Investigation of Pre-Competition and Post-Competition Psychological Performances of B1 and B2 Visually Impaired Footballers

Mehmet Behzat Turan,

Erciyes University, Faculty of Sports Sciences, Kayseri, Turkey.

E-mail: behzatturan@erciyes.edu.tr, ORCID ID: 0000-0002-5332-803X

Keziban Yoka,

Niğde Ömer Halis Demir University, Institute of Social Sciences, Niğde, Turkey.

E-mail: yokakeziban@gmail.com, ORCID ID: 0000-0002-0585-0923

Osman Yoka,

Erciyes University, Institute of Health Sciences, Kayseri, Turkey.

E-mail: osmanyoka@gmail.com, ORCID ID: 0000-0001-7312-0706

Abstract--- This article investigates; B1 and B2 is the examination of the psychological performance of visually impaired football players before and after the match according to various variables. 50 visually impaired football players who live in Kayseri and actively play sports in the Turkish Visually Impaired Sports Federation participated in the research. To the participants who voluntarily participated in the study, the items in the questionnaire were read by the researchers and filled in as deemed appropriate by the participant. In order to determine the demographic characteristics of the participants, a questionnaire consisting of two parts, 'Demographics' and 'Psychological Performance Scale', was applied. The obtained data were analyzed with the SPSS package program. In addition to descriptive statistics; The normality structure of the distributions was examined through skewness and kurtosis tests. In addition to descriptive statistics; The normality structure of the distributions was examined through skewness and kurtosis tests. According to the results of the normal distribution analysis, it was decided to compare the data with parametric tests. When comparing the data between two variables, the t test was applied to independent groups; In the comparison of three or more variables, one-way analysis of variance was applied. The Lsd test and was applied to determine the difference in the comparisons made in three or more groups. As a result; While there was no significant difference between age and the scores of visually impaired athletes from the psychological performance scale before and after the competition, a significant difference was observed with the variables of position and income. In addition, a significant difference was determined in the negative energy sub-dimension, according to the family of the athletes and the education variable. A statistical difference was determined according to the status of being a national athlete due to disability. Since visually impaired individuals continue their education and training lives by touching and hearing, they should be supported with various education programs in terms of learning and perception periods.

Keywords--- Footballer, Visually İmpaired, Psychological Performance.

I. Introduction

Sports are the intense efforts put forward in order to increase the power of effort, excitement, competition and success in the real sense, according to the pre-determined rules, and to maximize the individual point of view, ensuring that people are mentally and physically healthy (Kılıçaslan, 2015). When the effects of sports on the development of the individual are examined, positive contributions to the spiritual, social, physical, mental and personality development (Seippel, 2006; Akıncı & Çimen;2021 Mechikoff & Estes, 2002; Erdemli, 2008; Gözler et al., 2020; Bahçe & Turan, 2022; Çimen, 2022) known to be.

These contributions do not change whether the individual is disabled or has a normal development. Contribution of sports to the development of disabled people (Yılmaz ve Soyer, 2018; Yılmaz et al., 2017; Kırımoğlu et al., 2016; Şahin, 2015; Lastuka & Cottingham, 2016; İlhan, 2010; Lorenzo, 2019; Sherill, 2004; Turan et al., 2020; Çelenk, 2021) indicated in the studies. Visually impaired, one of the types of disability; A person who has partial or complete vision loss or impairment in one or both eyes is defined as visually impaired (Yıldız & Gürler, 2018). Sight is used to adapt to our environment, to alert us to important events that require our attention, to engage in social interactions, and for many functions in daily life. According to the diagnosis, which classifies visually impaired individuals according to their visual acuity degrees, individuals with no or very little light perception are classified as B-1. According to the degree of visual acuity, individuals with 10% to 20% visual acuity are defined as B2, and individuals with 20% to 40% visual acuity are defined as B3 (Görbirmerkez, 2015). It is observed that visually impaired people lead a more sedentary life compared to the whole of society. Studies show that visually impaired individuals who participate in physical activity have higher ability to control objects than those who do not (Houwen et al., 2007), have a positive contribution to the improvement of their motor and physiological characteristics (Paravlic et al., 2015), and increase their quality of life (Kamelska & Mazurek 2015). In addition, physical activity and sports are necessary to meet the needs of disabled people for success, to ensure their socialization (Bahçe & Turan, 2022) and to reduce their somatic and psycho-social problems related to illness and disability (Krzak et al., 2006). Today, visually impaired individuals have opportunities to do sports in different branches in national and international fields; Athletics, Goalball, Futsal, B1 Football, Chess, Weightlifting, Judo, Swimming, Tandem Cycling, Nine and Ten Pin bowling can be counted among these sports branches (IBSA Sports, 2016). Among these sports branches, football is a passion for visually impaired individuals as well as our entire society (Yazıcı et al., 2019). Football: It is an effective sports branch in the formation of a mentally and physically healthy and peaceful person, with elements such as technique, tactics, condition, and it is also an important educational tool (Zeynaldemir, 2016). Visually impaired people who are in the B-1 class can play this enjoyable game freely, not contenting themselves with following the media. A bell is mounted inside, and with balls that make noise as long as they move, it is possible for blind individuals to play this game to the fullest on carpet pitches (Yazıcı et al., 2019). Sports, visually impaired; it helps them to gain confidence, balance, muscle control, freedom in movements, coordination, improve their self-expression skills (Turan et al., 2020) and spend their spare time in a effectively and efficiently (Turan & Bahçe, 2022). Sports also contributes to the elimination of the fear of being harmed by the environment, which is inevitable due to vision loss, and to people leading a more independent life (Calışkan, 2004; Ayca, 2013). Sports contribute to the social integration of the disabled by providing their physical, mental and social development (Eichsteadt, 1995). Sports should be used as a tool to support the mental states of people with disabilities.

