

The Analysis of the Relationship Between Internet Addiction and Loneliness in Science and Art Education Center (Bilem) Students

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Abstract

The purpose of this study is to determine the relationship between internet addiction and loneliness levels of the gifted high school students studying at the Turkish Science and Education Center; the relationship analysis is carried out on the basis of different variables. As the goal is to present the current situation, descriptive survey model is preferred and used in the study. Internet addiction scale and UCLA (University of California, Los Angeles) Loneliness Scale are used as data collection tools. Unrelated groups t-test is used while analyzing the obtained data to determine if there is a meaningful difference between internet addiction and the variables. Kruskal Wallis H test and Mann Whitney-U test are preferred to see if there is a meaningful difference between the UCLA loneliness scale and the variables. At the end of the research process, it is found that the gifted high school students studying at the Science and Art Education Center didn't have internet addiction; however, according to the findings, they experience a high level of loneliness. Finally, according to the findings of the research study, the variables of gender, daily internet use period, and parents' education level didn't cause any meaningful difference in the internet addiction level and in the loneliness state of the gifted students.

Keywords: The Gifted, Internet Addiction, Loneliness.

DOI: 10.29329/epasr.2020.345.17

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Introduction

In today's modern life, it is almost impossible to remove internet and technology from our life or try to continue a life without using it. Some of the reasons why the internet has become an indispensable instrument are; it allows reaching information without any kind of time limitation, it enables people to communicate with the world, it ensures easy access to daily life activities such as shopping, social media, and entertainment. Internet, an important part of social life and communication has been affecting human beings from a variety of dimensions and this impact seems to increase every day (Yıldız, 2017). Internet is a communication tool that has been commonly used in everyday life and the use area of this important instrument has been continuously increasing. As modern people started to continue their life on the internet, it has become an inseparable part of the life of most people.

In line with the increase in worldwide internet use, according to the data of the Turkish Statistics Institute in 2019, the internet use ratio of individuals between the ages of 16 and 74 was 75,3% in 2019, according to the data of the Turkish Statistics Institute in 2019 (TSI, 2019). According to the data of the same institute in 2019, while 81, 8% of males between the ages 16-74 use the internet, 68, 9% of females between the ages 16-74 use the internet. On the other hand, the same data indicate that while at-home internet use rate in 2018 had been 83,8, this ratio increased to 88,3% in 2019; similarly, while online shopping ratio in 2018 had been 29,9%, it increased to 34,1% in 2019.

The Internet is a new communication network affecting the world and combining different kinds of technologies. The increasing use of it on a daily basis and its existence in every field of life has increased the concerns about internet addiction (Erbaş, 2020; Ko, Yen, Yen, Lin and Yang, 2017). As people today cannot control the time they spend on the internet, their social, real-life relationships are negatively affected. The overuse of the internet not only causes ignoring daily activities and responsibilities but also increases depression, academic failures, and social isolation; these commonly observed negativities indicate that internet addiction is a serious problem that has serious impacts on a global scale (Young, 2017). The uncontrolled and unlimited use of the internet causes internet addiction, and social life is neglected; these two significant results bring different kinds of problems together with them (Widyanto and McMurrin, 2004).

The uncontrollable existence of the internet in every corner and at every moment of our daily life naturally causes the problem of internet addiction. Professionals describe the gifted as the ones who can show high performance in mental skills, who have special academic talent, creative thinking, leadership skills, visual, artistic and psychomotor skills (Uyaroğlu and Bülbün Aktı, 2016). Being highly gifted involves special cognitive, affective, and psychomotor skills in different fields; moreover, it is believed that it is a dynamic qualification and should be supported according to a specific plan and program (Gürten, 2018). One of the most significant skills in gifted students is

creativity. According to Course (2015), rather than forming students as sole information consumers, the method of evoking creativity in the gifted combines the process of directing students towards being creative thinkers and technologically skillful individuals; moreover, individuals who want to be successful in today's modern world should have the ability to adapt to the necessities of the 21st century (Blainea, Rulea, and Walkerb, 2019).

