

# Investigation of the Effect of University Sports Environment on Academic Motivation

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## Abstract

*The aim of this study is to examine the effect of university sports environment perception on academic motivation. A total of 206 students studying at various faculties of Bayburt University participated in the research. In the study, the “Personal Information Form” created by the researchers to determine the demographic information of university students, the “University Sports Environment Scale” to determine the university sports environment, and the “Academic Motivation Scale” to determine the academic motivation levels were used. The analysis of the obtained data was made in the statistical program (SPSS 25). According to the results obtained, it was determined that male participants had higher perception levels of university sports environment and academic motivation levels compared to female participants. In the analysis of the data according to the age variable, it was determined that the participants in the age group of 24 and over had higher perception levels of the university sports environment than the participants in the 20-21 age group. When the data were analyzed according to the faculties of the participants, it was found that the participants in the faculty of sports sciences had higher perception levels of the university sports environment compared to the participants in the vocational school. When the correlation between Academic Motivation and University Sports Environment Perception is examined, it is seen that there is a positive and significant relationship between University Sports Environment Perception and Academic Motivation, and all of the University Sports Environment sub-dimensions are the predictors of organizational happiness.*

**Keywords: Sports, Perception of Sports Environment, Academic Motivation**

## Introduction

Sport is an important activity to protect people’s health, increase social interactions and support intercultural fusion (Lim & Zou, 2019). Sport, which contributes to the physical and mental health of individuals, is also an important factor that positively regulates the social behavior of individuals and increases their motoric and mental characteristics to a certain extent (Çakır and Ceyhan, 2021). Sports can increase one’s individual and social achievements and contribute to himself and the society (Borges, 2014). While participating in various sports environments helps people to lead a healthy life, it also supports social values. It is accepted as an important tool to help the society we live in to lead a healthy, happy and productive life (Borges, 2014). Therefore, it is necessary to emphasize that sport plays an important role in improving people’s health and well-being.

Universities are places that aim to develop students scientifically and provide training for various professional groups. For this reason, social and sports activities have an important place in universities. Individuals develop features such as self-confidence, self-control, quick decision-making, accuracy

and protecting their rights with sports activities and various branches. The person becomes aware of his own abilities and his skills increase (Sivrikaya & Pehlivan, 2015). In addition, sport is very important in providing intellectual development as well as physical, mental and spiritual development of individuals in universities under the roof of higher education. In addition, students' participation in recreational sports; It has been found that it reduces stress level, increases self-esteem, affects academic development and facilitates social integration (Yılmaz & Esentürk, 2020).

In recent years, many studies have been conducted on the effect of participating in sports activities on the academic achievement and motivation of students. Research has revealed that students' participation in sports activities positively affects academic achievement (Henderson et al., 2018). Participation in sports activities has positive effects on students' development of their social environment, increasing their performance in the school environment, having a better working environment and developing a better understanding of discipline (Ebrahimi et al., 2019). Taking part in sports activities leads individuals to the same goals in order to interact in social groups, and this process continues from birth to death. Engaging in sports activities allows the individual to be happy and enjoy his life (Çakır & Erbaş, 2021).

Sports activities that individuals participate in are extremely important as they support physical, mental and social development and contribute directly to academic success (Vardanyan, 2014). University sports environment is an important factor for increasing the academic motivation of students (Stoll & Lomax, 2007; Hodge & Dünay, 2009). The study by Stoll and Lomax (2007) revealed that the university sports environment has a positive effect on students. This study revealed that students feel more positive in sports environments and have a higher academic motivation. In addition, another study by Hodge and Dünay (2009) supported that university sports environments increase students' academic success and academic motivation. All these studies reveal that the university sports environment has a positive effect on the academic motivation of the students. This environment supports students' self-confidence and social relations with their colleagues.

Thus, it can be stated that university sports environments play an important role in increasing the academic motivation of students as well as their physical, mental and social development. In this study, the effect of university sports environment on students' academic motivation was investigated.

## **Materials and Methods**

### **Purpose of the Research**

The aim of this research is to determine university students' perceptions of university sports environment and their academic motivation levels, to evaluate them in terms of various variables and to determine the effect of university sports environment perception on academic motivation.

