Turkish Journal of Sport and Exercise /
Türk Spor ve Egzersiz Dergisi
http://dergipark.gov.tr/tsed
Year: 2024 - Volume: 26 – Issue 3- Pages: 337-350
10.15314/tsed.1487132

Turkish Journal of Sport and Exercise
Türk Spor ve Egzersiz Dergisi
ISSN: 2147-5652
https://dergipark.org.tr/tr/pub/tsed

Examination of Learned Helplessness and Problem Solving Skills Between Candidate Students Who Applied to the Faculty of Sport Sciences Talent Exam and Students Who Have Definite Registration

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** This study was created from the author's master's thesis.*

(Date Of Received): 20.05.2024 (Date of Acceptance): 16.09.2024 (Date of Publication): 31.12.2024
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Abstract

In this study, it was aimed to measure the learned helplessness and problem solving skills levels of the candidates who participated in the Selcuk University Faculty of Sport Sciences special talent exam. The study was conducted on a total of 1325 candidates, 317 females and 1008 males, who applied for the special talent exam, and 200 students who passed the exam. The problem solving skill scale, learned helplessness scale and personal information form were used in the study In addition, independent t-test and paired-sample t-test analyses were performed. According to the results of the research, we found that the problem solving skill levels of the individuals were high in the factors of attending a course, being an athlete and being accepted to the school. In addition, it was seen that the problem solving skills of the individuals who won the school were higher in the first test and the first measurements of the accepted girls. The learned helplessness levels of men and women who did not pass the exam were found to be higher than those who passed the exam. It can be stated that the mental endurance and problem solving skills of individuals who attend the pre-exam course and support these courses by doing sports will develop positively. It can be said that as problem solving skills increase, the level of learned helplessness will decrease.

Keywords: Learned Helplessness, Problem Solving Skills, Special Aptitude Test, Sport, Winning and Losing

Spor Bilimleri Fakültesi Yetenek Sınavına Başvuran Aday Öğrenciler ile Kesin Kayıt Hakkı Kazanmış Öğrenciler Arasındaki Öğrenilmiş Çaresizlik ve Problem Çözme Becerilerinin İncelenmesi

Özet

Bu çalışmada Selçuk Üniversitesi Spor Bilimleri Fakültesi özel yetenek sınavına katılan adayların öğrenilmiş çaresizlik ve problem çözme beceri düzeylerinin ölçülmesi amaçlanmıştır. Çalışma, özel yetenek sınavına başvuran 317 kadın ve 1008 erkek olmak üzere toplam 1325 aday ve sınavı geçen 200 öğrenci üzerinde yürütülmüştür. Araştırmada

problem çözme becerisi ölçeği, öğrenilmiş çaresizlik ölçeği ve kişisel bilgi formu kullanılmış, ayrıca bağımsız t-testi ve paired-sample t-testi analizleri yapılmıştır. Araştırma sonuçlarına göre, bireylerin problem çözme beceri düzeylerinin kursa gitme, sporcu olma ve okula kabul edilme faktörlerinde yüksek olduğu bulunmuştur. Ayrıca okulu kazanan bireylerin problem çözme becerilerinin ilk testte ve okula kabul edilen kızların ilk ölçümlerinde daha yüksek olduğu görülmüştür. Sınavı geçemeyen erkek ve kadınların öğrenilmiş çaresizlik düzeyleri sınavı geçenlere göre daha yüksek bulunmuştur. Sınav öncesi kursa katılan ve bu kursları spor yaparak destekleyen bireylerin zihinsel dayanıklılık ve problem çözme becerilerinin olumlu yönde gelişeceği ifade edilebilir. Problem çözme becerileri arttıkça öğrenilmiş çaresizlik düzeyinin azalacağı söylenebilir.

Anahtar Kelimeler: Kazanma ve kaybetme, öğrenilmiş çaresizlik, özel yetenek sınavı, problem çözme becerileri, spor

INTRODUCTION

People face many problems as well as basic needs such as food and shelter at every stage of life. Although the solutions to the problems sometimes occur naturally, it is often necessary to demonstrate problem solving skills in the face of problems (Kuru 2009). Problems vary according to the conditions, needs and expectations of the individuals. The emergence and development of the problems under different conditions reveals the need for people to adapt to these conditions and cope with these problems (Akyüz 2021). The fact that people are beings who can learn by nature enables them to develop physically, mentally and psychologically from birth, as well as to learn both positive and negative skills. The basic information learned can facilitate or complicate the next learning of the individual. People may face many negative emotional states such as stress, anxiety and learned helplessness as a result of their reactions to the problems they encounter in their lives (Duzgun et al. 2006). The complexity of the decision-making process in these situations can cause individuals to experience problems. One of the factors associated with the decision-making process is problem solving skills (Secer 2022).

