Educational Research and Reviews

Full Length Research Paper

Facebook connection styles among PhysicaL Education teacher candidates

Murat ERDOGDU

Faculty of Tourism, Department of Recreation Management, Necmettin Erbakan University, Konya, Turkey.

The purpose of this study is to determine the Facebook connection styles of physical education (PE) teacher candidates. The participants were composed of 626 (age = 21.21± 2.024) physical education teacher candidates from the departments of Physical Education and Sports. They teach in five different universities. It was done in 2014-2015 academic year. Research data were collected using Facebook Connection Styles Scale (FCSS). The mean scores obtained from the subscales and the total scale indicated that PE teacher candidates achieved the highest mean score on the subscale of "initiating". It was also discovered that Facebook connection styles of PE teacher candidates differed in terms of gender, frequency of connection, the number of people in the friend list and whether the people in the friend list exist in the social circle.

Key words: Physical education, Facebook, social network, Facebook connection styles.

INTRODUCTION

Developing and changing rapidly, technology today has become an essential need for the people of information age (Akkoyunlu, 2002). In the 21st century – the age of information and technology – the developments in information and communication technologies have affected social life politically, culturally, economically and socially (Erkoç and Erkoç, 2011). Communication has played a key role especially in the educational life and most people have been reported to widely use technology resources for communication purposes (Yalcin, 2012).

Of these developments occurring in the field of information and communication, the internet technology definitely is the most important one (Yaman and Erdoğan, 2007). A large number of people have started taking the advantages of the internet since access to the internet has become easier, cheaper and naturally more common. They can access information and make the best of various services on the internet.

The ongoing developments, transformations and opportunities provided by the internet have affected communication channels, socialization of individuals and the areas of online interaction among people, and particularly the young ones. Changing into a leading and a preferred environment for social interaction, communication and information, the internet has been increasingly involved in the lives of communities (Gemmill and Peterson, 2006; Wang et al., 2010).

Today educational environments cannot any longer be

E-mail: muraterdogdu06@gmail.com. Tel.: +90 5052448182. Fax: +90 3322362150.

considered independent of technology, and the developing technological resources, leading to changes in the scope of education environments, have necessitated that educational institutions need to keep up with the changing technology. Individuals around the world keep in touch by means of network-based technologies, and using the internet (world wide web) they can communicate with each other as a part of a network (Ekici and Kıyıcı, 2012).

The internet has entered a new era with the Web 2.0 applications that connect people to each other and facilitate access to information (Warschauer, 2009). Social networks are considered an important component of Web 2.0 technology and one of the most popular social sharing sites (Karal and Kokoç, 2010).

Social networking sites, having a central place in the internet use (Aksüt et al., 2012), represent another type of reality occurring on the internet, which allows users to share their opinions in the direction of a common goal and facilities their interaction with each other. Social networking sites have replaced face-to-face communication, and people started to leave their traditional way of commuting. Social networks have certainly played the key part in shaping how individuals communicate and form social groups (Erkoç and Erkoç, 2011).

Social networks are the websites that allow individuals to construct a public or semi-public profile within a bounded system, share a connection and view their list of connections and those made by others in the system; these are also the places where people in the online communities share their likes and activities and send each other messages, e-mails and videos, join discussion groups and live chats and do file sharing (Boyd and Ellison, 2007).

First appeared with Classmates (1995) and SixDegrees (1997), social networking sites have continued their development along with sites such as Ryze (2001), Friendster (2002), Hi5 and MySpace (2003), Bebo (2005), Facebook (2006) and Twitter (2008), all of which have new and unique designs and functions (Boyd and Ellison, 2007; Kim et al., 2010)

Among all these, Facebook is the leading online social sharing software through which young people can easily express themselves and it is mainly used by these young people to find friends (Kobak and Biçer, 2008), meet new people and make contact with others (Ellison et al., 2006). Facebook provides electronic data that allows young people to socially interact in a quick, comprehensive, dynamic and enjoyable manner (Golder et al., 2007). Therefore, several studies performed on university students in Turkey revealed that Facebook is the most commonly used one (Genç, 2010; Göker, Demir and Doğan, 2010; Öztürk and Akgün, 2012) with a higher frequency of use (Göker et al., 2010; Öztürk and Akgün, 2012; İşman and Hamutoğlu, 2013).

