



EXAMINATION OF THE INAPPROPRIATE BEHAVIORS DISPLAYED BY PROSPECTIVE TEACHERS THROUGH DIGITAL DEVICES IN TERMS OF CERTAIN VARIABLES

Mehmet SİNCAR^{*a}

^aGaziantep University, Department of CEIT, Gaziantep/TURKEY

ABSTRACT

The purpose of this study is to examine the inappropriate behaviors displayed by prospective teachers through digital devices in terms of certain variables, and to reveal the causes of these inappropriate behaviors. Employing quantitative and qualitative research methods, the study was carried out during the 2011-2012 academic year with participation of 185 prospective teachers from a faculty of education in Turkey. Quantitative data were analyzed by use of multiple linear regression analysis and independent samples t-test. Qualitative data were analyzed through content analysis. Validity and reliability were investigated via peer-review, member checks, and inter-coder reliability processes. The findings of the study show that there is a (low-level) significant positive relationship between the inappropriate behaviors displayed by prospective teachers through digital devices and gender, social media usage status, and duration of the internet usage and mobile phone usage. It was concluded that male students displayed more inappropriate behaviors through digital devices in comparison to female students, and prospective teachers using social media displayed more inappropriate behaviors through digital devices in comparison to those not using the social media. The causes of undesired/inappropriate behaviors were found to be compulsion, absent-mindedness and indifference.

Keywords: *Digital technologies, digital citizenship, digital etiquette, inappropriate behaviors.*

INTRODUCTION

It can be said that social life gradually changes and transforms as a result of the fact that digital devices have become one of the indispensable elements of the daily life. Prensky (2001) states that this transformation has led to formation of two groups in the society: digital natives and digital immigrants. According to Prensky (2001), while digital natives grow with digital technologies, digital immigrants meet these technologies only after they have completed a certain part of their lives. As digital natives are surrounded by digital technologies, they adapt themselves to virtual world more easily than digital immigrants. In fact, digital natives refer to present-day children, and digital immigrants to their parents. Prensky (2001) highlights that today's children are very different from their parents, which is due to the fact that they spend thousands of hours by using digital technologies. The fact that digital devices have started to influence the social life in an unpredictable manner has led to emergence of a virtual world where people spend a considerable part of their time. Thus, individuals from different segments of the society have begun to become digital citizens of this world gradually.

Digital Citizenship

Digital citizenship is defined as the ability to participate in society online (Mossberger, Tolbert and McNeal, 2008). Another definition of digital citizenship refers to capability of all individuals in the

* **Co-Author:** mehmetincar@yahoo.com

society to act in the digital world easily by using information technologies positively. Within the scope of this definition, nine basic elements of digital citizenship are described (Ribble & Bailey; 2007).

Table 1. Digital citizenship elements

Elements	Descriptions
Digital Access	Every individual in the society needs to have equal access to digital technologies.
Digital Communication	Applications such as mobile phone, short message, video conferencing and e-mail are the technologies used by individuals for communication purposes. This mode of communication has created a new social structure.
Digital Literacy	Individuals need to have core knowledge concerning use of digital technologies, and need to be capable of using such technologies in the learning processes.
Digital Etiquette	Use of digital technologies within the framework of a particular etiquette makes individuals a role model especially for students.
Digital Commerce	Individuals need to be able to review goods in the electronic environment before buying them and conduct processes related to shopping in the same environment.
Digital Law	Individuals must respect property rights, and avoid acts that may violate copyrights in particular.
Digital Rights & Responsibilities	Every individual has a right to use digital technologies. Individuals need to be able to protect these rights of theirs and defend rights of other people about this topic.
Digital Health & Wellness	Individuals need to be capable of identifying health problems likely to emerge as a result of use of digital technologies, and must take necessary measures by noticing the initial phases of such problems.
Digital Security	Every individual who uses digital technologies needs to take security measures in regard to his/her personal devices in particular, and must pay strict attention to utilizing security software while using his/her personal devices or using personal information in devices open to common access.

Ribble & Bailey (2007) set a model for explaining the connection between elements of digital citizenship. This model indicated the common purpose of digital citizenship elements as follows: to improve learning outputs and to prepare students to become 21st century citizens ((Ribble & Bailey, 2007:37).

