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EXAMINING EPISTEMOLOGICAL BELIEFS TOWARDS LEARNING OF THE STUDENTS STUDYING AT THE FACULTY OF SPORT SCIENCES

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ABSTRACT

Many situations such as meta-cognitive, reasoning, and socio-cultural effects affect epistemological beliefs academically in terms of educators and individuals. In this direction, the effect of epistemological beliefs on teaching shows its academic importance. The research was carried out to examine the epistemological beliefs of the students of the faculty of sports sciences towards learning according to some variables. It was designed by adopting the descriptive survey model, which is among the quantitative research methods. The study group of the research consists of 279 students, 168 females (60.2%) and 111 (39.8%) males. In addition to the personal information form, the "Epistemological Beliefs Scale for Learning" was used in the study. Within the scope of the research, the IBM SPSS 25 package program was used in the implementation of the statistical processes of the data obtained from the students. No significant difference was found between the students' epistemological beliefs towards learning and the gender variable. A significant difference was found in all sub-dimensions between the students' epistemological beliefs towards learning and the sport type variable, the mean scores of team athletes in the dimension of accessing information and individual athletes in other dimensions are high. While no significant difference was found in the epistemic contradiction and access to information sub-dimensions between the students' epistemological beliefs about learning and the department variable, a significant difference was found in the other sub-dimensions. The mean scores of the students of sports management department were found to be high in absolute and single reality dimensions, and against genetic nature. A significant difference was found between students' epistemological beliefs towards learning and class and age variables.

Keywords: Epistemology, epistemological belief, learning, student, sports sciences

SPOR BİLİMLERİ FAKÜLTESİNDE ÖĞRENİM GÖREN ÖĞRENCİLERİN ÖĞRENMEYE YÖNELİK EPİSTEMOLOJİK İNANÇLARININ İNCELENMESİ

ÖZET

Epistemolojik inanışları akademik anlamda eğitimciler ve bireyler açsından meta-bilişsel, akıl yürütme, sosyo-kültürel etkiler gibi birçok durum etkilemektedir. Bu doğrultuda epistemolojik inançların öğretime etkide bulunması akademik anlamda önemini göstermektedir. Araştırma spor bilimleri fakültesi öğrencilerinin öğrenmeye yönelik epistemolojik inançlarının bazı değişkenlere göre incelenmesi amacıyla yapılmıştır. Araştırma nicel araştırma yöntemleri arasında yer alan betimsel tarama modeli benimsenerek dizayn edilmiştir. Araştırmanın çalışma grubunu 168 kadın (%60,2), 111 (%39,8) erkek olmak üzere toplam 279 öğrenci oluşturmaktadır. Araştırmada kişisel veri formunun yanı sıra "öğrenmeye yönelik epistemolojik inançlar ölçeği" kullanılmıştır.

Araştırma kapsamında öğrencilerden elde edilen verilerin istatistiksel işlemlerinin uygulanması aşamasında IBM SPSS 25 paket programından faydalanılmıştır. Öğrencilerin öğrenmeye yönelik epistemolojik inançları ile cinsiyet değişkeni arasında herhangi bir anlamlı farklılık bulunamamıştır. Öğrencilerin öğrenmeye yönelik epistemolojik inançları ile spor türü değişkeni arasında tüm alt boyutlarda anlamlı farklılık tespit edilmiş bilgiye ulaşabilme boyutunda takım sporcularının, diğer boyutlarda ise bireysel sporcuların ortalama puanları yüksektir. Öğrencilerin öğrenmeye yönelik epistemolojik inançları ile bölüm değişkeni arasında epistemik çelişki ve bilgiye ulaşabilme alt boyutlarında anlamlı farklılık tespit edilmezken diğer alt boyutlarda anlamlı farklılık tespit edilmiştir. Spor yöneticiliği bölümü öğrencilerinin genetik doğaya karşı, mutlak ve tek gerçeklik boyutlarında ortalama puanları yüksek bulunmuştur. Öğrencilerin öğrenmeye yönelik epistemolojik inançları ile sınıf ve yaş değişkenlerinde anlamlı farklılık tespit edilmiştir.