### **Research Universe and Sample Group**

The population of the research consisted of the students of the Faculty of Education, Vocational School, Faculty of Health Sciences and Faculty of Sport Sciences studying at Bayburt University; The sample group consists of 206 students, 52 students from the Faculty of Education, 45 students from the Vocational School, 49 students from the Faculty of Health Sciences and 60 students from the Faculty of Sport Sciences.

### **Model of the Research**

In this study, relational screening model was used. With this model, it is aimed to determine the existence and degree of changes by applying statistical tests and measuring the level of relationship between two or more variables as a result of comparison (Karasar, 2012).

### **Data Collection Tools**

In the study, the "Personal Information Form" created by the researchers was used to determine the demographic information of university students. The 7-point Likert Type "University Sports Environment Scale" consisting of 4 sub-dimensions and items, developed by Shin, Chiu, and Lee (2018) and adapted into Turkish by Yılmaz and Esentürk (2020), was used to determine the participants' perception levels of the university sports environment. And the 7-point Likert Type "Academic Motivation Scale" consisting of 7 sub-dimensions and 28 items,

developed by Vallerand et al. (1992) and adapted into Turkish by Karataş and Erden (2012), was used to determine the academic motivation levels of the participants. The analysis of the obtained data was made in the statistical program (SPSS 25).

### Data Collection Process

In the documents prepared based on the research data, the participants were explained about the study, it was explained that the data to be obtained from the participants would be used in the academic study, and they were asked to respond to the scale questionnaire on a voluntary basis. Before the data collection process in the research, necessary permissions were obtained from the Bayburt University Ethics Committee Commission with the decision number E-15604681-100-119508 and 60.

### Analysis of Data

In the study, frequency analysis to determine the demographic characteristics of the participants, the perception of the university sports environment and academic motivation levels and the descriptive test to determine the averages of the sub-dimensions; T-Test for independent variables to compare perceptions of university sports environment and academic motivations by gender; One-way ANOVA Test was applied on the perception of university

sports environment and academic motivation according to age and faculty status. TUKEY test was used to determine which group the differences originated from.

Simple Regression Test was applied to determine the effect of the participants' perceptions of the university sports environment on their academic motivation levels, and the Multiple Linear Regression Test was applied to determine the effect of the sub-dimensions of the university sports environment scale on the academic motivation levels.

### Findings

According to the results of the frequency analysis performed to determine the distribution of demographic variables, when the distribution of the participants' genders is examined, it is detected that 90 people and 43.7% are male, 116 people and 56.3% are female; When the distribution of age is examined, 40 people and 19.4% are 18-19 years old, 81 people and 39.3% are 20-21 years old, 50 people and 24.3% are 22-23 years old and 35 people and 17.0% were 24 years and older. When the distribution of the faculty variable is examined, it is seen that 25.2% (52 people) are Faculty of Education, 21.8% (45 people) are Vocational School, 23.8% (49 people) are Faculty of Health Sciences, 29.2% are (60 people) educated at the Faculty of Sport Sciences.

**Table 1 Demographic Characteristics of the Participants**

	Değişkenler	N	%
Gender	Male	90	43,7
	Female	116	56,3
Age	Ages 18-19	40	19,4
	Ages 20-21	81	39,3
	Ages 22-23	50	24,3
	Ages 24 and Over	35	17,0
Faculty	Faculty of Education	52	25,2
	Vocational School	45	21,8
	Faculty of Health Sciences	49	23,8
	Sports Science Faculty	60	29,2
	<b>Total</b>	<b>206</b>	<b>100</b>

When the averages of the participants' University Sports Environment Scale and sub-dimensions are examined, it is seen that the highest average in the sub-dimensions is Sports Lessons ( $X=5.94\pm0.86$ )

and the lowest average is in Sports Facilities ( $X=4.91\pm1.22$ ) and General University Sports Environment Perception Level ( $X=5.39\pm0.83$ ).

When the averages of the participants' Academic Motivation Scale and sub-dimensions are examined, it is seen that the highest average in the sub-dimensions is Defined Arrangement ( $X=5.86\pm 1.12$ ),

the lowest average is in Amotivation ( $X=3.15\pm 1.84$ ) and General University Sports Environment Perception Level ( $X=5.00\pm 0.89$ ).

