

Evaluation of the Mental Ability of the Student Athletes and Examining their Emotional Intelligence Levels

Murat SARIKABAK¹

¹Asst. Prof., Bartın University, Faculty of Sport Sciences, Bartın, Turkey,
murat_sarikabak@hotmail.com

Abstract: This study examines the mental abilities of the student athletes and examining their emotional intelligence levels. The sample comprised 213 student athletes studying in the Bartın University. The data was collected with the Ottawa Mental Skills Assessment Tool (OMSAT-3[®]), Schuette emotional intelligence scale and personal data form. In conclusion, a significant difference was found in favor of the males in the stress reactions variable according to the gender ($p < 0.05$). It was also showed that there was a statistically significant difference in the goal setting, commitment, imagery, mental practice, and self-confidence sub-dimensions of mental skills assessment tool for monthly income level of the participants ($p < 0.05$) but no statistical significance was found according to the gender between the total scores and sub-dimensions of emotional intelligence ($p > 0.05$). Additionally, a significant high correlation was reached between the monthly income level with the sub-dimensions of emotional intelligence and total scores, and between the mental skills assessment sub-dimension of the emotional intelligence and total scores ($p < 0.05$). Lastly, when the mental skills assessment tool increase, the emotional intelligence score averages of the student athletes also increase.

Keywords: *Emotional intelligence; Mental ability; Sports Training.*

How to cite: Sarikabak, M. (2020). Evaluation of the Mental Ability of the Student Athletes and Examining their Emotional Intelligence Levels. *Revista Romaneasca pentru Educatie Multidimensionala*, 12(1), 01-19. doi:10.18662/rrem/196

1. Introduction

Student athletes are likely to serve as trainer and practitioner in the field of sports after they are graduated. The students, graduated with the title of teacher or trainer, should know their athletes to bring their performances to the top level. While raising the performance of the athletes, it should not be forgotten that they are not just an entity with physical and physiological characteristics, but also a living thing containing cultural, sociological and psychological characteristics (Altıntaş & Akalın, 2008). There is a relation between the conditions in which the athlete mentally and emotionally is and their performance in the sport environment (Altıntaş & Akalın, 2008). According to Altıntaş & Akalan, there is a connection between the mental and emotional status of the athlete and their performance in the sports environment. When the literature was examined, it was possible to see that many studies have reached similar results (Erhan *et al.*, 2015; Cowden, 2016; Gucciardi *et al.*, 2015; McGeown *et al.*, 2016).

The researches stated that the reasons of the success in sports were caused by mainly motor features. The studies conducted today take the focus of the researches to another point and indicate that mental factors and emotional status have an important place in the performance (Erhan *et al.*, 2015). Mental workout studies were started to be researched in 1950s. These studies were approached primarily by the Soviet Union and East Germany. The mental workout methods applied by Germany assisted that the athletes brought their performances to the top levels and they pushed Germany over the top (Aktepe, 2006). Dr. Maxwell Maltz recorded a very important stage as a result of the various researches (Biçer, 2007). Mind cannot sense the difference between a real experience and an internal experience, imagined and visualized very well. Consequently, he wanted to state the physiological effects of a mental training by saying that sometimes we can sense an experience lived and an experience visualized as if it is real in the same way. Biçer said that these two experiences affect the central nervous system at the same level. Psychologist Bernie Zilbergeld and Arnold Lazarus also say that they obtained results similar to the results achieved by Dr. Maxwell Matlz (Aktepe, 2006; Zilbergeld, Lazarus & Pollock, 1989; Lazarus, 2017).

Erhan *et al.* (2015) say that it is possible to train the motions of ability and skill while they say that the mental training notion emerged after visualizing these movements trained in the mind and embedding them in the subconscious. Koruç defined the mental training as visualizing in mind the motions thought to be performed against positive and negative situations

encountered during the competition or before the competition (Koruç & Bayar, 1990; Connolly & Williamon, 2004). Mental training, calmness, confidence, focus, along with concepts for athletes are providing for maximum efficiency. With the mental training, athletes can thus become their own coaches (Selk, 2008).

Under the light of these definitions made, we can see that at the foundation of mental training are the effect of the social relations and environmental factors together with our inborn characteristics. In order to develop a skill, different motion combinations may be required. Embedding these motion combinations to the subconscious by using them correctly may affect the effectiveness of the motion. We can define visualizing in mind these movements, the most correct and technical properties of which are embedded into the subconscious as the mental training.

Anshel (1990) stated in his research that in addition to the mental training and strength, emotional intelligence can also have positive effects on the performance. Erhan et al. (2015) revealed that training done mentally brings different loads to the athletes and it may positively affect the ability to use the emotions. It can be said that the relationship between the mental training and emotional bond can be related with the emotions felt when applying the mental movement. The place of the emotional status in the performance was tried to be determined with the emotional intelligence studies.