Determining and educating the gifted at early age should be an obligation and priority in the Turkish education system. One of the important duties of modern educators is to foresee and determine some exceptional skills and innate abilities of these children when they enter the wheel of education (Kelemen, 2020). It is considered that there are two goals of determining these special children at an early age. The first goal is to reach the maximum level in terms of cognitive growth and self-realization by supporting and developing the performance field and/or fields in the gifted student. The second goal is to establish a structure that enables students to solve the problems of modern civilization by producing information rather than consuming the already existing information (Renzulli, 1999). The Science and Art Education Center aims at practicing activities that support the research and discovery processes of the gifted. There are information technologies and software classes in the education program of the Science and Art Education Center (The Ministry of National Education, 2006). The gifted students make significant contributions to information technologies. The possible internet addiction problems of these students, resulting from the misuse of the internet, may harm their communication with other people in social life (Yavuz, 2018). It is necessary to design and develop mobile games that support the creativity of gifted individuals (Blainea, Rulea, and Walkerb, 2019). The gifted students' preferences in terms of digital games mostly include mental games/brain teasers, and educational games that will contribute to their development (Sevgili-Koçak, 2019).

Internet addiction is a kind of habit that can be seen at any age and social level; the gifted children, however, are in danger in this respect as they have a high ability to use technology. In this respect, professionals in this field should be careful in directing these children towards using technology for productive purposes; they should prevent negative impacts of technology. The purpose of this research study is to analyze the relationship between loneliness and internet addiction of gifted high school students who continue education in the Science and Art Education Center, in terms of a variety of variables (gender, parents' education level). It is believed that, as the variations in internet addiction of the gifted students is analyzed in this research, the obtained results will be efficiently used in preventive guidance, and personal and educational counseling researches, which are the parts of psychological guidance and counseling fields. On the other hand, researching the gifted students' internet use that may lead to addiction and discussing the obtained results may contribute to creating awareness about the negative sides of the internet.

The purpose of this research is to analyze the relationship between loneliness and internet addiction of the gifted high school students, continuing education in the Science and Art Education Center, in terms of different variables (gender, parents' education level).

1. What is the internet addiction level of Science and Art Education Center high school students?
2. What is the loneliness level of Science and Art Education Center high school students?
3. Do the internet addiction levels of Science and Art Education Center high school students vary according to the variables of:
 - Gender,
 - Daily internet use period,
 - Mother education level,
 - Father education level?
4. Do the loneliness levels of Science and Art Education Center high school students vary according to the variables of:
 - Gender,
 - Daily internet use period,
 - Mother education level,
 - Father education level?
5. Is there a relationship between the addiction level and loneliness of Science and Art Education Center high school students?

Method

General Background of Research

Survey model, one of the descriptive research methods is applied in this research study to reveal the relationship between the loneliness and internet addiction of high school students currently continuing education in the Science and Art Education Center. In descriptive research, the researcher describes an existing situation and reveals the existing phenomenon (Sönmez and Alacapınar, 2011). The survey model preferred for the research is a relational survey model, which aims at revealing the rate of co-change in two or more variables (Karasar, 2018). The relational survey model is used in line with the variables and goals of this research.

Internet addiction of high school students, continuing education in Science and Art Education Center, is analyzed in terms of different variables (gender, parents' education level).

Sample of Research

The research group is made of 105 students who have completed the education in 2019-2020 semesters in the city of Sivas, Turkey. The students have been studying in the Science and Art Education Center in the city and they are in 9th, 10th, and 11th grades. The stratifying sampling method, one of the probability sampling methods, is chosen for the research. Stratified sampling is a type of sampling method in which the total population is divided into smaller groups or strata to complete the sampling process. The strata are formed based on some common characteristics in the population data. The purpose of this method is to reach the sampling based on the existence of strata instead of assuming that the sampling is pure and similar (Yıldırım and Şimşek, 2018). According to Çıngı (1994), in-strata changes should be as homogenous as possible while inter-strata changes should be as heterogeneous as possible and the sub-groups should be accordingly determined (cit: Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2010).

