



International Journal of Research in Education and Science (IJRES)

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www.ijres.net

To cite this article:

Gok, T. (2016). The effects of social networking sites on students' studying and habits. *International Journal of Research in Education and Science (IJRES)*, 2(1), 85- 93.

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The Effects of Social Networking Sites on Students' Studying and Habits

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Abstract

Social media is important to communicate with people, share/ask information, and follow/evaluate/interpret the events, etc. for everyone at the present time. The positive and negative effects of social networking sites on students' studying and habits were examined in this research. The study was conducted on 220 students in vocational school of higher education. The data were collected with the help of a questionnaire designed for gathering the students' opinions about the digital technologies and social media. The results revealed that the digital technologies and social networking sites have negative impact on students' studying and habits. Some suggestions related to the findings were presented in the study.

Key words: Digital technologies; Higher education; Internet; Smartphone; Social networking sites

Introduction

Social networking sites (SNS) have become popular with the help of digital technologies (tablet, smartphone, notebook, etc.) and internet recently (Boyd & Ellison, 2007). Social media is a virtual platform. This platform helps people to make new connections, to improve friendly relations with other humans, and to exchange information (Coyle & Vaughn, 2008; Wang, Chen, & Liang, 2011). Many social networking sites (Blogs, Facebook, Instagram, LinkedIn, Twitter, Youtube, etc.) are using at the present time. One of the most popular sites is Facebook. The statistical data showed that there are more than 500 million people with Facebook membership and the majority of them are members of other social networking sites besides approximately 250 million of these memberships visit Facebook site in each day at least one time (Boyd & Ellison, 2007).

Social media has really become an integral part of people in daily lives (Boyd & Ellison, 2007; Hakoyama & Hakoyama, 2011). Raacke & Raacke-Bonds (2008), Williams & Merten (2009) and Rafferty (2009) indicated that people have a social networking sites account based on difference reasons (making new friends, following famous people, sharing personal information, commenting the events, etc.). These people addicted to SNS are called as "heavy users". Many studies (Barnes & Laird, 2012; Carroll & Kirkpatrick, 2011; Gok, 2015; Nehls & Smith, 2014; O'Keeffe & Pearson, 2011) were conducted to determine the positive and negative effects of social networking sites. Schill (2011) reported that social media is the negative impacts (anxiety, behavioral changes, mental health problems, psychological effect, severe loss of personal productivity, stress, a sense of guilt and crisis, etc.) on adolescents. Bryant et al., (2006) indicated that many adolescents preferred technological communication in order to express their feelings and thoughts instead of using face to face communication. Wang, et al. (2011) showed that children spent plenty of time on SNS instead of doing homework, studying the courses, and preparing examination. Many studies (Duncan, Hoekstra, & Wilcox, 2012; Kalpidou, Costin, & Morris, 2011; Ophir, Nass, & Wagner, 2009; Wang et al., 2011) reported that students' grades negatively affected using of SNS.

Salas & Alexander (2008) revealed that SNS provided students to discuss about class materials and to share academic issues. Other studies (Giles & Price, 2008; Junco, Merson, & Salter, 2010; Subrahmanyam & Lin, 2007; Valkenburg & Peter, 2009; Wei & Lo, 2006) reported that the usage of social media and internet was changed to gender. They demonstrated that male spent more time than female on computer games and female spent more time than male on chatting. The purpose of the research was to examine the positive and negative effects of social networking sites on female and male students' studying and habits. The research questions investigated were: a) Are there any differences between female and male students' social networking sites usage? b) Are there any differences between female and male students' studying and habits?

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Method

The present study was used survey methodology. A questionnaire was designed for the research. The questionnaire consists of 14 questions (see Appendix A) and covers demographic information, digital technologies, social networking sites, and habits of the female and male students. The reliability and validity of the questionnaire were not analyzed in this research but the research instrument's reliability and validity will be conducted with the help of more data in the future study. The students were given approximately five minutes to fill out the questionnaire.

The research was performed on four departments (Industrial Glass and Ceramics, Geotechnic, Drilling Technology, Natural Building Stone Technology) in Torbali Technical Vocational School of Higher Education at Dokuz Eylul University, Turkey. The study sample consisted of 220 volunteer students (33% female and 67% male). The students were between 18 and 20 years of age. The collected data were analyzed by IBM-SPSS Statistics 22. The frequency distributions, means and standard deviations of female and male students' values were calculated and independent-samples *t*-test was conducted to determine the statistical difference of means between male and female students according to the statements. The difference between genders was considered significant with *p* values less than 0.05.