We see the researches done in parts of the emotional intelligence with the start of understanding its effect on the emotional status and performance. It is seen that these researches are continued with an increasing application frequency in many diverse science fields such as sports (Sarıkabak, 2018), health (Nightingale et al., 2018), education (Keefer et al., 2018), engineering (Kumar et al., 2019), tourism (Tsaur & Ku, 2019) etc. The emotional intelligence notion was started to be known for the first time with a research done by Salovey and Mayer (2019) and with the book by Goleman (1996). It turned into a field known by wider masses and on which researches were made.

In order to describe the emotional intelligence, if the researches done on this topic are reviewed, it is seen that each researcher tries to describe the emotional intelligence by taking their findings as the basis in order to make it more descriptive.

Even though the researchers, when describing the emotional intelligence notion, state their findings and theories, and mention common points. Bar-on (2005) defined the emotional intelligence as to refer ourselves and others efficiently, to have a bond with our feelings, managing them,

motivating ourselves, and overcoming the unwanted situations. Sarıkabak et al. (2018) also defined the emotional intelligence as the index of personal, emotional and social competence and ability for successfully dealing with the pressures and requests coming from the sphere of the person. When evaluating the emotional intelligence notion in the sport researches, stated that emotional intelligence may have an important effect for the sportive success and defined the capability of the individual to comprehend his/her senses, to maintain empathy for the feelings of others and to organize the feelings in a way enriching the life as the emotional intelligence.

Sports can be defined as correctly analyzing himself physiologically and psychologically, knowing the competitor and branch by understanding all properties it requires and professionally managing these processes. Mental training is an important tool for the sport psychology for the mental, emotional and behavioral development of the athletes, and for solving the problems emerged in this development (Loehr, 1995). Our feelings are actual the stimulations enabling that we come into action. There may be important connections between emotional intelligence and mental abilities. Student athletes may use the knowledge they learn through the experiences and achievements when they obtained with the title of teacher or trainer after they are graduated. The student athletes need the contribution of the emotional and cognitive experiences both during the active sport lives and as an educator in order to accomplish the success.

Researches try to describe the relationship of the brain and emotional cognitive features with the experience (Ling et al., 2019; Brizendine, 2006). It encounters us as an important finding that (Ling et al., 2019) whether the emotional and cognitive structures of the brain establish a bond or not, and they found that the related parts of the brain were managed together according to his research. Along with the research, it may support the ability and skill achievement that the related parts of the brain runs more with the increase in the experiences lived in time, Brizendine (2006), in the book he wrote on the relationship of the gender difference and brain, emphasized the importance of the emotions and experiences gained in time. It is possible that we may face his claim that the emotional development of a child, with a mother having botox, not observing the emotions because of the loss of gestures and mimics, may be negatively affected, as an important output with respect that it describes the bond of the behavior with the feelings and relationship of experience and intelligence. It can be thought that the physiologic processes, affected by the emotions we feel, are an important factor in using the mental abilities.

Consequently, it can be said that this research goal settings to evaluate the mental abilities of the student athletes, who are always in sports with the goal of reaching high performance, and to research the emotional intelligent levels, considered as providing contribution to their performance.

2. Material and Method

2.1. Subjects

Research model: The study was applied using the relational scanning model. The model measures the relationship between two or more variables assessed with no mediating these variables under no circumstances (Büyükoztürk et al., 2017).

Research group: the research group consists of 213 individuals, selected simple random method between the students having education in the Bartın University, in 2019.

2.2. Procedure

2.2.1. Data collection

There were questions to determine gender, age, sport age, monthly income level, and family income level of the students in the personal information form, issued by the researcher.

Ottawa Mental Skills Assessment Tool (OMSAT-3) The tool is a self-assessment tool designed by Durand-Bush, Salmela & Gree-Demers (2007) to evaluate the athlete mental skills. For translating the tool into Turkish, Erhan et al., (2015) contributed. This tool developed for the athletes consists of 48 articles, 12 sub-dimensions and each sub-dimension with 4 articles. The tool, consisting of 48 items in total, has the 7 Likert type scale structure. Scaling was done between 1 and 7 according to the terms “I absolutely disagree”, “I disagree a little”, “I am indecisive”, “I agree”, and “I absolutely agree”. Twelve sub-dimensions consisted of goal setting, self-confidence, commitment, stress reactions, fear control, relaxation, activation, focusing, refocusing, imagery, mental practice, and competition plan. The Cronbach Alpha values of the tool were calculated, and it was .94. The Cronbach Alpha coefficient related with: the goal setting sub-dimension is .67, self-confidence sub-dimension is .69, commitment sub-dimension is .69, stress reactions sub-dimension is .68, fear control sub-dimension is .55, relaxation sub-dimension is .70, activation sub-dimension is .67, focusing sub-dimension is .74, refocusing sub-dimension is .81, imagination sub-

dimension is .56, mental practice in the mind sub-dimension is .72, competition plan sub-dimension is .75 (Erhan et al., 2015).