Instrument and Procedures

Personal Information Form, Internet Addiction Scale, and UCLA (University of California, Los Angeles) Loneliness Scale are used as data collection tools.

Personal Information Form includes participant information about the gender, daily internet use period, and mother and father's education level. Internet addiction scale was formed by Young in 1988. The Likert-type scale, designed for the individuals between the ages 12-17, involves 20 items; it was adapted to Turkish by Bayraktar (2001). The Cronbach's Alpha reliability coefficient of the study is determined to be .91; the value of the scale in this research is determined to be .83. UCLA Loneliness Scale, aiming at determining the general loneliness of a given individual consists of 20 items. The scale is a type of self-assessment and was developed by Russell, Peplau, and Ferguson in 1978; it was adapted to Turkish by Yaparel in 1980. Demir reviewed the translation of the scale and completed validity and reliability studies of it. It was determined that the internal consistency coefficient of the scale is 0,96, while the test-retest correlation coefficient is 0,94 (Demir, 1989). Cronbach's Alpha coefficient of UCLA loneliness scale in this research is 0,82.

Data Analysis

Unrelated groups t-test is used while analyzing the obtained data to determine if there is a meaningful difference between internet addiction and the variables. Kruskal Wallis H test and Mann Whitney-U test are preferred to see if there is a meaningful difference between the UCLA loneliness scale and the variables.

Results

Findings of the Science and Art Education Center High School Students' internet addiction level are presented in table 1.

Table 1. Science and art education center high school students' internet addiction levels

	N	Min.	Max.	\bar{x}	S
Internet Addiction Levels	105	3	69	34,66	13,26

When table 1 is analyzed, it can be seen that the average point of Science and Art Education Center High School Students is 34, 66. This value is below 50, which indicates that Science and Art Education Center High School Students are in the category of “Not Showing Any Symptoms” in terms of internet addiction level (Internet addiction levels are divided into three groups: Scale scores below 50 are defined as “Not Showing any Symptoms”, the scores between 50-79 are defined as “Limited Symptoms” and finally the scores over 80 are defined as “Pathological Internet User”).

Findings of Science and Art Education Center High School Students' Loneliness Levels are presented below;

Table 2. Science and art education center high school students' loneliness levels

	N	Min.	Max.	\bar{x}	S
Loneliness Levels	105	43	79	62,44	9,20

When table 2 is analyzed, it can be seen that the Science and Art Education Center High School Students' loneliness levels score average is 62, 44. This value is between 61-80 score range, which indicates a “High” loneliness level in Science and Art Education Center High School Students (Scores between 20-40 are in the category of “Low”, scores between 41-60 are in the category of “Medium” and scores over 61 are in the category of “High” loneliness group level).

Findings of the Variations in Science and Art Education Center High School Students' Internet Addiction Levels in terms of the variable of gender are presented below;

Kolmogorov-Simirnov normalcy was calculated for choosing the test to be used in determining the variations of Science and Art Education Center High School Students' internet addiction levels in terms of gender; values determined in the test are summarized and presented in table 3.

Table 3. Kolmogorov-Simirnov normalcy test results for internet addiction scale scores of students in terms of gender

Internet Addiction Levels	Gender	Kolmogorov-Simirnov		
		Z	sd	p
	Male	,096	53	,200
	Female	,081	52	,200

As can be seen in Table 3, internet addiction levels of Science and Art Education Center students have a normal distribution in terms of the variable of gender (Male students: $Z=,096$; $p>,05$ and Female students: $Z=,081$; $p>,05$).

The variations in the gifted high school students' internet addiction level in terms of gender is calculated with the independent group t-test and the obtained results are presented in table 4 (Levene test is used for ensuring equalization between variances and the results are organized accordingly).

