

## Examining the level of internet addiction of adolescents in terms of various variables

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### Abstract

The aim of the research is to examine the internet addiction of adolescents according to their genders, the type of their high-schools and class level, the time interval that they use internet most widely, their internet usage duration and usage purpose. For that, it is studied with 335 high-school students in Elazığ city of Turkey in 2015. The internet addiction scale that Young (1998) developed was used to determine internet addiction of adolescents. In the analysis of data, t-test and unilateral variance analysis were used. At the result of analysis, the mean score of that adolescents got by internet addiction scale was determined as  $\bar{X} = 2,69$ . In analysis between variables it was seen that the internet addiction level of Science-High School students was lower compared to Anatolian and Vocational High-School students. It was observed that the more the usage duration increases the more the internet addiction increases. It was determined the students who use internet mostly for games or social media are more addicted. Besides; as statistical, a significant difference wasn't determined between genders, classes and the variables that internet is mostly used.

Keywords: Internet, internet addiction, adolescent, high-school students.

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## 1. Introduction

Every period of development has a special place in the human life. However the development period of adolescence is an extremely important period which is a bridge between childhood and adulthood, to set the conditions of adult life, to take vital steps for life (Karanci, Gencoz & Bozo, 2011). Adolescence is a period that individuals live many changes in physical, cognitive and social-emotional areas (Erikson, 1984). Experienced changes can show themselves in many different areas in the life. Especially in a time like today that internet enters the human life so much, the use of internet by adolescents can affect their lives from many perspectives from friendships, family relationships to the school life (Kim & Kim, 2002). Although internet was constructed principally to facilitate communication and research activities, the increase of internet usage importantly has caused pathologic usage in last years. Healthy internet usage is to use internet for a clear purpose in a certain time without a cognitive or behavioural trouble. Healthy internet users can distinguish the internet communication and the communication in the real life. But everyone can't use internet in such healthy way. This situation is called internet addiction. Young; who is one of the first researchers that made studies on internet addiction; defines internet addiction term as not to be able to prevent the desire for internet usage, to lose the importance of the time that is spent without internet, the nervousness due to lack of internet, being aggressive, the deterioration of job, family and social life of the person (Young, 1996). The aim of our study is to determine internet level addictions of adolescents especially high-school students, who are mostly effected by internet addiction, in terms of various variables.

## 2. Method

### 2.1. Research Model

The descriptive scanning model is used in the studies which purpose to collect data to determine specific characteristics of a group and their status (Buyukozturk et al., 2011; Karasar, 2012). For this reason, descriptive scanning model was used in the study.

### 2.2. Data Collection Tool

One-dimensional 20-question "Internet Addiction Scale" (IAS), which was developed by Young (1996) and was translated to Turkish by Bayraktar (2001), was used as data collection tool. In IAS, which is a likert-type scale, it is wanted from participants to tick one of the options "Never", "Rarely", "Sometimes", "Often", "Very Often" and "Always". Data analysis was made by giving points between 0-5 to these options. Cronbach's Alpha value, which is internal consistency coefficient of the scale, was found as 96 in this study. It is determined that 70 percent and over values are acceptable (Buyukozturk et al., 2011; Secer, 2013).

### 2.3. Data Analysis

Data analysis was made with the application SPSS. In consequence of normal distribution analysis made, it was concluded that the distribution generally provided the normality conditions. Therefore it was decided to use parametric tests. In data analysis, *t test and one-way variance analysis* were used for independent samples. The significance difference was evaluated with the sensitivity of  $p < .05$ .

## 2.4. Sample

The study group is formed by 335 high school students in Elazig province of Turkey in 2014-2015 education season. Schools and students were selected by simple random sampling. The personal data about students were given in the Table 1.

Table 1. Descriptive statistics of students

Variables		n	%
Type of High School	Anatolian	112	33,4
	Science	83	24,8
	Vocational	140	41,8
Gender	Female	169	50,4
	Male	166	49,6
Grade	9th grade	86	25,7
	10th grade	88	26,3
	11th grade	86	25,7
	12th grade	75	22,4

## 3. Findings

The findings of data analysis on the different variables analyzed in terms of the level of high school students' internet addiction is given in Table 2.