Doing sports will be good for many mental disorders of people with disabilities. (Chiang, 2003). This will enable disabled people to have self-confidence and a stronger psychology. The disabled person who feels good psychologically will perform better. So, psychological performance will increase. Psychological performance is the psychological effort of an individual while performing any work-related activity or the level of psychological ability to do the job. Psychological performance is the whole of the individual's emotions, thoughts and mental sensations during work, the events around him and the meanings that the employee attributes to them. (Aydemir & Akdoğan, 2019). Çalışkan (2004) also underlined the contribution of participation in sports to self-confidence in study with visually impaired individuals. In addition, Hutzter, & Bar-Eli (1993), in their study examining the benefits of sports for individuals with disabilities, concluded that when properly applied, sports and physical activity have a positive effect on self-confidence and self-esteem. When the relevant literature is examined, there are few studies that deal with the visually impaired and sports. (Keskin, 2008; Türk, 2007; Tükel, 2015; Tekkurşun et al., 2018; Yılmaz, 2011). Until today, little research has been done on the relationship between the psychological performance and sports activities of the visually impaired. For this reason, we think that our work will contribute to the field and create awareness. In line with this information, the aim of our study is; B1 and B2 is the examination of the psychological performance of visually impaired football players before and after the competition.

II. Methodology

Research Model

The Research; was designed according to the quantitative research model, and a method for descriptive and relational survey aiming to reveal the current situation was used. Descriptive scanning is statistical operations that allow collecting, describing and presenting numerical values for a variable (Büyüköztürk et al. 2014). Correlation survey model is a research model that aims to determine whether there is a change between two or more variables and the degree of change. (Karasar, 2016).

Research Group

The sample group of this research consists of visually impaired athletes who actively do sports in the Turkish Visually Impaired Sports Federation in the province of Kayseri. Accordingly, 50 visually impaired athletes participated in the study. To the participants who voluntarily participated in the study, the items in the questionnaire were read by the researchers and filled in as deemed appropriate by the participant. In the selection of the sample, the easily accessible case sampling technique, which is one of the non-random sampling methods, was used (Yıldırım & Şimşek, 2018).

Data Collection

Questionnaire method was used as data collection tool. The questionnaires were administered to the participants by the researchers using face-to-face interviews and method. Data collection tools used in the research; A questionnaire consisting of 2 parts in total, including the Personal Information Form prepared by the researcher and the psychological performance scale, was applied.

- **a. Demographic Information Form:** The personal demographic form prepared by the researcher to collect information consists of variables such as age, marital status, education level, occupation, income level of the participants.
- **b. Psychological Performance Scale:** Developed by Aydemir & Akdogan (2019). It consists of 17 questions and a total of 4 sub-dimensions: negative energy, positive energy, mental state, and self-control. It is a 5-point Likert type scale. The KMO (Kaiser-Meyer Olkin) value was calculated as 0.893. Cronbach's Alpha: 0.877.

Analysis of Data

The obtained data were analyzed with spss package program. As a result of the analysis, descriptive statistics are given as f and % distribution. The normality distributions of the data were tested with the Kolmogorov Smirnov Test and the skewness and kurtosis tests, and it was determined that the data showed normal distribution. With these results, it was decided to use parametric statistical test methods in our study. When comparing the obtained data between two variables, t test was applied in independent groups; In the comparison of three or more variables, one-way analysis of variance was applied. Lsd test was applied to determine the difference in the comparisons made in three or more groups.

III. Findings

Table 1: Descriptive Statistics-frequency and Percentage Values

Variable	Category	F	%
Age	22-25	20	40,0
	26-29	13	26,0
	30-35	11	22,0
	35 and above	6	12,0
Nationality Status	Yes	11	22
	No	39	78
Position	Goalkeeper	6	12
	Defense	12	24
	Midfielder	18	36
	Wing	5	10
	Forward	9	18
Education Level	High School	22	44
	Undergraduate	28	56
Income Level	1501-3000	16	32
	3001-4500	18	36
	4501 and above	16	32
Disabled Person in the Family	Yes	14	28
	No	36	72
Disability Reason	Congenital Disability	34	68
	Disabled Afterwards	16	32
Total		50	100

When Table 1 is examined, 40% of the athletes are in the 22-25 age range, 26% are in the 26-29 age range, 22% are in the 30-35 age range, 12% are in the 35 and over age range. A total of 50 visually impaired athletes, including 11 national athletes and 39 regular athletes, participated

in the research. It was determined that 68% of the athletes were congenital and 32% were later disabled. It was observed that 44% of the athletes had high school education and 56% had undergraduate education. It was determined that 16 of the athletes were over 1501-3000 TL, 18 of them 3001-4500 TL, and 16 of them over 4500 TL. While 14 of the athletes have a disabled person in their family, 36 of them do not have a disabled person. It has been determined that 6 of the athletes play in the goal, 12 in the defense, 18 in the midfield, 5 in the wing and 9 in the forward position.

Table 2: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Age Variable

	Scale Sub-Dimension	Age	N	\overline{x}	Sd	F	P
	Negative energy	22-25	20	16,20	4,047	,928	,435
		26-29	13	15,85	3,648		
		30-35	11	14,91	3,910		
_		35 and above	6	18,33	5,391		
ion	Positive energy	22-25	20	13,80	2,308	1,055	,377
etii		26-29	13	14,54	2,727		
mp		30-35	11	15,09	2,166		
00 (35 and above	6	13,17	3,189		
Before the competition	Mental state	22-25	20	9,10	2,426	2,407	,079
ore		26-29	13	9,62	1,609		
Bef		30-35	11	11,27	2,284		
		35 and above	6	10,17	2,317		
	Self control	22-25	20	9,35	2,540	1,811	,158
		26-29	13	10,31	3,473		
		30-35	11	11,00	2,366		
		35 and above	6	8,00	2,757		
	Negative energy	22-25	20	18,35	5,184	,565	,641
		26-29	13	16,54	3,971		
		30-35	11	16,09	5,890		
п		35 and above	6	17,17	6,178		
itio	Positive energy	22-25	20	13,80	2,821	1,128	,348
pet		26-29	13	14,46	2,222		
om		30-35	11	15,09	1,921		
le c		35 and above	6	12,83	3,920		
r tk	Mental state	22-25	20	8,90	2,532	,567	,639
After the competition		26-29	13	9,62	2,567		
A		30-35	11	10,18	3,683		
		35 and above	6	9,00	2,098		
	Self control	22-25	20	9,20	3,019	1,001	,401
		26-29	13	10,69	2,689		

30-35	11	10,82	3,341
35 and above	6	9,50	3,332

^{*}p<0.05, p<0.001

When Table 2 is examined, no statistically significant difference was found between the sub-dimensions before and after the competition according to the age variable (p>0.05).