Schutte emotional intelligence scale: measures the emotional intelligence established by Schutte et.al (1998), modified by Austin et al. (2004), revised to Turkish by Tatar et al. (2011). The items in the tool have 5 Likert type scale structure. The scale contains following sub-dimensions “organizing optimism mood”, “using feelings” and “evaluating feelings”. The Cronbach Alpha reliability coefficient was found as .85 in the reliability analysis.

2.3. Data Analysis

The data analyze was done with the SPSS 25 package software. For analyzing the data, descriptive statistics, independent sampling t-test, Pearson correlation analysis and ANOVA were used.

3. Results

Table 1. *Descriptive statistics belonging to the variables*

	N	%	Min.	Max.	Average	Std. Dev.
Age	213	100	18	26	19,92	1,538
Sport age	213	100	1	15	5,59	3,553
Monthly income	213	100	200	4000TL	759TL	549TL
Gender						
Male	144	67,6	-	-	-	-
Female	69	32,4	-	-	-	-

In the Table 1, the frequency and percentage distribution of the participants, depending on gender variable, were given. Of the 213 participants in total, 144 were male while 69 were female. Considering the descriptive statistics results based on age of the participants variable, it was seen that 213 participants were minimum 18, maximum 26, and their average age was 19.92. It could also be seen that the 213 participants in total continued sports for minimum 1 year and maximum 15 years. The average sporting age was 5.59. The monthly income levels of the participants was minimum 200, maximum 4000 TL and the average income was 759 TL.

Table 2. *Comparison of the mental skill assessment sub-dimensions based on gender variables*

Variables	Gender	N	Mean	Std. Deviation	t	sd	p																																																																																																																																
Goal setting	Female	69	5,3152	,91621	-1,354	211	,177																																																																																																																																
	Male	144	5,5260	1,12688				Self-confidence	Female	69	5,7645	,96814	,356	211	,722	Male	144	5,7083	1,12660	Commitment	Female	69	5,4855	,86165	,863	211	,389	Male	144	5,3368	1,29965	Stress reactions	Female	69	4,4022	1,13858	2,835	211	,005	Male	144	3,9028	1,23261	Relaxation	Female	69	5,1268	1,03755	,697	211	,486	Male	144	5,0122	1,16112	Fear control	Female	69	3,4891	1,36355	-,392	211	,696	Male	144	3,5642	1,28355	Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967
Self-confidence	Female	69	5,7645	,96814	,356	211	,722																																																																																																																																
	Male	144	5,7083	1,12660				Commitment	Female	69	5,4855	,86165	,863	211	,389	Male	144	5,3368	1,29965	Stress reactions	Female	69	4,4022	1,13858	2,835	211	,005	Male	144	3,9028	1,23261	Relaxation	Female	69	5,1268	1,03755	,697	211	,486	Male	144	5,0122	1,16112	Fear control	Female	69	3,4891	1,36355	-,392	211	,696	Male	144	3,5642	1,28355	Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744								
Commitment	Female	69	5,4855	,86165	,863	211	,389																																																																																																																																
	Male	144	5,3368	1,29965				Stress reactions	Female	69	4,4022	1,13858	2,835	211	,005	Male	144	3,9028	1,23261	Relaxation	Female	69	5,1268	1,03755	,697	211	,486	Male	144	5,0122	1,16112	Fear control	Female	69	3,4891	1,36355	-,392	211	,696	Male	144	3,5642	1,28355	Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																				
Stress reactions	Female	69	4,4022	1,13858	2,835	211	,005																																																																																																																																
	Male	144	3,9028	1,23261				Relaxation	Female	69	5,1268	1,03755	,697	211	,486	Male	144	5,0122	1,16112	Fear control	Female	69	3,4891	1,36355	-,392	211	,696	Male	144	3,5642	1,28355	Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																
Relaxation	Female	69	5,1268	1,03755	,697	211	,486																																																																																																																																
	Male	144	5,0122	1,16112				Fear control	Female	69	3,4891	1,36355	-,392	211	,696	Male	144	3,5642	1,28355	Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																												
Fear control	Female	69	3,4891	1,36355	-,392	211	,696																																																																																																																																
	Male	144	3,5642	1,28355				Activation	Female	69	5,3732	,91014	,859	211	,391	Male	144	5,2378	1,14672	Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																								
Activation	Female	69	5,3732	,91014	,859	211	,391																																																																																																																																
	Male	144	5,2378	1,14672				Focusing	Female	69	3,6920	1,19138	1,338	211	,182	Male	144	3,4462	1,28437	Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																																				
Focusing	Female	69	3,6920	1,19138	1,338	211	,182																																																																																																																																
	Male	144	3,4462	1,28437				Imagery	Female	69	5,4855	,89307	,639	211	,524	Male	144	5,3872	1,11953	Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																																																
Imagery	Female	69	5,4855	,89307	,639	211	,524																																																																																																																																
	Male	144	5,3872	1,11953				Competition plan	Female	69	4,6268	1,22521	-,540	211	,590	Male	144	4,7240	1,23105	Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																																																												
Competition plan	Female	69	4,6268	1,22521	-,540	211	,590																																																																																																																																
	Male	144	4,7240	1,23105				Mental practice	Female	69	5,1812	,97758	,518	211	,605	Male	144	5,0920	1,25984	Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																																																																								
Mental practice	Female	69	5,1812	,97758	,518	211	,605																																																																																																																																
	Male	144	5,0920	1,25984				Refocusing	Female	69	4,4529	,95031	,042	211	,967	Male	144	4,4462	1,16744																																																																																																																				
Refocusing	Female	69	4,4529	,95031	,042	211	,967																																																																																																																																
	Male	144	4,4462	1,16744																																																																																																																																			

