RESEARCH ARTICLES

Investigation of Social Intelligence Features of Athletes in Different Branches in Terms of Various Variables

Investigación de las características de la inteligencia social de los atletas en diferentes ramas en términos de diversas variables

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Abstract

The population of this study, which was carried out to evaluate the different variables of social intelligence levels of athletes in different branches, included the athletes who participated in group competitions of the sports federations of badminton, basketball, wrestling, hockey, karate, judo, softball, water polo, and table tennis in Turkey, and the sample group consisted of a total of 387 active athletes, 219 females and 168 males with an average age of $15,05 \pm 2,06$; who participated in competitions and voluntarily accepted to participate in the study. In addition to the demographic form, the Tromso Social Intelligence Scale developed by Silvera et al. (2001) and validity and reliability in Turkish made by Doğan and Çetin (2009) was used to collect data in the study. As a result, while there were no significant differences in the social intelligence levels of the athletes in terms of the gender variable, it was found that they had significant differences according to the sports branch, education level, duration of sportsmanship, and the education level of parents. In this study, it was determined that the athletes got a moderate score from the Tromso Social Intelligence Scale.

Keywords: Athlete, Social; Intelligence

Resumen

La población de este estudio, que se llevó a cabo para evaluar las diferentes variables de los niveles de inteligencia social de los deportistas de diferentes ramas, incluyó a los deportistas que participaron en las competencias grupales de las federaciones deportivas de bádminton, baloncesto, lucha libre, hockey, kárate, judo, softbol, waterpolo y tenis de mesa en Turquía, y el grupo de muestra consistió en un total de 387 atletas activos, 219 mujeres y 168 hombres con una edad promedio de $15,05 \pm 2,06$; que participaron en concursos y aceptaron voluntariamente participar en el estudio. Además de la forma demográfica, la Escala de Inteligencia Social de Tromso desarrollada por Silvera et al. (2001) y la validez y fiabilidad en turco elaborada por Doğan y Çetin (2009) se utilizó para recopilar datos en el estudio. Como resultado, si bien no hubo diferencias significativas en los niveles de inteligencia social de los deportistas en cuanto a la variable de género, se encontró que sí tuvieron diferencias significativas según la rama deportiva, nivel educativo, duración de la deportividad y nivel educativo de los padres. En este estudio, se determinó que los atletas obtuvieron una puntuación moderada de la Escala de Inteligencia Social de Tromso.

Palabras clave: atleta, inteligencia; social

Introduction

The concept of social intelligence was first defined by Thorndike at the beginning of the 20th century (Cinel et al., 2018). Thorndike defined social intelligence as the ability to understand others, to manipulate them, and to act intelligently in this process in order to express forward thinking in interpersonal relationships (Salovey & Mayer 1990, Karimova & Parfivola, 2018, Madlan et al., 2020). Thorndike did not only construct a theory to elucidate the concept of social intelligence, but he also demonstrated that intelligence can manifest in different ways (Lievens & Chan, 2013). Social intelligence was also defined as applying general intelligence to social situations and using it in social settings (Kaya et al., 2016). What is implied here is the use of social intelligence to develop and successfully maintain social relationships (Betton et al., 2016). Social intelligence is an important factor in predicting and interpreting human behavior (Frankovsky & Birknerova, 2014). Joy and Jacob (2019), on the other hand, stated that people need to be aware of their surroundings in order to be able to develop social intelligence. From this point of view, people who are aware of their surroundings and establish good relationships can be assumed to have social intelligence.

In an effort to understanding the concept of social intelligence, it is necessary to start investigating the dimensions of social intelligence (Hançer & Tanrısevdi, 2003). The main reason for this is that social intelligence consists of various dimensions that develop while trying to understand other people (Ling et al., 2020). Silvera et al. (2001) argued that social intelligence consists of three dimensions: 'social information processing', 'social awareness', and 'social skills'.