**Tablo 2 Katılımcıların Üniversite Spor Ortamı Ölçeği ile Akademik Motivasyon Ölçeğinden Aldıkları**

Scales	Sub-Dimensions	N	Min.	Maks.	X	Ss
University Sports Environment Scale	Sports Lessons	206	2,50	7,00	5,94	0,86
	Sports Facilities	206	1,00	7,00	4,91	1,22
	University Sports Teams	206	1,00	7,00	5,13	1,27
	University Sports Clubs	206	1,67	7,00	5,56	1,10
	<b>General USES</b>	<b>206</b>	<b>2,79</b>	<b>7,00</b>	<b>5,39</b>	<b>0,83</b>
Academic Motivation Scale	lack of motivation	206	1,00	7,00	3,15	1,84
	Outbound Editing	206	1,50	7,00	5,29	1,12
	Mirroring Arrangement	206	1,50	7,00	4,74	1,35
	Defined Arrangement	206	1,50	7,00	5,86	1,12
	Knowledge	206	2,00	7,00	5,70	1,21
	Success	206	1,50	7,00	5,11	1,29
	Impulse	206	1,25	7,00	5,15	1,35
	<b>General AMS</b>	<b>206</b>	<b>2,18</b>	<b>7,00</b>	<b>5,00</b>	<b>0,89</b>

\*;  $p < 0,05$

**Table 3 Comparison of Participants' Perceptions of University Sports Environment and Academic Motivation by Gender**

Scales	Gender	N	X	Ss	t	p
University Sports Environment Scale	Male	90	5,69	0,84	4,655	,000*
	Female	116	5,16	0,76		
Academic Motivation Scale	Male	90	5,18	0,89	2,576	,011*
	Female	116	4,86	0,86		

\*;  $p < 0,05$

When comparing the perception levels of the university sports environment according to the gender of the participants, significant differences were found between the groups ( $p=000$ ;  $p < 0.05$ ). According to the results obtained, it was determined that male participants ( $X=5.69\pm 0.84$ ) had higher university sports environment perception levels than female participants ( $X=5.16\pm 0.76$ ).

When comparing the academic motivation levels of the participants according to their gender, significant differences were found between the groups ( $p=011$ ;  $p < 0.05$ ). According to the results obtained, it was determined that the academic motivation levels of male participants ( $X=5.18\pm 0.89$ ) were higher than female participants ( $X=4.86\pm 0.86$ ).

When comparing the perception levels of the university sports environment according to the age of the participants, significant differences were found between the groups ( $p=003$ ;  $p < 0.05$ ). According to the results obtained, it has been determined that the participants in the age group of 24 and over ( $X=5.76\pm 0.68$ ) have higher university sports environment perception levels than the participants in the 20-21 age group ( $X=5.17\pm 0.79$ ).

When comparing the academic motivation levels of the participants according to their age, no significant differences were found between the groups ( $p=507$ ;  $p > 0.05$ ).

**Table 4 Comparison of Participants' Perceptions of University Sports Environment and Academic Motivation by Age**

Scales	Age	N	X	Ss	F	p	Significant Difference
University Sports Environment Scale	A) Ages 18-19	40	5,51	0,92	4,732	,003*	D>B
	B) Ages 20-21	81	5,17	0,79			
	C) Ages 22-23	50	5,40	0,84			
	D) Ages and over 24	35	5,76	0,68			
Academic Motivation Scale	A) Ages 18-19	40	4,98	1,01	,779	,507	-
	B) Ages 20-21	81	4,94	0,80			
	C) Ages 22-23	50	4,97	0,93			
	D) Ages and over 24	35	5,21	0,88			

\*, p<0,05

**Table 5 Comparison of Participants' Perceptions of University Sports Environment and Academic Motivation According to Their Educational Faculties**