Evaluating the Table 2, a significance was detected in the variable of stress reactions based on gender ($p < 0.05$). It was seen that female participants reached higher stress reactions points compared with the male participants. No statistical significance was observed in the other mental skill assessment sub-dimensions.

Table 3. Comparison of the sub-dimensions of emotional intelligence and total scores on the gender variable.

Variables	Gender	N	Mean	Std. Deviation	t	sd	p
Optimism and organizing the mood	Female	69	3,9553	,56367	1,393	211	,165
	Male	144	3,8380	,58094			
Using feelings	Female	69	3,3454	,66809	,193	211	,847
	Male	144	3,3275	,61338			
Assessing feelings	Female	69	3,5739	,76709	,555	211	,579
	Male	144	3,5174	,65860			
E.I. Total	Female	69	3,6999	,50641	1,333	211	,184
	Male	144	3,6048	,47729			

Considering the Table 3, it was seen that there was no significance between the emotional intelligence and total scores depending on the gender variable ($p > 0.05$). However, considering the average of the optimism and organizing mood sub-dimensions, it can be said that female participants' score averages are higher compared with the male participants.

Table 4. Relationship between the mental skills assessment sub-dimensions depending on age variable

		Goal setting	Self-confidence	Commitment	Stress reactions	Relaxation	Fear control	Activation	Focusing	Imagery	Competition plan	Mental practice	Refocusing
Age	r	-,004	,043	-,016	,007	,000	,045	,029	,017	,025	,093	,041	,021
	p	,951	,532	,822	,925	,997	,514	,678	,806	,715	,179	,549	,765

In the Table 4, a low level, negative correlation was reached in the goal setting ($r = -,004$ $p > 0.05$), and in the commitment ($r = -,016$ $p > 0.05$). The other dimensions had all positive correlations with ranging from low level ($r = ,000$ $p > 0.05$) to high level ($r = ,093$ $p > 0.05$) between the mental skills assessment sub-dimension depending on the age variable. Statistically significant relationship was not observed ($p > 0.05$).

Table 5. *The relationship between emotional intelligence sub-dimensions and total scores depending on age variable*

		Optimism and organizing mood	Using feelings	Assessing feelings	E. I. total
Age	r	-,031	-,078	-,143*	-,076
	p	,656	,258	,037	,272

In the Table 5, a low level, negative correlation was observed in the optimism and organizing the mood ($r=-,031$ $p>0.05$), high level, negative correlation in the using feelings ($r=-,078$ $p>0.05$), negative correlation in the total scores ($r=-,076$ $p>0.05$) between the emotional intelligence and total score on the age variable. This relationship did not also create statistical significance ($p>0.05$).

Table 6. *The relationship between the sport year and mental skills assessment sub-dimension*

		Goal setting	Self- confidence	Commitment	Stress reactions	Relaxation	Fear control	Activation	Focusing	Imagery	Competition plan	Mental practice.	Refocusing
Sport year	r	,107	,034	,053	-,013	,006	,084	,186**	,127	,010	,138*	,165*	,130
	p	,119	,626	,440	,855	,927	,220	,007	,065	,885	,045	,016	,058

In the Table 6, only negative correlation was in the stress reactions sub-dimension ($r=-,013$ $p>0.05$), the other dimensions were all positive correlations with ranging from low level ($r=,006$ $p>0.05$) to high level ($r=,130$ $p>0.05$) in the relationship between the sport year and mental skills assessment sub-dimension.

Table 7. *The relationship between sport year with emotional intelligence sub-dimension and total scores*

		Optimism and organizing mood	Using feelings	Assessing feelings	E. I. total
Sport year	r	-,015	-,032	-,126	-,076
	p	,828	,643	,067	,270

In the Table 7, it can be said that there was a low correlation in the optimism and organizing mood ($r=-,015$ $p>0.05$), negative low level correlation in the using emotions ($r=-,032$), high level negative correlation in the assessing feelings, and high level negative correlation in the total score. This relationship was not also statistically significant.