'Social information processing' consists of various skills such as understanding one'sown feelings and thoughts in his/her relationships with other individuals, interpreting the reactions conveyed by body language, and predicting the expectations of the other party. The concept of 'social skills' is known as sociality transformed into behavior. This sub-dimension indicates the kind of individual behaving wisely in social relationships. 'Social awareness' is the ability of an individual to easily adapt to the conditions in which he or she lives. Individuals with high social awareness have the ability to develop behavior appropriate to the situation as they can be aware of the behavior patterns they encounter and the reasons for the events (Çavuş et al., 2019). Goleman defines 'social awareness' as being aware of what others feel, and 'social skills' as being related to how an individual will act after realizing what others feel (İlhan & Çetin, 2014).

Social intelligence includes the ability of individuals in a group to work in collaboration, communicate with other people, understand others more easily and value their feelings (Ünver & Semiz, 2016; Popp, 2017), enabling individuals to live healthily with other individuals and solve problems of social life at the same time, and helps them to perform various social tasks (Saxena & Jain, 2013).

Various studies have demonstrated that social intelligence is of great importance in the development and success of individuals in every field (Özcan 2018, Ling et al., 2020). The reason why some people can easily establish relationships and cope with the difficulties they experience in social relationships is based on their being socially intelligent (Elevli & Bayram, 2019). The reason for human existence is socialization, and the most basic needs can be met through socialization (Yılmaz, 2019). Social intelligence, as quoted by Boyatzis (2009), includes concepts such as social awareness, management competencies, empathy and teamwork. Many researchers think that the concept of social intelligence is related not only to the ability to understand people's behavior, but also to the ability to construct, reason, and predict future interpersonal relationships based on social interaction experience. The ability to predict includes intuitive abilities and their use. It can, therefore, be concluded that the advanced components of social intelligence include advanced intuitive abilities (Garipova & Makhubrakhmanova 2019).

Socialization of the individual through sports also contributes to the development of social intelligence (Yıldızhan & Çağlayan 2019). Looking at the essence of sports categories, both individually and as a team, it is possible to see that the concepts that constitute social intelligence are intertwined with sports. Individuals who can establish good relationships through social interaction can participate in sports activities. In other words, it can be assumed that 'social skills', 'social awareness' and 'social information processing' may emerge as a result of participation in sports activities. With this research, the assessment of social intelligence levels of the sportsmen of different branches was aimed with the regards to different variances and the outcomes of the research were thought to be a guide for the sportsmen,families, educators, trainers and sport managers.

Methodology

Research model

The current study employed the survey model, which is one of the quantitative research designs. A research process aiming to determine people's attitudes, beliefs, opinions, behaviors, expectations, and characteristics through questionnaires is called a survey (Gürbüz & Şahin, 2017).

Population and sampling

The study population was composed of a number of athletes participating in group competitions held by the sports federations in Turkey in the categories of athletics (32 athletes), badminton (33), basketball (47), wrestling (28), hockey (47), karate (41), judo (47), softball (35), water polo (29), and table tennis (48).The sample group consisted of 387 athletes, 219 of whom were women and 168 were men, who had competed in such competitions and voluntarily filled out the research questionnaires.

Data collecting tools

Developed by Silvera et al. (2001) and adapted into Turkish for its validity and reliability by Doğan and Çetin (2009), the scale consisting of 21 statements and 3 dimensions, were used to collect the data,along with the demographic form. The scale was a 5-point Likert type and itssubdimensions were: Social Information Processing (8 statements), Social Skills (6 statements), and Social Awareness (7 statements). Expressions in all scales were scored with the Five-point Likert scale (1=Strongly Disagree, 5=Strongly Agree). Cronbach's Alpha value of the scale was found to be ,72 for the current study.