Table 3: Comparison of the Scores of the Athletes from the Psychological Performance Scale Before and after the Competition According to the National Status Variable

	Scale Sub-Dimension	Nationalsituation	N	x	Sd	Df	t	P
	Negative energy	Yes	11	15,18	5,13	48	-,824	0,51
		No	39	16,33	3,77			
the	Positive energy	Yes	11	14,45	3,23	48	,378	0,03*
e t etit		No	39	14,13	2,30			
Before the	Mental state	Yes	11	11,09	2,34	48	2,125	0,70
Be Con		No	39	9,49	2,17			
	Self control	Yes	11	10,09	3,41	48	,377	0,14
		No	39	9,72	2,74			
	Negative energy	Yes	11	17,45	6,15	48	,156	0,11
		No	39	17,18	4,87			
After the competition	Positive energy	Yes	11	13,73	3,77	48	-,578	0,00*
rt i		No	39	14,26	2,31			
After ompet	Mental state	Yes	11	9,27	3,58	48	-,145	0,16
A		No	39	9,41	2,53			
	Self control	Yes	11	9,27	3,84	48	-,869	0,12
		No	39	10,18	2,80			

^{*}p<0.05, p<0.001

When Table 3 is examined, a statistically significant difference was observed in the positive energy sub-dimension between the scores of the athletes from the sub-dimensions of the psychological performance scale (p<0.05), while there was no difference in the other sub-dimensions. This difference is in favor of national athletes before the competition. There was a significant difference between the scores they got from the sub-dimensions of the psychological performance scale after the competition, only in the positive energy sub-dimension. There was no statistical difference in other sub-dimensions. When the arithmetic averages are taken into account, it was seen that the positive energy scores of the non-national athletes were higher after the competition.

Table 4: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Position Variable

Scale	Position	N	\overline{x}	Sd	F	p	Lsd
SubDimension							
Negative energy	Goalkeepera	6	14,83	4,875	1,415	,244	
	Defense ^b	12	15,42	3,423			
	Midfielder ^c	18	17,56	4,643			
	Wing ^d	5	17,20	2,775			
	Forwarde	9	14,22	3,153			

	Positive energy	Goalkeepera	6	14,67	3,445	2,061	,102	
		Defense ^b	12	15,00	2,486	ĺ	,	
		Midfielder ^c	18	14,11	2,632			
		Wing ^d	5	15,40	,548			
Before the competition		Forwarde	9	12,33	1,323			
titi	Mental state	Goalkeepera	6	11,00	2,366	4,421	,004**	a*-b
Jupe		Defense ^b	12	10,50	1,624			c-a
000		Midfielder ^c	18	8,83	1,886			d-a
) je		Wing ^d	5	7,80	,837			d-b
e tl		Forward ^e	9	11,33	2,828			e-d
jor (Self control	Goalkeepera	6	11,00	3,950	1,080	,378	
Bel		Defense ^b	12	10,58	2,392			
		Midfielder ^c	18	8,94	2,508			
		Wing ^d	5	10,60	4,336			
		Forwarde	9	9,22	2,386			
	Negative energy	Goalkeepera	6	14,83	6,494	1,619	,186	
		Defense ^b	12	15,92	4,316			
		Midfielder ^c	18	19,22	5,745			
		Wing ^d	5	14,80	1,095			
		Forwarde	9	18,00	4,183			
g	Positive energy	Goalkeepera	6	14,00	4,000	,165	,955	
tio		Defense ^b	12	14,17	2,443			
eti		Midfielder ^c	18	13,89	2,398			
du		Wing ^d	5	15,00	1,225			
After the competition		Forwarde	9	14,22	3,420			
the	Mental state	Goalkeepera	6	9,50	1,643	,859	,496	
er 1		Defense ^b	12	10,58	2,392			
∆f t		Midfielder ^c	18	8,89	2,988			
		Wing ^d	5	9,40	3,286			
		Forward ^e	9	8,67	3,041			
	Self control	Goalkeepera	6	11,67	1,862	2,282	,075	
		Defense ^b	12	10,75	2,179			
		Midfielder ^c	18	8,89	3,216			
		Wing ^d	5	12,00	2,739			
		Forwarde	9	8,89	3,586			

^{*}p<0.05, p<0.001

When Table 4 is examined, a statistically significant difference was found only in the mental state sub-dimension between the scores of the athletes from the psychological performance scale according to the variable of the position they play (p<0.05). Considering the arithmetic averages, it was seen that the mental state scores of the athletes playing in the forward position were higher. There was no significant difference between the post-competition psychological performance scores (p>0.05). As a result of this analysis, post-hoc test statistics were applied to determine the source of the significant difference between the groups (Lsd). The groups in favor of the significant difference are shown with (*). There was no significant difference between the scores they got from the post-competition psychological performance scale.

Table 5: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Education Variable

	ScaleSub	Education	N	\overline{x}	Sd	Df	t	p
ior	Dimension							
stit	Negative energy	High School	22	16,73	4,96	48	,994	,004*
Before the competition		Undergraduate	28	15,57	3,22			
	Positive energy	High School	22	13,95	2,69	48	-,610	,589
Je (Undergraduate	28	14,39	2,37			
e tl	Mental state	High School	22	9,36	2,34	48	-1,314	,827
or.		Undergraduate	28	10,21	2,21			
Bef	Self control	High School	22	9,82	2,77	48	,039	,335
		Undergraduate	28	9,79	2,99			
00	Negative energy	High School	22	17,64	4,89	48	,482	,898
i i i		Undergraduate	28	16,93	5,35			
pe	Positive energy	High School	22	14,05	2,66	48	-,220	,882
0 0		Undergraduate	28	14,21	2,71			
e C	Mental state	High School	22	9,14	2,31	48	-,550	,612
th		Undergraduate	28	9,57	3,08			
After the competition	Self control	High School	22	9,45	2,44	48	-1,083	,217
Af		Undergraduate	28	10,39	3,43			

^{*}p<0.05, p<0.001

When Table 5 is examined, a statistically significant difference was found between the scores of the athletes from the psychological performance scale according to the education variable they played, only in the negative energy sub-dimension (p<0.05). Considering the arithmetic averages, it was seen that the negative energy scores of the athletes with high school education were higher. There was no significant difference between the other sub-dimensions before the competition (p>0.05). There was no significant difference between the scores they got from the post-competition psychological performance scale.