Table 2. Internet addiction level of students according to the variables

Gender	N	$\bar{X}$	ss	t	p	
Female	169	2,73	1,17	.643	.520	
Male	166	2,65	1,18			
Type of High School	N	$\bar{X}$	ss	F	p	Significant difference
Anatolian	112	2,83	1,25			
Science	83	1,78	0,91	43.081	.000*	B-A
Vocational	140	3,11	0,94			B-C
Grade	N	$\bar{X}$	ss	F	p	Significant difference
9th grade	86	2,60	1,21			
10th grade	88	2,97	1,15	2.264	.081	-
11th grade	86	2,58	1,17			
12th grade	75	2,60	1,13			
Time period	N	$\bar{X}$	ss	F	p	Significant difference
09:00-15:00	62	2,58	1,16			
15:00-21:00	199	2,65	1,17	.790	.500	
21:00-03:00	68	2,86	1,23			
03:00-09:00	6	2,93	0,90			
Time (Hour)	N	$\bar{X}$	ss	F	p	Significant difference
0-2	83	1,33	0,65			

2-4	77	2,37	1,02	165.092	.000*	D-E, D-F, D-G,
4-6	85	3,30	0,71			E-F, E-G, F-G
6 and over	90	3,65	0,55			
Aim	N	$\bar{X}$	ss	F	p	Significant difference
News	7	1,25	1,24			
Movie-Music	22	1,99	1,12			
Social media	128	2,96	0,90			H-J, H-M, I-J,
Surfing	19	2,31	0,90			I-M, K-L, K-M,
Task/Research	41	1,18	0,65	31.811	.000*	L-J, L-K, L-M,
Game	100	3,40	0,91			N-M
Chat	16	2,11	1,21			
Others	2	2,05	0,57			

\*p<.05, A=Anatolian, B=Science, C=Vocational  
D=0-2 hours, E=2-4 hours, F=4-6 hours, G=6 and over hours  
H=News, I= Movie-Music, J= Social media, K= Surfing, L= Task/Research, M=Game, N=Chat

The average value of the internet addiction level of high school students was found as  $\bar{X}$  =2,69 with 1,17 standard deviation. This average is a “medium” level because of that it was obtained from a scale that was made with six scales. At the same time, the internet addiction level of Anatolian and Vocational High School students is more, compared to the students of Science High School; and this difference is significant ( $F_{332}=43.081$ ,  $p<.05$ ). Secondly, the more internet usage duration increases the more addiction level also increases significantly and each time level changes significantly compared to the former level ( $F_{331}=165.092$ ,  $p<.05$ ). According to another finding it is seen that high school students use internet for games and social media mostly, and for tasks/researches at the least and this difference is significant as statistical according to the internet addiction level ( $F_{327}=31.811$ ,  $p<.05$ ). Lastly, at internet addiction level as statistical, a significant difference wasn’t determined in the variables high school students’ gender ( $t_{333}=0,643$ ,  $p<.05$ ), class level ( $F_{331}=2.264$ ,  $p<.05$ ) and time periods internet used ( $F_{331}=.790$ ,  $p<.05$ ).

#### 4. Results and Recommendations

Since 1996, in parallel with the rise of the internet and computer usage, it has been seen an increase in the number of research on internet addiction. It has been seen that internet is a part, even in the center, of the life of the young people at the school age. The biggest risk of this situation is that the internet addiction occurs depending on the unconscious and aimless usage by young people. In consequence of that, some personal, social and psychological problems occur. “Internet addiction” is seen among contemporary health problems that are often seen with 12-18 years old children (Gozen, Kurt & Canbulat, 2014). Therefore in this research, the internet addiction level of high school students was examined in terms of various variables. The findings that were acquired for this purpose are that Anatolian and Vocational High School students’ internet addiction level is higher than Science High School students’, the more internet usage duration increases the more internet addiction level increases, the internet is used for games and social media at most, and it is used for tasks/researches at the least. In the light of these findings, the excessive internet addiction of high school students is seen as a serious problem when the negative effects of excessive internet usage on children and young people are considered. Because internet can affect individuals personally, biologically, physiologically, psychologically and socially when it is used out of its aim uncontrollably and unconsciously (Caplan, 2002; Colwell & Kato, 2003). Besides, it was determined that the increase of internet usage duration can affect general health status of individuals in a negative way as well as it

can cause some problems as depression, isolation, aggressiveness (Anderson & Bushman, 2001; Yang, Choe, Baity, Lee & Cho, 2005).