Data analysis

Missing scores and outliers were examined to make the data ready for analysis. The homogeneity and variances of the groups were tested, as a result of which parametric tests were performed by looking at the kurtosis and skewness scores (+1\-1). The Independent-Samples T test was used in paired comparisons, while One-Way ANOVA was used in multiple comparisons. Tukey's and LSD tests were used in determining the source of the significance, the level of which was set at 0,05.

Results

Table 1. The t test results on social intelligence levels as to the variable of gender of the athletes

Social Intelligence Scale	Gender	n	x̄	st. dev.	t	p
Social Information Processing	Female	219	3,49	,449	,874	,383
	Male	168	3,53	,499		
Social Skills Process	Female	219	3,38	,731	,848	,397
	Male	168	3,32	,705		
Social Awareness	Female	219	3,53	,713	,283	,777
	Male	168	3,51	,731		

Whether or not the social intelligence levels of athletes differ according to gender was analyzed by the t test. As a result of the analysis, no statistical significance was observed between male and female participants in the sub-dimensions of 'social information processing', 'social skills processing', and 'social awareness' ($p > 0,05$).

Table 2. ANOVA test results on social intelligence levels as to the variable of the athletes' sports category

Social Intelligence Scale	Type of Sports	n	x̄	st. dev.	f	p	Statistical sig.
Social Information Processing	Hockey	47	3,38	,39581	3,161	,001*	3-8 3-9 3-10
	Soft ball	35	3,48	,32009			
	Athletics	32	3,25	,43994			
	Badminton	33	3,45	,55482			
	Karate	41	3,58	,42473			
	Basketball	47	3,45	,54178			
	Wrestling	28	3,44	,51675			
	Table tennis	48	3,63	,40677			
	Judo	47	3,65	,47663			
	Water polo	29	3,67	,50651			
Social Skills Processing	Hockey	47	3,51	,57756	2,703	,005*	1-2 1-3 2-5
	Soft ball	35	3,20	,54665			
	Athletics	32	3,18	,71109			

	Badminton	33	3,46	,66270			2-6
	Karate	41	3,70	,68862			2-8
							2-9
	Basketball	47	3,52	,74897			2-10
	Wrestling	28	3,50	,64979			3-5
	Table tennis	48	3,68	,75943			3-6
	Judo	47	3,65	,83270			3-8
							3-9
	Water polo	29	3,73	,80018			3-10
Social Awareness	Hockey	47	3,31	,72734	5,040	,000*	1-10
	Soft ball	35	3,00	,65826			2-8
	Athletics	32	2,87	,61269			2-10
	Badminton	33	3,47	,75986			3-4
	Karate	41	3,40	,70487			3-5
	Basketball	47	3,34	,56648			3-8
	Wrestling	28	3,27	,73968			3-9
	Table tennis	48	3,51	,74705			3-10
	Judo	47	3,47	,72838			7-10
	Water polo	29	3,85	,57651			

Branches: 1. Hockey, 2. Soft ball, 3. Athletics, 4. Badminton, 5. Karate, 6. Basketball, 7. Wrestling, 8. Table tennis, 9. Judo, 10. Water polo

One-way ANOVA test was used to determine the social intelligence levels of athletes in the variable of sports category, while Tukey's and LSD tests were used to determine the source of the difference. The results of the ANOVA test revealed that the scores of the athletes in athletics in the sub-dimension of 'social information processing' were significantly lower than those of the athletes in table tennis, judo and water polo (p <0,05). In the sub-dimension of 'social skills processing', a statistical significance was determined in all types of sports except for badminton and wrestling. The lowest mean scores belonged to the athletes in athletics, while the highest mean scores belonged to the athletes in water polo (p <0,05). In the sub-dimension of 'social awareness', a statistical significance was found in all types of sports except for basketball. The lowest mean scores belonged to the athletes in athletics, while the highest mean scores belonged to the athletes in water polo (p <0,05).