Scales	Faculty	N	X	Ss	F	p	Anlamlı Fark
University Sports Environment Scale	A) Ages 18-19	52	5,27	0,75	3,750	,012*	D>B
	B) Ages 20-21	45	5,18	0,79			
	C) Ages 22-23	49	5,37	0,84			
	D) Ages and over 24	60	5,67	0,87			
Academic Motivation Scale	A) Ages 18-19	52	4,97	0,89	,103	,958	-
	B) Ages 20-21	45	5,05	0,99			
	C) Ages 22-23	49	5,02	0,85			
	D) Ages and over 24	60	4,97	0,86			

\*, p<0,05

When comparing the perception levels of the university sports environment according to the faculties of the participants, significant differences were found between the groups (p=012; p<0.05). According to the results obtained, it was determined that the participants in the faculty of sports sciences (X=5.67±0.87) had higher perception levels of the

university sports environment than the participants in the vocational school (X=5.17±0.79).

When comparing the academic motivation levels of the participants according to their faculties, no significant differences were found between the groups (p=958; p>0.05).

**Table 6 Simple Regression Results on the Effects of Participants' Perceptions of University Sports Environment on Academic Motivation**

Predictive Variable	B	ShB	β	t	p	r
Invariant	2,467	,364		6,673	,000	
University Sports Environment Perception	,478	,067	,449	7,171	,000*	,449

\*,p<0,05

When the correlation coefficient between the predicted variable Academic Motivation and the predictive variable University Sports Environment Perception is examined, it is seen that there is a moderately positive relationship (r=.449) between

University Sports Environment Perception and Academic Motivation. As seen in Table 6, University Sports Environment Perception is an important predictor of Academic Motivation (R=.449; R2=.201; p<0.05). University Sports Environment

Perception explains 20.1% of Academic Motivation. The results of multiple linear regression analysis regarding the prediction of academic motivation

of the sub-dimensions of the University Sports Environment Scale are presented in Table 7.

**Table 7 Multiple Linear Regression Results Regarding the Effect of Participants’ Perceptions of the University Sports Environment Scale Sub-Dimensions on their Academic Motivation**

<i>Predictive Variable</i>	<i>B</i>	<i>ShB</i>	<i>β</i>	<i>t</i>	<i>p</i>	<i>r</i>	<i>r</i>
Invariant	2,287	,414		5,529	,000		
Sports Lessons	,184	,077	,179	2,407	,017	,340	,167
Sports Facilities	,120	,055	,165	2,183	,030	,346	,152
University Sports Teams	,086	,053	,123	1,640	,102	,312	,115
University Sports Clubs	,106	,067	,131	1,591	,113	,360	,112

R=,451; R2=,204; F=12,855; Durbin-Watson=1,837; p=,000

When Table 7 is examined; It is seen that all sub-dimensions of University Sports Environment are predictors of organizational happiness (R=.451; R2=.204; p<0.05). The sub-dimension of the University Sports Environment; sports classes, sports facilities, university sports teams and university sports clubs explain about 20.4% of academic motivation. The order of importance of the sub-dimensions of the university sports environment, which is the predictor variable, in explaining academic motivation; Sports Lessons (β=.179), Sports Facilities (β=.165), University Sports Clubs (β=.131) and University Sports Teams (β=.123). When the values related to the significance of the regression coefficients are examined, it is seen that Sports Lessons and Sports Facilities (p<0.05) explain academic motivation in a meaningful way, while University Sports Teams and University Sports Clubs (p>0.05) are not effective in explaining academic motivation. When the relationships between the predictor variables and academic motivation are examined; With Sports Lessons (r=.340), [when other predictive variables are controlled (r=.167)], Sports Facilities (r=.346), [when other predictive variables are controlled (r=.152)], level of correlation is observed.

**Discussion**

In the comparison of the university sports environment perceptions and academic motivations according to the gender of the participants, it was determined that the male participants’ university sports environment perception levels were significantly higher than the female participants. The emergence of this result may be related to the

fact that male participants have more and more positive experiences in sports environments. Gender stereotypes accepted in society, cultural and social norms, and differences in perspectives between genders may have been effective in the emergence of the results in this way. In this respect, the country in which the study was conducted and the culture lived can affect the results. In addition, a study to be conducted without the size of the sample and gender discrimination may reveal different results. In addition, the characteristics of the sports environment and the level of representation of the preferred sports branch in terms of genders may also affect the results. As a result, these results related to the perception of sports environment by gender are the result of only one research and it may be appropriate to conduct more research under different conditions rather than forming a general opinion.