Results and Discussion

The results obtained from the questionnaire were given as follows. Table 1 represents the education level of the father and mother. The findings indicated that the family members of the female and male students have high school degree about 55%.

Table 1. The educational level of father and mother

Gender	I	ESG	SSG	HSG	UD	GD	
Father	F	1 (1.4%)	2 (2.80%)	8 (11.10%)	45 (62.50%)	16 (22.20%)	-
	M	-	20 (13.50%)	24 (16.20%)	78 (52.70%)	23 (15.50%)	3 (2.00%)
Mother	F	2 (2.80%)	10 (13.90%)	15 (20.80%)	40 (55.60%)	5 (6.90%)	-
	M	5 (3.40%)	20 (13.50%)	37 (25.0%)	78 (52.70%)	7 (4.70%)	1 (0.70%)

Note: F Female; M Male; I Illiteracy; ESG Elementary School Graduate; SSG Secondary School Graduate; HSG High School Graduate; UD Undergraduate Degree; GD Graduate Degree

Mean values for the educational level of father were calculated that mean values of the female and male students are 4.01 (standard deviation "*SD*" =0.75) and 3.76 (*SD*=0.94), respectively. Independent-samples *t*-test was conducted to determine the statistical difference of means between genders for identifying educational level of the students' father. The difference in the values between genders was not statistically significant [degree of freedom "*df*" =218, *t*=1.963, *p*>0.05]. Mean values for the educational level of mother were calculated that mean values of the female and male students are 3.50 (*SD* =0.91) and 3.43 (*SD*=0.92), respectively. Independent-samples *t*-test was conducted to determine the statistical difference of means between genders for identifying educational level of the students' mother. The difference in the values between genders was not statistically significant [*df*=218, *t*=.458, *p*>0.05]. Table 2 indicates the family income level. The results revealed that the family income level of the students changed monthly between 400\$ and 800\$.

Table 2. The family income level of the students

Gender	\$* <400	400≤\$<800	800≤\$<1200	1200≤\$<1600	1600≤\$<2000	2000≤\$
F	19 (27.10%)	29 (41.40%)	15 (21.40%)	4 (5.70%)	3 (4.30%)	-
M	37 (25.20%)	77 (52.40%)	24 (16.30%)	6 (4.10%)	3 (2.00%)	-

Note: \$* United States Dollar (USD)

Mean values for the household income level monthly were calculated that mean values of the female and male students are 2.18 (*SD*=1.03) and 2.05 (*SD*=0.87), respectively. Independent-samples *t*-test was conducted to

determine the statistical difference of means between genders for identifying the students' family income. It was found that the difference in the values between genders was not statistically significant [$df=215$, $t=0.972$, $p>0.05$]. Table 3 shows that the majority of the students have the smartphone between 15 and 20 years of age.

Table 3. The distribution of students having smartphone according to age

Gender	none	$5 \leq A < 10$	$10 \leq A < 15$	$15 \leq A < 20$	$20 \leq A < 25$	$25 \leq A$
F	-	-	25 (36.10%)	40 (55.60%)	4 (5.60%)	2 (2.80%)
M	-	-	48 (32.40%)	93 (62.80%)	3 (2.00%)	4 (2.70%)

Note: A * Age

Mean values for this age group of the students were calculated that mean values of the female and male students are 3.76 ($SD=0.68$) and 3.66 ($SD=0.56$), respectively. Independent-samples t -test was conducted to determine the statistical difference of means between male and female students for identifying this age group of the students which have the smartphone. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=1.168$, $p>0.05$].

Table 4 demonstrates the results of spending time on smartphone of female and male students. The results indicate that many students spend about one and half hour on smartphone in their daily life.