Morgan (1995) defined the problem as "a conflict situation in which the individual encounters obstacles in the process of reaching his/her goal". Sagar (2022) defines it as difficulties arising from obstacles that an individual encounters while reaching a goal, causing physical and psychological difficulties.

On the other hand, Van De Walle (1989) defined it as a matter of research, discussion or reflection. Although the concept of problem solving has different meanings, it is a key process that enables individuals to demonstrate their abilities and skills at every stage. It may be possible for individuals to overcome the problems they face with some superstructive actions. Among these actions are the stages of combining new information, searching for new solutions, determining different strategies to reach a solution and applying, monitoring and evaluating the determined appropriate strategy. Individuals can use these stages more positive and successful against problems. (Hidiroglu 2018). Today, individuals need to have certain skills to be successful. These skills include using technology, sharing information, thinking logically and rationally, communicating with each other, researching and producing, respecting and owning human values and having problem solving skills (Soylemez 2002).

Problem solving skills is explained as “a multi-step process in which the problem solver must find the relationships between past experiences (schema) and the problem at hand and then act on a solution” (Mayer 1983). It is also defined as the effort put forth by the individual in the face of problems. Many people face problems and stress in their daily lives. The problems experienced take place according to the degree of importance in the lives of individuals. Events that pressure human psychology may inevitably affect individuals physically and psychologically and cause greater problems in the social life of the individual (Sagar 2022).

People may encounter many problems in their work, family and social life throughout their life. These problems appear as internal factors when the individual is caused by himself, and as external factors when caused by the individuals around him. People may experience failure by being affected by these situations and be exposed to psychological helplessness as a result of failure. The continuous repeat of this situation may result in learned helplessness. In the life-long process, individuals may enter into a state of psychological helplessness such as failure and sadness as a result of certain events. People should have the skills to deal with this situation. However, as a result of the recurrence of such psychological helplessness, there may be a sense

of helplessness in individuals. The concept of learned helplessness entered the literature for the first time by Maier and Seligman's research on dogs (Maier and Seligman 1976). However, it has been criticized by many because it is still a new concept and is insufficient to explain human behavior. In the ongoing process, the variety of studies on the concept of learned helplessness has increased, and as a result, the existence of its negative effects on people has been revealed. It has also emerged that negative emotional states experienced in the past can direct the future of the individual (Mermer 2022).

"Helplessness" is when nothing you choose to do affects what happens to you (Seligman 2007). In another definition, it is explained as "a condition which occurs when exposed to unavoidable, undesirable events and, with its adverse effects, prevents or delays learning in later situations where escape (or avoidance) is possible" (Kumbul 2006).

Learned helplessness is when an organism loses control after a negative situation that it cannot overcome and then remains unresponsive even in situations that it can control with the effect of this negativity (Norman 1988).

The sense of learned helplessness may cause the individual to realize that he cannot control the outcome of his behavior, and therefore to expect a failure or not show the necessary behaviors to succeed, although he can control the results in a similar event (Abramson et al. 1980).

The concept of learned helplessness is a psychological state of emotion that continues past childhood and affects the lives of individuals. At the end of this process, individuals may experience a loss of control in learned helplessness. As a result, they may be affected emotionally, cognitive and motivational. (Bilge and Poyraz 2021). Disturbance in the motivational area may appear as a decrease in voluntary behavior. Cognitive disorder can be defined as the difficulty in learning that a result can occur in the behavior. The fact that individuals have difficulty in evaluating the possible positive and negative consequences that may arise as a result of their behavior and cannot make the right decision between possible choices by controlling the result can create a blockage in their intellectual processes If individuals cannot control the events they encounter with their behaviors, their control mechanisms leave their place to a deep depression. If this situation becomes a long process, it is perceived as depression. This situation, which is also perceived as general depression, can be expressed as emotional disorder (Peterson and Seligman 1984a).

The sense of learned helplessness may not be innate, but the situations or events that cause learned helplessness arise through learning. In addition, learned helplessness draws attention as a process, and the individual's way of explaining events or the causal explanation process begins. As negative situations experienced later are perceived as out of control, an expectation may arise that the outcome of future behavior will not be controlled. At the end of the process, signs of learned helplessness such as sadness, decreased self-esteem, decreased appetite, cognitive impairment and anxiety may appear (Peterson and Seligman 1984b).

Excitement disorder also occurs in individuals affected by various aspects. Psychological disorders may also have an effect on individuals' learning and directly affect their athletic performances (Guven 2021).