Table 3. ANOVA test results on social intelligence levels as to the variable of years of experience as an athlete

Social Intelligence Scale	Type of Sports	n	x̄	st. dev.	F	p	Statistical Significance
Social Information Processing	1-2 years	211	3,47	,7844	1,212	,299	-
	3-5 years	100	3,55	,46001			
	6 years and over	76	3,54	,46691			
Social Skills Processing	1-2 years	211	3,45	,70152	3,879	,021*	1-3
	3-5 years	100	3,55	,73762			
	6 years and over	76	3,71	.,2394			
Social Awareness	1-2 years	211	3,33	,73303	,220	,802	-
	3-5 years	100	3,39	,76632			
	6 years and over	76	3,37	,61972			

Age groups: 1: 1-2 years, 2: 3-5 years, 3: 6 years and above

In the sub-dimensions of 'social information processing' and 'social awareness' no statistical significance was found among athletes (p> 0,05) as to the variable of the years of experience as an athlete. In the sub-dimension of 'social skills processing', the mean scores of the athletes who had

been athletes for6 years or more were significantly higher than those for 1-2 years (p < 0,05).

Table 4. The t test results on social intelligence levels as to the variable of the levels of education of the athletes

Social Intelligence Scale	Level of Education	n	x̄	st. dev.	t	p
Social Information Processing	Primary Education	166	3,50	,51197	-,110	,912
	Secondary Education	221	3,51	,44033		
Social Skills Processing	Primary Education	166	3,55	,78088	,579	,563
	Secondary Education	221	3,51	,67319		
Social Awareness	Primary Education	166	3,47	,71921	2,846	,005*
	Secondary Ed.	221	3,27	,70885		

No statistical significance was found among the athletes in the sub-dimensions of 'social information processing' and 'social skills processing' as to the level of education (p > 0,05). In the sub-dimension of 'social awareness', however, the mean scores of the athletes with primary education were significantly higher than those with secondary education (p < 0,05).

Table 5. ANOVA test results on social intelligence levels as to the variable of athletes' fathers' level of education

Social Intelligence Scale	Level of Education	n	x̄	st. dev.	f	p	Statistical significance
Social Information Processing	Primary Education	171	3,42	,49287	6,709	,001*	1-3
	Secondary Education	110	3,52	,43130			
	University	106	3,63	,45146			
Social Skills Processing	Primary Education	171	3,42	,74430	3,307	,038*	1-2 1-3
	Secondary Education	110	3,60	,65912			
	University	106	3,61	,72744			
Social Aw.	Primary Ed.	171	3,31	,66835	2,317	,100	-
	Secondary Education	110	3,30	,75481			
	University	106	3,48	,75332			

Education-based Groups: 1. Primary Education, 2. Secondary Education, 3. University

There was a statistical significance among the athletes in the sub-dimensions of 'social information processing' and 'social skills processing', except for the 'social awareness' as to the variable of the athletes' fathers' levels of education (p> 0,05). In 'social information processing', the mean scores of the parents who were university graduates were significantly higher than those with primary education (p <0,05). In the sub-dimension of 'social skills processing, the mean scores of parents with primary education were significantly lower than those with both secondary education and university education (p <0,05).

Table 6. ANOVA test results on social intelligence levels as to the variable of athletes' mothers' level of education

Social Intelligence Scale	Level of Education	n	x̄	st. dev.	f	p	Statistical significance

Social Information processing	Primary Education	194	3,45	,48301	2,091	,056	-
	Secondary Education	110	3,53	,46394			
	University	83	3,59	,44367			
Social Skills Processing	Primary Education	194	3,50	,72590	1,643	,195	-
	Secondary Education	110	3,48	,72709			
	University	83	3,65	,69374			
Social Awareness	Primary Education	194	3,35	,67685	2,847	,059	2-3
	Secondary Education	110	3,25	,77913			
	University	83	3,50	,71996			

Education-based Groups: 1. Primary Education, 2. Secondary Education, 3. University

No statistical significance was found among the athletes in the sub-dimensions of 'social information processing', 'social awareness' and 'social skills processing' as to the variable of the athletes' mothers' education level ($p>0,05$).