Table 6: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Income Variable

	ScaleSub	İncome Level	N	\overline{x}	Sd	F	p	Lsd
	Dimension							
	Negative energy	1501-3000 ^a	16	15,63	3,631	2,060	,139	
ior		3001-4500 ^b	18	17,56	4,033			
etit		4501 ve üzeri ^c	16	14,88	4,288			
Competition		1501-3000 ^a	16	13,56	2,394	,791	,459	
]	Positive energy	3001-4500 ^b	18	14,61	2,789			
_		4501 ve üzeri ^c	16	14,38	2,306			
the	Mental State	1501-3000 ^a	16	8,63	1,996	11,413	,000**	a*-b
ore		3001-4500 ^b	18	9,28	1,873			a*-c
Before		4501 ve üzeri ^c	16	11,69	1,887			b*-c
	Self control	1501-3000 ^a	16	10,75	2,769	2,152	,128	
		3001-4500 ^b	18	8,78	2,157			
		4501 ve üzeri ^c	16	10,00	3,425			

	Negative energy	1501-3000 ^a	16	16,75	5,013	1,882	,164	
		3001-4500 ^b	18	19,00	5,688			
lon		4501 ve üzeri ^c	16	15,75	4,171			
Competition		1501-3000 ^a	16	14,75	2,176	1,738	,187	
_ lbe	Positive energy	3001-4500 ^b	18	13,22	2,922			
l on		4501 ve üzeri ^c	16	14,56	2,683			
e C	Mental state	1501-3000 ^a	16	9,88	1,928	3,036	,058	
the		3001-4500 ^b	18	8,17	2,728			
After		4501 ve üzeri ^c	16	10,25	3,130			
Af	Self control	1501-3000 ^a	16	10,69	2,676	1,884	,163	
		3001-4500 ^b	18	8,89	3,179			
		4501 ve üzeri ^c	16	10,50	3,077			

^{*}p<0.05, p<0.001

When Table 6 is examined, a statistically significant difference was found only in mental status between the scores of the athletes from the psychological performance scale according to the income variable (p<0.05). Considering the arithmetic averages, it was seen that the mental status scores of the athletes with an income level of 45001 TL and above were higher. There was no significant difference between the other sub-dimensions before the competition (p>0.05). As a result of this analysis, post-hoc test statistics were applied to determine the source of the significant difference between the groups (Lsd). The groups in favor of the significant difference are shown with (*). There was no significant difference between the scores they got from the post-competition psychological performance scale.

Table 7: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Variable of the Disabled Person in the Family

1	Scale Sub	Disabled person in the	N	\overline{x}	Sd	Df	t	p
<u>.</u>	Dimension	family						
tit	Negative energy	Yes	14	17,93	5,484	48	2,063	,000*
1b6		No	36	15,36	3,200			
competition	Positive energy	Yes	14	13,21	2,966	48	-	,452
le c		No	36	14,58	2,234		1,771	
e tł	Mental state	Yes	14	8,79	2,045	48	-	,576
or.		No	36	10,25	2,273		2,101	
Before the	Self control	Yes	14	9,00	2,631	48	-	,534
		No	36	10,11	2,935		1,235	
uo	Negative energy	Yes	14	19,36	6,879	48	1,870	,029*
ļ ţţţ		No	36	16,42	4,073			
pet	Positive energy	Yes	14	14,36	2,818	48	,356	,686
		No	36	14,06	2,640			
e C	Mental state	Yes	14	9,29	3,049	48	-,149	,293
th		No	36	9,42	2,677			
After the competition	Self control	Yes	14	9,43	2,409	48	-,795	,354
Af		No	36	10,19	3,267			

^{*}p<0.05, p<0.001

When Table 7 is examined, a statistically significant difference was found between the scores of the athletes from the psychological performance scale according to the disabled individual variable, only in the negative energy sub-dimension (p<0.05). Considering the arithmetic averages, it was seen that the negative energy scores of the athletes with a disabled individual were higher. There was no significant difference between the other sub-dimensions before the competition (p>0.05). While a significant difference was observed in the negative energy sub-dimension between the scores they received from the post-competition psychological performance scale, no significant difference was observed in the other sub-dimensions.

Table 8: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition According to the Variable of Disability

	Scale Sub-	Disability Reason	N	\overline{x}	Sd	df	t	p
competition	Dimension							
) tit	Negative energy	Congenital Disability	34	15,82	4,16	48	-,644	,881
)du		Disabled Afterwards	16	16,63	3,96			
l Son	Positive energy	Congenital Disability	34	14,15	2,25	48	-,216	,048*
		Disabled Afterwards	16	14,31	3,04			
e tł	Mental state	Congenital Disability	34	9,53	2,10	48	-1,41	,667
jo.		Disabled Afterwards	16	10,50	2,58			
Before the	Self control	Congenital Disability	34	10,18	3,08	48	1,36	,118
, ,		Disabled Afterwards	16	9,00	2,22			
on	Negative energy	Congenital Disability	34	16,26	4,00	48	-2,02	,009*
tit.		Disabled Afterwards	16	19,31	6,60			
the competition	Positive energy	Congenital Disability	34	14,53	2,12	48	1,52	,001*
0 0 0		Disabled Afterwards	16	13,31	3,49			
o e	Mental state	Congenital Disability	34	9,82	2,35	48	1,69	,091
th		Disabled Afterwards	16	8,44	3,34			
After	Self control	Congenital Disability	34	10,65	2,30	48	2,35	,000*
Af		Disabled Afterwards	16	8,56	3,93			

^{*}p<0.05, p<0.001

When we look at Table 8, there is a statistically significant difference in the pre-competition psychological performance scale positive energy sub-dimension of the athletes (p<0.05). There was no significant difference in negative energy, mental state and self-control sub-dimension scores (p>0.05). Considering the arithmetic averages, it was seen that the positive energy sub-dimension scores of the athletes who subsequently became disabled had high values. A statistically significant difference was observed in the sub-dimension scores of negative energy, positive energy and self-control in the post-competition psychological performance scale of the athletes (p<0.05). There was no significant difference in mental state sub-dimension scores (p>0.05). Considering the arithmetic averages, it was seen that athletes with disabilities received higher values in the negative energy sub-dimension, innately in the positive energy sub-dimension, and congenitally disabled in the self-control sub-dimension (p<0.05).

