

*Full Length Research Paper*

# The use of social networks among university students

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The changes that are experienced in technology are influencing various fields as well as educational environments. From this point of view, it is seen that the tools used in educational environments as well as those used by students are diversified depending on the change in technology. Based on the characteristics of learners in the twenty-first century, it is observed that current technology takes part in students' daily lives. As one of these technologies which use the possibilities of Web 2.0, social networks have been widely used by young generations in various forms in recent years. In general, these environments can be said to be a matter of preference as it offers opportunities such as sharing content, having fun, communicating, creating community, and learning. It is important to understand students' social networking usage purposes and the reasons that may affect them. It is thought that this study will contribute to the educators in terms of learning environments by determining the usage purposes of social networking. In this research, it is aimed to understand the variables that determine the purpose of using social network in undergraduate students' using social network. The cross-sectional survey design which is among the quantitative research methods has been employed. According to this pattern, data were collected according to the appropriate sampling method. In this process, 549 undergraduate students from various faculties of a public university were identified as study groups. In this study, it is aimed to examine the variables that determine the purpose of using social networking networks of undergraduate students who use social networks. For this purpose, data were collected by means of the personal information form created by the researchers and by the Social Awareness Networks Usage Objectives Scale developed. The results of the research show that there is a difference in favor of women in initiating communication in favor of men and that those who use social networks for a long time share more content and WhatsApp and Instagram are the most widely used social networks. Based on these findings, discussions and recommendations were presented.

**Key words:** Social networks, purpose of social network usage, university students.

## INTRODUCTION

The changes in technology affect educational, economic, and social. Today, it is seen that the tools used in educational environments and the tools used by environments as well as various fields such as social,

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students gain diversity depending on the change in technology. Based on the twenty-first century learner characteristics, it can be said that current technologies have an important place in students' daily life and depending on their life. In this respect, in the period of Web 1.0, users were reviewing static content in passive position; with Web 2.0, they moved from this passive structure to an active state. After this period, users have had an active role in creating content on web content, commenting, chatting, uploading, sharing, recommending, and linking (Musser, 2007). Therefore, it can be said that the content is started to be created by users in the web environment. This situation has enabled users to reflect their ego, like opinion, thought and feeling, to web environments. Various applications such as micro blogs, blogs, social networks have emerged for this. Social networks, which are among these applications, are an environment created to meet the interaction needs of people. This environment allows individuals to interact with other individuals without time and space limits (Greenhow et al., 2009). Social networks such as Facebook and Twitter are widely used by people (Alwagait et al., 2015). For example, a social network, such as Facebook, has approximately 2.27 billion active users worldwide as of September, 2018, according to reports of Facebook (Facebook, 2018). Therefore, the reason for bringing together so many people has attracted different scholars to explore this topic. Social networks can be defined as systems that allow individuals to create a public or semi-publicly accessible profile within a limited system, clearly showing the list of links that other users share, and which can display their own contact lists and what is done by others in the system (Boyd and Ellison, 2008). In a study done by Cheung et al. (2011), it was found that one of the reasons why participants opted for Facebook in social networks is social folly. Also, it has been seen to be used for instant communication and connection with other people. According to the study conducted by Pempek et al. (2009) with 92 undergraduate students, social interaction is reported as one of leading reasons. Therefore, individuals tend to use current technologies such as social networks for various reasons (Mason, 2006). Social sharing environments offer users the opportunity to communicate with instant messaging, sharing content based on visual and audio contents (Tonta, 2009). In addition, online social networks have a positive impact on students' learning outcomes, social acceptance and adaptation to university culture (Yu et al., 2010). Furthermore, considering the educational environments, student-student, student-teacher and student-content interaction can be provided through social networks. In other words, it can be used to provide the types of interaction specified by Moore (1989).

In spite of such superior characteristics of social networks, in some respects, it affects the lives of

individuals in various ways depending on the use of social networks. For instance, the use of social networks such as Facebook, appears to have an impact on the psychological well-being (autonomy, purpose in life etc.) of individuals (Kross et al., 2013; Valkenburg et al., 2006; Verduyn et al., 2015). When the negative effects of social networks on learning environment in learning-teaching processes are examined; social networks can be effective in terms of the distraction of the learner (Hettiarachchi, 2014) or the display of cyberloafing behaviors (Hassan et al., 2015). In particular, academic success decreases due to the fact that learners using online learning environments cannot devote enough time to learning in such situations. Therefore, learners may postpone the academic work in online and spend more time in social networks for various purposes such as entertainment and communication (Hettiarachchi, 2014).

