of matches played, trainer selection, facilities, cooperation with other institutions. The information about the Academy in the official websites of the clubs, press, and scientific studies has developing according to the determined criteria. In the English academy model, it was determined that all clubs had to comply with the decisions taken by the academy coordinator, and athletes from four different categories were trained. According to findings, examining the various systems in Turkey, a system has been proposed to contribute to develop the “Turkish football player identity” “Turkish Football System” and “The Turkish Football Understanding.” In the research, it was concluded that a football Academy needs a good management structure, an athlete selection and training system, a certain number of foreign transfers to the academy is appropriate, and the facilities should be renewed.

Keywords: Academy, Sports, Football

Introduction

Football is the most popular game in the world that affects people of all ages from all parts of the world and can change the course of life. "Football, bloody hell" words of Manchester United coach Sir Alex Ferguson, who beat Bayern Munich 2-1 in the champions league final in 1999 with last minute goals, sums up football almost literally. Scottish coach William (Bill) Shankly's statement, "Some people think football is a matter of life and death. I assure you; it is something much more serious" reveals the perspective of football in the world. Zdenek Zeman explained the change in modern football with these words: "Football is no longer a game, it is the industry."

The triumphal march of football to become Germany's most popular sport to date is mainly since it contains a cultural force that can arise under certain historical conditions (Pyta, 2006). Modern football is a child of the nineteenth century. Its development is closely linked to the various social and cultural processes that first took root during the industrial revolution in Great Britain. This development, after a delay of time, spread to eastern and central Europe. This temporary delay can also be seen in various steps in the development of modern football, including the entry of the game into elite boarding schools and the establishment of the first clubs, and debates on whether football will be just a recreational activity for amateurs or become a profession (Koller & Braendle, 2015). Throughout its recent history, football has expanded its scope: initially a sport only for round leather enthusiasts (das runde Leder), it has progressed towards a spectator sport that fascinated tens of thousands of people who had never played in competitive conditions. Eventually, it managed to become a mass media phenomenon in Germany in the 1950s and was even used for political purposes (Pyta, 2006).

Football has sociological, physiological, psychological, philosophical, economic, political and cultural aspects. Today, with these aspects, it can change the agenda of not only a region but also the world. The fact that European countries such as Germany, the Netherlands and Belgium can produce high-level players such as Emre CAN, İlkay GÜNDOĞAN, Mesut ÖZİL and Nuri ŞAHİN from the Turkish population is an important indicator for their football development systems. According to the data of December 31, 2019, the rarity of high-level football players in Turkey, where 12,955,672 of 83,154,997 people are young (15-24 years old) population, cannot be explained solely by the criteria of talent. The child population that can be evaluated for talent selection is 22,876,798 people (27.5% of the total population). The ratio of the child population of 28 European Union member countries to the total population has been determined as 18.6% (TURKSTAT, 2020). According to TURKSTAT 2018 data, the number of children between the ages of 5-9 and 10-14 in Turkey is 12,659,010.

These data reveal the greatness of the potential of the Republic of Turkey for Turkish sports and therefore Turkish football. When the ratio of football players grown from European countries is examined, it is possible to say that there is an important problem in processing the potential in Turkey. Academy problems in Turkish football are examined under four main headings: management structure, personnel management, selection and training of athletes, and facilities.

Management is defined as ensuring that things are done effectively by people (Hodgetts, 1999; Robbins and De Cenzo, 1998). Management has functions of planning, organizing, directing, coordinating and controlling (Daft, 2003). Classical management approach

(Schermerhorn, 2014), scientific management approach - Taylor approach (Dessler, Starke, & Cyr, 2001), management process approach - H. Fayol (Daft, 2003), bureaucracy approach - M. Weber (Daft, 2003) are examples. Football in Turkey is managed depending on the autonomous structure of the Turkey Football Federation, where a mixed approach consisting of these approaches is adopted.

The academy in Turkish football is managed by the Football Development Coordinator. TFF aims to develop young footballers with the principle of "Good individual, Good citizen, Good player" under the name of "Elite Player Development". It can be said that this structure within TFF is far from forming a "Turkish Football Player" identity in cooperation with clubs. The lack of a standard game system and understanding in Turkish football, the inability to create mechanisms to train players for this understanding, the inability to identify talented players and follow their development processes can be attributed to the lack of decision-makers at the management level. The management level should organize clubs in Turkish football and take and implement fundamental decisions that will create the identity of a "Turkish Football Player". Therefore, academy coordination is ineffective and insufficient due to these reasons.

TFF organizes various courses to create employment in different fields of Turkish football. At the same time, Turkish universities train coaches in coaching education programs affiliated to sports sciences faculties, physical education, and sports colleges. In order to compete as a coach in Turkish teams, it is necessary to have at least TFF Grassroots C certificate. Coach candidates who graduate from the coaching departments of Turkish universities with football expertise can obtain the TFF Grassroots C certificate, while obtaining the right to apply directly to the UEFA B course. Those who receive undergraduate or graduate education in the field of sports sciences can obtain this certificate provided that they attend the course. The biggest problem here is that people who do not have a football background and who do not have football skills can easily access a football coaching certificate. It is an important problem for Turkish football that the coaches, whose football is the most important element of development, teach football to children in their developmental age without having adequate training and gaining experience.

Coach is the person who guides the player and the team during the game or competition; tries to manage the player and the team in the best way during training sessions and is responsible for the training and the results of the competition. Coaches can be leaders, presidents, educators, guides, coordinators, advisors and colleagues in a sport environment (Sevim, Tuncel, Erol, & Sunay, 2001: 25). Coaching competence is a coach's confidence in his athletes' abilities that affect their learning and performance (Feltz, Short, & Sullivan, 2008). Feltz, Chase, Moritz, and Sullivan (1999) explained trainer competencies with four sub-dimensions: motivation competence, technical teaching competence, competition strategy competence, and character creation competence. Competition Strategy Competence is the confidence that coaches have in their ability to guide their athletes to successful performance during competition. Motivation Competence is the confidence that trainers have in their athletes' ability to influence their psychological skills and state. Technical Teaching Competence is the belief of trainers in their educational and decisive abilities. Character Creation Competence is the confidence that athletes have in their ability to affect their personal development and positive attitudes towards sports (Feltz, Chase, Moritz, & Sullivan, 1999; Gençer, Kiremitçi, & Boyacıoğlu, 2009). Leith (1990) explains the basic skills that a trainer should have as technical, human and conceptual skills. Technical skills are skills that

involve the understanding and competence of trainers in specific activities, particularly methods, processes, procedures and techniques.

Youth development programs in Turkey do not have a football-specific program or policy. Although there is a youth player development coordinator for youth development, there is no policy or information that will directly affect the selection and training of athletes. When today's Turkish football and the numbers of trained footballers are evaluated, it is seen that the daily policies implemented are insufficient. Tournaments attended by young footballers in Turkey, especially on club basis, are not sufficient. The academic and sportive developments of the athletes who can only play in league competitions cannot be followed. There are no nationwide accepted criteria for the selection of athletes. Mechanisms that will follow the professional development processes of athletes and guide their families, clubs, athletes, and educational institutions are lacking.

Health status, motoric characteristics, learning ability, readiness, abilities, emotional characteristics, and social factors are some of the criteria used in talent selection (Bompa, 2009; Muratlı, 1997). The most important deficiency of Turkish football is that the teams do not have a country-wide accepted game system that is reflected in the national team. When choosing football players or determining talented young players, attention is paid to the game understanding and one-season policies determined by the team that made the selection that season. One of the most important factors of the inadequacy of long-term athlete development and planning can be shown that the coach who can plan cannot work in the team for enough time. Talent screening tests are carried out by teams with independent systems. It is possible to say that the athlete selection criteria required to create a "Turkish football player" identity and to create a "Turkish Football" philosophy are insufficient.

Physical competence, specialization, age, trainability, thoughtful emotional and moral development, time, periodicity, competition, system harmony and integrity, continuous improvement are the main factors of long-term athlete development. This development process includes active start, fun basic skills, learning training, training, training to compete and win, and lifelong activity stages (Balyi, Way, & Higgs, 2016). The more important it is to follow the football development processes of the athletes, the more important it is to follow their academic and social development. integration of life outside of football development process of young football players in Turkey, family, school, followed by the process of cooperation between clubs and federations are insufficient. It is not even possible to report the development processes of a young football player periodically.

Only football-related, especially physical performance, development processes of the athletes who have reached a professional level are reported. It would not be wrong to say that the lack of a follow-up process created by Turkish football with the principle of "Not even one individual can be sacrificed in education" makes the fate of young people who set out with the dream of becoming a footballer obscure. Ignoring the academic development of young players whose football development has stalled and regressed may cause Turkish youth to turn to an unqualified career. There is no mechanism required for Turkish youth who cannot continue football to leave the follow-up process in a healthy way and continue their lives.

It refers to the buildings where sports activities are held within the sports facility (Güçlü, 1998). One of the important factors that will affect the professional development processes of young football players is the facilities and the access of football players to the facilities in the

facilities. struggling in the professional league football team in Turkey, there are big differences between the economic situations. While this difference is quite evident even among the teams in the super league, the economic difference between the teams in the first, second and third leagues is getting deeper. Economic situation and financial structure directly affect the establishment status of the teams. The facilities offered by the teams competing in professional leagues to the academy athletes other than the A team are affected by the economic structure. As the level of the league changes, access to the training field, the features of the match field, the use of social and cultural areas, accommodation facilities in the facilities differentiate the use of academy athletes. There is a need for facilities that fulfill the conditions such as accommodation, nutrition, leisure time, participation in social activities, resting, finding a place to study, benefiting from the necessary facilities before, during and after training, regardless of the A team of young Turkish athletes. While those of the Super League teams with good economic conditions provide this opportunity to young players, this is not the case for other teams.