Table 4. The spending time on smartphone of the students in one day

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
F	-	7 (9.70%)	34 (47.20%)	13 (18.10%)	11 (15.30%)	7 (9.70%)
M	-	19 (12.80%)	74 (50.00%)	25 (16.90%)	20 (13.50%)	10 (6.80%)

Note: h * hour

Mean values for spending time of the students on smartphone were calculated that means values of the female and male students are 3.68 ($SD=1.14$) and 3.51 ($SD=1.09$), respectively. Independent-samples t -test was conducted to identify the statistical difference of means between genders for determining the students' spending time on smartphone. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=1.017$, $p>0.05$].

The students concerning this question were also asked how to spend time on smartphone. The students' response was presented in Appendix B. The answers of female and male students were analyzed in five categories (phone calls, text message, application, studying, and entertainment). The majority of female and male students use smartphone for calling friends (90%), messaging (70%), listening to music (75%), watching video (70%), and especially using SNS (85%). Only, 10% of the students are using for studying. Table 5 displays the results of spending time on computer of female and male students. About 70% of male students spend between two and three hours on the computer. This ratio for female students is roughly 55%.

Table 5. The spending time on computer of the students in one day

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
F	1 (1.40%)	10 (13.90%)	16 (22.20%)	39 (54.20%)	3 (4.20%)	3 (4.20%)
M	5 (3.40%)	14 (9.50%)	22 (14.90%)	104 (70.30%)	2 (1.40%)	1 (0.70%)

Mean values for spending time of the students on the computer were calculated that mean values of the female and male students are 3.58 ($SD=0.97$) and 3.58 ($SD=0.84$), respectively. Independent-samples t -test was conducted to determine the statistical difference of means between genders for identifying the students' spending time on personal computer. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=0.035$, $p>0.05$].

The students concerning this question were also asked how to spend time on the computer. The students' response was represented in Table 6. When the findings were evaluated, female students prefer to use SNS, listen to music, watch movie, use twitter, play games, check e-mail, study, surf on the internet, others respectively. These orderings for male students change slightly.

Table 6. The purpose of computer' usage according to gender

	F	M
Using Facebook	62 (86.11%)	129 (87.16%)
Listening to Music	54 (75.00%)	126 (85.13%)
Watching Movie	50 (69.44%)	115 (77.70%)
Using Twitter	43 (59.72%)	37 (25.00%)
Playing Games	28 (38.88%)	95 (64.19%)
Checking e-mail	25 (34.72%)	61 (41.20%)
Studying Course	21 (29.16%)	41 (27.70%)
Surfing	17 (23.61%)	46 (31.08%)
Others	12 (16.66%)	30 (20.27%)

Table 7 shows the results of spending time for reading book, newspaper, etc. of female and male students. The results reveal that the students do not like to read them. They generally prefer to follow social networking sites instead of reading book, newspaper, etc.

Table 7. The spending time of the students for reading newspaper, book etc. in one day

Gender	none	h<1	1≤h<2	2≤h<3	3≤h<4	5≤h
F	42 (58.30%)	17 (23.60%)	8 (11.10%)	2 (2.80%)	2 (2.80%)	1 (1.40%)
M	85 (57.40%)	27 (18.20%)	21 (14.20%)	12 (8.10%)	3 (2.00%)	-

Mean values for spending time of the students for reading newspaper, book, etc. were calculated that mean values of the female and male students are 1.72 ($SD = 1.10$) and 1.79 ($SD = 1.08$), respectively. Independent-samples t -test was conducted to identify the statistical difference of means between genders for determining the students' spending time for reading newspaper, book, etc. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=0.435$, $p>0.05$].

Table 8 represents the results of spending time for doing physical exercise of female and male students. The spending time of the students for doing physical exercise is quite a little. Approximately 60% of the female and male students do not find time for going to the gym or physical activity.

Table 8. The spending time of the students for doing physical exercise in one day

Gender	none	h<1	1≤h<2	2≤h<3	3≤h<4	5≤h
F	47 (65.30%)	9 (12.50%)	8 (11.10%)	6 (8.30%)	1 (1.40%)	1 (1.40%)
M	92 (62.20%)	38 (25.70%)	14 (9.50%)	2 (1.40%)	2 (1.40%)	-

Mean values for spending time of the students for doing physical exercise or going to the gym were calculated that means values of the female and male students are 1.72 ($SD = 1.17$) and 1.54 ($SD = 0.82$), respectively. Independent-samples t -test was conducted to determine the statistical difference of means between genders for identifying the students' spending time for doing physical activity or going to the gym. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=1.323$, $p>0.05$].