Social networks, which have the characteristics that enable individuals active in both social and personal areas, are used extensively by the generation Y. The reason for the use of social networks among university students is a matter of curiosity. Researches indicate that social networking networks are being used by various age groups, but one of the most used groups is university students (Miller and Melton, 2015). For this reason, it is considered as important to explore the purpose of using social networking and the reasons that may affect these goals. In the extant literature, the use of social networking networks of individuals has diversified as research, collaboration, communication initiation, communication, maintaining communication, content sharing, and entertainment (Lenhart et al., 2007).

According to a report published by a digital marketing agency "Digital in 2017 Global Overview", more than half of the world use at least one smartphone, and Turkey is reported to have 48 million social network users (We Are Social Hootsuite, 2017). With respect to this report, the most widely used social networks in Turkey are YouTube, Facebook, Instagram, and Twitter. According to Miller and Melton (2015), university students use social networks, Facebook and Twitter environments more than once every day. Such widespread use of social networks has brought to mind the importance of the use of these environments in educational platforms. Social sharing networks may provide contributions to the education environment such as improving communication, providing an opportunity to meet such environments, and eliminating communication problems related to the contributions of activities carried out on the social networking site (Özmen and Atici, 2014). However, it is seen that such social networks are perceived and used more for social purposes rather than educational purposes (Roblyer et al., 2010). Therefore, it is important to determine which social networks and social network usage purposes are used by students to make educational content interesting. Although the studies in

the various context on the use of social networks have been conducted (Diker and Uçar, 2016; Gülcan et al., 2015; Hamid et al., 2013; Lin and Lu, 2011; Ünalın et al., 2017), there is a need to examine the different context in terms of different region, current time, sample diversity, and data collection tools for a particular case.

According to the study conducted by Alkan and Bardakci (2017) with secondary school students, the students' use of online social networks for learning purposes are gathered under the categories of social interaction, following the shares, interacting with materials, collaboration, doing homework, and getting support. Depending on this situation, it is necessary to increase the researches for the purpose of using the social networks of the participants by taking into consideration various age, areas of learning, time, and area of living. Therefore, within the scope of the research, the aim of current study is to examine the use of social networks of the participants in terms of gender, social networking experience and social network environment.

The research findings are expected to contribute to the application of online education environments to the undergraduate students by using social networks. Thus, educational measures can be taken, or arrangements can be made considering the purpose of using social networks in online education environments. In addition, it is thought that it will contribute to the educators by determining the intended use of social networks in learning environments. Besides this, the study may guide instructional designers by providing information on the social network preferences and usage purposes of users. Social network promotes attractive functions to students in terms of self-presentation and enhancing communication. For this reason, some educators have highlighted the positive capacity of social networking considering the easy networking options with students. For instance, social networking sites can be used with the intent of taking feedback of peers or providing collaborative learning setting in social networking platforms (Selwyn, 2009).

## MATERIALS AND METHODS

In this study, cross-sectional scanning model which is one of the quantitative research methods is used. This model is considered as a method that allows the collection of data in a given period to explain a situation from the sample group (Fraenkel et al., 2012).

### Working group

The undergraduate students of various faculties of a state university were identified as study group. Considering the time and cost, appropriate sampling method was used in this study. 549 undergraduate students participated in the study. 35.3% of the participants (n = 194) were pre-school education, 22% (n = 121), of theology, 17.3% (n = 95), of classroom education, 16% (n = 88), of

science education and% 9.3 (n = 51), studying mathematics education. 79.4% of the participants were females (n = 436) and 20.4% were males (n = 113).

### Measurement tools

In this study, the aims of using social networks of university students were examined. For this purpose, the personal information form developed by the researchers and the Social Sharing Networks Usage Questionnaire, a 26-item scale, developed by Usluel et al. (2014) were used. The personal information form consists of 12 items with 3 open ended and 9 closed ends. It includes demographic information such as age, gender, and social network usage such as how many accounts they have, which social media platform they prefer to use.

The Social Sharing Network Usage Objectives Scale was developed to measure the purposes of using social networking networks as the name suggests. The items in the scale are 7-point Likert type and the answers can be varied between "Strongly Agree" (7) and "Strongly disagree" (1). The maximum score obtained from this scale is 182, while the minimum score is 26. The scale has seven subdimensions such as research, collaboration, initiate communication, communicating, maintaining communication, content sharing, and entertainment. The Cronbach alpha reliability coefficient of the scale was reported as 0.92 (Usluel et al., 2014). The Cronbach alpha reliability coefficient of the sub-dimensions of the scale is between 0.67 and 0.87 (Usluel et al., 2014).