Table 9: Comparison of the Scores of the Athletes from the Psychological Performance Scale before and after the Competition

ScaleSub Dimension		\overline{x}	N	Sd	p
Negative energy	Pre Test	16,08	50	4,080	,085

	Post Test	17,24	50	5,117	
Positive energy	Pre Test	14,20	50	2,507	,899
	Post Test	14,14	50	2,665	
Mental state	Pre Test	9,84	50	2,289	,339
	Post Test	9,38	50	2,755	
Self control	Pre Test	9,80	50	2,871	,704
	Post Test	9,98	50	3,047	

*p<0.05, p<0.001

When we examine Table 9, no significant difference was found in terms of the scores that the athletes got from the psychological performance scale before and after the competition.

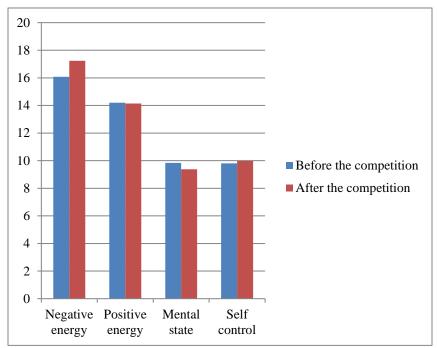


Chart 1: Distribution of the scores of the athletes from the Psychological Performance Scale before and after the competition

While the negative energy sub-dimension score of the athletes' psychological performance scale before the competition was 16.08, it increased to 17.24 after the competition. In addition, the positive energy sub-dimension score decreased from 14.20 to 14.14. While the mental state score was 9.84 before the competition, it decreased to 9.38 after the competition. While the self-control sub-dimension score was 9.80 before the competition, it increased to 9.98 after the competition.

IV. Discussion and Conclusion

Today, sportive success; It is accepted that it is possible not only physically but also with the correct use of psychological characteristics and strategies at a high level. Planned in this direction; 50 volunteer athletes participated in this study, which aimed to examine the psychological performance of visually impaired football players before and after the competition according to various variables. The data collected for the research were discussed with the

relevant literature sources, taking into account the variables of age, education, nationality, position, income, other disabled people in the family and the reason for the disability.

When the study data is examined; According to the age variable of visually impaired athletes, there was no statistically significant difference between the scores they got from the psychological performance scale before and after the competition (Table 2). We think that the reason for this is that adolescence is the period when the emotional ups and downs of individuals are most intense, and considering that our study group consists of adults, people's emotional states are generally more stable as they get older, and psychological satisfaction increases with age. When similar studies are examined; Kabak (2019) stated in their study that there was no significant difference between age and psychological performance. Yazıcı et al., (2019) found that the age variable did not differentiate the state anxiety levels of the athletes before the competition in their study with visually impaired football and futsal players. One of the researchers, Turan et al., (2020) did not observe a significant difference between age and emotional state in their studies with hearing-impaired individuals. Kaya (2013) did not find a significant difference according to the age variable in the study with physically handicapped individuals. In Alçak's (2011) research; No statistically significant difference was found between the age of disabled and non-disabled football players and their passivity. Günay et al. (2011) stated that they did not detect a significant difference with the age variable in their study. One of the researchers, Dalbudak (2019), did not detect a significant difference in terms of age variable in the study with B1 and B2 visually impaired people. The relevant literature supports our study results. However, Kurtoğlu (2017) found a significant difference between the visually impaired individuals who do sports and those who do not, with the age variable. It can be said that the reason for obtaining different results from our study is the differences in age and disability status of our sample group.

When the research findings are evaluated; According to the status of being a national athlete, there is a statistically significant difference in the positive energy sub-dimension between the scores of the athletes from the sub-dimensions of the psychological performance scale (p<0.05), No difference was observed in other sub-dimensions. This difference is in favor of national athletes before the competition. There was a significant difference between the scores they got from the sub-dimensions of the psychological performance scale after the competition, only in the positive energy sub-dimension. There was no statistical difference in other sub-dimensions. When the arithmetic averages are taken into account, it was seen that the positive energy scores of the non-national athletes were higher after the competition. We think that the reason for this is that successful national athletes have a high success goal orientation and mental preparation strategies for the competition. In a study conducted in Greece, it was stated that the level of using psychological performance methods of elite track and field athletes was higher than those of non-elite athletes (Katsikas et al., 2009). In another study conducted with university, amateur leagues and 352 rugby players, 95 of which are national, the high scores of national athletes for imagery, self-talk and emotional control support our study results (Tanaka & Gould, 2015).

When the research findings were examined, a statistically significant difference was found between the scores of the athletes from the psychological performance scale according to the variable of the position they played, only in the mental state sub-dimension (p<0.05). Considering the arithmetic averages, it was seen that the mental state scores of the athletes playing in the forward position were higher. There was no statistically significant difference between the post-competition psychological performance scores (p>0.05). The high mental state

scores of the athletes playing in the forward position; We think that it is due to the fact that the athletes playing on the offensive line are in contact with each other and use their mental activations more. In a similar study conducted with rugby players from 7 different countries participating in the European Championships under the age of 19, it was determined that the psychological performance scores of the attacking athletes were higher (Vaz et al., 2017). On the other hand, from the researchers; Güvendi et al., (2018) reported in their study that they did not detect a significant difference between psychological performance and the position played by the athletes.

When the research data were examined, a statistically significant difference was found only in the negative energy sub-dimension between the scores of the athletes from the psychological performance scale according to the education variable (p<0.05). Considering the arithmetic averages, it was seen that the negative energy scores of the athletes with high school education were higher. There was no significant difference between the other sub-dimensions before the competition (p>0.05). There was no significant difference between the scores they got from the post-competition psychological performance scale (Table 5). The findings of our study may be due to the fact that our sample group consisted of visually impaired individuals and they were anxious and did not feel psychologically well because they could not use their visual senses. However, contrary to our findings, it has been observed in studies in the literature. One of the researchers, Gürer et al., (2018) did not find a significant difference with the level of education in their study, where they examined the psychological performance of athletes interested in outdoor sports. Yılmaz et al., (2019) stated that there was no significant difference with education in their studies with the visually impaired. Dalbudak (2019) did not find a significant difference in terms of education variable in the study with B1 and B2 visually impaired people.