Anahtar Kelimeler: Epistemoloji, epistemolojik inanç, öğrenme, öğrenci, spor bilimleri

INTRODUCTION

Information is a phenomenon where people try to understand both nature and the universe from ancient times to the present, and they create both a verbal and written basis for them, and they do some research on this foundation (Erdemir and Koç, 2009). It is possible to see that the historical development of the phenomenon of "knowledge" dates back to ancient times. Information, which has been constantly developing throughout history, paved the way for us to reach today's technology age, paved the way for it and has now become the basic need of human life in the 20th century (Alan, 2018). Accordingly, when we look at the definitions in the literature about "epistemology", which is defined as a theory of knowledge by most researchers from a philosophical point of view;

Epistemology, literally "philosophy of knowledge", is a philosophical branch that seeks answers to questions such as what knowledge is in general, the phenomenon of knowing and how people know things. The individual belief system regarding the certainty of knowledge is called epistemological belief and includes all kinds of personal beliefs about the structure of knowledge/acquisition (Külcü, 2000; Schommer, 1990). Epistemology is a philosophical discipline that researches examine and questions the essence, reliability, validity, limits, origin and transmission of knowledge (Çoğaltay, 2016; Demir and Acar, 1992; Topdemir, 2008). According to another definition, epistemology is defined as the way people use to reach information, dealing with ideas and beliefs related to information, the bond established between the subject and the object, and the philosophy of focusing on the information itself (Cevizci, 2011).

The epistemological science of belief is an expression used for pure knowledge that can be proven true or systematic. The concept of epistemic knowing is that justification is the opinion that fulfils the conditions of belief and truth and is expressed as an opinion (Cevizci, 2011). Piaget (1970) used the expression "genetic epistemology", which emphasizes the

essence of knowledge and the individuality in its acquisition, to describe the "cognitive development theory", which he tries to express through psychological and mental processes how knowledge is organized in the mind. With this usage, "epistemological belief", which is at the junction of psychology and philosophy, has begun to attract those who are involved in the education community and those who deal with developmental psychology (Hofer and Pintrich, 1997). Although Perry (1970) will carry out the first serious studies on this subject about 20 years later, Piaget's idea that people may have different beliefs about the knowledge phenomenon and the essence of knowing has started to gain acceptance (Eren, 2006). According to Perry's (1981) definition, epistemological beliefs are people's beliefs about what knowledge is, how knowledge can be obtained, whether it is certain or not, and what the criteria for knowledge are. On the other hand, Schommer (1990) defined epistemological belief as personal beliefs about the clarity of knowledge, its creation, learning and scope, by including the learning factor. On the other hand, according to Elder (1999), epistemological beliefs are defined as the ideas we have about the purpose of science, the origin and relevance of scientific knowledge, and the variable structure of knowledge.

Epistemological beliefs are closely related to the differences between academic settings. The effect of metacognitive and self-regulation processes on thinking and learning processes (Päuler-Kuppinger and Jucks, 2017) refer to the process of knowing and the nature of knowledge, they have an impact on teaching and therefore they play a serious role in different academic experiences (Hofer, 2001). According to Deryakulu and Bıkmaz's (2003) statements, scientific epistemological belief mirrors one's philosophical view of the definition of reliable and valid scientific knowledge, how it is formed and how it expands. Therefore, one's belief in the origin of knowledge is an essential concept as it will also show the ways of producing scientific knowledge. With the emergence of numerous approaches and perspectives in the field of the scientific method, the interest in scientific epistemological belief has also increased. Therefore, scientific epistemological belief looks at the nature of scientific knowledge with an objective view and is a concept that educators especially in the education community are interested in (Hammer, 1994; Pomeroy, 1993).