### Data collection process and data analyses

In order to avoid missing data, the data were collected by an electronic form created by Google Forms. The link of form was shared with students who were studying in various departments and volunteers to participate in the study were asked to fill in this form. The distribution of the obtained data and extreme values were examined. For this reason, 6 data, which are an extreme value, have been removed from the data set. Histogram, Q Q Plot, Boxplot and Normal Probability Plot graphs and skewness (in the range of -1, +2), kurtosis (in the -1, +1 range) and z score (in the -3, +3 range) values were examined. In accordance with these assumptions, descriptive analysis, t-test, One-Way Variance Analysis (ANOVA) were used in the analysis of the data.

In order to determine the effect size of the findings that are significant from the comparison tests, Cohen d coefficient for t test and eta square ( $\eta^2$ ) for ANOVA were used. Cohen d coefficient was reported as 0.2 to 0.5 small, 0.5 to 0.8 medium and 0.8 and above large effect size (Cohen, 1988). The coefficient  $\eta^2$  has been interpreted as 0.01 to 0.06 small, 0.06 - 0.14 medium and 0.14 or more large effect size (Cohen, 1988; Richardson, 2011).

## FINDINGS

In this section, the data obtained with the data collection tool were analyzed and the findings were included. The descriptive findings of the data obtained in the study are presented in Table 1. When Table 1 is examined, it is seen that the lowest (1) and the highest (7) for each sub-factor of the measuring instrument are taken. When the average scores of the sub-scales of The Usage Purposes Scale of Social Networks are examined, it is observed

**Table 1.** Descriptive findings on the sub-factors of the purpose of use of social networks.

Variable	<i>n</i>	<i>Min</i>	<i>Max</i>	$\bar{X}$	<i>ss</i>	<i>Skewness</i>	<i>Kurtosis</i>
F1- Research	549	1.00	7.00	4.93	1.41	-0.34	-0.58
F2- collaboration	549	1.00	7.00	4.47	1.38	-0.05	-0.76
F3- initiate communication	549	1.00	7.00	2.92	1.50	0.68	-0.26
F4- communicating	549	1.00	7.00	5.52	1.57	-1.05	0.38
F5- maintaining communication	549	1.00	7.00	4.71	1.49	-0.32	-0.55
F6- Sharing content	549	1.00	7.00	3.81	1.50	0.28	-0.70
F7- Entertainment	549	1.00	7.00	4.32	1.59	-0.10	-0.73

**Table 2.** The independent sample t-test findings of the sub-factors of the purpose of use of social networks by gender.

Variable	Gender	<i>n</i>	$\bar{X}$	<i>ss</i>	<i>t</i>	<i>sd</i>	<i>p</i>	<i>Cohen's d</i>
F1- Research	Female	436	4.95	1.39	0.81	547	0.416	-
	Male	113	4.83	1.52				
F2- Collaboration	Female	436	4.48	1.35	0.12	547	0.906	-
	Male	113	4.46	1.48				
F3- Initiate communication	Female	436	2.82	1.49	-2.97	547	0.003	0.25
	Male	113	3.29	1.53				
F4- Communicating	Female	436	5.59	1.54	2.04	547	0.041	0.46
	Male	113	5.26	1.65				
F5- Maintaining communication	Female	436	4.76	1.50	1.65	547	0.100	-
	Male	113	4.50	1.42				
F6- Sharing content	Female	436	3.82	1.50	0.22	547	0.825	-
	Male	113	3.78	1.51				
F7- Entertainment	Female	436	4.32	1.62	-0.07	547	0.946	-
	Male	113	4.33	1.47				

that the participants use social networks to communicate with the most intense and at least to initiate communication. Within the framework of the general purpose of the study, the purpose of using social networks was examined in terms of gender. In Table 2, the t test findings of the sub-factors of the Purpose of Use of Social Networks Scale for independent groups in terms of gender are included.

When Table 1 is examined, it is seen that the lowest 1 and the highest 7 for each sub-factor of the measuring instrument are taken. When the average scores of the sub-scales of The Usage Purposes Scale of Social Networks are examined, it is observed that the

participants use social networks to communicate with the most intense and at least to initiate communication. Within the framework of the general purpose of the study, the purpose of using social networks was examined in terms of gender. In Table 2, the t test findings of the sub-factors of the Purpose of Use of Social Networks Scale for independent groups in terms of gender are included. When Table 2 is examined, there is no significant difference between men and women in research (F1), collaboration (F2), maintaining communication (F5), content sharing (F6), and entertainment (F7). However, there is a significant gender difference in terms of initiating communication (F3) and communicating (F4) (*p*