One of the most determining factors for success is the way individuals perceive and assess the situation they are in. While one of the individuals who have experienced two similar events can achieve success, the other may despair as a result of failure (Mermer 2022).Therefore, individuals are exposed to permanent, involuntary and unresolved events. People must attribute their lack of control to their own inadequacies and thus create helpless cognitive bias. For example, an athlete may attribute the reason for her failure to the lack of a special talent for the branch of sports he is involved in. Since this situation is based on an unchanging feature of the athlete, it will be an internal situation and will repeat itself in the future. Another athlete may attribute the failure to an unfair outcome. This will be an external situation and will be unlikely to have an impact on future competitions (Peterson et al. 1993). The opposite of the concept of learned helplessness in the literature is the concept of learned resourcefulness. Learned resourcefulness is defined as keeping the events under control by increasing the motivation of the individual in unpleasent and frustrating situations, and staying psychologically strong in the social process by being aware of his/her own abilities and competencies. Developing individuals' learned resourcefulness and problem solving skills against learned helplessness will support them to develop effective solution methods for the obstacles they face throughout life (Guler and

Tasliyan 2021). For this reason, it is essential to develop these perspectives, especially in situations where winning and losing are experienced in competition.

While recruiting students in higher education institutions, selection and placement examinations are of great importance for students and institutions that conduct examinations. Making logical and correct decisions about the future for students allows them to receive education in accordance with both their success and abilities. For this reason, the main purpose of education to be given to individuals is to raise individuals who can think, solve problems in a short time, are skilled and have good behavior, cultural values and social environment relations (Guzeller and Kelecioglu 2006). Acting with this basic purpose, the Departments of Physical Education and Sports School and Sports Sciences Faculties are recruited through student selection exams and special talent exams. The main purpose of these exams is to distinguish between the students who are talented in sportive terms (Peker 2003). Students attend courses that provide sports training in order to improve their personal skills and abilities for the special talent exam. Thus, they can gain experience in preparation for the special talent exam. It is thought that the factor of taking a course for the exam before may affect the psychological state of the participants. In addition to this, it is very important to examine the psychological difference between the individuals who won and lost the Faculty of Sports Sciences, as well as the sportive success. In addition, the levels of learned helplessness and problem-solving skills of the individuals who won the school before and after they entered the school can also reveal the results of the psychological effect of success on individuals.

It can be said that the problem solving skills of individuals can be an important power in avoiding the feeling of learned helplessness in the problems encountered in daily life, difficult situations, intractable situations and repeated unsuccessful results. and also in the environment of increasing competition in sports. It is thought that a problem solving-oriented approach to life-long problems rather than helplessness is very important especially in terms of mental health. For this reason, the aim of the research is to examine the problem solving skills and learned helplessness levels of the individuals who took the special talent exam and to determine their relationship with the factors of gender, participation in the course, sportsmanship and winning.

METHOD

Research Model

Relational screening models are research models that aim to determine the existence or degree of change between two or more variables (Karasar 2019). Relational screening model was used in this study.

Research Group

The universe of this research, which compares the learned helplessness and problem solving skills of the students who took the special talent exam of the Faculty of Sports Sciences of Selcuk University, was formed by the students who took the special talent exam in schools related to Sports Sciences 2019-2020 exam period. The sample group consisted of 1325 (response rate %61) people who took the aptitude test at Selçuk University Faculty of Sports Sciences and 200 (response rate %57) students who passed this exam. Among the individuals participating in the research, there are 944 people between the ages of 17-20, 333 people between the ages of 21-24, and 48 people aged 25 and over.

Measures

The participants who came to the school to register for the special talent exam delivered the necessary documents for the exam. After the exam record was created, the participants answered the problem solving skills scale and the learned helplessness scale. The first measurements are complete. Then, the same scales were applied again to the individuals who passed the special talent exam and won the school. Thus, we made the first and last measurements of the participants who took the exam.

Analysis of Data

For the scales used in the research; missing values and outliers were examined. Analyzes were carried out with the participation of 1325 candidates. Parametric tests were applied because the obtained data showed normal distribution (±2) (George and Mallery 2010, Chapman 2018, Homer 2018). Significance was accepted

as p<0.05. The independent t-test was used to compare the differences between two independent groups, and the paired sample t-test was used to compare the pre-test and post-test groups.

Data Collection Tools

Problem Solving Skills Scale (PSSS): This scale, which was developed by Causey and Dubow (1992) in order to determine the problem solving levels of individuals in the face of problems, is in the 5-point Likert type. The scale consists of 2 sub-dimensions, approach (6 items) and avoidance (16 items), and 22 items. The average values (x) are calculated by collecting as a result of the answers given by the participants on the scale. For this study cronbach alpha internal coefficient was calculated for each sub-dimensions and total score. As avoidance .72, approach .88 and total Cronbach alpha .79.