Material and Method

Study Model

In this study, one of the qualitative research methods, case study design was used. The case study research provides the researcher with detailed information about real life, a current limited system (a situation), or multiple constrained systems (situations) in a given time period through multiple sources of information (e.g., observations, interviews, audio-visual materials and documents and reports). and it is a qualitative approach in which it collects in-depth information, depicts a situation, or presents themes (Creswell 2015, p.97). In another definition, the case study Christensen et al. (2015) defined case study as an intensive and detailed description and analysis of one or more situations. The concept of case is a system in which the boundaries can be defined, consisting of person, group, organization, activity, process, or event. The word system here is a holistic concept that includes the relationships between the elements of the case. What is meant by the expression of definable boundaries here is, in most cases, the limits that decide what the case is or not (p. 416).

There are many factors in the absence of the Turkish football academy system. In the light of the definitions and information above, the aim of the study is to identify these factors and compare them with sample models and offer solutions. For this purpose, documents related to football academy systems in Turkey and England were examined and analyzed in depth, and the factors underlying this situation and solution suggestions were tried to be presented. In addition, sample academy systems were handled through document collection, the current situation in Turkey was compared and recommendations were made. Since the case study involves an in-depth (detailed) and longitudinal (holistic) examination and analysis of data obtained through participant observations, in-depth interviews and document collection (Glesne 2013, p.30; Merriam 2013, p.46), it is appropriate to prefer this approach.

Study group

Within the scope of the research, Beşiktaş, Fenerbahçe, Galatasaray, Altınordu and Gençlerbirliği teams from Turkey were compared with the general structure of the EFL academy system from England.

Data Analysis

While analyzing the data, content analysis was performed by adopting an inductive approach. The themes were created by analyzing the documents collected within the scope of the research. 4 themes required for a football academy (Management Structure, Personnel Management, Athlete Selection and Training, Facilities) have been determined.

Findings

Management structure

Figure 1. Turkish Youth Development Management Structure



Figure 2. EFL Youth Development Management Structure

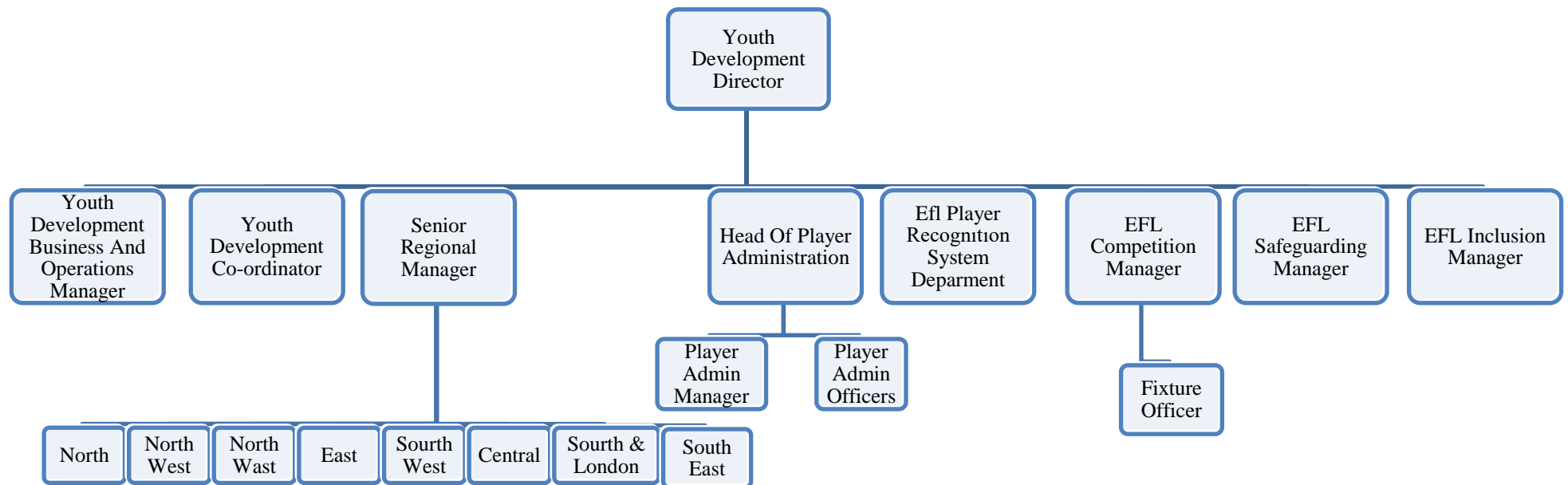


Table 1. Comparison between mission and vision of Turkey and England

Turkey	England
<p>Vision Football Development Directorate is the organization that carries out Coach Training, Elite Football Development and Grassroots activities that shape the future of the country's football, and includes Development National Teams (Women's, Beach and Futsal National Teams). The Football Development Directorate, in coordination with all the stakeholders of Turkish football, produces various projects with a common language and philosophy in order to develop and spread football by embracing the entire young population in Turkey. The priorities of the Football Development Directorate are the modern training of trainers at all levels, the establishment of systems that will ensure the training of qualified players for the elite player pool, and the Grassroots projects that will ensure the generalization of football at the grassroots level.</p>	<p>Vision We want to produce more and better home-grown players and for the experiences in the Academy system to be positive in helping to develop the person as well as the player. We want our players to be technically excellent and tactically astute independent decision-makers on and off the field, equipped for a successful career as professional footballers. We want to develop the world's leading youth coaches, provide inspirational facilities and world-class support services.</p>
<p>Mission 1. Planning the training of all stakeholders of Turkish Football and maintaining the training at the highest standards, 2. Spreading football, primarily children, regardless of age, gender, physical and economic status, and developing alternative football types such as Futsal and Beach Football throughout the country, 3.Reorganization of Turkish Football Youth Development Program in a way to embrace all the young population in Turkey - students in schools - and to benefit from contemporary football education by identifying talented football players. 4. Developing the Elite Football Leagues in a way that will provide the maximum benefit to the country's football.</p>	<p>Mission The aim of the Academy system is to help young players maximize their potential in football, education, and life. It puts well-being and personal development at the heart of everything we do. Our aim is to develop well- rounded individuals as well as high quality players. Clubs provide expert services, support and advice to Academy Players and their parents, and every young player should enjoy and value their Academy experience.</p>
<p>Basic Principles</p> <ul style="list-style-type: none"> • Focus on continuous improvement • Training of the trainers at UEFA (JIRA) standards • Project-based work • Sustainability • Qualified human resources • Benefiting from international experience • Use of technology (e-learning, etc.) • Project structures that create their own resources • Decentralized structuring • Benefiting from EU / FIFA-UEFA Funds 	<p>Your Opportunity Participating in the Academy system is an achievement to be proud of, however it is important to maintain a balance between the demands of life outside of football, including your education. Ensure that you maintain interests beyond the football pitch and manage expectations of a professional football career because only a few Academy Players will go on to become professional footballers.</p>

Human Resources Management

Coach Recruitment, Training and Selection

The employment of coaches in Turkey is done by contract in professional clubs. The employment of academy trainers varies according to the policies of the clubs.

Athlete Selection and Training

According to the 2020 data of Turkey Football Federation, young footballers participate in the competitions in Spor Toto Development Leagues and Football Academy Development Leagues. Under the Spor Toto Development League, there are U14, U15, U16, U17, U19 leagues in Elite status and U15, U16, U17, U19 leagues in regional status. Football competitions are played in U13 and U14 categories under the Football Academy Development League. While there are 4 groups in Elite U14, U15, U16 leagues, there are 9 teams in each group. In the Elite U14, U15 and U16 leagues, a footballer can play a maximum of 16 games a year. Until a player reaches the U17 category, he can play a maximum of 48 league matches. There are two groups, Elite A and Elite B, in Elite U17 and U19 leagues, and there are 18 teams in each group. A player can play 34 games for each group in the U17 and U19 categories. According to these data, a football player from the age of 13 to the end of the age of 18 can only play 115 matches. There are six teams in two groups each in the U14 and U13 categories of the academy development leagues. A football player can play a total of 20 matches in these categories. Assuming that a player participates in all matches in all leagues, he can play 135 matches (TFF, 2020).

There is a course program organized by TFF for talent hunting in Turkey, but it cannot be said that there is a standard for employment in clubs. This task is carried out by managers, sports directors, or assistant coaches in some clubs. In addition, this process is tried to be carried out with the manager or the representative of the athlete, but this practice is mostly used for the transfer of players at the A team level.

The Premier Academy League was established in the England in 2012 within the scope of the Elite Player Performance Plan. In the system where there are 4 academy categories, athletes from U9 age group to professional between categories of 1 and 3 compete, while the late development model is applied from U17 in the category 4 model. The highest category is category 1 (EFL, 2020a). Also, Youth Alliance League and Central League are other youth development leagues. Youth Alliance league EFL is the league in which young people under the age of 18 from clubs selected from Premier League and national leagues participate in competitions in categories 3 and 4. The competitions are divided into 4 different regions. The winning teams play the Youth Alliance Cup final in an EFL stadium. League groups consist of 11 to 14 teams. Central League includes the center of England, northern England, and northern Wales. This league, which contributes to the development of young athletes, is the oldest league in England (since 1911). Groups consist of 4 to 5 teams.