**Table 3.** Social networking environment most commonly used by participants.

Variable	f	%
Facebook	13	2.4
Twitter	22	4.0
Instagram	233	42.4
WhatsApp	247	45.0
YouTube	27	4.9
Diğer	7	1.3
Toplam	549	100.0

**Table 4.** Descriptive findings of the social network environment most commonly used by the participants.

Variable	F1- Research			F2- Cooperation			F3- initiate communication			F4- communicating		
	n	$\bar{X}$	sd	n	$\bar{X}$	sd	n	$\bar{X}$	sd	n	$\bar{X}$	sd
Facebook	13	4.49	1.70	13	4.41	1.65	13	2.92	1.38	13	3.81	1.96
Twitter	22	5.33	1.31	22	4.72	1.44	22	3.17	1.44	22	5.48	1.29
Instagram	233	4.89	1.30	233	4.48	1.35	233	3.04	1.47	233	5.57	1.59
WhatsApp	247	4.97	1.49	247	4.50	1.38	247	2.79	1.48	247	5.70	1.45
YouTube	27	4.81	1.51	27	3.99	1.42	27	2.70	1.82	27	4.44	1.65
Diğer	7	4.71	1.84	7	4.48	1.20	7	3.48	2.57	7	5.21	1.35
Toplam	549	4.93	1.41	549	4.47	1.38	549	2.92	1.50	549	5.52	1.57

  

Variable	F5- maintaining communication			F6- Sharing content			F7-Entertainment		
	n	$\bar{X}$	sd	n	$\bar{X}$	sd	n	$\bar{X}$	sd
Facebook	13	4.35	1.68	13	3.35	1.10	13	3.00	1.58
Twitter	22	5.07	1.38	22	3.92	1.41	22	5.14	1.59
Instagram	233	4.82	1.44	233	4.06	1.42	233	4.69	1.47
WhatsApp	247	4.67	1.49	247	3.60	1.55	247	4.05	1.56
YouTube	27	3.94	1.55	27	3.64	1.68	27	3.89	1.76
Diğer	7	4.96	1.92	7	4.20	2.09	7	3.33	1.85
Toplam	549	4.71	1.49	549	3.81	1.50	549	4.32	1.59

<.05). It is seen that males use social networks more for initiating communication whereas women do not use social networks for this reason significantly. In both cases, this difference seems to have a low effect level according to Cohen's d effect size. In addition, Table 3 presents the most commonly used social networking platforms. When Table 2 is examined, there is no significant difference between men and women in research (F1), collaboration (F2), maintaining communication (F5), content sharing (F6), and entertainment (F7). However, there is a significant gender difference in terms of initiating communication (F3) and communicating (F4) ( $p < .05$ ). It is seen that males use social networks more for initiating communication whereas women do not use social networks for this reason significantly. In both cases, this difference seems to have a low effect level

according to Cohen's d effect size. In addition, Table 3 presents the most commonly used social networking platforms.

When Table 3 is examined, it is seen that the participants have widely used WhatsApp and Instagram. One-Way ANOVA (One-Way ANOVA) was used to determine whether these used accounts affect the social networks usage purposes. The descriptive findings of this analysis are presented in Table 4. When the descriptive findings of the sub-factors of social networking purposes are examined in Table 4, it can be seen that the sub-factors differ according to the different account types. This difference was examined by One Way Analysis of Variance (One-Way ANOVA) and the findings are presented in Table 5.

When Table 5 is examined, it was found that there was

**Table 5.** One-Way ANOVA Findings of the Sub-Factors of Social Network Use Purpose Scale According to the Social Network Environment Used.

Variable	Sources of variance	Sum of squares	df	Mean square	F	p	$\eta^2$	The direction of difference
F1- Research	Between Groups	7,757	5	1.551	0.775	0.568		
	Within Groups	1087,203	543	2.002				
	Total	1094,960	548					
F2- Collaboration	Between Groups	7,979	5	1.596	0.838	0.523		
	Within Groups	1033,980	543	1.904				
	Total	1041,959	548					
F3- Initiate communication	Between Groups	12,242	5	2.448	1.082	0.369		
	Within Groups	1228,840	543	2.263				
	Total	1241,082	548					
F4- Communicating	Between Groups	78,725	5	15.745	6.734	<.001	.058	Instagram > Facebook WhatsApp > Facebook Instagram > YouTube
	Within Groups	1269,693	543	2.338				
	Total	1348,418	548					
F5- Maintaining communication	Between Groups	24,215	5	4.843	2.220	0.051		
	Within Groups	1184,613	543	2.182				
	Total	1208,828	548					
F6- Sharing content	Between Groups	29,485	5	5.897	2.648	0.022	.024	Instagram > WhatsApp
	Within Groups	1209,276	543	2.227				
	Total	1238,761	548					
F7- Entertainment	Between Groups	99,896	5	19.979	8.426	<.001	.072	Instagram > Facebook Twitter > Facebook Instagram > WhatsApp
	Within Groups	1287,502	543	2.371				
	Total	1387,399	548					

