

International Journal of Educational Methodology

Volume 5, Issue 2, 235 - 245.

ISSN: 2469-9632 http://www.ijem.com/

Investigation of Social Media Addiction of High School Students

Ozlem Afacan* Kirsehir Ahi Evran University,TURKEY **Neslihan Ozbek** Kirsehir Ahi Evran University, TURKEY

Received: March 19, 2019 • Revised: April 2, 2019 • Accepted: April 25, 2019

Abstract: The aim of this study was to investigate the social media addiction of high school students in terms of some variables such as age, class, type of school, gender and daily average internet usage period. Survey method was used in the study. "Social Media Addiction Scale" (SMAS) developed by Tutgun-Unal and "Personal Information Form" prepared by the researcher were used as data collection tools. The data were obtained from a total of 596 students studying in three high schools with different academic achievement level in Kirsehir in Turkey. No significant difference was found in terms of gender variable. When the total scores of high school students on Social Media Addiction Scale are examined, it is determined that the students have "low level of addiction". In addition, it was found that there was a significant relationship between high school students' daily average internet usage time and social media addiction.

Keywords: Social media addiction, daily average internet usage period, high school student

To cite this article: Afacan, O., & Ozbek, N. (2019). Investigation of social media addiction of high school students. *International Journal of Educational Methodology*, *5*(2), 235-245.doi: 10.12973/ijem.5.2.235

Introduction

Social media is one of the most ideal media platforms for people because it can be updated continuously, is open to multiple use, allows virtual sharing, etc. People write daily thoughts on social media discuss these ideas and put forward new ideas (Vural & Bat, 2010). Kaplan and Haenlein (2010) describe social media as an entire of web-based tools that users are in central and allow users to be created and developed with regard to both ideological and technological content.

To summarize the definitions of social media in the literature, we can define social media as social domain in where individuals or communities can communicate with each other or with others on a virtual platform, share information, photos, videos, opinions or instant feelings, on the other hand, social media provides people to follow occupational news and current issue, to establish new friendships, and to come together according to a certain thought and constituting various communities (Akkus, Afacan & Ozbek, 2018).

The internet has become an indispensable lifestyle for people and is an important tool for people to communicate. The use of social media, which became widespread and popular, gained different communication dimensions among people (Bedir, 2016; Cakmak, 2014; Kahraman, 2013). People spend a lot of time on social media which can make them addicted.

Social media addiction is one of the biggest problems of our age that we face. Social media addiction can be expressed as a psychological problem which causes problems such as occupation, emotion modification, relapse and conflict in many areas of daily life such as private, business/academic, interpersonal in person's life by progressing with cognitive, affective and behavioral processes (Tutgun-Unal, 2015). The use of social media can lead to social media addiction, which requires someone to control social media use and use it in a way that interferes with other life tasks (Ryan, Chester, Reece, & Xenos, 2014). Social media addiction is a form of internet addiction in which individuals refer to social media as a desire to overuse (Starcevic, 2013). Individuals with social media addiction often worry too much about social media and feel an uncontrollable desire to sign in and use social media (Andreassen & Pallesen, 2014).

With the development of mobile devices and internet networks among today's technologies, some purposes such as feeling loneliness of people, communicating and spending time on the Internet etc. increase the use of social media applications (Andreassen, Torsheim, Brunborg & Pallesen, 2012). In some studies it was found that social media is used

*Corresponding author:

🖂 ozlemafacan2005@gmail.com

OzlemAfacan ,KirsehirAhiEvran University, Science Education Department, Kirsehir/Turkey.

at a high level among the students and Facebook is the most widely used social media environment (Balci & Golcu, 2013; Ellison, Steinfield & Lampe, 2007; Gurultu, 2016; Mazman, 2009; Wu, 2013).

With each passing day technology and Internet networks are rapidly developing and progressing. Nowadays, with developing technology and increasing the use of the Internet, using social media is among the indispensables in our lives. Increasing and improving the number of social media platforms in terms of digital and contextual way causes the number of users to increase.

Research has shown that extraversion is an indicator of social media use and addiction (Wilson, Fornasier & White, 2010). It is, therefore, important to understand the causes, consequences and solutions of social media addiction.

Social media addiction in Turkey (Bedir, 2016; Tutgun-Unal, 2015) and in the world increases (Al Mamun & Griffiths, 2019; Griffiths, 2000, 2012). Therefore, it is important to investigate the social media addiction of high school students. It is expected that the results of the study will contribute to the literature and guide further studies.