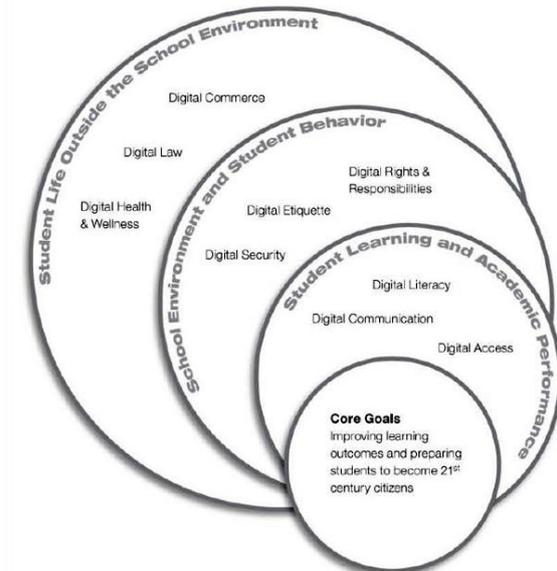


Figure 1. Model of how the elements of digital citizenship relate and connect.

Examining the Figure 1, it is seen that digital citizenship elements are affected and shaped by lives of students both inside and outside the school. Having more access to digital technologies inside and outside the school may be considered an important factor in terms of acquisition of behaviors concerning use of digital technologies. Gradually increasing use of digital technologies in life makes difference for both students and other individuals in the society. Activities such as money transfer over the internet, access to lecture notes through the websites, delivery of wedding invitations by e-mail, and organization of aid campaigns through social media in case of a natural disaster can be regarded as reflections of changes in the social life created by technology. On the other hand, it is observed that digital technologies, which facilitate/vary human life, negatively affect and change behaviors of the individuals from time to time. Behaviors like transferring money from a bank account over the internet without permission, threatening a peer student in a chat room, and sharing pictures or videos violating privacy through social media without permission can be showed as examples of undesirable use of the digital technologies. One of the reasons for individuals' exhibition of annoying behaviors over the internet is that they regard virtual world as more riskless in comparison to the real world, which is not approved by the society (Bargh & MacKenna, 2004; Stewart, 2000; Woodbury, 2003).

Closely examining the situation, it is observed that these kinds of negative behaviors are displayed by hiding behind a computer standing clear of the physical environment. Apart from that, there are also improper behaviors conducted through digital devices against person or people being in the same environment as such devices. According to Ribble & Bailey (2007:6), these kinds of behaviors can be associated with the concept of etiquette as distinct from the concept of ethics. For instance, it is one of the negative behaviors displayed in the daily life that some people answer their mobile phone without getting permission from individual/individuals being in the same environment as them during a face-to-face meeting. A call to mobile phone of one of the students during a lecture can be indicated as another negative behavior that distracts people at that moment. In a similar way, it is also among annoying behaviors that a group of people talk loudly in a public transportation vehicle, or a person in the same vehicle as you speaks loudly to another person via a mobile phone. Adam (2005) states that improper behaviors conducted through digital technologies increase in proportion to inclusion of digital technologies in the daily life, and especially the females are negatively affected by these kinds of inappropriate behaviors.

Teachers are expected to take responsibility and function as a role model for their students in order for students to exhibit appropriate behaviors through digital technologies instead of these kinds of undesirable behaviors. It is regarded as a teacher's competence in the context of technological leadership (Brooks-Young, 2006; Brooks-Young, 2007; ISTE, 2008). Exhibition of proper behaviors that can serve as a model for the society to prevent undesirable/inappropriate behaviors that are conducted through digital devices is associated with the concept of digital etiquette, one of the sub-dimensions of the concept of digital citizenship (Ribble & Bailey, 2005; Ribble & Bailey, 2007).

Stating that digital etiquette norms are necessary for students to distinguish appropriate behaviors from inappropriate behaviors displayed through digital devices, Ribble & Bailey (2005) recommends teachers implement a series of scenarios called as digital compass activity as a guide. The digital compass activity is a material consisting of 10 scenarios in total. These scenarios contain inappropriate behaviors displayed through digital devices. At the end of the activity, students and teachers are expected to reach a conclusion concerning what is right and what is wrong in accordance with answers given by them to the questions asked in regard to the above-mentioned scenarios.