no significant difference between research (F1), collaboration (F2), initiate communication (F3) and maintaining communication (F5) in terms of social network platforms. However, there is a significant difference in terms of communication (F4), content sharing (F6), and entertainment (F7). According to the Post-Hoc test, the Scheffe test showed that participants preferred Instagram and WhatsApp environments significantly more than Facebook. Besides, it is seen that Instagram environment is used more for communication purposes than YouTube environment. According to the Post-Hoc test, the Scheffe test shows that in terms of content sharing, the Instagram environment is more preferred than WhatsApp. The level of difference in terms of this situation is examined by eta square and it can be said that there is a low effect size. When the social networks used for entertainment purposes are examined, it is seen that Instagram and Twitter are used more for

entertainment than Facebook. Besides, it is seen that the Instagram environment is used more for entertainment than WhatsApp. The significant difference between the two groups was examined with eta square value and a moderate effect size was found. In addition to these findings, the purpose of the study was examined in terms of the experience (usage period) of using social networks. Table 6 presents descriptive findings of the use of social networks in terms of the experiences of the participants in the social network environment. When Table 6 is examined, the differences between the participants' experience of using social networks in terms of usage purposes were examined with One-Way ANOVA. The findings of this test are presented in Table 7. When Table 7 is examined, among the use of social networks, only the content-sharing (F6) sub-factor showed significant differences in terms of experience in social networks. According to the Tukey test, it is seen

**Table 6.** Descriptive findings of the use of social networks in terms of the experiences of the participants in social networking environments.

Variable	F1- Research			F2- Collaboration			F3- Initiate Communication			F4- Communicating		
	<i>n</i>	$\bar{X}$	<i>sd</i>	<i>n</i>	$\bar{X}$	<i>sd</i>	<i>n</i>	$\bar{X}$	<i>sd</i>	<i>n</i>	$\bar{X}$	<i>sd</i>
Since 6 months	46	5.04	1.37	46	4.39	1.44	46	2.62	1.51	46	5.35	1.71
Since 1 year	42	4.93	1.55	42	4.38	1.30	42	2.51	1.34	42	5.52	1.69
Since 2 years	129	4.87	1.41	129	4.47	1.29	129	2.89	1.39	129	5.53	1.34
Since 3 years	101	4.73	1.45	101	4.36	1.36	101	2.88	1.55	101	5.30	1.64
5 years and more	231	5.03	1.38	231	4.56	1.44	231	3.09	1.56	231	5.66	1.60
Total	549	4.93	1.41	549	4.47	1.38	549	2.92	1.50	549	5.52	1.57

  

Variable	F5- Maintaining Communication			F6- Sharing content			F7- Entertainment		
	<i>n</i>	$\bar{X}$	<i>sd</i>	<i>n</i>	$\bar{X}$	<i>sd</i>	<i>n</i>	$\bar{X}$	<i>sd</i>
Since 6 months	46	4.68	1.49	46	3.30	1.38	46	4.32	1.71
Since 1 year	42	4.57	1.51	42	3.45	1.43	42	4.26	1.62
Since 2 years	129	4.79	1.37	129	3.64	1.50	129	4.34	1.55
Since 3 years	101	4.59	1.64	101	3.88	1.55	101	3.98	1.52
5 years and more	231	4.75	1.48	231	4.05	1.48	231	4.47	1.61
Total	549	4.71	1.49	549	3.81	1.50	549	4.32	1.59

**Table 7.** One-way ANOVA analysis of the sub-factors of social network usage purpose scale by social network environment.