One of the most important factors that increase the internet addiction level is online games. Because it is foreseen that online games can increase the internet addiction level due to their long durations, that it is played continuously because they don't have a certain finish point, that some symbolic symbols are given (money, rank, territory, director, founder, warrior etc.), that it can provide a new identity which is far from the real life. It was determined in the studies, which Gunuc (2009), Inan (2010) and Yilmaz, Sahin, Haseski and Erol (2014) made, that the internet addiction of people, who use internet mostly for games, increase and they are more bent to this addiction. Also, in the research of Taylan and Isik (2015), it was determined that there is a linear relation at a medium level between internet addiction and interactive play time, and it is an important factor that increases online-offline interactive play time. It was observed that the result of the researches carried out, and the result of this research are coherent.

Another finding of the research is that schoolgirls are more bent to the internet addiction although a significant difference about internet addiction level wasn't observed according to the genders of high school students. Unlike the finding of this research, in the studies Gunuc (2009), Inan (2010), Tacyildiz (2010), Yilmaz, Sahin, Haseski and Erol (2014) and Gokcearslan and Gunbatar (2012) search about the internet addiction level according to genders, boys' internet addiction level is high compared to the girls and as statistical they found this level significant. It can be said that this situation is originated from the difference of mentioned study groups.

Another finding of the research is that high school students use the internet for task-research at the least. This situation can be explained with that the internet usage priorities of mentioned students are games and social media or at the same time their interest and motivation about school and lessons are low. The finding that students allow time for studying, tasks, projects etc. at the least was reached at the result of the researches which were made by Yilmaz, Sahin, Haseski and Erol (2014) and Cengizhan (2005). It was observed in the other findings which were obtained from researches that the more daily internet usage duration increases the more addiction level also increases. This result is coherent with the studies of Gokcearslan and Gunbatar (2012), Yilmaz, Sahin, Haseski and Erol (2014) and Simsek, Kilic Akca and Simsek (2015).

Besides, it was observed that the time intervals spent on internet doesn't make a difference in terms of addiction level. The addiction of the students, who couldn't unconsciously get internet use habits in certain periods, can increase. When the students are deprived of family care and control, that addiction level can increase quickly. So it is important to support individuals through informing families and using various applications that control usage duration at school and home, and support them by teaching using these technologies accurately. In this sense, it is found necessary increasing essential precautions at high school level and giving awareness-raising and information seminars for the individuals at risk about internet addiction. Also, in a research made with high school students in China it was determined that the students, who are internet addicts, addicted to internet due to lack of family care (Huang et al., 2009). The children who can't get necessary support from their family and have problems with their family, try to express themselves in the virtual world because of these problems (Lim, Bae & Kim, 2004). It seems a necessary to consult the families which are in a situation at this kind of risk before the matter becomes chronic. Because according to the result of a research made by Ayas and Horzum (2013), the families who have neglectful internet manner, have a feature prominently in internet addiction. It seems quite important to educate families about internet manner in terms of children use proper and secure internet. To prevent these kinds of problems and not to pay a price as society, everyone mainly families, educators and academicians have great responsibilities.

Recommendations in the context of this study are as follows: Awareness-raising seminars about how to benefit from internet should be given to the young people. Especially, education programs should include subjects as internet addiction and its damages, using internet consciously. Necessary

precautions can be taken by having one-on-one talk with internet addicted students and their families. Alternate social activities as cinema, theatre, museum and sporting activities should be organized and students should be fostered having different hobbies to make young people leave the virtual world. To warn the young people and families across Turkey and construct awareness about internet addiction, public service ads can be published in the media. Also, it is important that researchers make new researches to incorporate families with wider and different samples about internet addiction. Besides, discussing this problem inward by using qualitative research methods will be beneficial for increase of awareness and development of body of literature.