Turkey is ranked the 5th in the world in terms of the number of total Facebook users. In 2008, there were 3.464.640 Facebook users, and only after three years in 2011, this number grew up to 29.459.200 (Nickburcher, 2011). It is seen that the number of Facebook quadrupled in 4 years.

Numerous features of Facebook could be the reason behind such a high rate of preference, including providing users with a rich variety of multimedia; easy sharing via other websites; the chance of making contact with large communities by offering options such as group, activity and practices; online and offline chat; an infrastructure that supports mobile devices to run various games; rich visual contents; and the language support for Turkish (Karademir and Alper, 2011)

Blackey and Chew (2009) reported the advantages of social networks for higher education students, academic staff, and teaching institutions in order to support learning and teaching experiences Gülbahar et al. (2010) suggest that compared to other learning management systems, social networking sites are easier to use as they are flexible and user friendly. To communicate and get feedback, they provide great convenience to students and researchers as these networking sites let them create a group by following some easy steps and share things among themselves.

Facebook receives a great deal of attention from university students as it is free and used by lots of people so the use of Facebook in higher education has become a need that should be fulfilled in certain situations. This software encourages cooperative learning due to an increased student to content, student to student and student to teacher interaction (Kalafat and Göktaş, 2011). Such networking sites bring a new dimension to interpersonal communication in academic environments (Yu et al., 2010). Moreover, knowledge about the reasons for using social networking sites is believed to guide researchers who want to use them for educational purposes since they are regarded as a pedagogical tool stimulating cooperative learning (Lee and McLoughlin, 2008; Lockyer and Patterson, 2008).

Within this context, the purpose of this study is to determine how PE teacher candidates use Facebook to establish and improve their social relations, and also to find out their opinions about the role of Facebook in the educational domain.

METHOD

Research design

The present study was planned and performed based on general survey methodology (Karasar, 2009; Büyüköztürk et al, 2010) in order to determine Facebook connection styles of PE teacher candidates and find out their opinions on the use of Facebook in the educational domain.

Research data was collected using Facebook Connection Styles

Table 1. Basic information about the participants.

	Variables	F	%
Gender	Female	232	37.1
	Male	394	62.9
Grade	1st Year	136	21.7
	2nd Year	193	30.8
	3rd Year	135	21.6
	4th Year	162	25.9
Access Facebook via	Mobile Phone & Tablet	455	72.7
	Computer	171	27.3
Frequency of Facebook use	Once a day	169	27
	More than once a day	237	37.9
	A few times in a week	155	24.8
	Once a week	65	10.4
Number of people in the friend list	100 or less	46	7.3
	101-200	129	20.6
	201-300	206	32.9
	301-400	148	23.6
	401- or more	97	15.5
Whether the people in the friend list are in social circle or not	Almost most of them are not in my social circle	37	5.9
	More than half of them are in my social circle	78	12.5
	Almost all of them are in my social circle	294	47
	All of them are in my social circle	217	34.7
	Total	626	100

Scale (FCSS) and the data was evaluated using SPSS statistical package programme.

Participants

The participants were composed of 626 PE teacher candidates; 232 (37.1%) females and 394 (62.9%) males, selected randomly from first to fourth grade students attending Physical Education and Sports Teaching departments in five different universities in Turkey (namely Gazi University, Kirikkale University, Bartin University, Sakarya University, and Selcuk University) during 2014-2015 academic year. Out of these 626 PE teacher candidates, 136 (21.7%) were first-year students, 193 (30.8%) were second-year students, 135 (21.6%) were third-year students, and 162 (25.9%) of them were the fourth and last year students at the university (Table 1).