Variable	Sources of variance	Sum of squares	df	Mean square	F	p	$\eta^2$	The direction of difference
F1- Research	Between Groups	7.583	4	1.90	0.95	0.436		
	Within Groups	1087.376	544	2.00				
	Total	1094.960	548					
F2- Collaboration	Between Groups	3.602	4	0.90	0.47	0.756		
	Within Groups	1038.357	544	1.91				
	Total	1041.959	548					
F3- Initiate Communication	Between Groups	18.409	4	4.60	2.05	0.086		
	Within Groups	1222.674	544	2.25				
	Total	1241.082	548					
F4- Communicating	Between Groups	10.780	4	2.70	1.10	0.358		
	Within Groups	1337.638	544	2.46				
	Total	1348.418	548					
F5- Maintaining Communication	Between Groups	3.447	4	0.86	0.39	0.817		
	Within Groups	1205.380	544	2.22				
	Total	1208.828	548					
F6- Sharing content	Between Groups	34.511	4	8.63	3.90	0.004	0.028	5 years and more> Since 6 months
	Within Groups	1204.249	544	2.21				
	Total	1238.761	548					
F7- Entertainment	Between Groups	17.173	4	4.29	1.70	0.148		
	Within Groups	1370.226	544	2.52				
	Total	1387.399	548					

that those who have 5 years and more experience among the participants have significantly used social networks to share more content than those who have been using it for 6 months. In order to determine the effect size related to this situation, the eta square value was examined and observed that a low-level effect size.

## DISCUSSION

The aim of this study is to examine the purposes of using social networks in terms of various variables. In this section, the findings of the study were discussed in light of the literature. It has been found that men prefer more than women to social networks in order to initiate communication. On the other hand, it was observed that women prefer social networking networks more than men for communication. Consistent with the findings about gender difference in social networking usage purposes, Mazman and Usluel (2011) point out that women use social networks to maintain their existing friendship, while men use it to build new relationships. Gender variable should not be ignored in studies to be done for social networks. It can also be suggested that gender can be a control variable in further research on social sharing networks.

It can be said that participants who use social networks for a longer period tend to use it for sharing content. Consistent with this finding, Tsai et al. (2017) found that users with a high level of experience are more likely to share more photos and comment as well as having more friends on Facebook. Similarly, in the study conducted by Moore and McElroy (2012), the Facebook experience was associated with spending time, using frequency, sharing contents and photos with true friends. Therefore, it can be said that participants with more experience in social networks are mostly used to share content. In future studies it may be suggested that using experience should be considered as a control variable.

In this study, participants reported they use mostly WhatsApp and Instagram (88% of respondents). This finding is consistent with the findings of Yesil and Fidan (2017). According to Yesil and Fidan (2017), individuals in the generation Y prefer more WhatsApp environment than individuals in generation X. However, according to the study of Sendurur et al. (2015), the most widely used social networking sites are Facebook and Google+. Therefore, it can be thought that the social network environment used among undergraduate students may differ in different environments at different times, because Facebook is a widely used social network (Lenhart et al., 2010). The studies on social networks generally focused on Facebook (Bicen and Cavus, 2011; Ellison et al., 2007; Mazman and Usluel, 2011; Sternberg et al., 2018). However, in this study, it was seen that the participants mostly used Instagram and WhatsApp environments.

From this point of view, it is thought that it will be beneficial to conduct future studies on Instagram and WhatsApp environments preferred by the participants. It can be said that these environments are a matter of preference among participants due to reasons such as providing instant communication and interaction, creating a more intimate environment. Based on this finding, social networks can be used to provide the learner-learning and teaching-learning communication and interaction (Moore, 1989). Similarly, in a study by Alkan and Bardakci (2017), it was stated that students contributed to social learning through social interaction with other students and teachers in social networks. Therefore, Instagram and WhatsApp environments can be preferred for this interaction in educational environments.

In a study conducted by Hu et al. (2014), it was seen that individuals share their visions about their friends, food and drinks, small technology tools, written visuals, pets, activities, their selfies and fashion in Instagram environment. In other words, it is possible to say that the content shared in Instagram environment has more visual density, so users prefer visual elements when sharing content. The potential of Instagram should not be ignored while developing systems such as Edooware, Spectrum (Balakrishnan et al., 2015), Moodle and Sakai. Based on the findings obtained in this study, it can be suggested to use Instagram or similar visual content intensive platforms within the framework of Social Media Acceptance Model in studies to be made for content sharing. The findings of the current study can help to provide some functional arrangements in educational settings. For instance, the peer interaction can be provided on Instagram in educational settings. Also, the findings of this study showed that for both gender, communication is a usage purpose/ for social networking. Considering this, in in-class and extracurricular activities, for social interaction and peer feedback, social networking can be utilized.

## LIMITATIONS AND SUGGESTIONS

This research has many strengths and some limitations. Within the framework of these limitations, some suggestions are presented for future research. Since the data obtained in this study are conducted with undergraduate students studying in different departments of a public university in Central Anatolia, it may be suggested to reach larger sample sizes in the future as well as samples from different regions and provinces.