When comparing the perception levels of the university sports environment according to the age status of the participants, it was determined that the university sports environment perception levels of the participants in the age group of 24 and above were significantly higher than the participants in the 20-21 age group. With this result, it can be said that the participants aged 24 and over have a higher level of awareness and perception towards the university sports environment, depending on the possibility that they have more experience in the university sports environment.

When comparing the perception levels of the university sports environment according to the faculties of the participants, it was determined that the university sports environment perception levels

of the participants in the faculty of sports sciences were significantly higher than the participants in the vocational school. This result can be explained by the view that the students in the faculty of sports sciences are able to evaluate the sports environment better due to the fact that they have more in-depth knowledge in the field of education since they are subject to an academic education on subjects such as exercise physiology, sports psychology, sports sociology and physical fitness. In addition, the size and variety of sports facilities within the faculties of sports sciences may affect the high level of perception of sports science students about the university sports environment.

When the correlation coefficient between Academic Motivation and Perception of University Sports Environment was examined, it was concluded that University Sports Environment Perception was an important predictor of Academic Motivation. University Sports Environment Perception explains 20.1% of Academic Motivation. Again, it is seen that all sub-dimensions of University Sports Environment are predictors of organizational happiness. The order of importance of the sub-dimensions of the university sports environment, which is the predictor variable, in explaining academic motivation; Sports Lessons, Sports Facilities, University Sports Clubs and University Sports Teams. Among these sub-dimensions, Sports Lessons and Sports Facilities ( $p < 0.05$ ) were found to explain academic motivation in a meaningful way, while University Sports Teams and University Sports Clubs ( $p > 0.05$ ) were not effective in explaining academic motivation.

When the literature is examined, it is seen that different results have been reached in studies examining the effects of sports activities and sports environment perception levels of students studying at various education levels on their academic motivation.

In a study conducted by Kyan et al. (2015), 567 students, 303 boys and 204 girls, aged 12-13 participated. According to the result of the study, which examined the relationship between students' participation in physical activities and their academic achievement, it was stated that while no significant relationship could be found between the physical fitness levels of female students and their academic

achievement, the opinion that increased physical fitness levels in boys could support their academic success. In a systematic review study conducted by Karaburçak et al. (2021), 13 studies were evaluated. According to the results of the studies examined in the study, there was no significant relationship between the academic achievement of the students and the level of physical activity in 4 studies, while a weak negative correlation was found in 2 studies. In 7 studies, a moderately significant positive correlation was found between the academic achievement of the students and the level of physical activity. In the study of Bayrak and Yıldırım (2019), conducted with the participation of 1057 university students, a moderate positive correlation was found between the participation of the participants in physical activities and their academic achievement. In a study conducted by Mücevher et al. (2016), the effect of 6007 university students' participation in sports activities on their academic achievement was examined. According to the results of the study, it was determined that the sportive activities of the participants were positively moderately correlated with academic achievement. Altuğ et al. (2018), in their study with the participation of high school students, concluded that the academic success of those who participate in sports activities is higher than that of sedentary students. The positive correlations between the sportive activities-physical activities and academic achievements of the individuals participating in the above-mentioned studies show parallelism with the results of our study.

In some studies in the literature, no significant relationship was found between sportive activities-physical activity and academic achievement.

In a study conducted by Çubuk in 2019, no significant relationship was found between the physical activity levels of 2137 secondary school students and their academic achievement. In the study conducted by Angın et al. (2018), physical activity and academic achievement levels of physiotherapy and rehabilitation students were evaluated. According to the results of the study, there was no significant relationship between the physical activity levels of the participants and their success levels.

## Conclusion and Recommendations

Students' perception of university sports environment can contribute to their socialization and integration into university life. On the other hand, participation in the university sports environment can improve students' physical fitness levels, increase their fitness, and support their focus and learning processes with positive changes in their general health. For this reason, it may be beneficial for universities to support sports facilities and sports activities financially and morally, for students to find the sports environment valuable and to increase their academic motivation with the spiritual, social and physiological gains they get from these situations.

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