Data collection instruments

Two instruments were used to collect data about the participants; "Personal Data Form" and "Facebook Connection Styles Scale".

Personal Data Form: This form was developed by the researcher himself to collect data on the demographics of PE teacher candidates. Previous research studies were reviewed and expert views were sought to develop the form.

Facebook Connection Styles Scale

"Facebook Connection Strategies Scale", originally developed by Ellison et al. (2011), was adopted to Turkish by Aktürk et al. (2014). The scale, designed as a 5-point Likert-Type Scale, includes 13 items and three subscales; "initiating, information seeking, and maintaining".

The first 9 items of the scale have response options as "not likely at all, not likely, not sure, likely and very likely" and the last 4 items requires selecting one of five possible answers - "strongly disagree, disagree, not sure, agree, strongly agree". The internal consistency coefficients for the subscales are as follows: 0.82 (information-seeking), 0.89 (maintaining), 0.80 (initiating). The analysis performed showed that the Turkish version of the scale was valid and reliable.

Data analysis

Independent variables of the study included gender, frequency of Facebook use, the number of people in the friend list and whether the people in the friend list exist in the social circle. "Facebook

Table 2. Mean scores of the Facebook Connection Styles Scale (FCSS) for PE teacher candidates.

Variables	N	M	SS
Information-seeking	626	2.79	1.089
Maintaining	626	2.94	1.105
Initiating	626	3.10	1.001
Facebook Connection Total	626	2.95	.912

Table 3. Comparison of the FCSS mean scores by gender.

Variables	Gender	N	M	SS	t	Sd	p
Information -seeking	Female	232	2.40	.993	-7.158	624	.000
	Male	394	3.02	1.079			
Maintaining	Female	232	2.63	1.057	-5.510	624	.000
	Male	394	3.12	1.094			
Initiating	Female	232	2.95	.938	-2.896	624	.004
	Male	394	3.19	1.030			
Facebook Connection Total	Female	232	2.66	.810	-6.144	624	.000
	Male	394	3.11	.928			

p< 0.05.

connection styles (FCS)" was defined as the only dependent variable in the study. The statistical analysis of the data was designed in a way to discover the effects of independent variables on the dependent variable. The distributions of the scores derived from the scale were transferred to the computer by coding them according to the independent variables.

Research data were analysed using SPSS 17.0. For the personal data, statistical values such as percentage and frequency were used to analyze the data concerning PE teacher candidates. Facebook connection styles were determined using the statistical techniques of "arithmetic mean" and "standard deviation".
Independent samples t-test was performed to find out if there were any differences between the variables of the groups. And the differences between the variables with multiple groups were tested using the one-way analysis of variance (ANOVA). A Tukey post hoc test was conducted to ascertain the source of the difference. For statistical analyses, the level of significance was set at 0.05.

FINDINGS

This section of the study presents the interpretations of the findings of the research.

Table 2 shows the mean scores of PE teacher candidates obtained from each subscale of FCSS and from their total scale scores. PE teacher candidates obtained a mean score of $M= 3.10$ on the initiating dimension and $M= 2.94$ and $M= 2.79$ on the maintaining and information-seeking dimensions respectively.

A t-test was performed in order to compare the FCSS mean scores by gender. The results are presented in Table 3.

The mean scores that PE teacher candidates obtained on each subscale of FCSS and on the entire scale were compared by the gender variable and the comparison results were presented in Table 3. FCSS means of PE teacher candidates indicated a significant difference in favor of male teacher candidates ($p<0.05$).
The study also examined the connection styles of PE teacher candidates by comparing how often they connect to Facebook. The findings are shown in Table 4.

The results revealed significant differences in the Facebook connection styles of PE teacher candidates ($p< 0.05$). Those who connect "more than once a day", "once a day" and "every few days" achieved higher mean scores compared to ones connecting "once a week".
The number of people in the friend list was another variable measured using one-way analysis of variance to compare the Facebook connection styles of PE teacher candidates. The results of the comparison are given in Table 5.