The research was carried out according to the cross-sectional survey model among the quantitative research designs. However, it would be useful to provide a comprehensive framework on the subject by conducting research on different quantitative data collection tools

and qualitative data collection methods. In this study, it is not investigated why different social networking environments are used. In the study, psychological factors such as personality types of the participants were not investigated because it is out of the scope of the study. In future studies, it is thought that the relationship between social networks and psychological variables such as personality types, self-confidence, loneliness and shyness should be discussed comprehensively. Considering the findings of the current study, it can be suggested that for collaborative learning, social networking sites especially Instagram and WhatsApp can be a good option to support communication.

## CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

**Footnote:** This study has been presented as an oral presentation in 6<sup>th</sup> International Instructional Technologies and Teacher Education Symposium, Edirne, Turkey.

## REFERENCES

- Alkan MF, Bardakci S (2017). High School Students' Learning Activities Through Social Networks: A Qualitative Inquiry, *Kastamonu Education Journal* 25(3):1221-1238.
- Alwagait E, Shahzad B, Alim S (2015). Impact of social media usage on students academic performance in Saudi Arabia. *Computers in Human Behavior* 51:1092-1097. <https://doi.org/10.1016/j.chb.2014.09.028>
- Balakrishnan V, Liew TK, Pourgholamnejad S (2015). Fun learning with Edooware - A social media enabled tool. *Computers and Education* 80:39-47. <https://doi.org/10.1016/j.compedu.2014.08.008>.
- Bicen H, Cavus N (2011). Social network sites usage habits of undergraduate students: Case study of Facebook. *Procedia-Social and Behavioral Sciences* 28:943-947.
- Boyd DM, Ellison NB (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication* 13(1):210-230. <https://doi.org/10.1111/j.1083-6101.2007.00393.x>
- Cheung CMK, Chiu P-Y, Lee MKO (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior* 27(4):1337-1343. <https://doi.org/10.1016/j.chb.2010.07.028>
- Cohen J (1988). *Statistical power analysis for the behavioural sciences* (2<sup>nd</sup> ed.). New York: Academic Press.
- Diker Z, Uçar M (2016). A study on the reasons of social network use by the university students: the case of the Safranbolu Vocational School. *Journal of Research in Education and Teaching* 1(5):376-386.
- Ellison NB, Steinfield C, 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.
- Facebook (2018). *Stats*. Retrieved from <https://newsroom.fb.com/company-info/> on 12 December 2018.
- Farkas MG (2007). *Social software in libraries: building collaboration, communication, and community online*. Information Today, Inc: Medford, New Jersey.
- Fraenkel JR, Wallen NE, Hyun HH (2012). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Gülcan Z, Vurgun S, Gurdin B, Akpinar GM (2015). Vocational high school students and social networks: comparison of Nazilli, Atça and Kuyucak vocational high schools. *Electronic Journal of Vocational Colleges*. 4. UMYOS Special Issue pp. 164-172.
- Greenhow C, Robelia B, Hughes JE (2009). Learning, Teaching, and Scholarship in a Digital Age: Web 2.0 and Classroom Research: What Path Should We Take Now? *Educational Researcher* 38(4):246-259. <https://doi.org/10.3102/0013189X09336671>.
- Hamid NA, Ishak MS, Ismail SA, Yazam SSNM (2013). Social media usage among university students in Malaysia. In *Social Media and the New Academic Environment: Pedagogical Challenges* pp. 244-255. IGI Global.
- Hassan HM, Reza DM, Farkhad MA-A (2015). An Experimental Study of Influential Elements on Cyberloafing from General Deterrence Theory Perspective Case Study: Tehran Subway Organization. *International Business Research* 8(3):1-98. <https://doi.org/10.5539/ibr.v8n3p91>
- Hettiarachchi HAH (2014). *Impact of Social Networking on Academic Engagement and Performance: A Literature Review*, (July).
- Hu Y, Manikonda L, Kambhampati S (2014). What we Instagram: a first analysis of Instagram photo content and user types. *Proceedings of the Eight International AAAI Conference on Weblogs and Social Media* pp. 595-598.
- Kross E, Verduyn P, Demiralp E, Park J, Lee DS, Lin N, Ybarra O (2013). Facebook Use Predicts Declines in Subjective Well-Being in Young Adults. *PLoS ONE* 8(8):1-6. <https://doi.org/10.1371/journal.pone.0069841>
- Lenhart A, Madden M, Macgill AR, Manager P (2007). *Teens and Social Media*. Most 19:1-44. <https://doi.org/10.1007/s10995-010-0701-9>
- Lenhart A, Purcell K, Smith A, Zickuhr K (2010). *Social Media & Mobile Internet Use among Teens and Young Adults*. Millennials. Pew internet & American life project.
- Lin KY, Lu HP (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in human behavior*, 27(3):1152-1161.
- Mason R (2006). Learning technologies for adult continuing education. *Studies in Continuing Education*, 28(2):121-133. <https://doi.org/10.1080/01580370600751039>
- Mazman SG, Usluel YK (2011). Gender differences in using social networks. *Turkish Online Journal of Educational Technology-TOJET* 10(2):133-139.
- Miller R, Melton J (2015). College students and risk-taking behaviour on Twitter versus Facebook. *Behaviour and Information Technology* 34(7):678-684.
- Moore K, McElroy JC (2012). The influence of personality on Facebook usage, wall postings, and regret. *Computers in Human Behavior* 28(1):267-274. <https://doi.org/10.1016/j.chb.2011.09.009>
- Moore MG (1989). Editorial: Three Types of Interaction. *American Journal of Distance Education* 3(2):1-7. <https://doi.org/10.1080/08923648909526659>.
- Musser J, O'Reilly T, The O'Reilly Radar Team (2006). *Web 2.0 principles and best practices*. Sebastopol, CA: O'Reilly. <http://radar.oreilly.com/2006/11/web-20-principles-and-best-pra.html>
- Özmen B, Atici B (2014). Learners' views regarding the use of social networking sites in distance learning. *International Review of Research in Open and Distance Learning* 15(4):21-42.
- Pempek TA, Yermolayeva YA, Calvert SL (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology* 30(3):227-238. <https://doi.org/10.1016/j.appdev.2008.12.010>
- Richardson JTE (2011). Eta squared and partial eta squared as measures of effect size in educational research. *Educational Research Review* 6(2):135-147. <https://doi.org/10.1016/j.edurev.2010.12.001>
- Roblyer MD, McDaniel M, Webb M, Herman J, Vince WJ, (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education* 13(3):134-140.
- Selwyn N (2009). Faceworking: exploring students' education-related use of Facebook. *Learning, Media and Technology* 34(2):157-174
- Sendurur P, Sendurur E, Yilmaz R (2015). Examination of the social network sites usage patterns of pre-service teachers. *Computers in Human Behavior* 51(PA):188-194. <https://doi.org/10.1016/j.chb.2015.04.052>