Purpose of the Study

The purpose of the study is to examine social media addiction status of the students in three high schools who have different achievement status in Kirsehir in Turkey in terms of gender, age, class, high school type and daily average internet usage period. For this purpose, the following research problem and the sub-problems were sought.

Research Problem

What are the social media addiction levels of students who study in different high schools?

Sub-Problems of the Research

- Does the status of social media addiction of high school students differ in terms of gender?
- Does the status of social media addiction of high school students differ in terms of age?
- Does the status of social media addiction of high school students differ in terms of types of high school?
- Does the status of social media addiction of high school students differ in terms of grade level?
- Does the status of social media addiction of high school students differ in terms of daily average internet usage period?

Method

Design of the Research

Survey method was used in the study since the purpose of the study is to examine social media addiction status of the students who study at high schools in Kirsehir in Turkey in terms of some variables.

Data collection studies which are conducted to determine the characteristics of individuals in a study group consisting of a group or individual are defined as survey method (Buyukozturk et al., 2017). It can also be defined as a research that shows whether there is a differentiation between the groups formed according to a determined variable of social media addiction status of high school students (Karasar, 2005).

Research Group

The study group consisted of a total of 596 students. 189 of students study at Anatolian High School A in Kirsehir, 211 students studying in Anatolian High School B and 196 students in vocational and technical high schools. Class levels, type of school and gender distribution of the students participating in the study are shown in Table 1 and Table 2.

	Female		Ма	Male		
	f	%	f	%		
High School A	113	59.78	76	40.22	189	
High School B	108	51.18	103	48.82	211	
High School C	83	42.34	113	57.66	196	
Total	304	51.00	292	48.99	596	

Table 1. Distribution of school type and gender of the study group

According to Table 1, 304 students (51.00%) are female and 292 (48.99%) are male.

	9th Grade	10th Grade	11th Grade	12th Grade	Total
High School A	44	50	47	48	189
High School B	43	52	67	49	211
High School C	47	50	50	49	196
Total	134	152	164	146	596

Table 2. Distribution	of arada loval	and school t	una of tha st	udu aroun
Tuble 2. Distribution	oj gruue ievei	unu school i	ype oj tile st	uuy yroup

When Table 2 is examined, 134 of the students participating in the research are 9th grade, 152 of them are in the 10th grade, 164 of them are in the 11th grade and 146 of them are in the 12th grade.

Characteristics of schools

High School A is a high school in Kirsehir. The overall academic achievement of the students in this school is high.

High School B is a high school in Kirsehir. The overall academic achievement of the students in this school is medium.

High School C stands for a vocational and technical high school in Kirsehir. The overall academic achievement of the students in this school is low.

Data collection tools

Data were collected with 'Personal Information Form' including high school students' gender, grade level, school type and daily average internet usage period. Social Media Addiction Scale (SMAS) developed by Tutgun-Unal (2015) was used to determine high school students' social media addiction status. Scale consisting of 41 items with 5 point - likert scale has four dimensions (Occupation, mood modification, relapse and conflict). Internal coefficient of consistence was found as .97 by researchers who developed the scale. Since the sample was different, a reliability analysis was performed once again with the obtained data and the Cronbach alpha was found as .97.

Data Collection Process

Social Media Addiction Scale (SMAS) developed by Tutgun-Unal (2015) and "Personal Information Form" were used as data collection tools. During the data collection, data were collected by the researcher face to face and within 3 week period in the classroom environment according to ethical rules.

Analysis of Data

The scores obtained from the SMAS were aggregated and divided into 5 because they were 5-point Likert-type, and the lowest score was 41, and the highest score was 205. The ranges of these scores are presented in Table 3.

Level of Addiction	SMAS(Total)	Occupation	Mood Modification	Relapse	Conflict
No Addiction	41-73	12-21	5-8	5-8	19-33
Low level of Addiction	74-106	22-31	9-12	9-12	34-48
Medium level of Addiction	107-139	32-41	13-16	13-16	49-63
High level of Addiction	140-172	42-51	17-20	17-20	64-78
Too much level of Addiction	173-205	52-60	21-25	21-25	79-95

Table 3. Range of addiction points of SMAS

For the data analysis, SPSS statistical program was used. In order to provide normal distribution of data, test of Kolmogrov-Simirnov was used. According to test of Kolmogrov-Simirnov, data were distributed normally (Z=1.336, p>.05). For this reason, t-test and one-way ANOVA was used.

Findings

In this section, the data collected from 596 students with SMAS and findings are included.

Findings Related to the Research Problem

Findings related to social media addiction status of high school students are shown in Table 4.