Table 7. Descriptive statistical results of the research scale

Social Intelligence Scale	Min.	Max.	$\overline{x}$	st. dev.
Social Information Processing	2,44	4,56	3,50	,47176
Social Skills Processing	1,43	4,86	3,36	,71984
Social Awareness	1,80	5,00	3,52	,72069
General Mean	2,19	4,71	3,46	,46038

The general mean value of the 'social intelligence scale' was calculated as ($3,46 \pm ,460$) in the current study. While the highest mean value belonged to the sub-dimension of 'social awareness' ($3,52 \pm ,720$), the lowest mean value ($3,36 \pm ,719$) belonged to the sub-dimension of 'social skills processing'. The mean value of the sub-dimension of 'social information processing' was found to be ($3,50 \pm ,471$).

Discussion and Conclusion

The current study was conducted among the athletes competing in group competitions of athletics, badminton, basketball, wrestling, hockey, karate, judo, soft ball, water polo and table tennis sports federations in Turkey, and included a total of 387 active athletes, 219 of whom were female and 168 were male, whose mean age was calculated as $15,05 \pm 2, 06$.

According to our research results, no statistical significance was found in terms of social intelligence levels in the gender variable of the athletes (Table 1). It can be assumed that sport positively affects the social intelligence score and that there is no difference between the genders in terms of social intelligence score (Ermiş et al., 2012). No statistical significance was found between 'social information processing', 'social skills processing', and 'social awareness' scores as to gender (Doğan & Çetin, 2008, Abul, 2015, Erdemir & Kutlu 2018, Diktaş, 2018). The research results of Abdullayeva (2018) indicated that there was no statistical significance among the mean scores of the groups in terms of gender.In another relevant study, 'social information processing'was found to have a positive linear effect on all dimensions of female entrepreneurship (Cinel et al., 2018).

Additionally, the study by Prabu and Saravanan (2019) reported no statistical significance in social intelligence between genders. While no significance was found in the sub-dimensions of 'social information processing' and 'social awareness', the female students' scores for 'social skillswere found statistically significantly higher than those of male students (Yıldızhan & Çağlayan, 2019). There is no statistical significance in the sub-dimensions of 'social information processing' and 'social skills', whereas there is a statistical significance in favor of women in the dimension of 'social awareness' (Sekar, 2016). In the study conducted with the participation of prospective sports managers, a statistical significance was found in favor of male participants in the gender variable (Turhal, 2019). In the studies by Joy and Jacob (2019), and Saxena and Jain (2013), there are statistical significance in favor of women. In other relevant studies, various results have been assumed to be caused by sample groups.

In the current study, statistical significance was observed in terms of social intelligence levels in the variable of sports category. In the sub-dimension of the 'social information processing', the scores of the athletes in athletics were found significantly lower than those of the athletes in table tennis, judo and water polo categories. In the sub-dimension of 'social skills processing', statistical significance was found in all categories except for badminton and wrestling. Looking at the scores obtained, the lowest mean scores belonged to the athletes in the athletics category, while the highest mean scores belonged to the athletes in the water polo category. In the sub-dimension of 'social awareness', on the other hand, statistical significance was observed in all categories, except for basketball. The lowest mean scores belonged to the athletes in the athletics category, while the highest mean scores belonged to the athletes in the water polo category. In all three sub-dimensions with a statistical significance, the lowest mean scores belonged to the athletes in the athletics category, while the highest mean scores belonged to the athletes in the water polo category (Table 2). Besides the statistical significance between the scores of those in individual sports categories and those engaged in team sports, the mean social intelligence scores of those in the individual sports category was found higher (Turhal, 2019). According to Ermiş et al., (2012), the facts that team sports demand more responsibility than the individual sports do, and that camp periods spent with the team for competitions outside of the province and intensive training programs with the team increase socialization among people may affect the social intelligence scores in like manner. Considering the relevant research results, it is believed that the sports category factor alone, will not be enough to explain the changes in the scores of social intelligence.