Table 9 represents the results of spending time for studying science courses of female and male students. Approximately 80% of students do not take an interest in studying science courses. Limited students study physics, chemistry, etc.

Table 9. The spending time of the students for studying science courses in one day

Gender	none	h<1	1≤h<2	2≤h<3	3≤h<4	5≤h
F	57 (79.20%)	13 (18.10%)	2 (2.80%)	-	-	-
M	115 (77.70%)	29 (19.60%)	4 (2.70%)	-	-	-

Mean values for spending time of the students for studying science courses were calculated that mean values of the female and male students are 1.23 ($SD = 0.48$) and 1.25 ($SD = 0.49$), respectively. Independent-samples t -test

was conducted to determine the statistical difference of means between genders for identifying the students' spending time for studying science courses (physics, chemistry, earth science etc.). It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=0.197$, $p>0.05$].

Table 10 indicates the results of spending time for studying major courses of female and male students. About 80% of female students and 60% of male students study major courses less than one hour.

Table 10. The spending time of the students for studying major courses in one day

Gender	none	$h<1$	$1\leq h<2$	$2\leq h<3$	$3\leq h<4$	$5\leq h$
F	9 (12.50%)	59 (81.90%)	4 (5.60%)	-	-	-
M	41 (27.70%)	94 (63.50%)	11 (7.40%)	2 (1.40%)	-	-

Mean values for spending time of the students for studying major courses were calculated that mean values of the female and male students are 1.93 ($SD =0.42$) and 1.82 ($SD =0.61$), respectively. Independent-samples t -test was conducted to determine the statistical difference of means between genders for identifying the students' spending time for studying major courses. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=1.323$, $p>0.05$].

Table 11 demonstrates the results of spending time for studying social courses of female and male students. Approximately 80% of students do not take an interest in studying social course. Limited students study social courses.

Table 11. The spending time of the students for studying social courses in one day

Gender	none	$h<1$	$1\leq h<2$	$2\leq h<3$	$3\leq h<4$	$5\leq h$
F	56 (77.80%)	12 (16.70%)	4 (5.60%)	-	-	-
M	116 (78.40%)	23 (15.50%)	9 (6.10%)	-	-	-

Mean values for spending time of the students for studying social courses were calculated that mean values of the female and male students are 1.27 ($SD =0.56$) and 1.27 ($SD =0.56$), respectively. Independent-samples t -test was conducted to determine the statistical difference of means between genders for identifying the students' spending time for studying social courses. It was found that the difference in the values between genders was not statistically significant [$df=218$, $t=0.009$, $p>0.05$].

Conclusion

The effects of social networking sites on the students were examined in this study. The research was mainly focused on two research questions, the findings of which are explained as follows:

With reference to the first research question (Are there any differences between female and male students' social networking sites usage?), the findings showed that approximately 50% of the female and male students spend one and half hour on smartphone per day. They generally use smartphone for calling friends, messaging, listening to music, watching video, and especially for using social networking sites (Facebook, Youtube, Blogs, Foursquare, Twitter, etc.). The findings related to using computer and internet indicated that over 65% of responding female and male students spend more than two hours on computer every day. When the purposes of computer usage according to gender were generally evaluated, 85% of female students use social networking sites, 75% of them listen to music, 70% of female watch movie, etc. The first three findings for male students were found to be similar with the findings of female students. Smartphone and digital technologies have literally become an inseparable part of students and adolescents.

With reference to the second research question (Are there any differences between female and male students' studying and habits?), the findings indicated that many students have interest in social networking sites. This interest leads students to an addiction. The social networking sites negatively influence students' habits, grades, socialization, etc. The findings related to reading books and doing physical activities revealed that approximately 60% of responding students do not have enough time for reading books, newspaper, etc., doing physical exercise, and going the gym. These students prefer to spend three and half hour on social media every

day. The findings related to studying science, major, and social courses presented that over 70% of students do not have time for studying both science and social courses. Except for these courses, 80% of female students and 65% of male students study in their major course less than one hour. The results of the research reported that the usage of social networking sites has negative impacts on students' studying, performance, and habit. This study indicated that the majority of the students spend more time on social media instead of studying academic courses.