The academy system in England takes place in three different stages. The basic stage covers between the ages of 9 and under 11, the youth development stage between the ages of 12 and under 16, and the professional development stage between the ages of 17 and under 21. Each academy is audited independently every three years and categorized from 1 to 4. EFL collaborates with clubs between audits to ensure that standards are maintained and improved when needed. The different categories of academies reflect the type of program provided. The

environment in an academy differs by categories, but all categories of the academy have a track record of producing successful professional actors (EFL, 2019).

Table 2. EFL academy classification, definition, and performance stage

Academy Classification	Description	Performance Stage
Category 1	This category is the highest level. It is an environment where athletes have access to full-time training and access to additional trainers since U12. Academies in Category 1 can nationally select athletes from the U14 and provide a full-time education.	From U9 to U21
Category 2	This category is the development setting where academy players are locally selected but have access to extra coaching and training support.	From U9 to U21
Category 3	This category is the environment where academy athletes have access to professional coaches and development opportunities.	From U9 to U21
Category 4	In this category, the trainers and training support of the athletes take place within the professional development phase.	From U17 to U21

Participation in this system takes place directly with a club, scout, or an intermediary. A scout has been defined in the EFL academy system, who is a certified person identifying talented young players and represents them on a club basis. It is the person who represents the tool required to log into the system, the player, or the club in cases such as a contract agreement. Intermediaries cannot contact the player until January of the year in which athletes turn 18. As of this date, they can offer free consultancy services to athletes, but this service is not required for the professional development phase. The EFL academy system offers athletes a two-year full-time football development program and training program. The service provided from the age of 14 ends before the age of 16 (EFL, 2019).

Each academy has a performance plan that includes the principles, values, play style and tactical approach of the club. Game programs, educational programs, sports science, health services support, working with a trainer are included in this program.

Table 3. EFL academy categories performance plan

Category	Foundation Phase U9 to U11	Youth Development Phase U12 to U16	Professional Development Phase U17 to U21
Category 1	4 coaching hours per week rising to 8 hours for older Academy Players	10 coaching hours per week rising to 12 hours for older Academy Players	14 coaching hours per week reducing to 12 hours for Academy Players who have

			commitments to the professional squad during the Professional Development Phase.
Category 2	3 coaching hours per week rising to 5 hours for older Academy Players	6 coaching hours per week rising to 12 hours for older Academy Players	14 coaching hours per week reducing to 12 hours for Academy Players who have commitments to the professional squad during the Professional Development Phase.
Category 3	3 coaching hours per week	4 coaching hours per week rising to 6 hours for older Academy Players	12 coaching hours per week.
Category 4	Not applicable	Not applicable	14 coaching hours per week reducing to 12 hours for Academy Players who have commitments to the professional squad during the Professional Development Phase Games Programme.

In England, there is a game, namely the competition, program determined in the academy system. These programs are designed for different stages. The basic stage includes local competitions for the U9, U10 and U11 groups, which are usually played on Sundays, and regular festivals with 3 or more teams. Players in this group play in half of the games in a season, depending on physical fitness. Academies in categories 1 and 2 also participate in the regional league held in December and February. The main goal at this stage is to master fun and ball control. In the youth development stage, players in groups U12, U13, U14, U15 and U16 participate in weekends and regular festivals. While the games are usually held at the regional level, the academies in categories 1 and 2 can participate in national and international trophies. Players of U12, U13 and U14 take part in half of the competitions throughout the season, depending on physical fitness. The main goal at this stage is to develop technical skills, game understanding and tactical awareness. Academy players between U12 and U16 can be included in football tournaments. In the professional development phase, it is essential to prepare the players in the U17, U18, U19, U20 and U21 groups for professional life in the A teams. Players can join the U18 or a professional development league, depending on age and academy category. The U18 league is held on Saturdays. Premier League 2 includes category 1 academy matches played at the clubs' own stadiums. Similarly, it can be included here in category 2. There is a development league opportunity for categories 3 and 4 (EFL, 2019).

Table 4. EFL Game Formats

The Foundation Phase (U9 to U11) Game Formats				
Age	Format	Pitch Size	Goal size	Ball Size
U9	5 v 5 or 7 v 7	30x20, 40x30, 50x30, 60x40	12x6	3 or 4
U10	7 v 7	50x30, 60x40	12x6, 16x7	4
U11	9 v 9	70x40, 80x50	16x7	4
U9 to U11	Futsal (5 v 5)	25x15, 33x18	3x2m	3 to 4
The Youth Development Phase (U12 to U16) Game Formats				
Age	Format	Pitch Size	Goal Size	Ball Size
U12 & U13	11 v 11	90x60	21x7	4
U14 & U15	11 v 11	90x60, 100x60	24x8	5
U16	11 v 11	100x60, 110x70	24x8	5
U12 to U16	Futsal (5 v 5)	38x18, 42x25	3x2m	5

In the academy system in England, players have the opportunity to participate in local, national and international festivals, tours and tournaments outside of leagues. Participation in these events takes place with the program determined by the club. The training programs of the players are followed by the education manager in the club according to the criteria that the time in the club does not affect the school process, the academic achievement is obtained, and the recommendations regarding the training program are provided. In the basic stage, the academy organizes a part-time program to ensure that it does not interfere with full-time education. The Academy follows academic development in regular communication with the school. The Academy submits reports twice a year to families on the progress in all stages of football. There is a full-time education part-time academy practice in the youth development stage. Another application is a hash program. Players leave school and join the academy as part of the weekly program. The agreement between the family, the academy and the school guarantee this program so that it does not affect academic studies. When necessary, the academy must contact the school and provide academic support. Progress in the training program during the 12-week period is recorded under the name of Performance Hour. The Academy submits reports twice a year to families on the progress in all stages of football. Full-time application requires both academia and training to be included in the club. Academic needs are met by a local school.

As part of their scholarship for the first two years of the professional development phase, academic players have a training component. Many academy players receive programs provided by clubs and League Football Training (LFE), under the name of Advanced Apprenticeship in Sports Excellence. Full-time education evaluation is carried out every 12 weeks and recorded in the Education Management System. Although it is not compulsory, advanced education levels can be continued from the age of 18. Even if a professional contract is signed, academies require the completion of training programs (EFL, 2019).

The EFL academy system uses ID cards to verify player eligibility and record attendance at Academy fixtures and events, with the player identification system. All students (U9-U16) are given an ID card and monitored to ensure the integrity of the Academy football in accordance with the Youth Development Rules. The development and progress of the players are recorded with performance hours and performance evaluations. The most important purpose

of this system is to make the players independent decision makers. Sports development, performance, lifestyle and psychology programs aim to provide the necessary knowledge, skills and recognition to become a professional football player. It has also developed Welfare Protection principles to protect young players and create a safe space for them (EFL, 2019). In countries such as England and Spain, the number of matches played by the players, their participation in national and national level tournaments, and the follow-up of their academic and sportive developments are guaranteed within a system. The EFL has a 344-point circular that guarantees and explains in detail all stages of a football player's development. In Turkey, such a circular, the decision is no law.

Facility

Academy facilities in England and Turkey are shaped by the investments of football teams. Each team goes to the establishment according to their own infrastructure features.

For example, LFC has an academy center built in Kikrby to UK standards. Founded in 1998, the center has been renovated and made comprehensive. The center is in a 56-acre land. There are 4 grass fields and an artificial grass field. In addition, it has small fields in 7 closed areas. There is a closed area (TABS) bearing the words Technique, Attitude, Balance and Speed. This word is the key word of the academy. The facility includes a large pool, sports field, hydrotherapy center, special sports treatment areas. TV studios and press conference centers are also included (LFC, 2020).

In Fenerbahçe, there are academy facilities in the 250 square meter area within Leter Küçükandonyadis Facilities that are open to use during the summer months, including a semi-Olympic swimming pool, rowing branch, table tennis, boxing branch, volleyball, basketball and football academy. Since it was put into service in 1999, the camp center, especially related to Football Academy, has gained a more modern appearance with its cafeterias and administrative units and is in constant self-renewal (FB, 2020). Metin Oktay Facilities, named after Metin Oktay, the legendary striker of Galatasaray, is established on an area of 80 hectares in Florya. Metin Oktay Facilities, Central Administration Building, Camp Building, four full-size football fields, Youth Team Facilities, Sports Hall, Galatasaray Football School, Galatasaray Hospital, restaurants, entertainment areas as well as training facilities for Galatasaray Basketball and Volleyball teams. Football School, which is under the authority of the Ministry of National Education of Turkey, is a school whose quality is officially approved for small players selected from all over the country. Children staying in dormitories receive education in accordance with the education program of the ministry (GS, 2020). Beşiktaş's Hakkı Yeten Football Academy Facilities are located on an 1800 m² closed area. It has the capacity to accommodate 40 athletes. The facilities include a health center, laundry, kitchen, dining hall, office and meeting rooms, sauna, steam room, security control center, men and women referee dressing rooms and technical team match watching halls (BJK, 2020).