Table 8. *The relationship between mental skills assessment sub-dimensions depending on monthly income level*

	Goal setting	Self-confidence	Commitment	Stress reactions	Relaxation	Fear control	Activation	Focusing	Imagery	Competition plan	Mental practice.	Refocusing	
Monthly income	r	-,143*	-,195**	-,138*	-,013	-,129	-,003	-,123	-,038	-,147*	,004	-,145*	-,053
	p	,037	,004	,044	,849	,061	,962	,072	,582	,032	,955	,035	,441

In the Table 8, considering the relationship between the monthly income level of the participants and mental skills assessment, a positive correlation was observed between the monthly income and goal setting, commitment, self-confidence, imagery, and mental practice sub-dimensions and it was shown that this relationship also created a significance ($p<0.05$). According to the results, if the monthly income level is low, a decrease was seen parallelly in the goal setting, commitment, imagery, and mental practice sub-dimensions. The other sub-dimensions did not show any significant difference.

Table 9. *The relationship between sub-dimensions of emotional intelligence and total scores on the monthly income level*

	Optimism and organizing mood	Using feelings	Assessing feelings	E. I. total	
Monthly income	r	-,144*	-,087	-,177**	-,166*
	p	,036	,206	,009	,015

In the Table 9, a high negative correlation was observed in optimism and organizing mood, assessing the feelings, and total scores. Here also statistically significant relationship was shown ($p<0.05$). While a high-level negative correlation was observed in the using feelings sub-dimension, this situation didn't create any significant difference ($p>0.05$).

Table 10. *The relationship between the mental skills assessment sub-dimensions of the athletes with the emotional intelligence and total scores*

Variables		Optimism and organizing mood	Using feelings	Assessing feelings	E. I. total
Goal setting	r	,479**	,206**	,300**	,412**
	p	,000	,002	,000	,000
Self-confidence	r	,639**	,311**	,443**	,584**
	p	,000	,000	,000	,000
Commitment	r	,383**	,062	,191**	,299**
	p	,000	,367	,005	,000
Stress reactions	r	-,052	-,138*	-,243**	-,184**
	p	,454	,045	,000	,007
Relaxation	r	,466**	,121	,270**	,398**
	p	,000	,079	,000	,000
Fear control	r	-,271**	-,241**	-,431**	-,399**
	p	,000	,000	,000	,000
Activation	r	,547**	,274**	,352**	,502**
	p	,000	,000	,000	,000
Focusing	r	,300**	,236**	,407**	,383**
	p	,000	,001	,000	,000
Imagery	r	,537**	,211**	,280**	,461**
	p	,000	,002	,000	,000
Competition plan	r	,306**	,001	,064	,181**
	p	,000	,994	,356	,008
Mental practice	r	,499**	,217**	,284**	,435**
	p	,000	,001	,000	,000
Refocusing	r	-,082	-,135*	-,231**	-,195**
	p	,236	,049	,001	,004

Considering the Table 10, while no statistically significance were determined among commitment sub-dimension and using the feelings, relaxation and using the feelings, and among the mental skills assessment, the emotional intelligence and total score. There was a significance between the assessing the feelings and relaxation.

A medium level positive correlation between the emotional intelligence and total score of the goal setting was observed ($r=,412$), similar correlations found between: the emotional intelligence and total score ($r=,584$), the optimism and organizing the mood of the relaxation ($r=,466$), the activation with the emotional intelligence and total score ($r=,502$), the focusing with the emotional intelligence and total score ($r=,383$), emotional intelligence and imagery total score ($r=,461$), the competition plan with the optimism and organizing the mood ($r=,306$), the emotional intelligence and mental practice total score ($r=,435$). This relationship was also reached to a statistical significance ($p<0.05$).

Negative correlations were seen between: the emotional intelligence total score of the stress reactions ($r=-184$), the emotional intelligence and total scores of the fear control ($r=-,399$), the refocusing sub-dimension with the assessment of the feelings and it was determined that this relation was significant. As it can be understood in the table, it can be said that as the emotional intelligence and total score averages increase, the mental skills assessment points indicate a parallel increase, as well.

4. Discussion

This research plans to investigate the mental abilities of the student athletes and analyzing the level of their emotional intelligence. Before commencing the study, informed consent was given to the subjects from the researcher that subjects have the right to withdraw their consent at any time and without justification or any other penalty and have their data deleted, as consequence. In conclusion of the findings, statistical significance was only reached in the stress reactions between the mental skills assessment and gender variable of the student athletes ($p<0.05$). Looking at the findings, it can be said that female participants had more stress compared with the male participants. It was seen that the other sub-dimensions did not indicate statistically significant difference ($p>0.05$). Güler (2015) stated that significant difference was not reached between the mental skills assessment regarding the gender variable. This study supports our findings. It can be thought that there may not be significant differences in the comparison of very big groups (Goleman, 2017).