Table 4. Independent t-test results for internet addiction scale scores of students in terms of gender

Score	Group	N	\bar{x}	S	t-Test		
					t	sd	p
Internet Addiction Levels	Male	53	35,19	10,31	0,411	87,538	,682
	Female	52	34,12	15,80			

When table 4 is analyzed, it can be seen that $t(87,538)=0,411$ and $p>,0$; according to the results, it can be said that the variable of gender didn't cause any meaningful change in the internet addiction levels of students.

Findings of the internet addiction level variation of Science and Art Education Center High School Students in terms of the variable of daily internet use period are presented below;

Shapiro-Wilk normalcy test is calculated for the test to be used for determining the variation in the internet addiction level of Science and Art Education Center Students in terms of the variable of daily internet use period. Science and Art Education Center High School Students' internet addiction levels don't distribute normally according to the variable of internet use period.

Kruskal-Wallis H test is used for analyzing the variation in Science and Art Education Center High School Students' internet addiction levels according to the internet use period; the results are presented below in table 5.

Table 5. Kruskal-Wallis h test results for internet addiction scale scores of students in terms of daily internet use period

Score	Internet Use	N	Rank Average	sd	X^2	p
Internet Addiction Levels	Less than 1 hour	11	43,18	2	1,714	,425
	Between 1-4 hours	57	52,48			
	More than 4 hours	37	56,72			
	Total	105				

As can be seen in table 5, the difference between internet addiction level sorting average and daily internet use period groups sorting average isn't statistically meaningful ($X^2=1,714$; $sd=2$; $p>,05$).

Findings of the variation in the internet addiction level of Science and Art Education Center High School Students according to the variable of mother education level are presented below;

Kolmogorov-Simirnov normalcy test is calculated for the test to be used for determining the variation in the internet addiction levels of Science and Art Education Center High School Students in

terms of the variable of mother education level. According to the calculated results, Science and Art Education Center High School students' internet addiction levels normally distribute according to the mother education level ($Z=,111$ $p>,05$ for Primary/High school graduates; and $Z=,104$; $p>,05$ for University and Higher education graduates).

Science and Art Education Center High School students' internet addiction level variations according to mother education level are calculated with independent groups t-test and the results are presented below in table 6 (The variances aren't equalized with Levene test and the findings are accordingly organized).

Table 6. Independent groups t-test results of science and art education center high school students' internet addiction scale scores according to mother education level

Score		Group	T-Test					
			N	\bar{x}	S	t	sd	p
Internet Levels	Addiction	Primary-High School Graduate	49	35,80	13,98	0,822	103	,413
		University or Higher Education Graduate	56	33,67	12,64			

When table 6 is analyzed, it can be seen that $t(103)=0,822$ and $p>,05$; students' internet addiction levels don't vary according to the mother education level.

Findings of the variation in the internet addiction level of Science and Art Education Center High School Students according to the variable of father education level are presented below;

Shapiro-Wilk normalcy test is calculated for the test to be used for determining the variation in the internet addiction levels of Science and Art Education Center High School Students in terms of the variable of father education level. According to the calculated results, Science and Art Education Center High School students' internet addiction levels normally distribute according to the father education level ($Z=,938$; $p>,05$ for Primary/High school graduates; $Z=,986$; $p>,05$ for University and Higher education graduates).

Science and Art Education Center High School students' internet addiction level variations according to father education level are calculated with independent groups t-test and the results are presented below in table 7 (The variances aren't equalized with Levene test and the findings are accordingly organized).

Table 7. Independent groups t-test results of science and art education center high school students' internet addiction scale scores according to father education level

Score	Group	N	\bar{x}	S	T-Test		
					t	sd	p
Internet Levels	Primary/High School Graduate	28	33,68	13,68	-0,454	103	,651
	University or Higher Education Graduate	77	35,01	13,18			

When table 7 is analyzed, it can be seen that $t(103)=0,454$ and $p>,05$; students' internet addiction levels don't vary according to the father's education level.