Altınordu Football Club has extensive football facilities with Sait Altınordu Facilities, İsmet Orhunbilge Facilities, Beytullah Baliç Campus, Metin Oktay Campus. Altınordu Football Club, where basic football training started at the age of 5, continues this training until the age of 11. In Sait Altınordu facility, in addition to the natural habitat, there are 11 synthetic fields of 13x20, 20x30, 25x40, 30x40, 30x50 meters in different sizes. In addition, there are 1 futsal

hall, 1 gymnasium area and 2 ball technique development equipment. There is also a visual training hall for 65 people, a dining hall and a dormitory. Players aged 9, 10 and 11 who play in elite teams have the opportunity to camp one night each weekend. Altınordu Store, made of heavy steel structure, has a shelter feature due to the fact that İzmir is an earthquake zone. İsmet Orhunbilge facility has the feature of a training and tournament center. There are five natural grass and two synthetic grass fields. 2 grass fields are used by the A team. 5 fields are used in weekend events such as Kids' Football Festivals, Football Tournaments Between Schools and Elite Age Groups. In addition, the International U12 İzmir Cup is held in these facilities in April every year. The property has a dormitory with 48 beds. Beytullah Baliç campus meets the camping needs of the A team. Metin Oktay campus has been defined as a "real professional football player training center" and there are the following opportunities (Altınordu, 2020):

1. Gündüz Tekin Onay Natural Grass Field - Net 68x105 m
 2. Serpil Hamdi Tuzun Natural Grass Field - Net 68x105 m
 3. Doğan Emültay Artificial Grass Field - Net 68x105 m
 4. Şenez Erzik Hybrid Grass Field - Net 68x105 m
 5. Ahmet Güvener Artificial Grass Field - Net 60x90 m
 6. Tarık Gençay Artificial Grass Field - Net 50x75 m
 7. Mustafa Balöz Private Goalkeeper Working Area - Net 50x75 m
 8. Gode Cengiz Special Striker workspace - Net 50x75 m
 9. Futsal Hall - Net 20x30 m
 10. Ball Technique-2 Development Hall - Ultra-modern ball technique development device with 8 ball outputs and 64 cells with full electronic components.
 11. Athletic Skill Track - 15 types of equipment that develop speed and flexibility.
 12. Ball Technique / 1 Equipment, Sand Court, Foot Volley Area, Mini Basketball Area.
 13. Süleyman Ferit Bey Building - Offices, Dining Hall, Visual Training Hall, Hobby / Game Room and Junior Athlete Rooms
 14. Hasan Doğan Building - Large Age Sports Rooms, Dining Hall, Visual Training Hall and Hobby / Game Room
- Athlete Physical Health Center and Fitness Center - 2-storey Heavy Steel Construction Building and fitness equipment etc.
16. Sample Fattening Roof - Cows, Calves, Sheep, Goats, Chickens, Ducks. Possibility to receive 80 liters of milk a day. Possibility of making yoghurt, pudding; Athletes have the opportunity to learn about life by helping 2 hours once a week.
 17. Organic Farming Area - 500 square meters greenhouse and 1.500 square meters open farming area. In the area where all vegetables are grown, the athletes help once a week for 2 hours.

Altınordu Football Academy (ALFA) is located in the Torbalı Metin Oktay Campus. The youngest age group in ALFA is 12 years old athletes. U12 age team, selected from a Yesilyurt Central Football School Football School 133 in the previous year and spread to Turkey consists of naturally talented 11-year-old children. At the same time "Children's Player Tracking section also makes searching and browsing activities across Turkey and they bring players to audition.

Discussion

Management Structure

While BJK has the Football Academy Director in its management staff as responsible for the academy affairs, the administrative manager and the administrative director are also included in the management structure. In addition, it supports this structure with its staff of Foreign Relations and Organization Administrative Officer and Youth Development Program Technical Officer. GS, on the other hand, has a wider administrative structure with the Football Academy Coordinator, Football Academy Administrative Manager, Administrative Affairs-External Tracking Officer, Administrative Affairs Officer, Sports Schools Supervisor, Sports Schools Supervisory Staff. FB reports to the football academy Youth Development Executive Officer. FCB has a system of units subordinate to the director of La Masia. The coordination unit supported by Academic, Digital and Planning units has a comprehensive structure. The LFC academy has established a system under its manager. This system is supported by the commercial activities manager, football activities manager, and its units. Ajax FC, on the other hand, has a system consisting of talent hunters and coaches under the academy coordinator. In the UK academy system, there is a system consisting of units under the Youth Development Coordinator. Similarly, there is a youth development coordinator in Turkey, but this coordinator functions mostly at the level of national teams. The decisions taken by the English academy system coordination directly affect and concern the academy of the teams.

Staff management

Coach Recruitment, Training and Selection

In the German Academy System, 1300 coaches, who should have at least a UEFA B license, monitor 650,000 young people annually, making it very difficult for talent to pass through a fishing net, while coordinators ensure that the central philosophy is accepted throughout the country. In Germany, there are coaches that bring the players to the A team as quickly as possible based on the success of young players. For example, the Hennes-Weisweiler Academy has been the center for European football coaches since 1947. It is necessary to complete more than 800 hours of class to reach the level equivalent to UEFA pro license. This period is 202.5 hours in England. However, perhaps more importantly, in 2013, high-quality coaching from the ground is provided, with 28,400 B undergraduate coaches with Pro licenses in Germany, 5,500 A undergraduate coaches and more than 1,000 tacticians. Coaches in Germany receive excellent training, but what sets them apart from their contemporaries elsewhere and most importantly gives players the chance to succeed on and off the field. "When I went to Aston Villa eight years ago, I told them that our players under the age of 17, 18 and 19 go to school for 34 hours a week," says Freiburg Coach Christian Streich. For

example, according to the Freiburg approach, if a person is to spend time in the field, they should also spend time in the classroom. Academically better education not only prepares you for life after football, but it also provides better skills and opportunities. Understanding the tactics and advice given by coaches and support staff, processing information quickly and crucially, using classes in the brain is developed understanding the role of training in the German academy system “We give players the best chance to become footballers, but here we provide two training. If 80 percent can't keep playing for the professional team, we must look after them. Most players who play here continue to higher education and yet we need smart players on the field (Bundesliga, 2020). It includes not only footballers but also Turkish coaches who have played football for years, such as Tayfun Korkut, in the football community of Germany, recruiting from the Turkish population.

Some researchers emphasized that coach training proved its effect with some practical examples in England, while in Canada there is no in-service training for trainers. Academy coaches are employed full-time, but many clubs can also use part-time coaches to assist young age teams (Holt, 2002). LFC has its own coach training system. Similarly, FCB has a program that trains its own coaches.

There are two ways to become a Sports Specialist or Trainer in Spain. The first is through the documents obtained by graduating from official institutions such as high schools and universities, and the second is through the training of coaches through non-governmental organizations. Certifications with professional qualifications for sports teaching and coaching in Spain are very heterogeneous, such as sports science graduates, primary school graduate teachers specializing in physical education, and sports coaches. The formal training of trainers in Spain is currently divided into two phases; intermediate, level 1 and 2 (referred to in legislation as "sports technician") and higher, this will be equivalent to level 3 (referred to as "advanced sports technician"). Coaches normally serve three purposes: recreation, school and sports, or federal sport. Trainers with the most basic training (“sports technicians”) can work both in the field of sports and in the sports federation, improving the functions specified in regulations for all levels. These qualifications are essential to coaching competitions organized by sports federations (Feu et al., 2018). Specific to FCB, the lowest football coach level is UEFA B PRO. FCB has 15 UEFA PRO, 32 UEFA A, 15 UEFA B licensed trainers.

Selection and training of athletes

In Spain, División de Honor Juvenil de Fútbol and Liga Nacional Juvenil de Fútbol are youth team leagues. División de Honor Juvenil de Fútbol is a league consisting of 7 groups with 16 teams in each group, except for group 4 (18 teams), in which players 18 and below can participate. The group champions and the second best qualify to play in Copa De Campeones and Copa del Rey tournaments. The other six second best and two third best qualify for the Copa del Rey tournament. At least 4 teams in each group fall into the regional league. The winner of the Copa De Campeones tournament qualifies for the UEFA youth league. Liga Nacional Juvenil de Fútbol is a league of 18 teams, with players aged 19 and under. There are 21 different groups in this category, and they are organized by region.

Professional clubs are primarily responsible for talent development in the UK through youth academies. Premier League clubs are required to run an academy. Academies accept players to train for competitive games from the age of 8 and offer a three-year scholarship for 16–19-year-olds (Holt, 2002).

After the disappointing World Cup in 1998 and the 2000 European Championship, especially when Germany was eliminated in the group stage, the German Football Federation (DFB) discussed the reasons for the failure. Since the average age of the national team squad is over 30 years old, the lack of talented young players has been named the main factor of failure. As a result, the national talent discovery and development system needs to be significantly improved. In the first phase, 366 local bases were established to support the most skilled eleven- to sixteen-year-old players. Also, German professional clubs had to expand their youth programs in 2001 (1st Bundesliga) and 2002 (2nd Bundesliga) respectively. Also, evaluating these youth academies every three years should help improve the quality of every academy and every talented young player in an academy. In 2006, the first elite football schools were established to give talented players the chance to concentrate on football and school side by side (Grossmann & Lames, 2015).

In Germany, the German Football Academy is an organization that teaches young players "German Style" football, provides the opportunity to work with national and international coaches, and provides national and international competitions. It is possible to say that the structure of the academy in German football changed as a result of the failure in 2018. The main reason for this change was the German national team's performance far from expected, especially with the failure of the clubs in European competitions. It was obvious that there were deep problems in the training of German young footballers, because the teams in the German league had begun to lose their characteristic of being young German football clubs. For example, although Bayern Munich has an academy to which it has made very serious investments, the 10-million-euro agreement it has made with Alphonso Davies is the most obvious indication that no good footballers are raised from this academy. In 2019, German national team sports director Oliver Bierhoff said, "When the clubs agree with the English, French or Belgian players, there is only one solution. Young German players have to be better", reveals the search for a solution to the problem with transfer at the academy level. The German Football Academy aims to create a football identity from the lowest level to professional. The change enabled the U21 team to win the European trophies they obtained (Bundesliga, 2020).