When the factors affecting the development of epistemological beliefs are classified in terms of individuals and educators, perception, reasoning, thinking levels and learning skills for individuals (Schommer, 1990; Magolda, 1992; King and Kitchener, 1994) cultural setting (Liang and Tsai, 2010; Lin et al., 2013); physical and mental development (age, etc.), gender, family factor, an education level (Deryakulu, 2004); academic performance and success

(Deryakulu, 2004; Cano, 2005); and while the fields they receive education effect; for educators, epistemological belief levels in terms of constructing the learning and teacher process (Terzi et al., 2015); their conceptualization of this process (Chan and Elliott, 2004); ability to understand and use what is read from a written source (Kardash and Howell, 2000); and personal and professional actions, academic knowledge stacks and previous experiences (Cano, 2005).

In the light of this information, the aim of the research is to determine and reveal the epistemological belief levels of the students studying at the faculty of sports sciences and whether these characteristics differ according to the independent variables obtained from the personal information of the students.

METHODOLOGY

Research model

The study, which was conducted to investigate the epistemological beliefs of the students of the Sports Sciences Faculty, was designed and the descriptive survey model which is one of the quantitative research methods was adopted. It is an approach aiming at identifying a past or present condition as it is (Karasar, 2007).

Participants

The universe of the research consists of students of the Faculty of Sports Sciences at a state university in Tokat. The sample group consisted of 279 university students, 111 of them were female and 168 of them were male, aged between 17-25, determined on a voluntary basis during the 2021-2022 academic year. The "Convenience Sampling" (Bhattacherjee, 2012) was used to determine the sample group in the present study. According to Cohen, Manion and Morrison (2007), a sample size of 196 is sufficient for groups with a population size of 400 at the 95% confidence interval. Accordingly, the sample group of the present study (n=279) is quite sufficient for the population of the research.

Table 1. Frequency and percentage distributions of the participating students

Variables		n	%
Gender	Female	111	39.8
	Male	168	60.2
Age	17-19 Age	39	14.0
	20-22 Age	187	67.0
	23 ve Age	53	19.0
Department	Physical Education and Sports Teaching	98	35.1
	Coaching Training	84	30.1
	Sports Management	97	34.8
Class	1	57	20.4
	2	112	40.1
	3	62	22.2
	4	48	17.2
Type of sport	Individual	109	39.1
	Team	170	60.9
Total		279	100%

279 students participated in the study. Gender distribution; 39.8% of them are female and 60.2% of them are male students; 14.0% of the students are 17-19 years old, 67.0% of them are 20-22 years old and 19.0% of them are 23 and over. 35.1% of the participants are students of physical education and sports teaching, 30.1% of them are students of coaching education and 34.8% of them are students of sports management. 20.4% of the participants were in 1st grade, 40.1% of them are 2nd grade, 22.2% are 3rd grade and 17.2% of them are 4th graders. 39.1% of the students are interested in individual sports and 60.9% of them are in team sports.

Data collection tools

To collect data from the sample group, the "Epistemological Beliefs for Learning" scale, which Kutluca, Soysal, and Radmard (2018) studied for validity and reliability, was used. The scale was made up of a total of 4 sub-dimensions and 23 items. The scale's Cronbach alpha internal consistency coefficient is 0.79.

Data collection process

The prepared questionnaires were applied face-to-face in the classroom environment after obtaining the necessary permissions. First of all, it was stated that the participation was on a voluntary basis, and detailed information was given about the researchParticipants who agreed to participate in the study completed the application in approximately 5-10 minutes. In order to obtain efficient results from the applied questionnaires, 279 questionnaires out of a total of 300 distributed were included in the study because they were checked and excluded from the study due to incomplete or incorrect filling, continuous coding at the same level, and similar reasons.