Table 4. Social media addiction status of high school students

Scale	Ν	Μ	Std. Deviation	Min	Max
Social Media Addiction Scale	596	100,69	37,29	41	205

When Table 4 is examined, the total score (M=100.69) of high school students from SMAS is among category of low level of addiction. Result of factor analysis (occupation, mood modification, relapse and conflict) was presented in Table 5.

Factors	Ν	Μ	Std. Deviation
Occupation	596	34.00	12.84
Mood Modification	596	12.70	5.63
Relapse	596	11.71	5.44
Conflict	596	42.27	18.42

Table 5. Factors of SMAS

According to Table 5, when the mean scores of the sub-factors were examined, it was concluded that the average of occupation factor score was M= 34.00 and that students have medium level of addiction.

The mean of score of mood modification was M=12.70, and it was concluded that students have medium level of addiction. It was revealed that the mean of score of Relapse factor was M=11.71, and the mean of score obtained from conflict factor was M=42.27. According to these results, the mean scores of the students from the relapse and conflict factor can be explained as being low level of addiction on social media.

Findings on First Sub-Problem

Considering the total scores taken from the sub-factors (occupation, mood modification, relapse and conflict) constituting the SMAS, whether there is a difference among social media addictions of high school students in terms of gender variables was determined with independent sample t-test and these results are given in Table 6.

Scale/Sub Factors	Gender	Ν	Μ	Std. Deviation	df	t	Sig.
Occupation	Female	304	35.19	13.43	594	2.33	.042*
Occupation	Male	292	32.75	12.10	594	2.33	.042
Mood Modification	Female	304	13.10	5.90	594	1.76	.060
Mood Modification	Male	292	12.29	5.31	594	1.70	.060
Delenae	Female	304	11.74	5.76	F04	.146	020*
Relapse	Male	292	11.67	5.05	594		.038*
C El : -+	Female	304	41.14	18.19	F04	1 5 2	410
Conflict	Male	292	43.44	18.61	594	-1.52	.419
CMAC	Female	304	101.19	38.36	F04	226	(11
SMAS	Male	292	100.16	36.20	594	.336	.611
* 07							

Table 6. T-test results of high school student's status of social media addiction in terms of gender variable

*p<.05

When Table 6 is examined, there was no significant difference between the total scores of the students' social media addiction scale and gender variable. There was no significant difference (p>.05) in terms of gender variable among the scores of mood modification factor and conflict factor scores of the scale, but it was found that there was a statistically significant difference between relapse factor scores [$t_{(594)}$ = .146; p<.05] and the occupation factor scores [$t_{(594)}$ =2.33; p<.05] in terms of gender variable. In other words, female students were more engaged with social media than males.

Findings on Second Sub-Problem

One-way analysis of variance (ANOVA) was performed to determine whether the social media addiction status of high school students differed significantly in terms of age variable. The results are shown in Table 7.

Table 7. One-way ANOVA results of high school student's status of	f social media addiction in terms of age variable
---	---

Scale/Sub Factors	Age	N	М	Std. Deviation	df	F	Sig.
	14	31	34.06	13.13			
Occupation	15	114	35.07	12.79			
Occupation	16	149	33.30	13.11	F 00	(01	(21
	17	199	34.44	1290	590	.691	.631
	18	98	33.26	12.46			
	19	5	26.60	9.98			
	14	31	13.32	5.96			
	15	114	12.47	5.52			
Mood Modification	16	149	12.30	5.92	590	.764	
Mood Modification	17	199	13.00	5.41	590	.764	.576
	18	98	12.96	5.73			
	19	5	9.40	3.28			

Scale/Sub Factors	Age	Ν	Μ	Std. Deviation	df	F	Sig.
	14	31	12.38	5.75			
	15	114	11.44	5.22			
Delenee	16	149	11.12	5.35	F 00	1 1 1 1	252
Relapse	17	199	12.12	5.37	590	1.111	.353
	18	98	12.01	5.85			
	19	5	8.60	4.61			
	14	31	43.32	20.78	590 1.924		.089
	15	114	40.62	17.38			
Conflict	16	149	39.26	16.92		1 0 2 4	
Commet	17	199	44.21	19.03		.009	
	18	98	44.79	19.36			
	19	5	36.40	16.33			
	14	31	103.09	41.50			
	15	114	99.62	35.22			
CMAC	16	149	95.99	36.50	F 00	1 1 4 0	222
SMAS	17	199	103.78	37.08	590	1.149	.333
	18	98	103.04	39.82			
	19	5	81.00	32.41			

Table 7. Continued

*p<.05

When Table 7 is examined, it is seen that there was no statistically significant difference in the social media addiction status of the students according to the age variable ($F_{(5-590)}$ =1.149; p>.05). Status of students' social media addiction did not differ in terms of age.