The German academy system has a seven-step plan. Comprehensive sports training, diversified skills and competitive training, basic football training, professional training, increasing the intensity of transition-based training, effective and intensive training - development of player skills, effective and intense training - the steps of keeping the players in the form constitute this system (Jiang, 2019).

Talent Identification

The primary goal of the academy teams of German clubs is to support the A teams of professional clubs and to train players for German teams at a young age. Based on this approach, this concept can be examined under two headings as collectivist versus individualist approach (Güllich & Emrich, 2012):

The individualistic approach involves the process of selecting players at the individual athlete level in an approach that continually promotes the individual's long-term performance progress, resulting in increased likelihood of players reaching a higher level of performance and promotion to a professional team. The collectivist approach, on the other hand, includes the emergence of individuals with the potential of successful professional players collectively

during the processes of selecting the players within the talent promotion program or removing the selected players from the program in every age group in childhood and youth. In this approach, existing players are constantly replaced by new players. In this approach, existing players are constantly replaced by new players. These players have the opportunity to reach a higher level by continuing their education outside of this program. In the individualist approach, successful veteran players are expected to come precisely from the ranks of football players who participate in talent promotion from an early age. In the collectivist approach, instead, it is unclear who will become a player in the top teams. This is important because the interventions of the talent promotion program can only be applied to future high performers who are already in the early stages of the program's career, but not to future high performers who are not identified at a young age (Güllich (2014). The programs of clubs and associations begin in childhood (youth academies) or youth (national U-teams), indicating that they are already aiming to select talent from a young age to cultivate a long period to the expected high level of high performance (Güllich and Emrich, 2012). DFB (2009, p. 2, 11) indicates that the systematic screening and promotion of talents not only in the older age categories, but also that the youngest players begin with a varied and enjoyable educational process. It emphasizes that raising each child and young player should be a priority at all stages of the educational process.

According to Joachim Löw, German football, which was very bad in 2004, started with the idea of being better by investing in education and achieved important results. Another key aspect of Germany's success is the country's extensive exploration network. There are currently more than 300 centers across the country aiming to identify and encourage young talent, potentially creating a network for Bundesliga clubs to develop mutually beneficial international players (Bundesliga, 2020).

When the Ajax example is examined, it is seen that many talent hunters are employed in its technical staff. Ajax youth academy does not accept applications from outside. Invitations are sent only to people followed by the scout team. There are 5 talent scouts under the coordination of a chief talent scout. One part of the selection of players for academy teams in England is done through talent scouts. Looking at the example of FCB in Spain, it is seen that talents are discovered through coaches with at least UEFA B certificate employed in football schools in many parts of the world. LFC also includes talent scouts in its technical staff.

Facility

FCB La Masia campus and Oriol Trot Training Center have facilities to meet all the needs of football players from training to social activities. It also has a facility called Joan Gamper Sports City. Ajax football trains football players for football teams all over the world in its facilities called “de Toekomst”, which means “future”. There are seven turf fields, one artificial turf, and a small stadium where Ajax 2 teams play their matches. Apart from these, Amsterdam Arena, which is the main stadium, is a facility built for the official matches of the Ajax football club. The facility also includes weight rooms, a gym and a swimming pool used for injury rehabilitation. The financial support of German football academies was provided by associations and clubs. From 2001 to 2010, more than half a billion euros were spent on football centers. Major league teams must have facilities such as at least three turf pitches, a fitness training hall, a gym, several locker rooms, a physical therapy room and a refreshment pool (Grossmann & Lames, 2015).

Conclusion and Recommendations

In this section, the conditions of Turkey, the situations of Turkish athletes and European teams are analyzed, and an academy system proposal is given for the Turkish football academy. First, the Football Development Directorate within the TFF should be made an autonomous structure. The decisions taken by this coordinator must be binding on the clubs. A game system and understanding should be introduced for Turkish football. For example, if the system of the Turkish national team is determined as 4-2-3-1, all Turkish football teams, from amateur to professional, should arrange their game systems in this direction. Turkish teams should make this reform at all levels. All structures in this system have been proposed as part of a system that complies with the decisions of the Autonomous Football Development Directorate. The academy teams of the clubs should be in 3 different categories. Category 1 should be classified at high level, category 2 at intermediate level, and category 3 at low level. This gradual system will allow players to take part in the system, complete the development, and exit by increasing the performance that has declined due to organic development, while preventing young talents from being pushed out of the system unnoticed due to various physical and physiological development stages and the loss of talent.

Management Structure

The results of the research have shown that football academy are generally established from within the football clubs independently from the federations, but in England and Germany, academy inspections are carried out by units affiliated to the federation. Based on the research findings, the management levels and duties of a football academy should be as follows:

Vice President of Football Academy: He or she appoints the coordinator for the academy. The coordinator monitors and supervises the development of the players competing from the development leagues. He or she recommends the football players recommended by the coordinator to the board of directors and the technical team of the A team.

Academy Coordinator: He or she selects the personnel to be in the infrastructure level and carries out all the operations related to the academy. Recommends the developing athletes to the vice president responsible for academy. He or she specifies the countries and leagues that the scout team will monitor. He or she reports these leagues to the vice president and must have a UEFA Pro license.

Assistant Academy Coordinators: There must be at least two assistant coordinators. One of the assistants oversees the scout unit and the other is in charge of the development leagues. Guides scouts to collaborate with the coordinator. He or she carries out the recruitment of technical and auxiliary personnel such as coaches, assistant coaches, conditioners, physiotherapists, masseurs to work in development leagues, and must have a UEFA Pro license.

Staff Management

Besides the facilities of a football infrastructure, personnel management is also important. The employment of qualified personnel is necessary to ensure the development of football players. In addition to coaches, assistant coaches, goalkeeper trainers, individual trainers, conditioners,

masseurs and analysts, private teachers, pedagogues and psychological counselors, physiotherapists and doctors should be included in the academy.

Selection of Trainers and Other Support Personnel

Coaches: The selection of academy coaches and trainers should be made based on certain criteria in cooperation with the coordinator and assistant coordinators. Academy coaches should be selected from individuals with at least UEFA A license. Selection criteria should include professional experience and football career. They must have at least UEFA A license to be able to coach teams in all leagues organized by TFF in Turkey, where young football players can compete. At least one assistant coach must be employed for all teams. Coordinates the team with which he works in cooperation with the coach. Must have at least a UEFA C license. Trainers should be subject to continuous in-service training to follow current developments and the continuity of development should be ensured.

Conditioner: At least one conditioner must be employed for each team. Designs the team's fitness training.

Masseur: At least two masseurs must be employed for each team.

Analyst: At least one performance analyst should be employed for each team, who analyzes the match and training performances of the players of the team he works with, and reports progress and setbacks to Coaches and Assistant Coaches.

Goalkeeping Coach: At least one goalkeeper coach must be employed for each team.

Individual Trainer: To contribute to the specific development of the athletes, individual coaches should be employed separately for attack, midfield and defense training in a model suitable for the football understanding and philosophy of the A team (for example, 4-3-3). The task of these coaches is to help the athletes reach certain goals. In accordance with the system decision to be taken by the football development directorate to create the identity of a Turkish football player, individual coaches provide training for regional players such as midfielders, strikers, defense, and wingers.

Pedagogue, Psychological Counselor and Sports Psychologist: At least one pedagogue, one psychological counselor and one sports psychologist should be employed for each team to solve the problems of the youth, support their problem-solving skills and direct their academic careers.

Physiotherapist: At least one physiotherapist should be employed for each team.

Teacher: Private teachers should be employed when necessary to support the academic careers of athletes. Temporary or permanent teacher employment should be made to support the athletes who need solutions related to school life. Teachers should be selected from branches that students will need in the Turkish education system. In cases where employment is insufficient, teachers should be assigned with hourly tuition fees for private lessons.

Athlete Selection and Training

Athlete Selection: Two stages are suggested to create a "Turkish Football Player" identity that will be accepted by the world football community: The first is to determine the physical fitness criteria for football, and the second is to determine the physical fitness of Turkish children and to choose those suitable for football. To create "Turkish Football Player" and

"Turkish Football Understanding", first, the young people who will take place in the system must be fully recognized. In line with the system decision to be taken by the football development directorate, physical fitness profiles of Turkish youth for football should be drawn. Profiling constitutes a whole by forming parts of the Turkish football system. There should be a mechanism that can select young talents who will play a role in the game. For example, the goalkeeper, defense, midfielder, and forward characteristics to be included in the 4-2-3-1 system should be determined and the selections should be made accordingly. The selection of athletes should continue throughout the year with the initiative of the clubs and should be supervised by the directorate. In addition to gaining competitive experience for young players through events such as tournaments, festivals, and entertainment in which the athletes at the developmental levels will take part, in order to ensure the transition between the levels to be determined within the system, there will be an opportunity.

The 6+0+4 foreign rule was introduced in the 2013-2014 season. Clubs were able to transfer a maximum of 10 foreign players and included 6 players in the match squad. Competing in the champions league in the 2014-2015 season, Galatasaray were eliminated in the group stage with 1 draw and 5 losses. Fighting in the European league, Beşiktaş went to the next round with 3 wins and 3 draws. Playing in the European league, Trabzonspor became the second Turkish team to advance to the next round with 3 wins, 1 draw and 2 losses. Trabzonspor were eliminated in the last 32, Beşiktaş were eliminated in the last 16 teams' stage.