According to these results obtained in Table 5, significant differences were observed in terms of the number of people in the friend list of PE teacher candidates.

Table 4. Comparison of the connection styles by the frequency of Facebook connection.

Variables	N	M	SD	Sd	F	p	Difference Tukey
Once a week	65	2.52	.888				1< 2
Every few days	155	2.90	.869	3			1< 3
More than once a day	237	3.08	.872	622	6.699	.000	1< 4
Once a day	169	2.97	.967	625			
Total	626	2.95	.912				

p< 0.05.

Table 5. Comparison of the connection styles by the number of people in the friend list.

Variables	N	M	SD	Sd	F	p	Difference Tukey
100 or fewer	46	2.4891	.91247				1< 2
101 - 200	129	2.9587	.92216	4			1< 3
201 - 300	206	2.9292	.86822	621	4.530	.001	1< 4
301 - 400	148	3.1306	.87914	625			1< 5
401 or more	97	2.9278	.97276				
Total	626	2.9503	.91218				

p< 0.05.

Table 6. Comparison of the connection styles in terms of whether the people in the friend list are from their own social circle or not.

Variables	N	M	SD	Sd	F	p	Difference Tukey
Almost most of them are not in my social circle	37	2.36	1.012	3	5.934	.001	1< 2
More than half of them are in my social circle	78	2.90	.844	622			1< 3
Almost all of them are in my social circle	294	3.02	.864	625			1< 4
All of them are in my social circle	217	2.96	.949				
Total	**626**	**2.95**	**.912**				

p< 0.05.

Finally, Facebook connection styles were compared in connection with whether the people in the friend list are from their social circle or not. The related results are presented in Table 6.

As can be seen from the table, a significant difference was found in favor of those who had more people in their friend list.

DISCUSSION AND CONCLUSION

This section presents the study results in relation to the Facebook connection styles of PE teacher candidates and the comparisons of the connection styles in terms of gender, year in school, frequency of Facebook connection, the number of people in the friend list and whether the people in the friend list exist in the social circle.

The mean scores of PE teacher candidates provided by the subscales and the entire scale demonstrated that PE teacher candidates achieved the highest mean score on the subscale of "initiating". Also, it was seen that PE teacher candidates had lower mean scores on the subscale of "information-seeking" when compared to those obtained from the subscales of "initiating" and "maintaining" and also from the entire scale. The total mean score on the FCSS might suggest that Facebook connection styles of PE teacher candidates differed to some extent. Based on the scores PE teacher candidates obtained from the subscale of *initiating*, it could be argued that PE teacher candidates adopt behaviours that aim to meet new people or strangers, communicate and make friends with them. A similar result reported by Ellison et al. (2011) suggested that Facebook covers

many features that can be used to create new contacts as well as strengthen the existing social ties. In a similar study, Aksüt et al. (2012) emphasized "making friends" as the primary purpose of using Facebook among primary and secondary school students. Another study conducted by Şener (2009) revealed that communicating with friends was the main reason underlying Facebook use, followed by tracking down the friends and acquaintances and sharing favourite videos and photos. It is suggested that Facebook is mainly used to share favourite videos/ photos because it gives them a chance to get to know each other better. Engin and Sarsar (2015) reported that technology and media tools are not efficiently used in a goal-oriented way. They stated that teacher candidates spend considerable time—as much as 6 hours or more each day – watching TV or using the internet and they use the social media tools such as Facebook and Instagram just as to know about the lives of others in their immediate environment and share photos of foods and drinks.

The data resulting from the subscale of initiating indicated that PE teacher candidates use Facebook mostly for meeting new and different people as well as searching for close friends, adding as a friend, making contact and meeting. It could also be suggested that Facebook is used least for searching for someone they meet in their social life and getting more information about the classmates and those living in the vicinity.

The study found that the comparisons between the FCSS scores of PE teachers and the variable of gender yielded significant differences. This finding suggests that Facebook connection styles, in other words the purposes of using Facebook, are different among male and female PE teacher candidates.