Findings on Third Sub-Problem

One-way analysis of variance (ANOVA) was performed to determine whether the social media addiction status of high school students differed significantly in terms of types of high school. The results are shown in Table 8, Table 9 and Table 10.

Scale/Sub Factors	High School	Ν	Μ	Std. Deviation
Occupation	A	189	32.61	13.41
	В	211	33.18	12.98
	С	196	36.20	11.85
	А	189	11.41	5.50
Mood Modification	В	211	12.45	5.55
	С	196	14.22	5.50
	А	189	11.12	5.69
Relapse	В	211	11.74	5.25
	С	196	12.23	5.35
	А	189	37.14	17.08
Conflict	В	211	43.89	18.65
	С	196	45.47	18.45
	Α	189	92.29	37.11
SMAS	В	211	101.28	37.18
	С	196	108.14	36.08

 Table 8. Descriptive statistics related to the of high school student's status of social media addiction in terms of types of

 high school

As can be seen in Table 8, high school students' social media addiction scores increase respectively (M=92.29, 101.28 and 108.14).

Table 9. Test of homogeneity of variances

Levene Statistic	df1	df2	Sig.
,194	2	593	,824

Levene test conducted to test the homogeneity of the variances belonging to the data revealed that the variances were homogenous (p>.05), (Table 9). Since the data were homogeneous, Scheffe test was performed.

Scale/Sub	High School	Sum of Squares	df	Mean Square	F	р	Sig.	η^2
Occupation	Between Groups	1451.175	593	725.587	4.451	.012*	C-A	0.014
	Within Groups	96672.825		163.023				
	Total	98124.000						
Mood	Between Groups	784.401	593	392.201	12.850	.000	C-A	0.041
Modification	Within Groups	18092.800		30.511			C-B	
Fiounication	Total	18877.201					U D	
	Between Groups	120.745	593	60.372	2.047	.130		0.000
Relapse	Within Groups	17489.618		24.493				
	Total	17610.362						
	Between Groups	7535.458	593	3767.729	11.492	.000	B-A	0.037
Conflict	Within Groups	194427.5		327.866				
	Total	201960.0						
	Between Groups	24292.140	593	12146.070	8.967	.000	C-A	0.029
SMAS	Within Groups	803275.1		1354.595				
	Total	827567.2						

Table 10. One-way ANOVA results of high school student's status of social media addiction in terms of types of high school

*p<.05

It is seen that there was a statistically significant difference in the social media addiction status of the students according to the type of high school variable ($F_{(2-593)}$ =8.967; p<.05). Status of students' social media addiction did not differ in terms of age. This significant difference was found to be between the C Vocational and Technical High School with low academic achievement and the A High School with high academic achievement level in favor of C Vocational and Technical High School.

When the factors of social media addiction scale are examined; a significant difference was found between C Vocational and Technical High School and A Anatolian High School. ($F_{(2-593)}$ = 4.451; p<.05). This significant difference was in favor of C Vocational and Technical High School.

In the factor of mood modification, a significant difference was found between A Anatolian High School and C Vocational High School in favor of C Vocational and Technical High School and between B Anatolian High School and C Vocational and Technical High School in favor of C Vocational and Technical High School. ($F_{(2-593)}$ = 12.85; p<.05).

There was no significant difference in the factor of relapse in terms of type of high school ($F_{(2-593)}$ = 2.047; p>.05).

In the factor of conflict, a significant difference was found between A Anatolian High School and B Anatolian High School in favor of B Anatolian High School ($F_{(2-593)}$ = 11.492; p<.05).

According to the eta square (η 2) values calculated to test the size of the high school type independent variable on the social media addiction total scores, it is seen that the students' school type on the social media addiction total scores have a "small" effect (η^2 =0.029). It was found that type of the high school variable had a "small" effect on the occupation, mood modification and conflict factors (η 2=0.014; η 2=0.041; η 2=0.037), while no effect of it on relapse was found.

Findings on Fourth Sub-Problem

One-way ANOVA was performed to determine whether social media addiction status of high school students showed a significant difference according to grade level variable. As a result of the homogeneity test, since the data were homogeneous (p>.05). Scheffe test was performed. The results are shown in Table 11.