No statistical significance was found among the athletes in the sub-dimensions of 'social information processing' and 'social awareness' in the variable of years of experience as an athlete specified in the current study. In the sub-dimension of 'social skills processing', the mean scores of the athletes with 6 and more years of experience as an athlete were significantly higher than those with 1-2 years of experience as an athlete (Table 3). Individuals with high social skills can easily join in social environments, do not have difficulty in getting along with other people, and easily adapt to social environments (Doğan & Çetin, 2009). It is apparent that individuals participating in sports activities have higher mean scores of 'social information processing' and 'social skills processing' than those who do not (Kaya et al., 2016). Also, the mean social intelligence scores of active athletes were found higher (Turhal, 2019). Considering our research and the research results in the related literature, active participation in sports can be deemed important.

In the current study, there was no statistical significance among athletes in the sub-dimensions of 'social information processing' and 'social skills processing' in the level of education variable. In the sub-dimension of 'social awareness', the mean scores of the athletes at primary education were found significantly higher than those at secondary education (Table 4). Different from our research results, a study by Diktaş (2018) concluded that the mean scores- related to social intelligence and its sub-dimensions- of the employees working for an advertising agency did not show statistical significance in terms of their education level. In another study by Yıldırım (2017), it was indicated that the 'social skills', 'social awareness', and general social intelligence levels of the university graduates were significantly higher than those of the high school graduates. The fact that a variety of results have been obtained on the subject under consideration indicates that the level of education itself does not have an effect alone on the development of social intelligence.

When it comes to the parents' education levels, there was a statistical significance among the athletes in the sub-dimensions of 'social information processing' and 'social skills processing', except for the sub-dimension of 'social awareness' in the variable of athletes' fathers' education levels. In the sub-dimension of 'social information processing', it was found that the mean scores of fathers who were university graduates were significantly higher than those with primary education. In the sub-dimension of 'social skills processing', on the other hand, the mean scores of the athletes' fathers who were primary school graduates were found significantly lower than the mean scores of those who were either high school or university graduates (Table 5). There was no statistical significance among the athletes in the sub-dimensions of 'social information processing' 'social awareness', and 'social skills processing' in the variable of athletes' mothers' education levels (Table 6). The athletes both of whose parents were university graduates were found to have the highest mean scores in all three sub-dimensions. This can be assumed to be resulted from the increase in education level together with life experience. The social intelligence of the students did not differ according to the athletes' mothers' education level, but the social intelligence of the students differed significantly according to athletes' fathers' education levels (Kuşçu 2020). The results of a related study by Turhal (2019) support our findings. In this study, the social intelligence levels of the participants did not differ according to the education level of the athletes' mothers, yet they differed significantly in favor of fathers' who were university graduates.

For the purposes of the current research, general mean score of the 'social intelligence scale' was calculated as 3,46. The highest mean score belonged to the sub-dimension of 'social awareness' (3,52), while the lowest mean score (3,36) belonged to the sub-dimension of 'social skills processing'. The mean score of the sub-dimension of 'social information processing' was found as 3,50 (Table 7). Taking into account the results of relevant scale, it is possible to assume that the athletes received a moderate score in this study.

As a result, no statistical significance was found among the athletes in their social intelligence levels in terms of the gender variable, but they had statistically significant differences according to the sports categories they were engaged in, the education levels, years of experience as an athlete, and parental education levels. Regardless of individual or team sports, it is considered that sports activities will contribute significantly to the social intelligence levels of individuals. It can also be assumed that conducting a research with the participation of sample groups from different cultures will contribute remarkably to the relevant literature.