When the research findings were examined, a statistically significant difference was found only in mental status between the scores of the athletes from the psychological performance scale according to the income variable (p<0.05). Considering the arithmetic averages, it was seen that the mental status scores of the athletes with an income level of 45001 TL and above were higher. There was no significant difference between the other sub-dimensions before the competition (p>0.05). There was no significant difference between the scores they got from the postcompetition psychological performance scale. Since the economic situation and mental health are inversely proportional (Taşdemir, 2014), we can say that the mental status of high-income athletes is better. When similar studies are examined; Turan et al., (2020) determined in their studies that the income level differentiates the psychological state of the individual. Yılmaz et al., (2019) did not find a significant difference in terms of economic status in their study. Contrary to our findings, Dalbudak (2019) found that income level did not affect mental health in the study with B1 and B2 visually impaired people. When the research findings are examined; A statistically significant difference was found only in the negative energy sub-dimension between the scores of the athletes from the psychological performance scale according to the variable of the disabled person in the family (p<0.05). When the arithmetic averages are taken into account, it has been observed that the negative energy scores of the athletes who have another disabled person in the family are higher. There was no significant difference between the other subdimensions before the competition (p>0.05). While a significant difference was observed in the negative energy sub-dimension between the scores they received from the post-competition psychological performance scale, no significant difference was observed in the other subdimensions. Athletes who have another disabled person in the family; sharing the care burden of the disabled person, changes in family activities, restriction of social life, restriction of

caregiver's time, etc. For these reasons, we can say that negative energy scores are high. In the studies carried out, it is stated that families with a disabled person move away from the social environment and experience psychological problems such as anxiety and stress, which supports our study findings (Uzunoğlu, 2019; Yılmaz, 2020).

When the research findings are evaluated; According to the variable of the reason for the disability of the athletes; While there was a statistically significant difference in the positive energy sub-dimension of the pre-competition psychological performance scale (p<0.05), there was no significant difference in the negative energy, mental state and self-control sub-dimension scores (p>0.05). Considering the arithmetic averages, it was seen that the positive energy subdimension scores of the athletes who subsequently became disabled had high values. A statistically significant difference was observed in the sub-dimension scores of negative energy, positive energy and self-control in the post-competition psychological performance scale of the athletes (p<0.05). There was no significant difference in mental state sub-dimension scores (p>0.05). Considering the arithmetic averages, it was seen that athletes with disabilities received higher values in the negative energy sub-dimension, innately in the positive energy subdimension, and congenitally disabled in the self-control sub-dimension (p<0.05). When the literature is examined; One of the researchers Turan et al. (2020) did not detect a significant difference due to disability in their work with hearing impaired individuals. In another study, Yazıcı et al. (2019) could not observe a significant difference in their work with visually impaired athletes due to disability. Kabak (2019), on the other hand, did not find a difference according to the type of disability in the study in which she examined the attitudes of disabled individuals towards sports. As a result; While there was no significant difference between age and the scores of visually impaired athletes from the psychological performance scale before and after the competition, a significant difference was found between the positive energy subdimension when the national athlete variable was evaluated in terms of the psychological performance scale before and after the competition. When the scores of the athletes before and after the competition are examined; A significant difference was found in the mental state sub-dimension according to the variable of income before the competition and the position they played. When the scores of the athletes from the psychological performance scale before the competition were evaluated in terms of education, a significant difference was determined in the negative energy sub-dimension. In addition, when the scores that the athletes got from the psychological performance scale before and after the competition were evaluated in terms of having disabled family members, a significant difference was observed in the negative energy sub-dimension. When the scores of the visually impaired athletes before the competition were evaluated in terms of the cause of disability variable, a significant difference was found in the positive energy sub-dimension. When the post-competition scores were evaluated, a significant difference was observed in the sub-dimensions of positive energy, negative energy and self-control.

V. Suggestions

- By using psychological skill training strategies, which are widely used in the world and are thought to have a high impact on sportive performance, contributions can be made to the psychological performance of visually impaired athletes.
- To increase the confidence of coaches and club managers not only in physical performance but also in psychological performance, sports psychologists working in clubs; In order to make positive contributions to the performance of the athletes, we

- recommend that they do studies that integrate psychological performance strategies into the training and competition calendar.
- Our study was conducted with visually impaired football players. Comparisons can be made by conducting research with more sample groups in different branches.

References

- [1] Açak, M., (2011). İşitme engelli ve işitme engelli olmayan futbolcuların benlik saygıları ve saldırganlık düzeylerinin incelenmesi. Doktora Tezi, Elazığ: Fırat Üniversitesi Sağlık Bilimleri Enstitüsü.
- [2] Akıncı, A.Y., & Çimen, E. (2021). İlkokul Öğrencilerinin Hareketli ve Sağlıklı Yaşam Yeterlilikleri (Isparta Örneği). Düzce Üniversitesi Spor Bilimleri Dergisi, 1(1), 17-27.
- [3] Ayça M. Goalball Sporunun Görme Engelli Çocukların Fiziksel Performanslarına Kendilerinin ve Ailelerinin Yaşam Doyumu ve Umutsuzluk Düzeyine Etkisi. Sağlık Bilimleri Enstitüsü, Beden Eğitimi ve Spor Anabilim Dalı. Yüksek Lisans Tezi, Samsun: Ondokuz Mayıs Üniversitesi 2013.
- [4] Aydemir, C. Ve Akdoğan, A. (2019). Psikolojik Performans: ölçek geliştirme çalışması. 27. Ulusal Yönetim Ve Organizasyon Kongresi'nde sunulan bildiri. Antalya, Türkiye.
- [5] Bahçe, A. Ve Turan, M.B. (2022), Eylem araştırması: Beden eğitimi ve spor dersi esnasında öğrencilerin diğer öğrenciler tarafından izlenmelerine yönelik görüşleri, S. KOSOVA, M. KOCA KOSOVA içinde Spor Bilimleri Alanındaki Gelişmeler (s. 5-22), Ankara: Duvar Yayınları.
- Bahçe, A. Ve Turan, M.B. (2022), Z kuşağı ortaöğretim öğrencilerinin beden eğitimi ve spor dersine yönelik görüşleri, M. ILKIM içinde, Spor Bilimlerinde Teori ve Araştırmalar (s. 1-18), İzmir: Serüven Yayınevi.
- [7] Büyüköztürk, Ş., Çakmak, E.K., Akgün, Ö.E., Karadeniz, Ş. Ve Demirel, F. (2014). Bilimsel araştırma yöntemleri. (18. Baskı) Ankara: Pegem Akademi.
- [8] Chiang T. Effects of a therapeutic recreation intervention within a technology-based physical activity context on the social interaction of male youth with autism spectrum disorders, Indiana University, 2003.
- [9] Çalışkan E. Goalball Sporunun Görme Engelli Çocukların Fiziksel Uygunluk, Postür ve Kaygı Durumlarına Etkilerinin Değerlendirilmesi. Sağlık Bilimleri Enstitüsü, Beden Eğitimi ve Spor Anabilim Dalı. Doktora Tezi, İstanbul: Marmara Üniversitesi 2004.
- [10] Çelenk, Ç. (2021). Motivation affects sports and life skills in physical disabled people. Propósitos y Representaciones, 9(SPE3), 1161.
- [11] Çimen, E. (2022). Spor Bilimleri Fakültesinde Öğrencilerinin Proaktif Kişilikleri ile Zihinsel Dayanıklılık Düzeyleri Arasındaki İlişki: Süleyman Demirel Üniversitesi Örneği. Rol Spor Bilimleri Dergisi, 3(1), 1-10.
- [12] Dalbudak, İ. (2019). 18-20 yaş arası spor yapan ve yapmayan B2 ve B3 görme engelli bireylerin duygusal zekâ ve saldırganlık düzeyleri bakımından incelenmesi.
- [13] Disability and Health June 2011, http://www.who.int/mediacentre/factsheets/fs352/en/index.html (10.12.2011).
- [14] Eichsteadt CB. Lavay BW. Physical activity for individuals with mental retardation compaign, illinois, 1995; 47.
- [15] Erdemli, A. (2008). Spor Yapan İnsan, İstanbul: E Yayınları.