Erkoç and Erkoç (2011) reported that the majority of female and male students (84.37% and 93,88%) use Facebook to message each other. It was also underlined that a great proportion of male students use Facebook to play games in comparison with the females. It is noteworthy that male students much prefer Facebook to find their friends. In general, it could be asserted that males and females prefer to use Facebook for different purposes. This finding seems to be in agreement with the one reported in this study.

Another result revealed in the present study is related to the frequency of Facebook use and Facebook connection styles of PE teacher candidates. The result showed that there were significant differences in the Facebook connection styles of PE teacher candidates in terms of frequency of their Facebook use. PE teacher candidates who use Facebook "more than once a day", "once a day" and every few days" had higher mean scores than those who use it "once a week". Therefore, it might be suggested that teacher candidates using Facebook less often display different connection styles. Torlak ve Ay (2015) reported that 71.7% of the individuals

login to their Facebook account more than once every day. In addition, it was underlined that individuals in the research sample spend approximately 2 h and 40 min on Facebook. Another study conducted by Göker et al. (2010) asked questions about the patterns of internet use and a large number of participants reported that they go online and take a look at their Facebook pages once a day at least. Accordingly, it is clear that the frequency of Facebook use seems really high. Based on the finding reported in the present study, it could be argued that frequency of Facebook use among PE teacher candidates is influential in their Facebook connection styles; in other words, it diversifies their Facebook connection styles.

There were also differences observed in the Facebook connection styles of PE teacher candidates in respect of the number of people in the friend list. Teacher candidates who have less friends conveyed lower Facebook connection styles compared to those who have more friends. Thus, it can be said that an increase in the number of people in the friend list or having a lot of friends in the list makes differences in the Facebook connection styles. Şener (2009) emphasized that increased number of Facebook friends leads to spending more time on Facebook. Also, another study (Öztürk and Akgün, 2012) reported that the average number of people on social networks is 246, which seems consistent with the result found in the present study.

Given that the number of people in the friend list actually mirrors the social circle of a person, a long list crowded with contacts is considered a privilege. Nevertheless, having a great number of people in the friend list is not enough to assume that the person maintains an active relationship with all the people in the list. Another study found the number of friends one of the major indicators for the Facebook activity. The more friends the user has, the more messages s/he receives and therefore the more people s/he shares the messages with. So, it was reported that the activity of Facebook use of a Facebook user changes mostly based on the number of friends (Göker et al., 2010).

The study finally compared Facebook connection styles of PE teacher candidates in connection with the variable of whether the people in the friend list are also in their own social circle. A significant difference was found in favor of those who have more people in their friend list.

Regarding the people in the friend list, PE teacher candidates who reported "*more than half*, *almost all* and *all of them are in my social circle*" had higher mean scores than those who responded "*almost most of them are not in my social circle*". Consequently, it might be asserted that differences arise in the connection styles as fewer people in the friend list exist in the social circle of the teacher candidates, or, in other words, as the gap widens between the number of virtual friends and the friends in the real world. The social transformation triggered by the advanced communication technology

(Uslu and Karahan, 2007) has changed how individuals communicate and build a social circle (Erkoç and Erkoç, 2011). Göker et al. (2010) considered it important whether the Facebook friendships have a connection to the social circle and found that a considerable number of university students in their study sample reported that people in their friend list were also a part of their social circle. This is in line with the result of the present study. Moreover, they came to the conclusion that social ties are strengthened when the people in the friend list come from their social circle.

Facebook connection styles of PE teacher candidates were determined in the present study. Over and above this, Facebook connection styles were investigated in view of the variables of gender, frequency of Facebook use, the number of people in the friend list and whether the people in the friend list exist in their own social circle, all which are considered potentially influential in Facebook connection styles. Results of the study point to the conclusion that PE teacher candidates use Facebook commonly and also for different purposes as evidenced by the different Facebook connection styles of PE teacher candidates. Further research should be conducted to explore Facebook connection styles of PE teacher candidates using larger samples and different variables.