Learned Helplessness Scale (LHS): The Learned Helplessness Scale (LHS), which was developed by Quinless and Nelson (1988) and whose validity and reliability were studied by Yavaş (2012), was applied. The scale, which was developed to determine the helplessness of individuals as a result of the problems they experienced, is in the 5-point Likert type. It consists of 2 sub-dimensions, internal controllability and external uncontrollability, and 21 items. As a result of original adopted study the validity and reliability analysis, the validity value was found to be 0.85 and the reliability coefficient Cronbach α: 0.80. The average values (x) are calculated by collecting as a result of the answers given by the participants on the scale. For this study cronbach alpha internal coefficient was calculated for each sub-dimensions and total score. As external uncontrollability .78, internal controllability.80 and total Cronbach alpha .74.

This research was approved by the ethics committee report of Selçuk University, Faculty of Sports Sciences, dated 07.10.2019 and numbered 70.

FINDINGS

First, the results of the analysis were given depending on the gender, previous course and athletic factors of the individuals. Then, the results of the analysis were compared depending on the winning factor of the individuals.

Table 1. Average Scores in Problem Solving Skills and Learned Helplessness Related to Gender Factor

		Gender	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Female	317	2,34	0,72	-0,67	0,50
		Male	1008	2,37	0,75		
	Approach	Female	317	3,81	0,58	0,58	0,55
		Male	1008	3,79	0,62		
	Total	Female	317	3,41	0,44	0,26	0,80
		Male	1008	3,40	0,45		
Learned Helplessness (LHS)	Internal Controllability	Female	317	3,68	0,53	0,81	0,41
		Male	1008	3,65	0,54		
	External Uncontrollability	Female	317	3,79	0,67	0,36	0,71
		Male	1008	3,77	0,71		
	Total	Female	317	3,57	0,43	0,47	0,63
		Male	1008	3,56	0,46		

The problem solving skills and learned helplessness scores of the participants were examined according to the gender variable. According to the results of independent groups t-test analysis, involving problem solving skills avoidance and approach sub-dimensions and total scale scores, it was determined that there was no statistically significant difference in learned helplessness internal controllability and external uncontrollability sub-dimensions and total scale scores according to the gender variable (p> 0.05).

Table 2. Average Scores in Problem Solving Skills and Learned Helplessness Related to Previous Course Taking Factor

		Taking a course	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Yes	786	2,34	0,74	-0,80	0,43
		No	539	2,38	0,74		
	Approach	Yes	786	3,86	0,58	4,53	**0,01***
		No	539	3,70	0,64		
	Total	Yes	786	3,44	0,44	4,13	**0,01***
		No	539	3,34	0,46		
Learned Helplessness (LHS)	Internal Controllability	Yes	786	3,67	0,53	0,81	0,42
		No	539	3,65	0,56		
	External Uncontrollability	Yes	786	3,80	0,69	1,25	0,22
		No	539	3,75	0,73		
	Total	Yes	786	3,57	0,45	0,75	0,45
		No	539	3,55	0,45		

** difference between measurements (p<0.05).*

When Table 2. is examined, there was no significant difference in the problem solving skills avoidance sub-dimension depending on the factor of taking a course before, and in the learned helplessness scores due to the factor of taking a course before (p> 0.05); There was a statistically significant difference in problem solving skills in the approach sub-dimension and the overall total scores of the scale (p<0.05).

Table 3. Average Scores in Problem Solving Skills and Learned Helplessness Related to Participation in Sports

		Sportsmanship	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Athlete	902	2,38	0,76	1,36	0,16
		Non athlete	423	2,31	0,70		
	Approach	Athlete	902	3,81	0,60	1,56	0,11
		Non athlete	423	3,75	0,62		
	Total	Athlete	902	3,42	0,44	2,15	**0,03***
		Non athlete	423	3,36	0,46		
Learned Helplessness (LHS)	Internal Controllability	Athlete	902	3,68	0,53	1,78	0,07
		Non athlete	423	3,62	0,57		
	External Uncontrollability	Athlete	902	3,79	0,72	1,10	0,26
		Non athlete	423	3,75	0,66		
	Total	Athlete	902	3,58	0,46	2,04	**0,04***
		Non athlete	423	3,52	0,43		

** difference between measurements (p<0.05).*

Looking at the Table 3 data, there is no significant difference in avoidance and approach sub-dimensions (p> 0.05); There was variation in the overall total results of the scale (p< 0.05). It was noted that the learned helplessness scores of the participants who were athletes were higher than those who were not athletes (p<0.05).