In the 2014-2015 season, TFF changed the foreign rule, which was announced as 5+0+3, to 5+3. Competing in the champions league in the 2015-2016 season, Galatasaray continued to the European league with 1 win, 2 draws and 3 losses. Fighting in the European league, Fenerbahçe went to the next round with 2 wins, 3 draws and 1 loss. Playing in the European league, Beşiktaş were eliminated in the group stage with 2 wins, 3 draws and 1 loss. This season, Fenerbahçe was eliminated in the last 16 teams and Galatasaray in the last 32 teams' stage.

With the decision taken in 2015, the foreign restriction in Turkish football was abolished, and the requirement to have at least 7 local players in the 18-man squad and 14 local players in the 28-man squad was introduced. Fighting in the champions league in the 2016-2017 season, Beşiktaş continued to the European league with 1 win, 4 draws and 1 loss. Fighting in the European league, Fenerbahçe went to the next round with 4 wins, 1 draw and 1 loss. Konyaspor was eliminated in the group stage with 1 draw and 5 losses. Osmanlıspor went to the next round with 3 wins, 1 draw and 2 losses. Fenerbahçe and Osmanlıspor were eliminated in the last 32, Beşiktaş were eliminated in the quarterfinals. Fighting in the champions league in the 2017-2018 season, Beşiktaş moved on to the next round with 4 wins and 2 draws. Beşiktaş were eliminated in the last 16 teams' stage. Competing in the European league, Konyaspor was eliminated in the group stage with 1 win, 3 draws and 2 losses. Similarly, with 2 wins, 2 draws and 2 losses, Başakşehir was eliminated in the group stage. Competing in the champions league in the 2018-2019 season, Galatasaray continued to the European league with 1 win, 1 draw and 4 losses. Fighting in the European league, Fenerbahçe went to the next round with 2 wins, 2 draws and 2 losses. Beşiktaş were eliminated in the group stage with 2 wins, 1 draw and 3 losses. Akhisarspor was the other team eliminated in the group stage with 1 draw and 5 losses. Both Galatasaray and Fenerbahçe were eliminated in the last 32 teams' stage. In the 2019-2020 season, Galatasaray was eliminated in the champions' league group stage with 2 draws and 4 losses. Playing in the

European league, Trabzonspor was eliminated in the group stage with 1 win and 5 losses. Başakşehir went to the next round with 3 wins, 1 draw and 2 losses. Başakşehir is in the last 16 teams' stage.

The national team performance of the last 10 years is also included in the evaluation. A National Team could not take part in the 2010, 2014, 2018 World Cups. The U17 national team could not participate in the 2011, 2013, 2015 and 2019 World Cups. He participated in the 2017 U17 World Cup and was eliminated in the group stage with 1 draw and 2 losses. The U20 National Team could not participate in the 2011, 2015, 2017, 2019 World Cups. Participated in the 2013 U20 World Cup, advanced to the next round and were eliminated in the last 16 teams' stage. A National Team could not participate in the 2012 European Championship. Participating in the 2016 European Championship, Turkey was eliminated in the group stage. A National Team has qualified to participate in the 2020 European Championship. When these data are examined, it is not possible to say that there is any change in the performances of clubs and national teams according to the foreign rule.

Talent Identification

Talent screening can be done by identifying Turkish children at home, or it can be done among both Turkish and foreign children abroad. Talent screening process should be done in accordance with the "Turkish Football System" approach created in accordance with the talent selection principles. In addition, the football development directorate may encourage Turkish athletes by allowing the transfer of foreign players to academies in category 1 within the framework of certain inspections. The transfer process should be made in accordance with the talent screening model according to the criteria determined by the Football Development Directorate. Transfer, on the other hand, should be limited to only 8 people in a 24-person football team. This system can also contribute to the reflection of Turkish football in different geographies.

Clubs must have Talent Hunters who meet the criteria determined by the TFF in their technical staff. Talent hunters must have at least a UEFA B license and have passed in-service training programs organized by the TFF.

Facility

The facilities of the football infrastructure must be capable of accommodating large groups of professional teams participating in all leagues where young teams can compete in Turkey. While the Barcelona football club creates areas where young football players can participate in social and cultural activities, it employs teachers to support the training activities of the athletes. In Turkish conditions, it is essential to create areas for young football players to participate in social and cultural activities apart from training and training times. In addition, the educational life of the athletes should be supported. Academic development should be guaranteed with a private tutor or private tutoring. In addition to the training grounds that can accommodate all the athletes of the club, it is essential to have match fields other than the A team. There should be gyms and centers that will support the physical development of

infrastructure athletes. Depending on all these, the infrastructure business should be opened to employment in terms of finance, public relations, treasurer, and property works.

Training Ground: There should be grass training fields equipped to support the development of young football players. There should be 5 training areas supported with the necessary equipment for the development of athletes in European standards.

Match Ground: Apart from the first team match area, there must be at least 3 match fields where young teams can participate in the competition.

Gym - Fitness Center: There should be at least one gym and fitness center equipped with equipment and measurement tools to support the physical and physiological development of infrastructure players.

Social and Cultural Areas: There should be an area where young football players can socialize in their spare time from training and academic education and communicate with A team players on certain days of the week.

Accommodation To monitor the development of young football players, the athletes should have accommodation opportunities within the facilities. Since football development will not only take place in the training and competition environment, but important factors also such as resting, nutrition, participating in social activities, and spending quality free time during the day should be followed. Therefore, providing accommodation for the infrastructure athletes is essential in terms of following the development.

Cooperation with Other Government Institutions

Supporting the Education of Youth Athletes: TFF and Clubs should be able to organize the training programs of the players during the professional development phase, provided that they notify the Ministry of National Education. In particular, the school hours of the U15, U16, U17, U18 and U19 level athletes should be able to be stretched according to the training hours, provided that the lessons are compensated. Lesson make-ups must be done through the school or club.

Cooperation with the Ministry of National Education: TFF and Clubs, in cooperation with the Ministry of National Education, can conduct talent screening by organizing tournaments or football festivals in which school football teams will participate at regular intervals every year. This event will be beneficial both for the selection of athletes and for young players to gain experience. Not only inter-school tournaments, but also tournament-style competitions can be accepted throughout the country. In addition, the motivation of Turkish youth can be increased by inviting teams from foreign schools to these tournaments.

Budget and Costs: It will bring along the necessity of long-term investment in order to develop the "Turkish Footballer Identity", "Turkish Football System" and "Turkish Football Understanding". The investment costs required for the establishment should be covered by the clubs, the federation, the Ministry of National Education, the Ministry of Youth and Sports, the Ministry of Treasury and Finance by supporting private initiatives. In particular, the wages of infrastructure trainers should be guaranteed with the support of the state, and a contract condition should be introduced for infrastructure trainers. Minimum wages should be determined for these conditions and the protection of trainers should be ensured by this method.

Acknowledgment

This study is a part of doctoral dissertation, titled Youth Academy Problem in Turkish Football: A search for a system, supervised by Prof. Dr. Özcan Saygın in Institute of Health Sciences at Mugla Sitki Kocman University. Institutional ethical approval was granted with the decision no 170060/33.

REFERENCES

- Ajax (2020). Ajax Official Website. <https://english.ajax.nl/streams/ajax-now.htm>
- Altınordu Futbol Kulübü (2020). Altınordu Resmi İnternet Sitesi. <http://www.altinordu.org.tr>
- Güllich, A. (2014) Selection, de-selection and progression in German football talent promotion European Journal of Sport Science, 14(6), 530-537.
- Ataol, E. (2019). Türkiye Profesyonel Futbolunda Altyapıda Başarılı Olmuş Kulüplerin Yapılanmaları ve Yönetim Şekillerinin İncelenmesi (Altınordu ve Gençlerbirliği Örneği). Yayınlanmamış Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Marmara Üniversitesi, İstanbul.
- Balyi, I., Way, R., & Higgs, C. (2016). Uzun vadeli sporcu gelişimi. Spor Yayınevi ve Kitabevi. Ankara.
- Bbc World Football. (2020).[News.Bbc.Co.Uk/Sportacademy/ Hi/Sa/Football/Features/ Newsid2861000/2861091](https://www.bbc.com/news/sport-5581091).
- BJK (2020). Beşiktaş Resmi İnternet Sitesi. <https://bjk.com.tr>
- Bompa T. O. (2009). Antrenman Kuramı Ve Yöntemi, Spor: Ankara.
- Bundesliga, 2020. <https://www.bundesliga.com/en/news/Bundesliga/confederations-cup-and-under-21-euro-wins-part-of-germanys-strategy-to-return-to-world-footballs-summit-454171.jsp>
- Collins, T. (2018). How Football Began: A Global History of How The World's Football Codes Were Born. Routledge: London
- Daft, R. L. (2003). Management. 6th. South-Western, USA.
- Dessler, G., Starke, F. A., & Cyr, D. J. (2001). Management: Leading people and organizations in the 21st century. Upper Saddle River, NJ: Prentice Hall.
- DFB (Deutscher Fußball-Bund). (2009). Talente fordern und fördern! Konzepte und Strukturen vom Kinder- bis zum Spitzenfußball [Challenge and promote talents. Concepts and structures in football from childhood to peak-performance]. Münster: Philippka.
- EFL, 2019. EFL youth development charter for players and parents guide.
- EFL, 2020. <https://www.efl.com/-more/efl-youth-development/>
- Eisenberg, C. (1999) 'English Sports' Und Deutsche Bürger. Paderborn: Schöningh.
- Ekiz, D. (2017). Bilimsel Araştırma Yöntemleri. Anı Yayıncılık: Ankara
- FB (2020). Fenerbahçe Resmi İnternet Sitesi. <https://www.fenerbahce.org>
- FCB (2020). Barcelona Official Website. <https://www.fcbarcelona.com/en/>
- Feltz D., Short S. and Sullivan P. (2008). Self-efficacy in sport: Research and Strategies for Working with Athletes, Teams and Coaches. International Journal of Sports Science &

Coaching, 3(2): 293-295.