References

Abdullayeva, L. (2018). Üstün zekâlı çocukların normal gelişim gösteren çocuklara göre sosyal zekâ düzeylerinin incelenmesi. Yüksek Lisans Tezi, İstanbul Aydın Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Abul, A. (2015). Sosyal zekâ düzeyi ve algılanan iş yaşam kalitesi etkileşimine yönelik bir araştırma. Yüksek Lisans Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.

Betton, D. Ebbert, A. Infurna, FJ. (2016). Social Intelligence. www.researchgate.net /publication/ 304998078

Boyatzis, RE. (2009). Competencies as a behavioral approach to emotional intelligence. Journal of Management Development,28(9),749-770.doı 10.1108/02621710910987647

Cinel, MO. Kandemir, H. Karademir, D. (2018). Sosyal zekanın kadın girişimciliği üzerine etkisi: lisans öğrencileri üzerine bir araştırma. www.researchgate.net/publication/328051754

Çavuş, MF., Pekkan, NÜ., Develi, A. (2019). "Örgütsel sosyalleşmeye yeni bir öncül: sosyal zekâ. Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 36, 259-272.

Diktaş, G. (2018). Örgütsel sinizm ve sosyal zekânın çalışan performansı ve işten ayrılma niyeti üzerindeki etkisi: İstanbul'daki reklam ajansı çalışanlarına yönelik bir araştırma. Doktora Tezi, Maltepe Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Doğan, T., Çetin, B. (2008). Üniversite öğrencilerinin sosyal zekâ düzeylerinin depresyon ve bazı değişkenlerle ilişkisinin incelenmesi. Uluslararası İnsan Bilimleri Dergisi, 5(2),1-19.

Doğan, T. Çetin, B. (2009). Tromso Sosyal Zekâ Ölçeği Türkçe Formunun Faktör Yapısı, Geçerlik ve Güvenirlik Çalışması. Kuram ve Uygulamada Eğitim Bilimleri 9(2),709-720.

Elevli, Ö. Bayram, A. (2019). Yaşam doyumunun iş doyumuna etkisinde sosyal zekânın aracı

rolü.BAİBÜ Sosyal Bilimler Enstitüsü Dergisi,19(1),25-41.

Ermiş, E. İmamoğlu, O. Erilli, NA. (2012). Üniversite öğrencilerinin bedensel ve sosyal çoklu zekâ puanlarında sporun etkisi. Spor ve Performans Araştırmaları Dergisi, 3(2),23-29.

Erdemir, N., Kutlu, M. (2018). Üniversite öğrencilerinin internet bağımlılığı ile sosyal zekâ düzeylerinin çeşitli değişkenler açısından incelenmesi.Uluslararası Sosyal Araştırmalar Dergisi,11(57), 401-409.

Frankovsky, M., Birknerova, Z. (2014). Measuring social intelligence-the MESI methodology. Asian Social Science, 10(6), 90-97.

Garipova, Y.M., Makhubrakhmanova, V.R. (2019). Pedagogical intuition and social intelligence of pedagogical university graduates. Journal of History Culture and Art Research, 8(4), 361-370.

Gürbüz, S., Şahin, F. (2017). Sosyal Bilimlerde Araştırma Yöntemleri. Ankara, Seçkin Yayıncılık.

Hançer, M., Tanrisevdi, A. (2003). Sosyal zekâ kavramının bir boyutu olarak empati ve performans üzerine bir inceleme. C.Ü. Sosyal Bilimler Dergisi,27(2), 211-225.

İlhan, M., Çetin, B. (2014). Sosyal ve kültürel zekâ arasındaki ilişkinin yapısal eşitlik modeli ile incelenmesi. Turkish Journal of Education,3(2),4-15.

Joy, M., Jacob, JG. (2019). Social intelligence and flexible locus of control among college students.IOSR Journal of Computer Engineering,21(2),79-83.