Analysis of data

Within the frame of the study, the IBM SPSS 25.0 package program was used during the statistical processes of the data obtained from the students. To determine the statistical operations to be applied to the data, the normality test was first applied. After it was detected the data were appropriate for normal distribution, descriptive statistics of percentage and frequency distributions, one-way analysis of variance (ANOVA) for class, age and department variables, and finally MANOVA test for sport type and gender variables were applied as a statistical procedure.

FINDINGS

In this section of the study, the results determined after the statistical procedures are reported and presented in tables.

Table 2. Normality distribution

Sub-dimensions	x̄	ss	Skewness	Kurtosis	Min.	Mak.	Cronbach
Access to information	4.04	0.54	-0.66	-0.09	2.56	5.00	0.737
Against the genetic natüre	2.96	1.10	0.15	-1.06	1.00	5.00	0.878
Epistemic contradiction	3.64	0.80	-0.44	0.36	1.50	5.00	0.635
Absolute and only reality	2.82	1.01	0.17	-1.02	1.00	5.00	0.746

To determine the distribution of the data collected from the students participating in the research, the arithmetic means, median, skewness and kurtosis coefficients, which are among the central tendency measurements, were taken as reference. It was determined that the distribution of the data obtained from the students came from a normal distribution since the median and mean values were close or equal to each other and the skewness and kurtosis values were within the limits of ±2 (George & Mallery, 2010).

Table 3. The MANOVA test was performed to examine the relationship between epistemological beliefs for learning and gender distribution

Scale	Sub-dimensions	Gender	n	x̄	Ss	sd	F	p
Epistemological Beliefs Scale for Learning	Access to information	Female	111	35.46	0.71	1-277	0.011	0.905
		Male	168	35.37	0.67			
	Against the genetic nature	Female	111	17.53	1.12	1-277	0.104	0.756
		Male	168	17.28	1.05			
	Epistemic contradiction	Female	111	14.11	0.91	1-277	0.165	0.694
		Male	168	14.27	0.82			
	Absolute and only reality	Female	111	11.51	1.06	1-277	1.047	0.308
		Male	168	17.28	1.00			

According to the MANOVA results, the main effect of gender on the sub-dimensions of epistemological beliefs about learning was not found significant [λ=0.99, F(4, 274)=0.52,

p>0.05]. These values show that the epistemological beliefs toward learning sub-dimension scores do not differ depending on gender.

Table 4. The MANOVA test was conducted to examine the relationship between epistemological beliefs about learning and the distribution of sports types

Scale	Sub-dimensions	Type of sport	n	x̄	Ss	sd	F	p
Epistemological Beliefs Scale for Learning	**Access to information**	**Individual**	**109**	**35.39**	**3.93**	**1-277**	**0.001**	**0.000***
		Team	**170**	**35.41**	**3.93**			
	Against the genetic nature	**Individual**	**109**	**17.50**	**2.92**	**1-277**	**0.061**	**0.000***
		Team	**170**	**17.30**	**2.88**			
	Epistemic contradiction	**Individual**	**109**	**14.59**	**3.65**	**1-277**	**2.302**	**0.008***
		Team	**170**	**13.96**	**3.49**			
	Absolute and only reality	**Individual**	**109**	**11.41**	**2.85**	**1-277**	**0.461**	**0.002***
		Team	**170**	**11.07**	**2.77**			

*=p<0.05

According to the MANOVA results, the main effect of the sport type on the dimensions of "epistemological beliefs" about learning was found to be significant [λ=0.99, F(4, 274)=0.829, p<0.05]. This result indicates the epistemological beliefs toward learning sub-dimension scores differ depending on the type of sport. According to ANOVA results test applied to specify which of the dependent variables made a contribution to the multivariate significance, "access to information" [F(1, 277)=0.001, p=0.000], "Against the Genetic Nature" [F(1, 277)= 0.061, p=0.000], "epistemic contradiction" [F(1, 277)=2.302, p=0.008] and "absolute and only reality" [F(1, 277)=0, 461, p=0.002] scores showed a change remarkably according to the type of sport (p<0.05). In the dimensions where the difference was determined, it was detected that the mean scores obtained from team sports in the "epistemic contradiction" dimension and from individual sports in other dimensions were high.