When emotional intelligence and total score of the student athletes, depending on their emotional intelligence levels and gender variable, were compared, no statistical significance was reached ($p>0.05$). Considering the previous studies, it was revealed that the researchers generally accepted the emotional intelligent levels as similar, depending on the gender variable

(Sarıkabak et al., 2018; Sonmaz, 2002; Alpullu, Uslu & Demir, 2010; Karademir et al. 2010; Taşkın et al., 2010; Yiğit & Dilmaç, 2015). On the contrary to our research findings (Gürbüz & Yüksel, 2011; Güllüce & Işcan, 2010), it is possible to find various researches showing that female participants have higher emotional intelligence levels compared with the male participants.

Moreover, the scores received by the students in the mental skills assessment, and the age variable did not show significant differences ($p>0.05$). According to the literature review, there were a few researches in the literature related with the mental skills notion. Aktepe (2006) found significant differences when evaluating the national team athletes and national team trainers with respect to the mental training, dealt with the age variable. Güler (2015) reached a similar conclusion and stated that there was a statistical significance between the mental skills assessment sub-dimensions and age variable.

Looking at the age variable of the student athletes, no statistical significance was found between the total score and emotional intelligence ($p>0.05$). In a way supporting our findings, Sarıkabak (2018) did not reveal any statistical significance in the age variable and emotional intelligence levels in their research.

Considering the relationship between the sport age variable and mental skills assessment sub-dimensions, which is another finding of the research, it could be stated that as the sport year increases, the mental skills assessment level also increases with positive correlation. The experiences gained in the sport life can turn into knowledge as the sport life continues and this situation may affect the athletes in the positive direction. Biçer (2007) in his book wrote on the peak performance, says that the successful and champion athletes, as individuals who can manage the positive or negative situations they encounter, are closer to the ideal performance. We can say that life experiences are an important factor for indicating top level performance or for success in sportive sense. In a way supporting our findings, significant difference was also found in all year intervals and all sub-dimensions when the mental skills sub-dimensions were assessed depending on the sport age variable (Güler, 2015).

No significant relationship was encountered between sport age variable with the total score and emotional intelligence ($p>0.05$). In the limited number of researches available, dealing with the emotional intelligence and sport age variable, it was seen that in general, the researches were assessed according to “state of doing sport” or “doing sport as amateur or professional”. Kırımoğlu et al. (2014), in their study, was not reached to a

statistical significance between the sport situation and emotional intelligence level. Sarıkabak (2018) also did not reach to a statistical significance between the emotional intelligence level and sport situation. It is thought that the students can be classified as experienced or inexperienced depending on the years of doing sports. Against this interpretation, in a similar research made in the literature, Erbektaş et.al (2017) assessed the emotional intelligence levels of the amateur and professional athletes and reached to a statistical significance for the amateur athletes.

The relationship among mental skills assessment sub-dimensions was evaluated according to the monthly income level variable of the student athletes and a high level positive correlation was observed among the goal setting, commitment, self-confidence, imagery, and mental practice sub-dimensions of the students and a statistical significance was reached in this relationship ($p < 0.05$). In other words, when the monthly income level is low, decrease takes place in the goal setting, commitment, self-confidence, imagery, and mental practice sub-dimensions (Biçer, 2007). It is stated that goal settings and visualizing in the mind changes from person to person. Considering the researches done in the field, dealing with the monthly income level, limited number of opinions was found. It was seen that the previous researches referred the individuals, who were doing sports professionally, in other words, making living out of this occupation (Aktepe, 2006; Altıntaş and Akalın, 2008; Erhan et al., 2015). In a similar research done connected with the mental training, it was seen that Zekioglu et.al (2017) evaluated the income situation variable too when developing the mental well-being scale, however no significant difference was found for this variable.

Negative correlation was detected in monthly income levels of the students with the emotional intelligence level, in the optimism and organizing the mood, in assessing the feelings and emotional intelligence total scores, which was discovered to be significant ($p < 0.05$). In other words, as the monthly income level decreases, increase takes place in the optimism and organizing the mood, assessing the feelings sub-dimension and total scores. It was seen as a result of the literature review in the field that the researchers frequently did not reach to a statistical significance between the emotional intelligence levels and monthly income variables. Yılmaz & Özkan (2011) stated that no significant relationship was found between income level and emotional intelligence scale dimensions. Taşkın (2008) also did not reveal a statistical significance between emotional intelligence level and monthly income variable.

5. Conclusion

As a result of the analyses done for describing the relationship between mental skills assessment and emotional intelligence levels of the student athletes, no statistical significance was found between commitment and using the feelings, stress reactions and optimism and organizing the mood, relaxation and using the emotions, competition plan and using the feelings and assessing the feelings, refocusing and optimism and organizing the mood ($p > 0.05$). The other sub-dimensions did not show any statistically significant relationship ($p < 0.05$). Consequently, as the emotional intelligence sub-dimensions and total score averages increase, there was a rise in the mental skills assessment points too. The positive relationship between mental skill assessment and emotional intelligence was supported by various researchers (Totterdell & Leach, 2001; Ajilchi et al., 2019).