## References

- Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behaviour, aggressive cognition, aggressive affect, physiological arousal, and prosocial behaviour: A meta-analysis of the scientific literature. *Psychosocial Science*, 12, 353-359.
- Ayas, T., & Horzum, M. B. (2013). Internet addiction and internet parental style of primary school students. *Turkish Psychological Counselling and Guidance Journal*, 4(39), 46-57.
- Bayraktar, F. (2001). *Role of Internet using in the development of adolescent*. Master thesis. Izmir: Ege University Institute of Social Sciences.
- Buyukozturk, S., Kilic Cakmak, E., Akgun, O. E., Karadeniz, S., & Demirel, F. (2011). *Scientific research methods*. Ankara: PegemA.
- Caplan, S. E. (2002). Problematic internet use and psychosocial well-being: Development of a theory-based cognitive-behavioral measurement instrument. *Computers in Human Behavior*, 18, 553-575.
- Cengizhan, C. (2005). Students use computers and the Internet a new dimension: Internet addiction. *Journal of Ataturk Faculty of Education*, 22, 83-98.
- Colwell, J., & Kato, M. (2003). Investigation of the relationship between social isolation, self-esteem, aggression and computer game play in Japanese adolescents. *Asian Journal of Social Psychology*, 6, 149-158.
- Erikson, E. H. (1984). *Eight ages of people*. Ankara: Person & Society.
- Gokcearslan, S., & Gunbatar, M. S. (2012). Internet addiction in secondary school students. *Educational Technology: Theory and Practice*, 2(2), 10-24.
- Gozen, D., Kurt, A. S., & Canbulat, N. (2014). The current health problem: Internet addiction in children. *Journal of Dependence*, 15(1), 34-39.
- Gunuc, S. (2009). *Development of Internet addiction scale and to examine the relationship between demographic variables and internet addiction*. Master thesis. Van: 100th Year University Institute of Social Sciences.
- Huang, R. L., Lu, Z., Liu, J. J., You, Y. M., Pan, Z. Q., Wei, Z., He, Q., & Wang, Z. Z. (2009). Features and predictors of problematic internet use in Chinese college students. *Behaviour & Information Technology*, 28(5), 485-490.
- Inan, A. (2010). *Internet addiction in elementary and high school students*. Master thesis. Erzurum: Ataturk University Institute of Social Sciences.
- Karanci, A. N., Gencoz, F., & Bozo, O. (Ed.). (2011). *How do we protect our psychological health? Childhood and adolescence* (Second edition). Ankara: ODTU.
- Karasar, N. (2012). *Scientific research methods*. Ankara: Nobel.
- Kim, S., & Kim, R. (2002). A study of internet addiction: status, causes, and remedies. *Journal of Korean Home Economics Association English Edition*, 3(1), 1-19.
- Secer, I. (2013). *Practical Data Analysis with SPSS and LISREL*. Ankara: Ani.
- Simsek, N., Kilic Akca, N., & Simsek, M. (2015). Desperation and internet addiction in high school students. *TAF Preventive Medicine Bulletin*, 14(1), 7-14.
- Tacyildiz, O. (2010). *Prediction of level of high school students for Internet addiction according to the some variables*. Master thesis. Izmir: Ege University Institute of Social Sciences.

Ayaz, F., M. & Karatas, K. (2016). Examining the level of internet addiction of adolescents in terms of various variables. *World Journal on Educational Technology: Current Issues*, 8(3), 238-244.

Taylan, H. H., & Isik, M. (2015). Internet addiction among secondary school and high school students in Sakarya. *Turkish Studies-International Periodical for the Languages, Literature and History of Turkish or Turkic*, 10(6), 855-874.

Yang, C. K, Choe, B. M., Baity, M., Lee, J. H., & Cho, J. S. (2005). SCL 90-R and 16PF profiles of senior high school students with excessive internet use. *Canadian Journal of Psychiatry*, 50(7), 407-414.

Yilmaz, E., Sahin, Y. L., Haseski, H. I., & Erol, O. (2014). An analysis of internet addiction among high school students with respect to several variables. *Journal of Educational Sciences Research*, 4(1), 133-144.

Young, K. S. (1996). Internet addiction: The emergence of a new clinical disorder. *Cyber Psychology & Behavior*, 1(3), 237-244.