Conflict of Interests

The author has not declared any conflicts of interest.

REFERENCES

Akkoyunlu, B (2002). Educational Technology in Turkey: Past, Present and Future. Educ. Media Int. 39(2):165-174.

Aksüt M, Ateş S, Balaban S, Çelikkanat A (2012). İlk ve Ortaöğretim Öğrencilerinin Sosyal Paylaşım Sitelerine İlişkin Tutumları (Facebook Örneği)Akademik Bilişim'12-XIV. Akademik Bilişim Konferansı Bildirileri 1 - 3 Şubat 2012 Uşak Üniversitesi

Biçer S (2014). Akademisyenlerin Sosyal Ağlarda Bulunma Motivasyonları: Facebook Örneği. Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, (40).

Blackey H, Chew E (2009). Social Software Policy 2009–2012 for The University of Glamorgan. Retrieved from http://scholar.google.com.tr/scholar?q=Social+Software+Policy+2009–2012+for+The+University+of+Glamorgan.+The+Policy+of+the+University+of+Glamorgan.&btnG=&hl=tr&as_sdt=0,5#1

Boyd DM, Ellison NB (2007). Social network sites: Definition, history, and scholarship. J. Computer-Mediated Commun. 13(1):11, 210-230. Retrieved from http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

Ekici M, Kıyıcı M (2012). Sosyal Ağların Eğitim Bağlamında Kullanımı. Uşak Üniversitesi Sosyal Bilimler Dergisi 5/2:156-167

Ellison N, Steinfeld C, Lampe C (2006). Spatially bounded online social networks and social capital: The role of Facebook. Annual Conference of the International Communication Association (ICA), June 19-23, Dresden, Germany.

Engin G, Sarsar F (2015). Sınıf Öğretmeni Adaylarının Küresel Vatandaşlık Düzeylerinin incelenmesi. Int. J. Hum. Sci. 12(1).

Erkoç MF, Erkoç Ç (2011). Değerler eğitiminde etkinlik ortamı olarak sosyal ağ sitelerinin kullanımı: Facebook grupları. 5th International Computer & Instructional Technologies Symposium 22-24 September, Elazığ, Turkey.

Gemmill E, Peterson M (2006). Technology Use among College Students: Implications for Student Affairs Professionals. NASPA J. 43(2):280-300.

Genç Z (2010). Web 2.0 yeniliklerinin eğitimde kullanımı: Bir Facebook eğitim uygulama örneği. Akademik Bilişim'10 - XII. Akademik Bilişim Konferansı Bildirileri. Muğla Üniversitesi.

Golder SA, Wilkinson DM, Huberman BA (2007). Rhythms of social interaction: Messaging within a massive online network. Third Communities and Tecnologies Conference, Michigan State University, USA (Proceeding) pp. 41-66.

Göker G, Demir M, Doğan A (2010). Ağ toplumunda sosyalleşme ve paylaşım: Facebook üzerine ampirik bir araştırma. e-Journal of New World Sci. Acad. 5(2).

Gülbahar Y, Kalelioğlu F, Madran O (2010). Sosyal Ağların Eğitim Amaçlı Kullanımı, XV. Türkiye'de İnternet Konferansında sunulan bildiri, İstanbul Teknik Üniversitesi, İstanbul. Alınan yer: http://inet-tr.org.tr/inetconf15/ozet/10.html

İşman A, Albayrak E (2014). Sosyal Ağlardan Facebook'un Eğitime Yönelik Etkililiği. Trakya Üniversitesi Eğitim Fakültesi Dergisi 2014, Cilt 4, Sayı 1:129-138

İşman A, Hamutoğlu B (2013).Sosyal ağların eğitim-öğretim sürecinde kullanılması ile ilgili karma öğrenme öğrencilerinin görüşleri: Sakarya Üniversitesi örneği. Int. J. New Trends in Arts, Sports Sci. Educ. 2(3).