It should not be disregarded that emotional intelligence levels also have a contribution in the development of the mental characteristics of the athletes. It can be said that it is an important factor in raising athletes ready physically and mentally in order to reach the continuous and permanent success that student athletes become aware of their own emotional situations. It can be recommended that the researches might be done in the different profession groups and sport branches to which the emotional intelligence and mental skills assessment studies could be applied. The recommendations can be presented which will contribute to the development of the student athletes from who are expected to play a leader role in the raising of healthy generations by making similar researches on a wider student mass.

References

- Ajilchi, B., Amini, H. R., Ardakani, Z. P., Zadeh, M. M., & Kisely, S. (2019). Applying mindfulness training to enhance the mental toughness and emotional intelligence of amateur basketball players. *Australasian Psychiatry*, 1-6.
- Aktepe K. (2006). *The important of mental training in sport and determining of knowledge and application levels who individual national athletes mental training*. Master's Thesis. Niğde University, Institute of Social Sciences.
- Alpullu A, Uslu A, Demir G. (2010). Investigation of Emotional Intelligence Awareness of Physical Education Teachers. *11th International Sports Sciences Congress*, 10-12 October, Antalya (vol. 10).

- Altıntaş, A., Akalan, C. (2008). Mental Training and High Performance. *The Journal of Physical Education and Sport Science*, 6(1):39-43.
- Anshel, M. H. (1990). *Sport Psychology, from Theory to Practice*. Publishers Scotts dale, Arizona.
- Austin, E.J., Saklofske, D.H., Huang, S.H.S., Mc Kenney, D. (2004). Measurement Of Trait Emotional Intelligence: Testing And Cross-Validating A Modified Version Of Schutte Et Al.'S (1998) Measure. *Pers Indiv Differ*, 36(3): 555-62.
- Bar-on, R. (2005). "The Bar-On Model Of Emotional-Social Intelligence". *Psicothema*, 18 (Suplem 1):13-25
- Biçer, T. (2007). *Mental Dynamics of Success in Life and Sport*. Beyaz Yayınları. İstanbul.
- Brizendine, L. (2006). *The Female Brain*. Broad way Books.
- Büyükköztürk, Ş., Çakmak, E.K., Akgün, Ö.E., Karadeniz, Demirel F. (2017). *Scientific Research Methods*. Pegem Citation Index.
- Connolly, C., & Williamon, A. (2004). Mental skills training. *Musical excellence: Strategies and techniques to enhance performance*, 5(1), 221-245.
- Cowden, R. G. (2016). Mental Toughness, Emotional Intelligence, and Coping: Effectiveness: An Analysis of Construct Interrelatedness Among High-Performing Adolescent Male Athletes. *Perceptual and Motor Skills*. 123(3): 737-753.
- Durand-Bush, N., Salmela, J. H., Green-Demers, I. (2001). The Ottawa Mental Skills Assessment Tool (OMSAT-3). *Sport Psychologist*, 15, 1–19.
- Erbektaş, E., Hanifi, Ü., Güçlü, Ö., Arslan, T., Ertan, G., Elveren, A. (2017). An investigation of emotional intelligence of amateur and professional athletes by some variables. *Abant İzzet Baysal University Journal of Institute of Social Sciences*, 17(4), 263-274.
- Erhan, S. E., Güler M. Ş., Ağduman, F., Gerek, Z. (2015). Ottawa Mental Ability Assessment Scale-3 Turkish Validity and Reliability Study. *e-Caucasus Journal of Educational Research*, 2(2): 33-39.
- Goleman, D. (1996). *Emotional Intelligence: Why It Can Matter More Than IQ*, London: Cox & Wyman Ltd.

- Goleman, D. (2017). *Emotional Intelligence at Work*. Asset Publications. Istanbul.
- Gucciardi, D., Hanton, S., Gordon, S., Mallett, C., Temby, P. (2015) The Concept of mental toughness: Tests of dimensionality, nomological network, and traitness. *Journal of Personality* 83: 26–44.
- Güler, Ş., M. (2015). *The Evaluation of mental abilities of individuals playing sports in different branches*. Master Thesis. Atatürk University, Institute of Social Sciences. 56-57.
- Güllüce, A. Ç., & İşcan, Ö. F. (2010). The Relationship between Occupational Burnout and Emotional Intelligence. *Eskişehir Osmangazi University IIBF Journal*, 5(2), 7-29.
- Gürbüz, S., Yüksel, M. (2011). Emotional intelligence in workplace: its relation with job performance, job satisfaction, organizational citizenship behavior, and some demographic factors. *Doğuş University Journal*, 9(2), 174-190.
- Karademir, T. Döşyılmaz, E. Çoban, B. Kafkas, M.E. (2010). The self -esteem and emotional intelligence of students who participate in special ability examinations in order to attend the department of physical education and sport. *Kastamonu Education Journal*, 18(2), 653-674.
- Keefer, K. V., Parker, J. D., & Saklofske, D. H. (Eds.). (2018). *Emotional Intelligence in Education: Integrating Research with Practice*. Springer.
- Kırmoğlu, H., Yeniad, S., Çoban, E. (2014). Evaluation of Emotional Intelligence Levels of Candidate Teachers in Terms of Status of Playing Sports (Mustafa Kemal University Sample). *Gaziantep University Journal of Social Sciences*, 13(1), 201-209.
- Koruç, Z., Bayar, P. (1990). Mass Sport and Sport Psychology. Symposium on New Approaches to Sports Ethics and Sport Philosophy, *Istanbul University*, 115-118.
- Kumar, J. A., Muniandy, B., & WanYahaya, W. A. J. (2019). Exploring the effects of emotional design and emotional intelligence in multimedia-based learning: an engineering educational perspective. *New Review of Hypermedia and Multimedia*, 1-30.
- Lazarus, A. A. (2017). Meditation: The problems of any unimodal technique. *In Meditation* (pp. 691-692). Routledge.