Findings of the variation in the loneliness of Science and Art Education Center High School Students according to the variable of gender are presented below;

Kolmogorov-Smirnov normalcy test is calculated for the test to be used for determining the variation in the loneliness levels of Science and Art Education Center High School Students in terms of the variable of gender. The values obtained for this test are summarized and presented in table 8.

Table 8. Kolmogorov-Smirnov normalcy test results for the loneliness scale scores in terms of gender

Loneliness Levels	Gender	Kolmogorov-Smirnov		
		Z	sd	p
	Male	,116	53	,071
	Female	,113	52	,098

When Table 8 is analyzed, it can be seen that Science and Art Education Center High School Students' loneliness levels normally distribute according to gender ($Z=,116$; $p>,05$ for male students and $Z=,113$; $p>,05$ for female students).

Science and Art Education Center High School students' loneliness state variations according to gender are calculated with independent groups t-test and the results are presented below in table 9 (The variants are equalized with Levene test and the findings are accordingly organized).

Table 9. Independent groups t-test results of science and art education center high school students' internet addiction scale scores according to gender

Score	Group	N	\bar{x}	S	T-Test		
					t	sd	p
Loneliness Levels	Male	53	61,72	8,63	-0,810	103	,420
	Female	52	63,17	9,78			

According to Table 9, $t(103)=-0,810$ and $p>,05$; there is no variation in the loneliness state of students in terms of gender.

Findings of the variation in the loneliness of Science and Art Education Center High School Students according to the variable of daily internet use period are presented below;

Shapiro-Wilk normalcy test is calculated for the test to be used for determining the variation in the loneliness levels of Science and Art Education Center High School Students in terms of the variable of daily internet use period. It is determined that the loneliness level of Science and Art Education Center High School Students don't normally distribute according to their internet use period.

Science and Art Education Center High School students' loneliness state variations according to daily internet use period are calculated with independent Kruskal-Wallis and the results are presented below in table 10.

Table 10. Kruskal-wallis h test results of science and art education center high school students' loneliness scale scores according to daily internet use period

Score	Internet Period	Use	N	Rank Average	sd	X ²	p
Loneliness Levels	Less than 1 hour		11	55,77	2	0,118	,943
	Between 1-4 hours		57	52,36			
	More than 4 hours		37	53,16			
	Total		105				

As can be seen in table 10, the difference between the loneliness level rank average and daily internet use period groups' rank average isn't statistically meaningful ($X^2=0,118$; $sd=2$; $p>,05$).

Findings of the variation in the loneliness state of Science and Art Education Center High School Students according to the variable of mother education level are presented below;

Kolmogorov-Simirnov normalcy test is calculated for the test to be used for determining the variation in the loneliness levels of Science and Art Center High School Students in terms of the variable of mother education level. The calculated results indicate that the loneliness levels of students don't normally distribute according to the variable of mother education level ($Z=,162$; $p<,05$ for primary/high school graduate and $Z=,081$; $p>,05$ for university and higher education graduate).

Science and Art High School students' loneliness state variations according to mother education level are calculated with the Mann Whitney-U test and the results are presented below in table 11.

Table 11. Mann whitney-u test results of science and art education center high school students' loneliness scale scores according to mother education level

Score	Group	N	Rank Average	Rank Total	U	z	p
Loneliness Levels	Primary-High School Graduate	49	56,26	2756,50	1212,50	-1,026	,305
	University or Higher Education Graduate	56	50,15	2808,50			
	Total	105					

As can be seen in Table 11, Mann Whitney-U Test is conducted to understand if there are any variations in Science and Art Education Center High School students' scores from the loneliness scale according to mother education level; the obtained results indicate that there is not a meaningful difference between groups (Mann Whitney-U=1212,50; $z=-1,026$; $p=,305$).