- Sternberg N, Luria R, Sheppes G (2018). For whom is social-network usage associated with anxiety? The moderating role of neural working-memory filtering of Facebook information. *Cognitive, Affective and Behavioral Neuroscience* pp. 1-14.
- Tonta Y (2009). Dijital Yerliler, Sosyal Ağlar ve Kütüphanelerin Geleceği \* Digital Natives, Social Networks and the Future of Libraries. *Türk Kütüphaneciliği* 23(4):742-768.
- Tsai TH, Chang HT, Chang YC, Chang YS (2017). Personality disclosure on social network sites: An empirical examination of differences in Facebook usage behavior, profile contents and privacy settings. *Computers in Human Behavior* 76(2017):469-482. <https://doi.org/10.1016/j.chb.2017.08.003>.
- Usluel YK, Demir Ö, Cinar M (2014). Sosyal Ağların Kullanım Amaçları Ölçeği. *Eğitim Teknolojileri Araştırma Dergisi* 5(2):1-18.
- Ünalın D, Baştürk M, İkinci SS, Aydın A (2017). Meslek Yüksekokulu Öğrencilerinin Sosyal Ağ Sitesi Kullanım Alışkanlıklarının Kişilik Özellikleri İle İlişkisi. *Ankara Sağlık Hizmetleri Dergisi* 16(2):21-32.
- Valkenburg PM, Peter J, Schouten AP (2006). Friend Networking Sites Nd Their Relationship To Adolesnts Well Being Nd Social Self Esteem. *CyberPsychology and Behavior* 9(5):584-590.
- Verduyn P, Lee DS, Park J, Shablack H, Orvell A, Bayer J, Kross E (2015). Passive facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General* 144(2):480-488. <https://doi.org/10.1037/xge0000057>.
- Yeşil Y, Fidan F (2017). Türkiye'de Y Kuşağının E-İletişim Kullanımı: Üniversite Öğrencileri Üzerinde Bir Araştırma. *Balkan ve Yakın Doğu Sosyal Bilimler Dergisi* 3(01):100-109.
- Yu AY, Tian SW, Vogel D, Chi-Wai KR (2010). Can learning be virtually boosted? An investigation of online social networking impacts. *Computers and Education* 55(4):1494-1503. <https://doi.org/10.1016/j.compedu.2010.06.015>.