Table 4. Average Scores in Problem Solving Skills and Learned Helplessness Related to Winning Factor

		Winning	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Pass	216	2,46	0,73	2,28	**0,02***
		Not Pass	1109	2,34	0,74		
	Approach	Pass	216	3,74	0,58	-1,44	0,14
		Not Pass	1109	3,80	0,62		
	Total	Pass	216	3,39	0,44	-0,38	0,70
		Not Pass	1109	3,40	0,46		
Learned Helplessness (LHS)	Internal Controllability	Pass	216	3,59	0,55	-1,98	**0,04***
		Not Pass	1109	3,67	0,54		
	External Uncontrollability	Pass	216	3,61	0,74	-3,71	**0,01***
		Not Pass	1109	3,81	0,69		
	Total	Pass	216	3,46	0,46	-3,48	**0,01***
		Not Pass	1109	3,58	0,45		

** difference between measurements (p<0.05).*

In Table 4., there is no statistically significant difference in the approach sub-dimension of problem solving skills related to the winning factor and in the general total results (p> 0.05); There was a significant difference in the avoidance sub-dimension (p< 0.05). When the learned helplessness sub-dimensions and grand total results related to the winning factor were examined, a statistically significant difference was found in the internal controllability and external uncontrollability sub-dimensions and grand total results (p< 0.05).

Table 5. Results of First and Last Measurements of Problem Solving Skills and Learned Helplessness of Exam Winners

		First and Final Test	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Problem Solving First	200	2,48	0,74	0,81	0,42
		Problem Solving Final	200	2,43	0,72		
	Approach	Problem Solving First	200	3,75	0,59	3,55	**0,01***
		Problem Solving Final	200	3,58	0,63		
	Total	Problem Solving First	200	3,40	0,44	3,75	**0,01***
		Problem Solving Final	200	3,26	0,45		
Learned Helplessness (LHS)	Internal Controllability	Learned Helplessness First	200	3,59	0,56	-1,45	0,15
		Learned Helplessness Final	200	3,66	0,48		
	External Uncontrollability	Learned Helplessness First	200	3,62	0,73	-0,71	0,48
		Learned Helplessness Final	200	3,66	0,65		
	Total	Learned Helplessness First	200	3,46	0,47	-0,33	0,74
		Learned Helplessness Final	200	3,48	0,41		

** difference between measurements (p<0.05).*

In Table 5, it was seen that there was no significant difference in the problem solving skills avoidance sub-dimension (p> 0.05); A statistically significant difference was found in the approach sub-dimension and the grand total results (p<0.05). While it was observed that the participants problem solving skills in the general results were higher than the last measurement values (p<0.05), no difference was found in the learned helplessness scores (p> 0.05).

Table 6. Problem Solving Skills and Learned Helplessness Values of Winning Women Compared to Losers

		Women Who Take the Exam	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Winner Women	89	2,54	0,71	3,23	**0,01***
		Loser Women	228	2,25	0,70		
	Approach	Winner Women	89	3,73	0,59	-1,63	0,16
		Loser Women	228	3,84	0,58		
	Total	Winner Women	89	3,40	0,46	-0,12	0,90
		Loser Women	228	3,41	0,44		
Learned Helplessness (LHS)	Internal Controllability	Winner Women	89	3,66	0,55	-0,43	0,67
		Loser Women	228	3,69	0,53		
	External Uncontrollability	Winner Women	89	3,67	0,67	-1,98	**0,05***
		Loser Women	228	3,83	0,67		
	Total	Winner Women	89	3,51	0,44	-1,46	0,15
		Loser Women	228	3,59	0,43		

** difference between measurements (p<0.05).*

Statistically significant differences were found in the problem solving skills avoidance sub-dimension scores in Table 6, which shows the values of the problem solving skills of the women who won compared to the women who lost (p< 0.05). The women who passed the exam showed significant differences in the avoidance dimension compared to the women who did not. On the other hand, a significant difference was found in the learned helplessness external uncontrollability sub-dimension, and it was observed that the mean scores of women who lost were higher (p<0.05).