Table 5. ANOVA test to examine the relationship between epistemological beliefs about learning and department distribution

Scale	Department	n	x̄	ss	F	p	Difference
Access to information	Physical Education and Sports Teaching (1)	84	36.03	0.49	0.118	0.889	-
	Coaching Training (2)	97	35.43	0.53			
	Sports Management (3)	98	34.75	0.59			
Against the genetic nature	**Physical Education and Sports Teaching (1)**	**84**	**15.94**	**1.01**	**8.359**	**0.000***	**1-3**
	Coaching Training (2)	**97**	**17.73**	**1.14**			
	Sports Management (3)	**98**	**18.54**	**1,07**			
Epistemic contradiction	Physical Education and Sports Teaching (1)	84	14.11	0.78	1.005	0.367	-
	Coaching Training (2)	97	14.19	0.79			
	Sports Management (3)	98	14.32	0.83			
Absolute and only reality	**Physical Education and Sports Teaching (1)**	**84**	**10.15**	**0.99**	**11.002**	**0.000***	**1-3, 2-3**
	Coaching Training (2)	**97**	**11.26**	**1.02**			
	Sports Management (3)	**98**	**12.22**	**0.95**			

*=p<0.05

Considering the relationship between epistemological beliefs about learning and the department variable, no significant difference was detected in the sub-dimension of "access to information" (F=0.118, p=0.889) and "epistemic contradiction" sub-dimension (F=1.005, p=0.367). In the "Against the genetic nature" sub-dimension, a significant difference was found between Physical Education and Sports Teaching and Sports Management in favour of Sports Management (F=8.359, p=0.000). In the "absolute and only reality" sub-dimension, a significant difference was found between Physical Education and Sports Teaching and Sports Management in favour of Sports Management, and between Coaching education and Sports Management in favour of Sports Management (F=11.002, p=0.000).

Table 6. ANOVA test to investigate the connection between epistemological beliefs about learning and age distribution

Scale	Age	n	x̄	ss	F	p	Difference
Access to information	**17-19 (1)**	**39**	**31.26**	**0.93**	**11.113**	**0.000***	**1-2, 1-3, 2-3**
	20-22 (2)	**187**	**36.35**	**0.62**			
	23 and above (3)	**53**	**35.11**	**0.55**			
Against the genetic natüre	17-19 (1)	39	15.82	0.99	1.388	0.251	-
	20-22 (2)	187	18.37	1.09			
	23 and above (3)	53	15.06	1.05			
Epistemic contradiction	17-19 (1)	39	13.18	0.92	2.062	0.129	-
	20-22 (2)	187	14.44	0.85			
	23 and above (3)	53	14.15	0.79			
Absolute and only reality	17-19 (1)	39	11.20	0.93	0.100	0.990	-
	20-22 (2)	187	11.72	1.06			
	23 and above (3)	53	9.38	0.98			

*=p<0.05

Taking the relationship between epistemological beliefs about learning and age variable into consideration, there was not any significant difference in the sub-dimensions "Against the Genetic Nature" (F=1.388, p=0.251), "Epistemic contradiction" (F=2.062, p=0.129), "Absolute and single reality" (F=0.100, p=0.990). In the sub-dimension of "access to information", a meaningful difference on behalf of the age group of 20-22 was detected between the ages of 17-19 and 20-22; a meaningful difference on behalf of the 23 and older age group was detected between the age group of 17-19 and 23 and older; a meaningful difference on behalf of the 20-22 age group was detected between the age group of 20-22 and 23 and older (F=11.113, p=0.000).