Feltz D.L., Chase M.A., Moritz S.E., and Sullivan P.J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology*, 91(4): 765-776.

Feu, S., García-Rubio, J., Antúnez, A., & Ibáñez, S. (2018). Coaching and coach education in Spain: A critical analysis of legislative evolution. *International Sport Coaching Journal*, 5(3), 281-292.

Gençer R.T., Kiremitçi O. ve Boyacıoğlu H. (2009). Antrenörlük Yeterlik Ölçeği'nin (AYÖ) Psikometrik Özellikleri: Türk Antrenörler Üzerine Bir Çalışma. *Journal of New World Sciences Academy*, 4(2), 143-153.

Gençlerbirliği Spor Kulübü (2020). Gençlerbirliği Resmi İnternet Sitesi. <https://genclerbirligi.org.tr>

Grossmann, B., & Lames, M. (2015). From talent to professional football–youthism in German football. *International Journal of Sports Science & Coaching*, 10(6), 1103-1113.

GS (2020). Galatasaray Resmi İnternet Sitesi. <https://www.galatasaray.org>

Güçlü, M. (1998). Spor Tesislerinin İşletmesi Ankara Özel Yükseliş Koleji Spor Tesisleri. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 4, 33-39.

Güllich, A., & Emrich, E. (2012). Individualistic and collectivistic approach in athlete support programmes in the German high- performance sport system. *European Journal for Sport and Society*, 9, 243–268.

Hare, G. (2003). *Football in France: A Cultural History*. Global Sport Cultures.

Hill, T. (2005). *A Photographic History of English Football*. Parragon.

Hodgetts, R., & Luthans, F. (1999). *International management: Culture, strategy and behavior with world map*. McGraw-Hill: Irwin.

Holt, N. L. (2002). A comparison of the soccer talent development systems in England and Canada. *European Physical Education Review*, 8(3), 270-285.

IFAB (2019). *Oyun Kuralları (Resmi Çeviri)*. Zurich, Switzerland.

Jiang, X. (2019). Comparative analysis of Chinese and German football youth training. *Yayımlanmamış Lisans Tezi, Sports Coaching and Management Haaga-Helia Uygulamalı Bilimler Üniversitesi*

Koller, C., & Braendle, F. (2015). *A Cultural and Social History of Modern Football*. The Catholic University of America Press: Washington, D.C.

Leith L.M. (1990). *Coaches Guide to Sport Administration*. Illinois: Leisure Press.

LFC (2020). *Liverpool Official Website*. <https://www.liverpoolfc.com>

Muratlı, S. (1997). *Çocuk ve Spor*. Ankara: Bağrgan.

Pyta, W. (2006). *German Football: A Cultural History*. In Alan Tomlison & Christopher Young (Eds.), *German Football* (Pp. 13-34). Routledge.

Robbins, S. P., & DeCenzo, D. A. (1998). *Fundamentals of Management*. Englewood Cliffs, NY.

Schermerhorn, J., Davidson, G., Poole, D., Woods, P., Simon, A., & Mcbarron, E. (2014). *Management*. John Wiley and Sons, Inc.

Sevim Y., Tuncel F., Erol E. ve Sunay H. (2001). *Antrenör Eğitimi ve İlkeleri*. Ankara: Gazi Kitabevi.

Seyidoğlu, H. (2000). *Bilimsel Araştırma ve Yazma El Kitabı*. Güzem: İstanbul.

TOSFED, 2020. <http://www.tosfed.org.tr/wp-content/uploads/2017/10/OzelBedenEgtSporTesYon.pdf>

Wesson, J. (2002). *The Science Of Soccer*. Crc Press.

Ziemann, B. (2003) Germany After The First World War – A Violent Society? *Journal of Modern European History*, 1, 80–95.

The Relationship between Ankle Proprioception and Dynamic Balance Performance in Wrestlers

Ayşegül Yapıcı Öksüzoğlu¹, Halit Egesoy², Berk Işıkol³, Engin Güneş Atabaş⁴

Pamukkale University, Faculty of Sports Sciences, Denizli / Turkey
<https://orcid.org/0000-0003-4243-5507>

Pamukkale University, Faculty of Sports Sciences, Denizli / Turkey
<https://orcid.org/0000-0003-1347-8647>

Pamukkale University, Faculty of Sports Sciences, Denizli / Turkey
<https://orcid.org/0000-0002-9588-0754>

Pamukkale University, Faculty of Sports Sciences, Denizli / Turkey
<https://orcid.org/0000-0002-9942-0835>

Email: atabasgunes@hotmail.com , ayapici@msn.com , bisikol@gmail.com ,
hegesoy1@hotmail.com

Type: Research Article (Received: 26.10.2021 - Accepted: 27.12.2021)

Abstract

The aim of this study is; to investigate the relationship between ankle proprioception and dynamic balance performance. 12 athletes from the wrestling team (age: 20.4 ± 1.6 year, height: $175. \pm 4.24$ cm, weight: 76.75 ± 10.1 kg) of Pamukkale University Faculty of Sport Sciences participated in this study voluntarily. Dynamic balance, height and weight measurements, leg lengths and dominant legs of the right and left legs of the subjects were recorded. Proprioception of wrestlers; 7° , 14° and 21° plantar flexion and 7° dorsi flexion positions were measured with universal goniometer. In the neutral position of the ankle at 90° , the eyes were taught in the open position while the foot was moved passively. Then he was asked to find the same angle and 3 attempts were made for each angle. YBT (Y- Balance Test) battery was applied to assess the wrestlers' dynamic balance measurements. The measurements were taken in 3 different directions (anterior, posteromedial, posterolateral) for both legs and the mean of three measurements for each direction was averaged. Pearson correlation analysis was used to determine the relationship between the proprioception values and balance performance of the athletes. There was a statistically significant relationship between right and left dynamic equilibrium performances of 7° and 14° plantar flexion and 7° dorsi flexion values of right and left ($p < 0.05$). There was no statistically significant relationship between right-left dynamic balance performance and 21° plantar flexion of the right-left foot ($p > 0.05$).

Keywords: Wrestlers, proprioception, dynamic balance.

Introduction

Proprioception has been defined as one's ability to integrate the sensory signals from various mechanoreceptors to thereby determine body position and movements in space (Han et al. 2015b) and it plays a crucial role in balance control (Clark et al. 2015).

Proprioception plays an requisite role in balance control, and ankle proprioception is arguably the most important (Han et al., 2015a). During the game activities, the ankle-foot complex is the only part of the body contacting the ground. Ankle proprioception provides essential information to enable adjustment of ankle positions and movements of the upper body, in order to successfully perform the complex motor tasks required in elite sport (Sasagawa et al., 2009).

Enhanced balance ability is necessary for athletes, and play a fundamental role in many sport activities. Because this ability can facilitate to achieve the highest performance level and prevent muscle injuries. Besides there is a limited relationship between balance and performance, it can contribute to high performance in athletes (Hrysomallis, 2011). There is a negatively relationship between the balance control and ankle proprioception in ankle injuries (Han et al., 2015a). Similar reports of the relationship between ankle proprioception and ankle injury risk are also noted in the literature. For example, Tropp et al. (1984) found that ankle injuries were almost 4 times more prevalent in soccer players with poor balance in comparison to those with normal balance ability. In addition, Watson (1999) reported that hurdling and Gaelic football players with poor balance ability had experience ankle injuries nearly twice relative to players with normal balance.

Wrestling is one of the oldest traditional sports in the world. A wrestling match is played at high intensity and requires regional power and whole body power (Zaccagnì, 2012). A good wrestler must have characteristics such as developed power, endurance, flexibility, balance and agility. As these characteristics are being exhibited, the skills enter into a systematic cycle, as successive and alike. During the match, this cycle is provided with conscious and unconscious feelings, awareness of movement, balance and postural control. This is reflected in the central nervous system as neural cumulative input and draws attention to the importance of proprioception in wrestling (Ribeiro and Oliveira, 2007).

The aim of this study is to examine the relationship between the dynamic balance performances of wrestlers at angles of 7°, 14° and 21° of plantar flexion and 7° of dorsi flexion.

Material and Methods

Participants

12 athletes from the wrestling team (age: 20.4 ± 1.6 year, height: $175. \pm 4.24$ cm, weight: 76.75 ± 10.1 kg) of Pamukkale University Faculty of Sport Sciences participated in this study voluntarily. Before the test, the right and left leg lengths of the participants were measured using a tape measure as the distance from the anterior superior of the spina iliaca to the inner malleole, and then the participants were warmed up for 5 minutes.

The approval for this study was obtained from the Clinical Research Ethical Committee of Pamukkale University (Decision no: E-60116787-020-119903, Date: 19.10.2021).

Data Collection Tools

Anthropometric Measurement Tools

Height and body weight measurements were taken with scales integrated with SECA brand stadiometer. The precision of the device is ± 0.01 mm and ± 0.1 kg.

Joint Position Sense Measurement

7°, 14° and 21° plantar flexion and 7° dorsiflexion joint angles of the ankle were accepted as reference using a universal goniometer for the determination of joint position sense. The reference angle was taught to the subject while the subject was lying down and the ankle was in a neutral position of 90°, eyes open and passively moving his foot.