Table 7. Problem Solving Skills and Learned Helplessness Values of Winning Men Compared to Losers

		Men Who Take the Exam	n	x	Sd	t	*p*
Problem Solving Skills (PSSS)	Avoidance	Winner Men	127	2,41	0,73	0,70	0,48
		Loser Men	881	2,36	0,75		
	Approach	Winner Men	127	3,75	0,58	-0,83	0,41
		Loser Men	881	3,79	0,63		
	Total	Winner Men	127	3,38	0,42	-0,48	0,63
		Loser Men	881	3,40	0,46		
Learned Helplessness (LHS)	Internal Controllability	Winner Men	127	3,54	0,56	-2,43	**0,02***
		Loser Men	881	3,67	0,54		
	External Uncontrollability	Winner Men	127	3,56	0,78	-3,55	**0,01***
		Loser Men	881	3,80	0,70		
	Total	Winner Men	127	3,43	0,48	-3,45	**0,01***
		Loser Men	881	3,58	0,45		

** difference between measurements (p<0.05).*

In Table 7, no significant difference was found in the sub-dimensions of problem solving skills, avoidance, approach and general average scores of the scale (p> 0.05). It was observed that there were differences between the learned helplessness scores of the men who passed the exam and those who did not, and the scores of the men who lost in the internal controllability sub-dimension were found to be higher than the men who won the exam (p< 0.05). In the external uncontrollability sub-dimension and overall overall results, it is concluded that the learned helplessness levels of the losers are higher (p< 0.05). In general, it is seen that the win factor causes individuals to differ with each other in the dimension of learned helplessness, and it is seen that the factors of winning and losing can affect the levels of learned helplessness in individuals. The higher level of learned helplessness of the individuals who lost reveals the possibility that these individuals have experienced previous failures that may cause them to experience the feeling of learned helplessness.

DISCUSSION AND CONCLUSION

This study was carried out to determine whether the problem solving skills and learned helplessness of the candidates who took the special talent exam at Selçuk University Faculty of Sports Sciences differ significantly according to the variables of gender, taking a course before, sportsmanship, winning and losing. This study is the first to examine problem solving skills and learned helplessness in special talent exams.

According to the results of the research, we did not detect a statistically significant difference in the gender factor in Table 1.

In the study of Aydin and Pancar (2021) examined the effect of boxers' self-confidence on their problem solving skills. When the findings were examined, it was determined that the problem solving skills of the individuals did not differ according to gender factor. In a study examining the problem solving skills of individuals, while there was no significant difference in the overall total results of problem solving skills, a significant difference was found in favor of females in the self-control dimension (Akyuz and Hardalac 2021).

On the other hand, Elioz et al. (2013) did not find a significant difference in the gender factor in their study examining the learned helplessness levels of individuals. Barutcu and Collu (2020) found that participants' levels of learned helplessness did not differ significantly according to gender. Bilge and Poyraz (2021) examined the learned helplessness levels of individuals in their study and did not find a significant difference in the gender factor.

The absence of a difference in the gender factor may not indicate that men and women do not have problem solving skills. Responsibilities in social life, business life and family life can bring people face to face with many problems. Therefore, each individual's ability to solve problems can positively affect their own life. Rapid interventions in emergencies or crisis situations can prevent bigger problems. Problem solving skills can enable people to have a chance to try again even in case of failure.

In the study, we found that the problem solving levels of individuals who took exam-oriented courses were high (Table 2). According to these findings, it can be said that students' problem solving skills are affected by taking a course before, and those who take courses can be more solution-oriented towards problems. In the study conducted by Ozen and Celebi (2006) about previous experiences, it was found that mountaineering training did not have a significant effect on the problem solving skill perception level of the participants in terms of gender, extreme sports experience and rock climbing experience. It was determined that the only participants with rock climbing experience have a better perception of problem solving skills than the participants without such experience. It can be said that taking practical training before affects problem solving skills. In the study conducted on the problem solving skills of school administrators depending on the factor of taking a course or educational seminar before, it was determined that the problem solving skills of individuals who attend courses or seminars more differ significantly from those who attend less (Kocak 2010). Accordingly, it can be said that previous education has positive effects on problem solving skills. In their study on high school students, Yildiz and Eksisu (2011) found statistically significant differences in favor of the trainees between the students who participated in the training aimed at improving their problem solving skills and those who did not receive any problem solving skills training. It can be said that individuals who receive education have a more positive approach to problems.

We found that taking an exam-oriented course had no effect on learned helplessness. According to the research findings on learned helplessness of 5th grade students, a significant difference was found between the individuals who received additional support and those who did not. When these results were examined, it was determined that individuals who receive support such as extra courses and private tuitions have lower levels of learned helplessness than individuals who do not receive any support (Dilci and Mermer 2013). When the results were examined, it is thought that the individuals who took preparation courses before the exam had more advanced problem solving skills than the individuals who had no previous experience, and therefore they may be more successful in coping with learned helplessness.