- [16] Gözler, A., Turan, B. N., & Turan, M. (2020). Çoçuk oyunlarının ilkokul öğrencilerinin sosyal beceri düzeyine etkisi. Beden Eğitimi ve Spor Bilimleri Dergisi, 14(2), 186-201.
- [17] Günay M, Ciğerci AE, Aksen P. The Evaluation of Some Physical and Motor Features of The Female and Male Students Aged 12-14 Who Participated In Sport or Not, Bullettin of the Transilvania University of Braşov 2011, 4 (53): 203-10.
- [18] Gürer, B., Bektaş, F., & Kural, B. (2018). Doğa sporları faaliyetlerine katılan sporcuların psikolojik performanslarının incelenmesi. Spor ve Performans Araştırmaları Dergisi, 9(2), 74-85.
- [19] Güvendi, B., IŞIM, A.T., & GÜÇLÜ, M. (2018). Korumalı futbol (amerikan futbol) sporcularının kişilik özellikleri ve psikolojik performans stratejileri ile karar verme stilleri arasındaki ilişki. İstanbul Üniversitesi Spor Bilimleri Dergisi, 8(2), 159-175.
- [20] Houwen, S., Visscher, C., Hartman, E., Lemmink, K. Gross Motor Skills and Sports Participation of Children With Visual Impairments. Physical Education, Recreation and Dance, 2007; (78) 2: 16–23
- [21] http://www.gorbirmerkez.com/Faliyetlerimiz/Ankara_Gorbir_Spor_Kulubu2.ht ml (11.05.2015) http://zeynaldemir.8m.com/page1f.htm/15.07.2016
- [22] Hutzter, Y., Bar-Eli, M. (1993). Psychological benefits of sports for disabled people: A review. Scandinavian Journal of Medicine & Science in Sports, 3(4), 217-228.
- [23] IBSA Sports. Erişim:(http://www.ibsasport.org/sports-committees/#heading1) Erişim tarih: 09.10.2016.
- [24] İlhan, E.L. (2010). Hareketsiz Yaşamlar Kültürü ve Beraberinde Getirdikleri. Milli Prodüktivite Merkezi Verimlilik Dergisi, 3,195-210.
- [25] Kabak, S. (2019). Farklı branşlardaki öğretmenlerin zihinsel engelli bireylerde sporun etkilerine yönelik farkındalık ve tutum düzeyleri. Yüksek Lisans Tezi, Gazi Üniversitesi.
- [26] Kamelska, M., Mazurek, K.. The Assessment of the Quality of Life in Visually Impaired People with Different Level of Physical Activity. Physical Culture and Sport. Studies and Research, 2015; 67 (1): 31-39.
- [27] Karasar, N. (2016). Bilimsel Araştırma Yöntemi: Kavramlar İlkeler Teknikler, Nobel Akademik Yayıncılık, 31. Basım, Ankara.
- [28] Katsikas, C., Argeitaki, P., & Smirniotou, A. (2009). Performance strategies of Greek track and field athletes: Gender and level differences. Journal Biology of Exercise, 5(1). doi:10.4127/jbe.2009.0023
- [29] Kaya, E. (2013). Çalışan bedensel engelli bireylerin yaşam tatmini örgütsel bağlılık ve iş tatmini düzeylerinin bazı değişkenler açısından incelenmesi, Yüksek Lisans Tezi, Sakarya Üniversitesi.
- [30] Keskin S. 18-30 Yaş Arası Spor Yapan Görme Engelli Bireyler ile 18-30 Yaş Arası Spor Yapan Gençlik ve Spor Genel Müdürlüğü Personellerinin İşitsel Basit Reaksiyon Zamanlarının Karşılaştırılması, Sağlık Bilimleri Enstitüsü, Beden 67 Eğitimi ve Spor Anabilim Dalı. (Yüksek Lisans Tezi) Ankara: Gazi Üniversitesi 2008.
- [31] Keskin, S. (2008). 18-30 Yaş arası spor yapan görme engelli bireyler ile 18-30 yaş arası spor yapan gençlik ve spor genel müdürlüğü personellerinin işitsel basit reaksiyon zamanlarının karşılaştırılması. Sağlık Bilimleri Enstitüsü, Beden Eğitimi ve Spor Anabilim Dalı, Yüksek Lisans Tezi, Gazi Üniversitesi, Ankara.