Scale/Sub Factors	Grade	Ν	Μ	Std. Deviation	df	F	Sig.
	9	134	35.38	13.25			
Occupation	10	152	33.94	12.97	592	.761	.516
occupation	11	164	33.20	12.88	572		.510
	12	146	33.67	12.29			
	9	134	12.85	5.81			
Mood Modification	10	152	12.86	5.86	592	.641	.589
Hood Houmeation	11	164	12.19	5.14	572	572 .011	
	12	146	12.98	5.76			

Table 11. One-way ANOVA results of high school student's status of social media addiction in terms of grade level

Scale/Sub Factors	Grade	Ν	Μ	Std. Deviation	df	F	Sig.
	9	134	11.71	5.54			
Relapse	10	152	11.86	5.47	592	.921	.430
Relapse	11	164	11.16	5.07	572	.721	.150
	12	146	12.15	5.70			
	9	134	42.32	19.21			.379
Conflict	10	152	41.65	17.20	592	1.030	
Gommer	11	164	40.89	17.66	0,1	1000	107 9
	12	146	44.42	19.69			
	9	134	102.27	38.68			
SMAS	10	152	100.32	36.17	592	.724	.538
01.11.0	11	164	97.45	35.29	072		.550
	12	146	103.24	39.37			

Table 11. Continued

*p<.05

It is seen that there was no statistically significant difference in the social media addiction status of the students according to the grade level variable ($F_{(3-592)}$ = .724; p>.05). No significant difference was found between the subdimensions of the scale. Social media addiction status of high school students did not vary depending on the grade level. When the total score of the scale was examined, it was seen that the highest score belongs to the 12th grade students (M = 103.24)

Findings on Fifth Sub-Problem

One-way ANOVA was performed to determine whether social media addiction status of high school students showed a significant difference according to daily average internet usage period. The results are shown in Table 12.

Table 12.	Test of	homogeneity	of variances

Levene Statistic	df1	df2	Sig.	
,423	3	592	,736	

Levene test conducted to test the homogeneity of the variances belonging to the data revealed that the variances were homogenous (p>.05), (Table 12). Since the data were homogeneous, Scheffe test was performed.

Table 13. Descriptive statistics related to the of high school student's status of social media addiction in terms of daily
average internet usage

Scale/Sub Factors	Internet usage period	Ν	М	Std. Deviation
	Less than an hour (a)	312	31.72	12.80
Occupation	Between 1-3 hours (b)	182	35.32	12.28
occupation	Between 4-6 hours (c)	75	38.41	13.01
	More than 7 hours (d)	27	39.07	11.07
	Less than an hour (a)	312	11.86	5.54
Mood Modification	Between 1-3 hours (b)	182	13.07	5.33
Mood Modification	Between 4-6 hours (c)	75	14.76	6.21
	More than 7 hours (d)	27	14.33	5.12
	Less than an hour (a)	312	10.99	5.27
Relapse	Between 1-3 hours (b)	182	12.13	5.26
Relapse	Between 4-6 hours (c)	75	12.50	5.51
	More than 7 hours (d)	27	14.92	6.67
	Less than an hour (a)	312	38.80	17.59
Conflict	Between 1-3 hours (b)	182	44.95	18.19
donniet	Between 4-6 hours (c)	75	48.30	20.23
	More than 7 hours (d)	27	47.44	16.31
	Less than an hour (a)	312	93.39	36.52
SMAS	Between 1-3 hours (b)	182	105.48	35.79
01.11.0	Between 4-6 hours (c)	75	113.98	38.79
	More than 7 hours (d)	27	115.77	33.54

As can be seen in Table 13, as the daily internet usage period increases, high school students' social media addiction scores is also increase.

Scale/Sub	Internet usage period	Sum of Squares	df	Mean Square	F	р	Sig. Dif.	η^2
Occupation	Between Groups	4086.245		1362.082			b-a	
occupation	Within Groups	94037.755	592	158.848	8.575	.000	c-a	0.041
	Total	98124.000					d-a	
	Between Groups	634.376		211.459				
Mood	Within	18242.825	592	30.816	() ()	000	c-a	0.033
Modification	Total	18877.201			6.862	.000		
	BetweenGroups	520.211		173.404				
Relapse	Within Groups	17090.152	592	28.868	6.007	.000	d-a	0.029
	Total	17610.362			6.007	.000	b-a c-a d-a c-a d-a b-a c-a b-a c-a	0.029
	BetweenGroups	8509.243		2836.414			b-a	
Conflict	Within Groups	193450.7	592	326.775	8.680	.000	c-a	0.042
	Total	201960.0						
	BetweenGroups	24292.140		12146.070			b-a	
SMAS	Within Groups	803275.1	592	1354.595	10.08	.000	c-a	0.029
	Total	827567.2					d-a	

Table 14. One-way ANOVA results of high school student's status of social media addiction in terms of daily averageinternet usage

*p<.05

When Table 14 is examined, it is seen that there was no statistically significant difference in the social media addiction status of the students according to the daily average internet usage period $[F_{(3-592)}=10.080; p<.05]$. The Scheffe test was applied to determine that this difference is between which groups.