Kalafat Ö, Göktaş Y (2011). Sosyal ağların yükseköğretimde kullanımı: Gümüşhane Üniversitesi, Facebook örneği.5th International Computer & Instructional Technologies Symposium, Fırat University, Elazığ-Turkey.

Karademir T, Alper A (2011). Öğrenme ortamı olarak sosyal ağlarda bulunması gereken standartlar. 5th International Computer&Instructional Technologies Symposium, Fırat University, Elazığ.

Karal H, Kokoç M (2010). Üniversite Öğrencilerinin Sosyal Ağ Siteleri Kullanım Amaçlarını Belirlemeye Yönelik Bir Ölçek Geliştirme Çalışması. Turk. J. Comput. Math. Educ. 1(3):251-263

Kim W, Jeong OR, Lee SW (2010). On social Web sites. Inform. Syst. 35(2):215-236.

Kobak K, Biçer S (2008). Facebook Sosyal Paylaşım Sitesinin Kullanım Nedenleri, 8 th İnternational Education Technology Conference (pp. 567-571), 6-9 Mayıs 2008 Alınan yer: http://ietc2008.home.anadolu.edu.tr/ietc2008/105.doc

Lee MJW, McLoughlin C (2008). Harnessing the affordances of Web 2.0 and social software tools: can we finally make "student-centered" learning a reality? Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Vienna, Austria.

Lockyer L, Patterson J (2008). Integrating social networking technologies in education: a case study of a formal learning environment. In. Proceedings of 8th IEEE international conference on advanced learning Technologies, Spain: Santander pp. 529-533.

Nickburcher (2011). Facebook usage figures by country july. http://www.nickburcher.com/2011/07/facebook-usage-figures-by-country-july.html adresinden 21 Ağustos 2011 tarihinde erişilmiştir.

Özmen F, Aküzüm C, Sünkür M, Baysal N (2011). Sosyal ağ sitelerinin eğitsel ortamlardaki işlevselliği. 6th International Advanced Technologies Symposium (IATS'11) 16-18 May, Elazığ,Turkey.

Öztürk M, Akgün ÖE (2012). Üniversite öğrencilerinin sosyal paylaşım sitelerini kullanma amaçları, bu sitelerin olumlu-olumsuz etkileri ve eğitimlerinde kullanılması ile ilgili görüşleri. Sakarya University J. Educ. 2(3):49-67.

Preeti M (2009). Use of social networking in a linguistically and culturally rich India, Int. Infor. Library Rev. 41(3):129-136.

Şener G (2009). Türkiye'de Facebook kullanımı araştırması. XIV. Türkiye'de İnternet Konferansı, 12-13 Aralık, Bilgi Üniversitesi, İstanbul.

Torlak Ö, Ay U (2014). Facebook'ta Bulunma Amacı ve Facebook Reklamlarına Duyulan İlgi Arasındaki İlişki. Anadolu University J. Soc. Sci. 14(4).

Uslu Karahan Z (2007) Yeni iletişim araçları ve toplumsal etkileri. Sosyoloji Araştırmaları Dergisi 10(1):224-234.

Yalçın M (2012). Communication barriers in quality process: Sakarya University sample. Turk. Online J. Educ. Technol. 11(4):65-71.

Yaman H, Erdoğan Y (2007). İnternet kullanımının Türkçe'ye etkileri: Nitel bir araştırma. J. Lang. Linguist. Stud. 3(2):237-249.

Yu YA, Stella TW, Doug V, Kwok CW (2012). Can learning be virtually boosted? An investigation of online social networking impacts. Computers Education. Comput. Educ. 55(4):1494-1503.

Wang SS, Moon S, Kwon KH, Evans CA, Stefanone MA (2010). Face off: Implications of visual cues on initiating friendship on facebook. Computers Hum. Behav. 26(2):226-234.

Warschauer M (2009). Foreword. In M. Thomas (Ed.), Handbook of research on web 2.0 and second language learning, Hershey, PA: Information Science Reference pp. 19-20.