Karımova, L.S., Parfılova, G.G. (2018). Conditions for the development of social intelligence in future educational psychologists. The European Proceedings of Social & Behavioural Sciences. doi.org/10.15405/epsbs.2018.09.57

Kaya, N., Turan, N., Kamberova, H.A. Cenal, Y., Kahraman, A., Evren, M. (2016).Hemşirelik öğrencilerinin sanat özelliklerine göre iletişim becerileri ve sosyal zekâ düzeyleri. Hemşirelikte Eğitim ve Araştırma Dergisi, 13(1), 50-58.

Kuşçu, Ö. (2020). Lise öğrencilerinin sosyal zekâları ile benlik saygıları arasındaki ilişkinin incelenmesi. Eğitimde Yeni Yaklaşımlar. www.researchgate.net/publication/338571917

Lievens, F., Chan, D. (2013). Practical Intelligence, Emotional Intelligence, and Social Intelligence. www.researchgate.net/publication/241823721

Ling, F.C., Singh, J.S.K., Arumugam, T. (2020). Employee Contextual Performance, Social Intelligence, Spiritual Intelligence: A quantitative study in Malaysia. International Journal of Psychosocial Rehabilitation.

Madlan, L., Japil, E.A.R., Aftar, N.F.A., Bullare, M.I., Zhi, B.A.C.H. (2020). Are they emotionalsocially intelligent? South-east Asia Psychology Journal,10, 124-148.

Özcan, M. (2018). Öğretmen adaylarının sosyal zekâ düzeylerinin incelenmesi.Eğitimde Yeni Yaklaşımlar Dergisi,1(1),42-51.

Prabu, M.M., Saravanan, P. (2019). Study on relationship between social intelligence and environmental hygiene and values. Adalya Journal,8(10),1105-1109.

Popp, J. (2017). Social Intelligence and the Explanation of Workplace Abuse. SAGE Open,1-7.

Saxena, S., Jain, R.K. (2013). Social intelligence of undergraduate students in relation to their gender and subject stream. IOSR Journal of Research & Method in Education,1(1),1-4.

Salovey, P., Mayer, J.D. (1990). Emotional intelligence. Imagination, Cognition and Personality, 9 (3), 185-211.

Sekar, M.A. (2016). Social intelligence and metacognition of adolescents. North Asian International Research Journal of Social Science & Humanities,2(9),3-13.

Silvera, D.H., Martinussen, M., Dahl, T.I. (2001). The Tromso social intelligence scale, a self-report measure of social intelligence. Scandinavian Journal of Psychology, 42, 313-319.

Turhal, S.N. (2019). Spor yöneticisi adaylarının liderlik yönelimleri ve sosyal zeka düzeyleri arasındaki ilişkinin incelenmesi. Yüksek Lisans Tezi, Uludağ Üniversitesi Eğitim Bilimler Enstitüsü, Bursa.

Ünver, N., Semiz, S. (2016). Okul öncesi öğretmenliği lisans programında yer alan drama dersi kapsamında yapılan uygulamaların öğretmen adaylarının sosyal zekâ alanlarına etkisi. Kastamonu Eğitim Dergisi, 24(5), 2585-2594.

Yildirim, Z. (2017). Sosyal zekânın problem çözme becerisine etkisi: Ankara ilinde görev yapan siyasetçiler üzerinde bir uygulama. Yüksek Lisans Tezi, Çankaya Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Yildizhan, Y.Ç., Çağlayan, G.N. (2019). Öğrencilerin Beden Eğitimi Dersine Yönelik Tutumları ile Sosyal Zekâ Düzeyleri Arasındaki İlişkinin İncelenmesi. Gazi Beden Eğitimi ve Spor

Bilimleri Dergisi, 24(4), 227-240.

Yilmaz, G. (2019). Sosyal zekâ ve kariyer başarısı ilişkisi: politik becerinin aracılık etkisi. Yüksek Lisans Tezi, Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü, Balıkesir.