When the sub-dimensions of the social media addiction scale are examined, it was found that there was a significance difference between less than an hour and between 1-3 hours in favor of between 1-3 hours, between less than an hour and between 4-6 hours in favor of between 4-6 hours, between less than an hour and more than 7 hours in favor of more than 7 hours [$F_{(3-592)}$ = 8.575; p<.05].

The use of internet for more than 7 hours among high school students showed that a great time in daily life was in internet.

According to the eta square (η 2) values calculated to test the size on the social media addiction total scores, it was seen that the students' daily average internet usage period on the social media addiction total scores had a "small" effect (η^2 =0.041).

In the mood modification factor, there was a significance difference between less than an hour and between 4-6 hours in favor of between 4-6 hours $[F_{(3-592)}= 6.862; p < .05]$. It was seen that the students' daily average internet usage period on the social media addiction total scores had a "small" effect ($\eta^2=0.033$).

In the relapse factor, there was a significance difference between less than an hour and more than 7 hours in favor of more than 7 hours $[F_{(3-592)}=6.007; p < .05]$. It was seen that the students' daily average internet usage period on the social media addiction total scores had a "small" effect ($\eta^2=0.029$).

In the conflict factor, it was found that there was a significance difference between less than an hour and between 1-3 hours in favor of between 1-3 hours, between less than an hour and between 4-6 hours in favor of between 4-6 hours. It was seen that the students' daily average internet usage period on the social media addiction total scores had a "small" effect (η^2 =0.042).

Considering the total scores, it is seen that the increase in social media addiction increases as the internet usage period of the students increases.

Results and Discussion

The aim of this study was to investigate the social media addiction of high school students in terms of some variables such as age, class, type of school, gender and daily average internet usage period. In the study, the level of social media addiction of 9th, 10th, 11th and 12th grade students who were studying in three different high schools in Kirsehir was determined. The total score (M=100.69) obtained from SMAS was statistically in the category of low level of addiction.

As a result of the average scores taken from relapse and conflict factors, it was determined that they were low level of addiction on social media. When evaluated in terms of occupational and mood modification, it can be said that they use social media in order to enjoy, to eliminate loneliness or to forget the negativity in their lives. Unlike Deniz and Gurultu's

study (2018) in which high school students examined social media addiction, it was found that the students were medium level of addiction. Akkus et al., (2018) who investigate social media addictions of university students who study in the department of science education and psychological counseling and guidance found that students have low level of addiction. Gul and Diken (2018) found pre-service science teachers' social media addictions as medium level of addiction. In general, it can be said that the students in the research group were not highly dependent on social media in the studies conducted with pre-service science teachers' and high school students.

In a study conducted by Cam and Isbulan (2012) with pre-service teachers, it was found that the addiction of males on Facebook, which is one of the social media tools, is high, resulting in a decrease in their academic achievement, creating negative effects on their productivity and business performance. Yilmazsoy and Kahraman (2017) and Tutgun-Unal and Deniz (2016) reported that female students use social media more effectively than male students. Ko, Yen, Chen, Chen and Yen (2005) stated that male students use the internet for game.

In the study, it was determined that there was no statistically significant difference in social media addiction status of high school students according to age variable. Tutgun-Unal (2015) stated that students aged 17-22 are at greater risk than older people in terms of social media addiction. In the study conducted by Gunlu and Ceyhan (2017), it was concluded adolescents' use of problematic and overused mobile phones had a negative effect on their academic lives and that also caused internet addiction.

In the study, it was determined that there was statistically significant difference in social media addiction status of high school students according to type of high school variable. This significant difference was found to be between the C Vocational and Technical High School with low academic achievement and the A High School with high academic achievement level in favor of C Vocational and Technical High School. In the factor of occupation, mood regulation and conflict, a significant difference was found in favor of C Vocational and Technical High School with low academic achievement. It could be stated that the lower the academic success, the more social media addiction could be. Mingle and Adams (2015) stated that the increasing use of social media by university students and long hours spent on these platforms decreased academic performance. In their study, Wei and Wang (2011) found that students' academic efficiency decreased as a result of using social media.