Findings of the variation in the loneliness state of Science and Art Education Center High School Students according to the variable of father education level are presented below;

Shapiro-Wilk normalcy test is calculated for the test to be used for determining the variation in the loneliness levels of Science and Art Education Center High School Students in terms of the variable of father education level. According to the calculated results, the loneliness levels of students don't normally distribute according to the variable of father education level ($Z=,956$; $p>,05$ for primary/high school graduate and $Z=,964$; $p<,05$ for university and higher education graduate).

Science and Art Education Center High School students' loneliness state variations according to father education level are calculated with the Mann Whitney-U test and the results are presented below in table 12.

Table 12. Mann whitney-u test results of science and art education center high school students' loneliness scale scores according to father education level

Score	Group	N	Rank Average	Rank Total	U	z	p
Loneliness Levels	Primary-High School Graduate	28	53,27	1491,50	1070,50	-0,054	,957
	University or Higher Education Graduate	77	55,90	4073,50			
	Total	105					

As can be seen in Table 12, Mann Whitney-U Test is conducted to understand if there are any variations in Science and Art Education Center High School students' scores from the loneliness scale according to father education level; the obtained results indicate that there is not a meaningful difference between groups (Mann Whitney-U=1070,50; $z=-0,054$; $p=,957$).

Findings of the relationship between the internet addiction of Science and Art Education Center High School Students and their loneliness state are presented below;

Kolmogorov-Simirnov normalcy test is calculated for the test to be used for determining the relationship between the internet addiction of Science and Art Education Center High School Students and their loneliness state. According to the calculated results, the internet addiction levels of students don't normally distribute according to their loneliness state level ($Z=,077$; $p>,05$ for internet addiction level and $Z=,105$; $p<,05$ for loneliness level).

Results of Spearman rank difference correlation analysis, used in determining the relationship between Science and Art Education Center High School Students' internet addiction level and loneliness states are presented in table 13.

Table 13. Results of the spearman rank difference correlation analysis conducted for determining the relationship between internet addiction levels and the loneliness states of students

Variable	N	r	p
Internet Addiction Levels	105	-0,143	,145
Loneliness Levels			

As can be seen in table 13, Spearman Rank Difference Correlation analysis is conducted to determine the relationship between the internet addiction level of Science and Art Education Center High School students and their loneliness states. According to the results, there is not a statistically meaningful relationship between scores. On the other hand, according to Bursal (2017), there is a negative and weak relationship between these scores ($r_s=-0,143$; $n=105$; $p=,145$).

Discussion, Conclusion and Recommendations

The purpose of this research is to analyze the relationship between the loneliness and internet addiction of the students studying at the Science and Art Education Center according to different variables (gender, parents' education level). When the related literature is analyzed in the scope of this research study, it is determined that there is no domestic or foreign study directly focusing on the relationship between loneliness and internet addiction. The results of this study indicate that the gifted students studying at Science and Art Education Center don't have internet addiction. When the literature is analyzed, it is observed that the gifted students studying at these centers between the ages of 12-17 have higher internet addiction scores when compared to the students between the ages of 9-11 (Yavuz, 2018). According to the results of the Turkish Statistical Institute, individuals between the ages of 16-24 use the internet more than the other individuals (Turkish Statistical Institute, 2019).

According to the second finding of the research the gifted students studying at Science and Art Education Center experience a high level of loneliness. Bayram and Gündoğmuş (2016) mention that according to their research study, the individuals who stand alone are more outgoing.

This research study's results indicate that there is not a differentiation between internet addiction levels and gender of the gifted students studying at the Science and Education Art Center. When the related literature is analyzed, it is seen that Fariz and Sarıcı-Bulut (2019) determined that there is not a meaningful difference in the internet addiction level of high school students in terms of gender. There are studies in the literature supporting our finding of the inefficiency of the variable of gender's impact on internet addiction (Bayraktar and Gün, 2007). Although it is determined that there isn't a difference in internet addiction in terms of gender, it should be noted that the number of male students in the group of internet addicts is higher than that of females. On the other hand, there are

studies in the related literature showing that the number of internet addict male students is higher than the internet addict female students. The internet addiction level of males is statistically higher than the internet addiction level of females (Doğan, 2013). According to the research study of Derin and Bilge (2016), internet addiction is significantly affected by gender, which is a demographic variable. The results of their study show that internet addiction score average of males is higher than that of females.