When the effect of the sportsmanship factor on problem solving skills was examined, a statistically significant difference we found in the overall total results of athletes compared to non-athletes (Table 3). Akandere et al. (2005), who examined the problem solving skills of individuals who do and do not do sports,

did not find a significant difference between female students who do sports and those who do not do sports. When the analysis results of the male and female students who do not do sports were examined, it was seen that the problem solving skills scores of the female students who do not do sports are higher than those of the male students who do not do sports. In addition, there was no significant difference between males who do sports and those who do not.

Senduran and Amman (Senduran and Amman 2006), in their study examining the problem solving approaches of secondary school students, both athletes and non-athletes, determined that athletes use a planned and self-confident approach to problems more than non-athletes. There was no significant difference between the students in terms of hasty, avoidant, evaluative and reasoning approaches, which are other problem solving approaches. It was determined that students who are athletes use their problem solving skills more frequently and effectively than non-athletes. In another study on university students, problem solving skills were examined in terms of various variables. Considering the results of the study, significant differences were found in favor of the students who continue their sports activities in terms of reasoning, avoidant, evaluative, self-confident and planned approaches (Tekin et al. 2007). Turkcapar (2009) found that there was no significant relationship between the problem solving skills of the students in the Physical Education department and the types of activities they preferred in their spare time. In a study examining the problem solving skills of individuals who do sports and those who do not do sports have license in secondary education, problem solving skills of students who do sports have license were found to be higher than students who do not do sports (Mirzeoglu et al. 2010). Aydin and Pancar (2021) examined the sports experience variable of boxers in their study. When the results were examined, it was determined that mean values in the confidence factor of problem solving skill of individuals who have been doing sports for 3 years or less compared to individuals who have been doing sports for 4-8 years are higher and show a significant difference. When the findings obtained from a study examining the problem solving skills of secondary school students who do and do not do sports were examined, mean values of the individuals who do sports differ significantly in favor of those who do sports compared to those who do not (Yilmaz 2020).

Akpinar and Akpinar (2017) in their study examining the problem solving skills of individuals according to whether they do sports or not, it was determined that the mean score of hasty and avoidant approach, which is one of the problem solving skills sub-dimensions, of the students who do not actively do sports is higher than the students who actively do sports. In addition, it is seen that the scores of reasoning, evaluative and planned approach, among the problem solving skills sub-dimensions, of the students who actively do sports are higher than the students who do not actively do sports. In general, it can be said that individuals who do sports have high self-confidence and are more successful in the face of problems.

In our study, we found that the problem solving skills of the athletes were high, but the levels of learned helplessness were also high (Table 3). It can be said that the level of learned helplessness of individuals who are athletes may be higher than those who are not athletes due to situations such as not being able to win often in his/her sports branch or not being able to cope with a problem.

Elioz et al. (2013), examining the effect of doing sports on students' learned helplessness levels, did not find a significant difference between the learned helplessness levels of students who do and do not do sports. In a study conducted to predict the learned helplessness levels of adolescents, a positive relationship was found between the learned helplessness scores of adolescents and the factor of doing sports (Buyuksahin 2015).

The state of being unmotivated is similar to the concept of learned helplessness. The conclusion to be drawn from this is that individuals who are not properly motivated may not perceive the situation between their actions and the consequences resulting from these actions. They may see themselves as inadequate and have difficulty controlling themselves. As a result of not being motivated internally or externally, they may not find a reason to motivate themselves to continue their activities. At the end of all these events, they may stop doing their activities. Based on this situation, in a study conducted on individuals competing in university teams, it was determined that the motivating reasons for students to participate in sports were the highest in the sub-dimension of movement/staying active (Yildirim 2017). In the study of Tekin and Sanioglu (2004), in which they examined the success factors of individuals who passed the special talent exam, the effect of motivation on success was determined as 75%. On the other hand, the effect of stress in case of failure was

determined as 70%. According to the data obtained from the findings, it can be said that motivation and the development of problem solving skills can be effective against stress and failure. It was pointed out that the problem solving skills of individuals can be improved with regular and systematic physical activities. With this aspect, it is thought that the social, psychological and physiological effects of sports on people, its integrating and empowering characteristics and its positive aspects that push the person to struggle instead of running away may also have successful effects on the phenomenon of learned helplessness.

Çavuşoğlu based learned helplessness on two basic principles. First, individuals become depressed when they realize that they have lost control over the factors that affect their lives (such as rewards and punishments). Secondly, are they responsible for this state of helplessness? (Cavusoglu 2007).

It turns out that the organism, which cannot control the result with its behaviors, initially remained inactive, became passive (passive) as the trials progressed, and later on, the situation became a complete "desperation" in terms of the "behavior-result" relationship.