It was determined that there was no statistically significant difference in social media addiction status of high school students according to grade level variable. It is thought that this result may be due to the low dependence level of high school students on social media.

There was a statistically significant difference in social media addiction status of high school students according to daily average internet usage period variable. Considering the total scores, it cas seen that the students' using of social media addiction increases as the internet usage period of the students increases. This result is similar to the results of Deniz and Gurultu's (2018) study. In a study conducted by Nalwa and Anand (2004) about students' internet addiction, they stated that as they spend more time on the internet, they are more likely to be addict. Too much use of social media can lead to addiction (Ryan et al., 2014) and students can be depressed. Anyway Jelenchick, Eickhoff and Moreno (2013) reported that high school students had higher scores on the Beck Depression Scale when they spent hours on social media.

As a result of surveys conducted with more than 6000 Hungarian adolescents, 4% of adolescents reported that they were at risk of social media addiction (Banyai et al., as cited in Al Mamun& Griffiths, 2019, p.628). Social media addiction affects about 12% of users on social networking sites (Alabi, 2012; Wu, Cheung, Ku & Hung, 2013).

The rapid development of technology, easy access to communication tools and opening a short and rapid account in social media platforms increase the interest in social media every day. This type of social media platforms can turn out to be an addiction for individuals rather than areas of entertainment and communication.

References

- Alabi, O. F. (2012). A survey of Facebook addiction level among selected Nigerian University undergraduates. *New Media and Mass Communication, 10,* 70–80.
- Al Mamun, M. A., & Griffiths M. D. (2019). The association between Facebook addiction and depression: A pilot survey study among Bangladeshi students. *Psychiatry Research*, *271*, 628-633. doi: 10.1016/j.psychres.2018.12.039
- Andreassen, C. S., Torsheim T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports*, *110*(2), 501-517. doi:10.2466/02.09.18.PR0.110.2.501-517.
- Andreassen, C. S., & Pallesen, S. (2014). Social network site addiction-an overview. *Current Pharmaceutical Design, 20,* 4053–4061. doi:10.2174/13816128113199990616
- Akkus, A., Afacan, O., & Ozbek, N. (2018). Fen bilgisi ile rehberlik ve psikolojik danismanlik ogretmen adaylarinin sosyal medya bagimliliginin incelenmesi [Investigation of social media addiction of science teacher and psychological counseling and guidance candidates. In T. Yucehan & U. Saray (Eds.), *II. International Scientific and Vocational*

Studies Congress (Bilmes 2018) Full Paper Book, (pp. 3-11). Kirikkale, Turkey: Kirikkale University. Retrieved from https://drive.google.com/file/d/1H6v_aUc43SZEO0IAU3NmJGEWp8RfTtPB/view