Recommendations

Some recommendation based on the findings could be presented as follow: a) the positive and negative effects of social media on the students, parents, etc. should be explained to them by experts (psychologist, sociologist, etc.); b) the usage of technology devices during instruction time should be limited and/or prevented because of negative impacts on students' concentration in the schools/universities; c) the research should be performed on students at different levels in order to generalize the findings.

Note

Some parts of this content were presented at International Conference on Education in Mathematics, Science & Technology (ICEMST-2015) (Gok, 2015).

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Appendix A

The questionnaire for digital technologies and social media

1. What is your gender?

Female	Male
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2. What is the highest level of education your father has completed?

I	ESG	SSG	HSG	UD	GD
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3. What is the highest level of education your mother has completed?

I	ESG	SSG	HSG	UD	GD
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4. What is your family's household monthly income?

$\$ < 400$	$400 \leq \$ < 800$	$800 \leq \$ < 1200$	$1200 \leq \$ < 1600$	$1600 \leq \$ < 2000$	$2000 \leq \$$
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5. When did you get your first smartphone?

none	$5 \leq A < 10$	$10 \leq A < 15$	$15 \leq A < 20$	$20 \leq A < 25$	$25 \leq A$
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6. How many hours per day do you use your smartphone?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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7. How many hours per day do you use your computer?)

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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8. What is the purpose of using smartphone? (tick as many as you like)

Using Facebook		Checking e-mail	
Listening to Music		Studying Course	
Watching Movie		Surfing	
Using Twitter		Others	
Playing games			

9. What is the purpose of using internet? (tick as many as you like)

Phone Call	Family		Studying	Reading PDF/books/newspaper, etc.	
	Friend			Using of notepad	
	Emergency			Surfing for school work	
	Giving orders			Asking/Sharing the information	
	Others			Others	
Text Message	SMS		Entertainment	Listening to music	
Application	Setting alarm			Playing games	
	Taking photograph			Watching video	
	Using of camera			Social Networking Sites	
	Using of calendar			Shopping	
	Using of calculator			Checking e-mail	
	Others			Using of GPS Maps	
				Downloading applications	
			Others		

10. How many hours do you read newspaper, book etc. every day?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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11. How many hours do you make physical activity every day?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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12. How many hours do you study science courses every day?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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13. How many hours do you study major courses every day?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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14. How many hours do you study social courses every day?

Gender	none	$h < 1$	$1 \leq h < 2$	$2 \leq h < 3$	$3 \leq h < 4$	$5 \leq h$
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Appendix B

The purpose of smartphone' usage according to gender

		F	M
Phone Call	Family	22 (30.55%)	32 (21.62%)
	Friend	64 (88.88%)	132 (89.19%)
	Emergency	2 (2.77%)	8 (5.40%)
	Giving orders	20 (27.77%)	44 (29.72%)
	Others	9 (12.50%)	22 (14.86%)
Text Message	SMS	49 (68.05%)	102 (68.91%)
Application	Setting alarm	56 (77.77%)	116 (78.37%)
	Taking photograph	39 (54.16%)	82 (55.40%)
	Using of camera	20 (27.77%)	46 (31.08%)
	Using of calendar	47 (65.27%)	98 (66.21%)
	Using of calculator	38 (52.77%)	89 (60.13%)
	Others	26 (36.11%)	56 (37.83%)
Studying	Reading PDF/books/newspaper, etc.	3 (4.16%)	6 (4.05%)
	Using of notepad	4 (5.55%)	14 (9.45%)
	Surfing for school work	8 (11.11%)	22 (14.86%)
	Asking/sharing the information	16 (22.22%)	36 (24.32%)
	Others	8 (11.11%)	20 (13.51%)
Entertainment	Listening to music	55 (76.38%)	114 (77.02%)
	Playing games	43 (59.72%)	102 (68.91%)
	Watching video	49 (68.05%)	100 (67.56%)
	Social Networking Sites	61 (84.72%)	126 (85.13%)
	Shopping	19 (26.38%)	44 (29.72%)
	Checking e-mail	28 (38.88%)	53 (35.81%)
	Using of GPS Maps	4 (5.55%)	13 (8.78%)
	Downloading applications	21 (29.16%)	56 (37.83%)
	Others	14 (19.44%)	34 (22.97%)