This theory supports that learned helplessness may have internal or external causes. In our study, we found that those who lost the exam had higher levels of learned helplessness. In other words, the learned helplessness levels of individuals who could not get accepted can be explained by the fact that they have tried to pass the special talent exams of different schools and failed to achieve success.

Schotte and Clum (1987) revealed that individuals with low problem solving skills and negative life stress are more hopeless than individuals with effective problem solving skills. In some studies in the literature, it has been seen that the concept of hopelessness is in close relationship with the concept of learned helplessness. Therefore, it can be said that there is an inverse relationship between the problem solving skills and the level of learned helplessness in individuals.

On the other hand, Kul et al. (2014) examined the multiple intelligence types of the candidates who received the right to enroll in the exams of school of physical education and sports and the candidates who did not. In the analysis results, statistically significant differences were observed in favor of the individuals who passed the exam in the dimensions of verbal-linguistic intelligence, logical-mathematical intelligence, musical-rhythmic intelligence, bodily-kinesthetic intelligence, and social-interpersonal intelligence. From this point of view, it can be said that talented individuals can be developed and talented in many mental areas, not in a single mental area, and that other intelligence areas can also develop directly and make a difference compared to other individuals. Hence, a study conducted on individuals who took the special talent exam revealed that physical intelligence is mostly developed in students at physical education and sports schools (Bayrak et al. 2005, Hosgorur and Katranci 2007).

As a result of our research, the problem solving skills levels of the students admitted to the school showed a significant decrease in the second results (Table 5). It can be assumed that the reason for this decrease in problem solving skill scores is that they have passed the exam, succeeded and reached their goals.

As a result of study conducted in the form of pre-test and post-test on problem solving skills, it was determined that post-test mean scores of the students in the experimental and control groups were significantly higher than the pre-test mean scores (Turhan 2011). In a study conducted by Ciftci (2006) according to the pre-test and post-test results of individuals' problem solving skills, he concluded that there were no significant differences between students' problem solving skills.

When the first and last values of the learned helplessness levels of the individuals who passed the exam were examined, no significant difference was found in the learned helplessness values of the individuals before and after they got accepted into the school.

In the comparison made between the females who passed the exam and the women who did not, it was concluded that the learned helplessness levels of the females who did not pass the exam were higher.

In a study examining the measurement results of female students who took the sports high school special talent exam according to the variable of passing and failing the exam, statistically significant differences were found between the sportive background, talent and placement scores in favor of the students who passed the exam [56].

On the other hand, Oztürk and İnce (Ozturk and Ince 1993), who examined the analysis results of male students who passed and failed the special talent test, found statistically significant results in favor of the winners in the hand grip strength, leg strength, vertical jump, flexibility, 30 meter sprint, coordination and skill run, and 20 meter shuttle run tests. Agaoglu et al. (2009) found that there was a statistically significant difference in age, height, body weight and Q index factors between males who won and lost the 1500-meter run. Kayapinar et al. (2017) found statistically significant differences in favor of the winning students between the coordination track, 30-meter sprint, standing long jump, sportive background, talent and placement scores of the winning and losing male students.

As a result of the research; When the average values obtained from the research scales of those who participated in the course before, those who did sports and the individuals who won, were examined, it was determined that their problem solving skills were at a high level. It can be said that individuals with high problem solving skills have low levels of learned helplessness and that as their problem solving skills increase, the sense of learned helplessness will decrease. At the same time, it is thought that the research has both theoretical and practical contributions. First of all, the main theoretical contribution of the research is that it has a positive effect in line with the opinions of individuals who are educated, engaged in sports and winning as of today. Its practical contribution is that the psychological health of individuals preparing for special talent exams will be positively affected. In other words, attending the course and doing sports before can be the key to success. There are no studies examining the problem solving skills and learned helplessness of individuals who participated in special talent tests in the available resources. For this reason, it is thought that the relevant results of this research will contribute to the athletes engaged in activities for the exam. In addition, problem solving skills are a very important gain in overcoming the problems that people may encounter in their lives. Learned helplessness is an emotion that makes people psychologically believe in failure. People can be physically and psychologically more vigorous by doing sports. It is also possible for people who experience failure to be individuals who do sports. However, the physical and psychological benefits of doing sports should not be forgotten. It is also very important for each individual to have a goal and to be able to cope with the obstacles on the way to the goal. Behind every success is effort. It can be said that successful individuals also have the characteristics of coping with problems. Developing problem solving skills against negative emotional states such as learned helplessness can be a very important behavior.

Finally, the fact that the research was conducted only in sports science faculties can be considered as a limitation of the research. It is expected that studies with larger sample groups such as faculties of fine arts and conservatories will contribute to the relevant literature.

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