- Balci, S., & Golcu, A. (2013). Facebook addiction among university students in Turkey: "Selcuk University Example". *Selcuk University Journal of Studies in Turcology*, *34*, 255-278.
- Bedir, A. (2016). *The effect of using social media on collage academic success and attitude* (Unpublished master's thesis). Ataturk University, Erzurum, Turkey.
- Buyukozturk, S., Cakmak, E. K., Akgun, O. E., Karadeniz, S., & Demirel, F. (2017). *Scientific research methods* (21st ed.). Ankara, Turkey: Pegem Akademi.
- Cakmak, V. (2014). *The effect of communication apprehension on the use of social media: A case study on university students* (Unpublished doctoral dissertation). Selcuk University, Konya, Turkey.
- Cam, E., & Isbulan, O. (2012). A New addiction for teacher candidates: Social networks. *The Turkish Online Journal of Educational Technology (TOJET), 11*(3), 14-19. Retrieved from https://files.eric.ed.gov/fulltext/EJ989195.pdf
- Deniz, L., & Gurultu, E. (2018). High School Students' Social Media Addiction. *Kastamonu Education Journal*, *26*(2), 355-367. doi:10.24106/kefdergi.389780
- Ellison, N. B., Steinfield, C., L., & Lampe, C. (2007). The benefits of Facebook friends: Social capital and college students' use of online social network sites. *Journal of Computer Mediated Communication*, 12(4), 1143–1168. doi:10.1111/j.1083-6101.2007.00367.x
- Griffiths, M. D. (2000). Internet addiction: Time to be taken seriously? *Addiction Research*, *8*(5), 413–418. doi:10.3109/16066350009005587
- Griffiths, M. D. (2012). Facebook addiction: Concerns, criticism, and recommendations: A response to Andreassen and colleagues. *Psychological Reports*, *110(2)*, 518–520. doi:10.2466/01.07.18.PR0.110.2.518520
- Gul, S., & Diken, E. H. (2018). An investigation of the preservice science teachers' social media addictions. *E-Kafkas Journal of Educational Research*, *5*(1), 41-50. doi:10.30900/kafkasegt.386531
- Gunlu, A., & A. Ceyhan, A. (2017). Investigating adolescents' behaviors on the internet and problematic internet usage. *The Turkish Journal on Addictions*, 4(1), 75-117. doi:10.15805/addicta.2017.4.1.0016
- Gurultu, E. (2016). Investigation of the relation between high school students' social media addiction and academic procrastination behavior (Unpublished master's thesis). Marmara University, Istanbul, Turkey.
- Jelenchick, L., Eickhoff, J. C., & Moreno, M. A. (2013). 'Facebook depression?' Social networking site use and depression in older adolescents. *Journal of Adolescent Health*, *52*, 128–130.
- Kahraman, A. B. (2013). Non-country Facebook: University youth and Facebook use. In B. Ozcetin, G. Goker, G. Bayraktutan, I. Sayimer, & T. Comu (Eds.), *Yeni medya calismalari: kuram, yontem, uygulama ve siyasal i. ulusal kongresi kongre kitabi* [The Proceedings of New Media Studies: Theory, Method, Practice and Policy I. National Congress] (pp. 122-131). Istanbul, Turkey: Alternatif Bilisim. Retrieved from https://ekitap.alternatifbilisim.org/files/yeni_medya_calismalari-1_kongre_kitabi.pdf
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, *53*(1), 59-68. doi:10.1016/j.bushor.2009.09.003
- Karasar, N. (2015). Scientific research methods (28th ed.). Ankara, Turkey: Nobel.
- Ko, C. H., Yen, J. Y., Chen, C. C., Chen, S. H., & Yen, C.F. (2005). Gender differences and related factors affecting online gaming addiction among Taiwanese adolescents. *Journal of Nervous and Mental Disease*, 193(4), 273-277.
- Mazman, S. G. (2009). *Adoption process of social network and their usage in educational context* (Unpublished master's thesis). Hacettepe University, Ankara, Turkey.
- Mingle, J., & Adams, M. (2015). Social media network participation and academic performance in senior high schools in Ghana. *Library Philosophy and Practice (e-journal)*, 1286.
- Nalwa, K., & Anand, A. P. (2004). Internet addiction in students: A cause of concern. *Cyber Psychology & Behavior*, 6(6), 653-656. doi:10.1089/109493103322725441
- Ryan, T., Chester, A., Reece, J., & Xenos, S. (2014). The uses and abuses of Facebook: A review of Facebook addiction. *Journal of Behavioral Addictions*, *3*(3), 133-148. doi:10.1556/JBA.3.2014.016
- Starcevic, V. (2013). Is internet addiction a useful concept? Australian and New Zealand. *Journal of Psychiatry*, 47, 16–19. doi:10.1177/0004867412461693

- Tutgun-Unal, A. (2015). Social media addiction: A research on university students (Unpublished doctoral dissertation).Marmara University, Istanbul, Turkey.
- Tutgun-Unal, A., & Deniz, L. (2016). Investigation of social media addiction of university students. *Route Educational and Social Science Journal*, *3*(2), 155-181.
- Vural, Z. B. A, & Bat, M. (2010). Social media as a new communication environment: A research on Ege University faculty of communication. *Journal of Yasar University*, *20*(5), 3348-3382.
- Wei, T., & Wang, C. (2011). The characteristics of social networks of China's college students (In Chinese). *Modern Management*, *1*, 219-223. doi:10.4236/mm.2011.13039
- Wilson, K., Fornasier, S., & White, K. M. (2010). Psychological predictors of young adults' use of social networking sites. *Cyberpsychology, Behavior and Social Networking, 13*(2), 173 177. doi:10.1089/cyber.2009.0094
- Wu, P. C. (2013). Addictive behavior in relation to the happy farm Facebook application. Social Behavior and *Personality: An International Journal*, 41(4), 539–554. doi:10.2224/sbp.2013.41.4.539
- Wu, A. M., Cheung, V. I., Ku, L., & Hung, E. P. (2013). Psychological risk factors of addiction to social networking sites among Chinese smartphone users. *Journal of Behavioral Addictions*, 2(3), 160–166. doi:10.1556/JBA.2.2013.006
- Yilmazsoy, B., & Kahraman, M. (2017). An analysis of the relationship between social media addiction and social media use of university students for educational purposes: Facebook example. *Journal of Instructional Technologies & Teacher Education*, 6(1), 9-20.