Table 7. ANOVA test to examine the relationship between epistemological beliefs about learning and class distribution

Scale	Class	n	x̄	ss	F	p	Difference
Access to information	**1st (a)**	**57**	**33.37**	**0.58**	**4.541**	**0.004***	**a-d**
	2nd (b)	**111**	**35.65**	**0.56**			
	3rd (c)	**62**	**35.71**	**0.48**			
	4th (d)	**61**	**37.29**	**0.45**			
Against the genetic nature	**1st (a)**	**57**	**18.51**	**1.00**	**3.353**	**0.019***	**a-b, a-d**
	2nd (b)	**111**	**16.44**	**1.00**			
	3rd (c)	**62**	**18.21**	**1.11**			
	4th (d)	**61**	**17.19**	**1.27**			
Epistemic contradiction	**1st (a)**	**57**	**13.49**	**0.92**	**2.889**	**0.036***	**a-d**
	2nd (b)	**111**	**14.40**	**0.78**			
	3rd (c)	**62**	**14.11**	**0.77**			
	4th (d)	**61**	**14.73**	**0.73**			
Absolute and only reality	1st (a)	57	11.05	1.03	0.687	0.561	-
	2nd (b)	111	11.30	1.01			
	3rd (c)	62	10.98	1.01			
	4th (d)	61	14.44	1.02			

*=p<0.05

When the relationship between epistemological beliefs about learning and the class variable was examined, no meaningful difference was detected in the absolute and single reality sub-dimension (F=0.687, p=.561). Remarkable differences in the sub-dimension of "Access to Information", in favour of 4th graders (F=4.541, p=0.004) among 1st and 4th-grade students; in favour of 4th graders among 1st and 4th-grade students in "Epistemic Contradiction" sub-dimension (F= 2.889, p=0.036); in favour of 1st-grade students among 1st and 4th graders in the sub-dimension “Against the Genetic Nature”, likewise among 1st and 2nd-grade students (F=3.353, p=0.019) were found.

DISCUSSION

In this section, the differences and similarities between the results of the study and the studies in the related literature are discussed. Finally, the results obtained from the research are included.

In the current study, there was not any meaningful difference in gender variable, scale sub-dimensions (p>0.05). When the studies in the literature are examined, it is stated in the studies that the scores of females are higher than male ones in the total scale dimension (Kutluca et al., 2018; Buğdaycı, 2019; Taşkın, 2012; Alemdağ, 2015; Eren, 2006; Akyıldız, 2018; Murat, 2018; Aksan and Sözer, 2007; Ayaz, 2009; Aypay 2011; Biçer et al., 2013; Belet and Güven, 2011; Demirl et al., 2010; Enman and Lupart, 2000; Eroğlu and Güven, 2006; Özşaker et al., 2011). While these studies have revealed similar results to the current study, there are studies

in which Male participants have a higher mean score than female participants (Alemdağ, 2015; İçen, 2012).

When the findings of the epistemological belief dimensions towards learning according to the sport type variable were examined, a statistically significant difference was found between individual and team athletes in all dimensions. These findings show that team athletes have higher beliefs about accessing information than individual athletes. On the other hand, it can be said that the beliefs of individual athletes are higher in the sub-dimensions of epistemic contradiction and absolute and only reality against the genetic nature (Table 4).

When the findings were evaluated according to the variable of the department in which the students were educated, a statistically significant difference was observed in the absolute and only reality dimensions versus genetic nature, but no significant difference was found in the other dimensions (Table 5). Accordingly, against the genetic nature mean scores of the students of the sports management department were found to be higher than the students of the physical education and sports teaching department. In other words, it can be said that the students of the department of sports management have more belief that learning skills are fixed at birth, that intelligence is innate, whether it can be increased or not even if desired, and that learning ability is innate, compared to students of physical education and sports teaching department. Sports management as the absolute and only reality ıt was seen that the mean scores of the students of the department of physical education and sports teaching and coaching training were higher than the students of the department of physical education and coaching training. It can be said that sports management students do not discuss a truth they defend in this sense, and they give more importance to expert opinions. In addition, it can be said that they are trying to refute different views on a subject they claim because they believe more in the fact that there is only one truth. In the literature, no research findings were found in which these departments were compared; however, it was concluded in the research conducted on teacher candidates in different departments (primary school mathematics, classroom teaching, English teaching, pre-school teaching, Turkish teaching, gifted and psychological counseling and guidance teaching) that there was no significant difference between the epistemological beliefs about learning and the department type (Kutluca et al., 2018).