- [32] Kılıçaslan U. (2015). Spor lisesi ile diğer liselerde öğrenim gören öğrencilerin Bazı motorik özelliklerinin karşılaştırılması: Trabzon İli örneği. Yüksek Lisans Tezi, Karadeniz Teknik Üniversitesi Eğitim Bilimleri Enstitüsü, Trabzon.
- [33] Kırımoğlu H., Filizoğlu-Çokluk G., İlhan E.L., Öz, A.Ş. (2016). The effect of physical education and sports program on the positive growth and coping strategies of the adolescent with mental retardation. SHS Web of Conferences, 26(4), 1086-1092. doi: 10.1051/shsconf/20162601086.
- [34] Krzak, J., Luckiewicz, C., Jasik, J., Majcher, P., Krawczynska, A. Benefits of Practising Sport by the Disabled An Example of a Blind Person. Annales, 2006; (185) 2: 1027.
- [35] Kurtoğlu A. (2017). Türkiye'deki görme engelliler okullarındaki spor yapan ve yapmayan görme engelli öğrencilerin fizyolojik ve motorik özelliklerinin karşılaştırılması. Yüksek lisans tezi.İnönü Üniversitesi.
- [36] Lastuka, A., Cottingham, M. (2016). The effect of adaptive sports on employment among people with disabilities. Disability and rehabilitation, 38(8), 742-748.
- [37] Lorenzo, T., McKinney, V., Bam, A., Sigenu, V., Sompeta, S. (2019). Mapping participation of disabled youth in sport and other free-time activities to facilitate their livelihoods development. British Journal of Occupational Therapy, 82(2), 80-89.
- [38] Mechikoff, R.A., Estes, S.G. (2002). A History and Philosophy of Sport and Physical Education, From Ancient Civilizations to Modern World. (Third Ed), USA: McGrawHill.
- [39] Paravlic, A., Aleksandrovic, M., Zivkovic, D., Radovanovic, D., Madic, D., Djordjevic, S., Konicanin, A. The Effects of Exercise Programs on Visually Impaired Children: A Systematic Review Study. Facta Universitatis Series: Physical Education and Sport, 2015; (13), 2: 193 201. (Electronic Journal)

 Erişim:http://casopisi.junis.ni.ac.rs/index.php/FUPhysEdSport/article/view/1251.
- [40] Seippel, Ø. (2006). The Meanings of Sport: Fun, Health, Beauty or Community?. Sport in Society, 9(1), 51–70.
- [41] Sherrill, C. (2004). Adapted physical activity, recreation and sport. New York: McGraw Hill.
- [42] Şahin, A. (2015). Engellilerde sosyal gelişim yetersizlikleri: Sosyalleşme sürecinde sporun faydaları. Uluslararası Multidisipliner Akademik Araştırmalar Dergisi, 2(3), 20-28.
- [43] Tanaka S, Gould D., (2015). Psychological skills usage among Japanese rugby players. International Journal of Sport and Exercise Psychology 13(4):309–319
- [44] Taşdemir, G. (2014). Yoksulluğun ruh sağlığı üzerine etkileri. International Journal of Human Sciences, 11(2), 74-88. doi: 10.14687/ijhs.v11i2.2681
- [45] Tekkurşun, D.G., İlhan, E.L., Esentürk, O.K., & Kan. A. (2018). Engelli Bireylerde Spora Katılım Motivasyon Ölçeği (Eskmö): Geçerlik Ve Güvenirlik çalışması. Spormetre Beden Eğitimi ve Spor Bilimleri Dergisi, 16(1), 95-106.
- [46] Turan, B.N., Gözler, A., Turan, M., İncetürkmen, M., & meydani, A. (2020). Geleneksel Çocuk Oyunlarına Yönelik Öğretmen Görüşleri. Gaziantep Üniversitesi Spor Bilimleri Dergisi, 5(3), 231-241.
- [47] Turan, M.B., Yoka, O., & Yoka, K. (2021). Exame de atitudes em relação ao esporte, autoeficácia geral e satisfação de vida de alunos surdos do ensino médio. Revista on line de Política e Gestão Educacional, 1524-1543.

- [48] Turan, M.B. Ve Bahçe, A. (2022), Eylem araştırması: Beden eğitimi ve spor dersinin sosyalleşme üzerine etkisi, Z.F. DİNÇ içinde, Spor Bilimleri III (s. 23-36), Ankara: Akademisyen Yayınevi.
- [49] Tükel, Y. (2015). Görme engelli judocuların denge performanslarının incelenmesi, Yayınlanmış Doktora Tezi, Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü, Konya.
- [50] Türk, E. (2007). Spor takımlarına katılan ve katılmayan görme engelli öğrencilerin benlik saygılarının değerlendirilmesi. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Mersin.
- [51] Uzunoğlu, E. (2019). Engelli bireye sahip ailelerin sorunları ve sosyal dışlanması üzerine nitel bir inceleme. Yüksek lisans tezi.Sakarya Üniversitesi.
- [52] Vaz, L., Martín, I., Batista, M., Almeida, L., Fernandes, H.M., (2017). Differences in the Psychological Skills and Strategies Used by Elite Male Under-19 Rugby Union.
- [53] Yazıcı, M., Recep, Ö.Z., Yıldızhan, Y.Ç., & Büyükyıldırım, H. (2019). Görme engelli futbol ve futsalcıların müsabaka öncesi durumluluk kaygı düzeylerinin incelenmesi. Spor ve Performans Araştırmaları Dergisi, 10(2), 175-185.
- [54] Yıldırım, A., Ve Şimşek, H. (2018). Sosyal bilimlerde nitel araştırma yöntemleri. 11.Baskı. Seçkin Yayınevi, Ankara.
- [55] Yıldız, S., & Gürler, S. (2018). Görme Engelli Bireylerin Haklarına Dair Bilgi Düzeylerinin Ölçülmesi (Ankara Örneği). Kırıkkale Üniversitesi Sosyal Bilimler Dergisi, 8(1), 241-268.
- [56] Yılmaz, A., Karakaş, G., Baba-Kaya, H., Kaçay, Z. (2017). The effects of sportive exercises on physical fitness of children with specific learning disability. Acta Kinesiologica, 11(1), 88–93.
- [57] Yılmaz, A., Kırımoğlu, H., & Kaynak, K. (2019). Türkiye görme engelliler yüzme şampiyonasına katılan sporcuların spora özgü başarı motivasyon düzeylerinin incelenmesi. Spor ve Performans Araştırmaları Dergisi, 10(3), 270-281.
- [58] Yılmaz, A., Soyer, F. (2018). Effect of physical education and play applications on school social behaviors of mild level intellectually disabled children. Education Sciences, 8(2), 1–8.
- [59] Yılmaz, S. (2011). Judo sporunun görme engelli öğrenciler üzerine etkisinin bazı parametreler açısından incelenmesi. Spor Bilimleri Dergisi, 3.
- [60] Yilmaz, E. (2020). Engelli bireye sahip ailelerde teodise problemi: Sosyolojik bir bakış (Master's thesis, Sosyal Bilimler Enstitüsü).