When the findings of the research study by Bayram and Gündoğmuş are analyzed, it can be seen that internet addiction total score of male students is higher than the total score of female students. This result indicates that male students have a higher tendency to be internet addicts when compared to female students (Bayram and Gündoğmuş, 2016). In their study, Karasu, Bayır, and Çam (2017) determined that male students' internet addiction level is higher than that of female students.

In this research study, it is found that there is not a differentiation between internet addiction levels and daily internet use period of the gifted students studying at Science and Art Education Center. In the study they completed, Bayram and Gündoğmuş (2016) mention that there is an increase in the tendency towards internet addiction in line with the increase in internet use period. This finding corresponds to the fact that Science and Art Education Center students aren't internet addicts.

In this research study, it is determined that internet addiction levels of students of the Science and Art Education Center don't vary according to the mother and father's education level. The analyses in the literature similarly indicate that parents' education level doesn't cause any meaningful difference in internet addiction (Fariz and Sarıcı-Bulut, 2019). High school students' internet addiction states don't have any statistical difference according to parents' education level. There are also some different results in the related literature about the relationship between internet addiction and parents' education level (Doğan, 2013). There are many studies about the effects of parental behaviors (controlling the duration of internet usage, trying to deterrent, etc.) with similar thinking on internet addiction (Manap and Durmuş, 2021; Venkatesh, Sykes, Chan, Thong and Hu, 2019).

Loneliness stat of the gifted students studying at Science and Art Education Center involved in this study don't vary according to gender. However, there are different types of results in the literature. This research study's results show that the perception of loneliness doesn't meaningfully change according to gender. This finding indicates that the perception of loneliness may be related to personality types rather than the context of gender. On the other hand, it is thought that the feeling of loneliness generally experienced during puberty, maybe the reason behind the inefficiency of the gender variable in this study. As mentioned in the literature, individuals at the period of puberty mostly tend to feel lonely (Bayram and Gündoğmuş, 2016).

In this research study, it is found that the loneliness state of the gifted students at the Science and Art Education Center doesn't vary according to their daily internet use period. There are different types of results about the issue in the literature. There are some studies in the literature, supporting the findings of our study. For instance, according to the study by Bayram and Gündoğmuş (2016), there is not a meaningful difference in feeling lonely and internet use period. In some studies, it is found that the individuals who have high scores in internet addiction scale feel lonelier (Durak-Batıgün and Hasta, 2010).

According to the results of this research study, the loneliness state of the gifted students at the Science and Art Education Center doesn't vary according to their parents' education level. On the other hand, there is a negative and weak relationship between loneliness state and internet addiction levels of the gifted students included in this study.

The problem of internet addiction in Turkey is more commonly seen in the young and children, who are more efficient internet users. Because of this fact, parents are in search of centers that can treat the problems caused by internet addiction. Although this problem has been currently experienced in Turkey, Far-Eastern countries and the United States have gotten used to this situation; many treatment centers are serving the purpose of treating internet addicts (Bozkurt, Şahin, and Zoroğlu, 2016).

Features and necessities of the students living in the modern, fast-changing world should carefully be determined by the school counseling services. These services should contact the family, teachers, and friends of the students who tend to have internet addiction; in addition to this, preventive and intervening studies should be organized and carefully followed. As this research study is conducted in the Science and Art Education Center in the city of Sivas, Turkey, the topic of "Internet Addiction and Loneliness" can be studied in different cities; based on these studies, the state of Science and Art Education Center Students in terms of internet addiction can be generalized in Turkey and the results can be analyzed in a much broader frame. The problem of internet addiction has been increasing every day not only in Turkey but also all around the world. Public Service Announcements can be prepared and the general public can be informed, which can increase the consciousness about this modern type of addiction.

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