Then, the participant was asked to find the same angle herself and 3 trials were made for each angle, the deviations from the target angle were averaged and the deviation amount was recorded in degrees. A rest period of 5 seconds was given between each trial. During the measurement, the eyes were closed and headphones were worn in order to disable the auditory and visual system.

Dynamic Balance Performance Measurement

The dynamic balance of the athletes was evaluated with YBT. The amount of reaching out on the dominant extremities of the athletes was measured. The athletes were asked to stand on one foot in the midpoint of the test set up and touch with the tip of the toe while maintaining the balance with the other foot in the anterior, posteromedial and posterolateral directions. The test was repeated 3 times in all directions, averaged, and recorded in cm.

The lower extremity lengths (sias-medial malleolus) of the athletes were calculated bilaterally in cm and the composite score was determined. (Plisky, 2009; Gribble, Hertel ve Plisky,2012).

Statistical Analysis

In the statistical analysis, Shapiro-Wilk test was used to examine whether the data show normal distribution or not. Since the data showed a normal distribution, Pearson correlation analysis was used to determine the relationship between the proprioception values and balance performance of the athletes. The level of significance for all statistical analysis was set at a p value of < 0.05 .

Results

Table 1: The characteristic of participants

	N=12	Mean. \pm Sd
Age (year)		20.4 \pm 1.6
Height (cm)		175. \pm 4.24

Body weight (kg)	76.75 ± 10.1
BMI (kg/m²)	25.08± 2.32

Table 2. The table of joint position sense of the ankle and Y balance composite scores of the participants.

Y balance composite scores		Deviation values from target angle		
(Mean. ± Sd)		(Mean. ± Sd)		
Dynamic balance in left foot(sec)	123.66±7,42	Left ankle (cm)	7°Dorsiflexion	1.5 ±2.06
			7°Plantarflexion	1.5±1.40
			14°Plantarflexion	1.07±1.94
			21°Plantarflexion	2.42±2.27
Dynamic balance in right foot(sec)	120.66±10,29	Right ankle(cm)	7°Dorsiflexion	1.42 ±1.22
			7°Plantarflexion	1.78±1.84
			14°Plantarflexion	1.02±1.41
			21°Plantarflexion	2.42±1.82

Table 3. The relationship table between dynamic balance performances and ankle joint position senses of the participants

	RF 7°	RF 7°	RF 14°	RF 21°	LF 7°	LF 7°	LF 14°	LF 21°
	DF	PF	PF	PF	DF	PF	PF	PF
Y Balance with Right Foot	0.03*	0.04*	0.00**	0.72	0.02*	0.03*	0.00**	0.94
Y Balance with Left Foot	0.04*	0.04*	0.01*	0.46	0.03*	0.02*	0.00**	0.47

*p<0.05, **p<0.01 Right Foot (RF), Left Foot (LF), Dorsi Flexion (DF), Plantar Flexion (PF)

A statistically significant correlation was found between right-left dynamic balance performances and dorsi and plantar flexion values of 7° and plantar flexion values of 14° in the right and left foot ($p < 0.05$).

There was no statistically significant relationship between the dynamic balance performances and the plantar flexion values of 21° in the right and left foot ($p > 0.05$).

Discussion

In this study, a statistically significant correlation was found between right-left dynamic balance performances and dorsi and plantar flexion values of 7° and plantar flexion values of 14° in the right and left foot ($p < 0.05$). However, there was no statistically significant relationship between the dynamic balance performances and the plantar flexion values of 21° in the right and left foot ($p > 0.05$).

The reason why there was no significant relationship here can be explained as the stabilizing effect of the bones forming the ankle decreases when the ankle is in the plantar flexion position, and the load is placed on the peroneal muscles and the lateral ligament of the ankle.

Ankle proprioception and sports performance are related. Han et al. measured ankle proprioception of 100 elite athletes from 5 different sports aerobic gymnastics, soccer, swimming, badminton, and sports dancing and found that ankle proprioception scores were significantly predictive of sport performance level (Han et al. 2014).

Han et al (2015) stated in their study that proprioception ability plays an important role in balance control and that ankle proprioceptive information functions centrally, providing integration for postural and balance control, as well as other sensory information.

Similarly, a recent study investigating balance ability of a group of athletes from soccer, handball, basketball, and volleyball found that the balance ability of male athletes was significantly correlated with their agility performance (Sekulic, 2013). This evidence suggests that balance control is fundamental to sports performance.

In a systematic review on the subject, it was reported that poor balance ability is an intrinsic factor associated with an increased risk of ankle injury (Witchalls, 2012).

Studies by Eils (2001) and Martínez- et al (2013) reported that specially designed exercise programs improve ankle proprioception and balance control in athletes, university students, and the elderly.

In another study examining the effects of ankle proprioception exercises on dynamic balance and static balance, no significant difference was observed between the static balance scores of the participants ($p > 0.05$), but a significant difference was found in the dynamic balance scores ($p < 0.05$). In the same study, it is suggested that ankle proprioception has an effect on body harmony as well as joint stability, and the increase in joint stability resulting from proprioceptive exercise may affect dynamic balance (Yong and Lee, 2017).

These findings reveal that ankle proprioception is closely related to balance control in sports injuries. Therefore, impaired ankle proprioception after injuries can significantly affect balance performance.

Conclusion

It was determined that the participants had better dynamic balance scores in case of less deviation angle in the joint position sense evaluations. It was found that proprioception values

decreased towards the midpoint of the range of motion and increased again from the midpoint towards the end of the range of motion.

Conflict of Interest

The authors declared no conflicts of interest with respect to authorship and/or publication of the article.

Financial Disclosure

The authors received no financial support for the research and/or publication of this article.

REFERENCES

Clark, NC. Roijezon, U. Treleaven, J. (2015). "Proprioception in musculoskeletal rehabilitation. Part 2: clinical assessment and intervention," *Manual Therapy*, 20(3): 378-387.

Gribble, PA. Hertel J. Plisky, P. (2012). Using the star excursion balance test to assess dynamic postural-control deficits and outcomes in lower extremity injury: A literature and systematic review. *Journal of Athletic Training*, 47(3): 339 -357

Guyton AC. (1996). Duyu reseptörleri ve temel işleme mekanizmaları. *Tıbbi Fizyoloji*, 9. Baskı, Nobel Tıp Kitabevi; İstanbul, 815-826.

Eils, E. Rosenbaum, D. (2001). A multi-station proprioceptive exercise program in patients with ankle instability. *Med Sci Sports Exerc.* 33(12):1991-98.

Erden, Z. (2009). Dizin farklı açılarında eklem pozisyon hissi farklı mıdır? *Eklem Hastalıkları ve Cerrahisi*, 20(1): 47-51.

Han, J. Anson, J. Waddington, G. Adams, R. Liu, Y. (2015a) The role of ankle proprioception for balance control in relation to sports performance and injury, *BioMed Research International* Volume 2015, Article ID 842804, <https://doi.org/10.1155/2015/842804>

Han, J. Waddington, G. Adams, R. Anson, J. Liu, Y. (2015b). "Assessing proprioception: a critical review of methods," *Sport Health Sci*, 5(1): 80-90.doi: 10.1016/j.jshs.2014.10.004.

Han, J. Anson, J. Waddington, G. Adams, R. (2014) "Sport attainment and proprioception," *International Journal of Sports Science and Coaching*, 9(1): 159-170.

Hrysomallis, C. (2011). Balance abilities and athletic performances. *Sports Medicine*, 41: 221- 232. <https://doi.org/10.2165/11538560-000000000-00000>.

Martínez-Amat, A. Hita-Contreras, F. Lomas-Vega, R. Caballero-Martínez, I. Alvarez, PJ. Martínez, L. (2013). Effects of 12-week proprioception training program on postural stability, gait, and balance in older adults: a controlled clinical trial. *J Strength Cond Res.* 27(8): 2180-88.

Ribeiro, F. Oliveira, J. (2007). Aging effects on joint proprioception: the role of physical activity in proprioception preservation. *Eur Rev Aging Phys Act*, 4: 71-76. <https://doi.org/10.1007/s11556-007-0026-x>

Sasagawa, S. Ushiyama, J. Masani, K. Kouzaki, M. Kanehisa, H. (2009). "Balance control under different passive contributions of the ankle extensors: quiet standing on inclined surfaces," *Experimental Brain Research*, 196(4): 537-544.

Sekulic, D. Spasic, M. Mirkov, D. Cavar, M. Sattler, T. (2013). "Gender-specific influences of balance, speed, and power on agility performance," *Journal of Strength and Conditioning Research*, 27(3): 802-811.

Tropp, H. Ekstrand, J. Gillquist, J. (1984). "Stabilometry in functional instability of the ankle and its value in predicting injury," *Medicine & Science in Sports & Exercise*, 16(1): 64-66.

Watson, AWS. (1999). "Ankle sprains in players of the field-games Gaelic football and hurling," *The Journal of Sports Medicine and Physical Fitness*, 39(1): 66-70.

Witchalls, J. Blanch, P. Waddington, G. Adams, R. (2012). "Intrinsic functional deficits associated with increased risk of ankle injuries: a systematic review with meta-analysis," *British Journal of Sports Medicine*, 46(7): 515-523.

Yong, MS. Lee, YS. (2017). Effect of ankle proprioceptive exercise on static and dynamic balance in normal adults. *Journal of Physical Therapy Science*, 29, 242-244. doi:[10.1589/jpts.29.242](https://doi.org/10.1589/jpts.29.242)

Zaccagnì, L. (2012). Anthropometric characteristics and body composition of Italian national wrestlers. *European Journal of Sport Science*, 12(2): 145-151. <https://doi.org/10.1080/17461391.2010.545838>