When the relationship between epistemological beliefs about learning and age variable is examined, a meaningful difference was detected in the sub-dimension of “Access to Information”, on behalf of the 20-22 age group between the ages of 17-19 and 20-22; in favour

of the age group of 23 and older between the age group of 17-19 and 23 and older; in favour of the 20-22 age group between the age group of 20-22 and 23 and older (Table 6). When we look at the studies examining the relationship between epistemological beliefs and age (Eroğlu and Güven, 2006; Önen, 2011; Schommer, 1998; Jehng et al., 1993; Bayrak et al., 2013), researchers have stated that there is a relation between epistemological beliefs and age. In these studies, it has been revealed that the age of individuals has an effect on the levels of epistemological beliefs, and it has been found that epistemological beliefs develop as individuals get older. Güngör (2017) stated in his study that Physical Education and Sports Teacher candidates between the ages of 20-22 have higher epistemological beliefs than other age groups. Buğdaycı (2019) stated that the age variable does not affect the epistemological beliefs of Physical Education and Sports Teacher candidates.

When the relationship between epistemological beliefs about learning and the class variable was examined, no meaningful difference was detected in the "Absolute and Single Reality" sub-dimension. In the sub-dimension of "Access to Information", a significant difference in favour of 4th grade was found among 1st- and 4th-grade students; a meaningful difference in favour of 4th graders was found between 1st and 4th graders in "Epistemic Contradiction" sub-dimension; a meaningful difference on behalf of 1st grade was detected among 1st- and 4th-grade students; a meaningful difference on behalf of 1st graders in the sub-dimension "Against the Genetic Nature" was found between 1st and 2nd-grade students. Similar to the current study, Kaya and Ekici (2017) stated that they found a significant difference between the class variable and epistemological beliefs. Schommer (1998) stated in his study that the epistemological development levels of the students in high school differ according to the class variable, and Schommer et al., (2005) shared the conclusion that students with higher intelligence and class have more developed epistemological beliefs. Similar to the current study, there are studies in the literature stating that there is a relationship between the class variable and epistemological beliefs (Buğdaycı, 2019; Karabulut and Ulucan, 2012; Erdamar and Alpan-Bangir, 2011; Deryakulu and Büyüköztürk, 2005). In addition, some studies reveal different results from the current research (Kutluca et al., 2018; Buğdaycı, 2019; Koç and Memduhoğlu, 2017).

CONCLUSION AND RECOMMENDATIONS

As a result of the findings obtained from the research, while the main effect of gender on epistemological beliefs towards learning was not significant, the main effect of sport type was found to be significant. Accordingly, it was determined that team athletes had higher means of

reaching information, while individual athletes had higher means of epistemic contradiction, absolute and only reality against genetic nature. On the other hand, according to the department variable, significant differences were determined in favor of the sports management department students in the sub-dimensions of absolute and single reality versus genetic nature. According to the age variable, it has been determined that the mean of accessing information in the 20-22 age range is higher than those in the 17-19 age range, and the mean of accessing information is higher for those aged 23 and over than those aged 17-19. Finally, it was concluded that the mean of reaching information of the 4th grade students is higher than the 1st grade students, and the mean of the 1st grade students against genetic nature and epistemic contradiction is higher than the 4th grade students.

This research was conducted on the students of physical education and sports teaching, coaching training and sports management departments at the faculty of sports sciences. For future research, the validity of the findings on this subject can be increased by including different departments or different schools, examining the relationships between them and revealing their similarities/differences. As a research method, it is among the suggestions of the research to conduct similar research with qualitative and/or mixed research methods.

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