- Ling, G., Lee, I., Guimond, S., Lutz, O., Tandon, N., Nawaz, U., & Brady, Jr., R. (2019). Individual Variation In Brain Network Topology Is Linked to Emotional Intelligence. *NeuroImage*, 214-223.
- Loehr, J. E. (1995). *The new toughness training for sports: Mental, emotional, and physical conditioning from one of the world's premier sports psychologists*. New York, NY: Plume.
- McGeown, S. P., St Clair-Thompson, H., & Clough, P. (2016). The study of non-cognitive attributes in education: Proposing the mental toughness framework. *Educational Review*, 68(1): 96-113.
- Nightingale, S., Spiby, H., Sheen, K., & Slade, P. (2018). The impact of emotional intelligence in health care professionals on caring behaviour towards patients in clinical and long-term care settings: Findings from an integrative review. *International journal of nursing studies*, 80, 106-117.
- Salovey, P., Mayer, J.D. (1990). Emotional Intelligence. *Imagination, Cognition And Personality*, 9(3), 185-211.
- Sarıkabak, M. (2018). Examining Social Physics Anxiety And Emotional Intelligence Levels Of The Faculty Of Sport Sciences Students. *Sportive Sight: Journal of Sport and Education*, 74-85.
- Sarıkabak, M., Eyüboğlu, E., & Ayrancı, M. (2018). Investigation of the Effect of Emotional Intelligence Levels of Bocce (Petanque) Athletes on Academic Procrastination Behaviors. *International Journal of Cultural and Social Studies*, 4(1), 163-177
- Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., et al. (1998). Development and validation of a measure of emotional intelligence. *Pers Individ Differ*, 25(2): 167-77.
- Selk, J. (2008). *10-minute toughness*. McGraw-Hill Professional Publishing.
- Sonmaz S. (2002). *The Relationship problem solving skill, creativity and intelligence*. Master Thesis. *Marmara University Institute of Education Sciences*, İstanbul.
- Taşkın, A.K., Taşğın, Ö., Başaran, M.H., Taşkın, C. (2010). Examination of emotional intelligence levels of some students in the School of Physical Education and Sports. *Selçuk University Journal of Physical Education and Sport Science*, 12 (2), 98-103.

- Taşkın, A. K. (2008). *Examine of emotional intelligence levels on physical education students according to some variables*. Doctorate Thesis. Selçuk University, Institute of Medicine.
- Tatar A, Tok S, Saltukoğlu G. (2011). Adaptation of the Revised Schutte Emotional Intelligence Scale into Turkish and Examination of its Psychometric Properties. *Bulletin of Clinical Psychopharmacology*, 21(4), 325-338.
- Totterdell, P., & Leach, D. (2001). Negative mood regulation expectancies and sports performance: An investigation involving Professional cricketers. *Psychology of Sport and Exercise*, 2(4), 249-265.
- Tsaur, S. H., & Ku, P. S. (2019). The Effect of Tour Leaders' Emotional Intelligence on Tourists' Consequences. *Journal of Travel Research*, 58(1), 63-76.
- Yiğit R, Dilmaç, B. (2015). The study of academic procrastination behaviours and human values of the students of secondary education in terms of some variables. *Dumlupınar University Journal of Social Sciences*, (31). 159-178.
- Yılmaz, E., & Özkan, S. (2011). Examining the emotional intelligence levels of nursing students in terms of some variables. *Maltepe University Journal of Nursing Science Art*, 4(1), 39-52.
- Zekioğlu, A., Tatar, A., Bahadır, E., Afacan, E. (2017). Measurement of mental readiness: an scale development study. *Spormetre The Journal Of Physical Education And Sport Sciences*, 15(2), 57-64.
- Zilbergeld, B., Lazarus, A. A., & Pollock, F. (1989). *Mindpower: Getting what you want through mental training*. Royal Victorian Institute for the Blind. Tertiary Resource Service.