The literature contains different studies concerning use of digital technologies by students. For instance, Van Buren (2001) determined at the end of a three-year ethnographic research that students with low level of skill for using computer displayed inappropriate behaviors more and were disciplined on this topic, while students with higher proficiency in the use of computers cooperated with the school

administration when they detected a gap in network system of the school so as to close this gap. Results of that study emphasize that people with higher competence on the topic of information technologies comply with codes of conduct more. Another study on this topic was carried out by Poole (2007). Poole (2007) reported that age and gender had an effect on negative behaviors displayed by students through these kinds of technologies. In that study, a total of 22 scenarios (each one consisting of 11 items), which were parallel to one another in regard to real life and cyber world, were prepared, and an attempt was made to determine perceptions of 453 students about these scenarios. It was concluded that high school students and male students displayed more negative behaviors through digital technologies in comparison to university students and female students respectively. The same study reported that students considered their negative behaviors displayed through digital technologies more acceptable in comparison to inappropriate behaviors exhibited in the real life. Poole (2007) highlighted that perception about exhibition of a positive or negative behavior should be the same regardless of whether such behavior is displayed by use of digital technologies or in the real life, but findings of that study revealed an inconsistency in perceptions of the students about this topic. Poole (2007) stated that the said inconsistency resulted from the fact that use of digital technologies affected perceptions of individuals about what was right and what was wrong. Likewise, Glatz & Betschi (2006) conducted a study in which academicians, researchers and telecommunication employees participated. It was concluded that people were videotaped and photographed through mobile phone cameras without permission, which violated privacy, and spam-content messages were sent to randomly selected numbers and addresses via e-mail or SMS. A study conducted in Turkey with participation of prospective teachers collected behaviors, which were to be evaluated within the context of digital etiquette, under the titles of etiquette and sensitivity, and concluded that participants barely exhibited these behaviors (Sincar, 2011).

Purpose of The Study

The purpose of this study is to examine the inappropriate behaviors displayed by prospective teachers through digital devices in terms of gender, social media usage status, and duration of daily internet usage and mobile phone usage, and to reveal the causes of these inappropriate behaviors. In this sense, an attempt was made to answer the following four research questions in the study:

1. Do gender, social media usage status, and duration of daily internet usage and mobile phone usage of prospective teachers significantly predict the frequency of inappropriate behaviors displayed by them through digital devices?
2. Is gender a factor that creates a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices?
3. Is social media usage status a factor that creates a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices?
4. What are the causes of inappropriate behaviors displayed by prospective teachers through digital devices?

METHOD

Participants

This study was carried out with participation of prospective teachers attending a faculty of education in Turkey during the 2011-2012 academic year. Participants were determined by use of proportional sampling in quantitative dimension of the study, and through maximum variation sampling in qualitative dimension of the study. 185 prospective teachers took part in quantitative dimension of the study. Of the participants, 60% were female, 40% were male. 82% of the participants used social media tools such as FacebookTM and TwitterTM. 22 participants were included in the qualitative dimension of the study.

Data Collection

A form developed by the researcher was used in collection of quantitative data. The relevant literature (Adam, 2005; Barger, 2008; Brooks-Young, 2007; Freeman & Graham, 2005; Kizza, 2010; Ribble & Bailey, 2007; Rooksby, 2002; Shariff, 2009) was reviewed while preparing this form. A pilot form was developed based on expert opinions. Then, this pilot form was subjected to opinions of two faculty members in order to determine content validity of the form. After necessary corrections were made, the form was administered to 210 prospective teachers. After this stage, item-total, item-remainder and t-test item analyses were carried out in order to test validity of the data collection tool. It was concluded that all items had different correlation coefficients and t values. To determine reliability coefficient of the data collection tool, internal consistency analysis was performed and reliability coefficient ($\alpha=0.793$) was calculated.

The form contained descriptive variables including gender, social media usage status, and duration of daily internet usage and mobile phone usage as well as 10 items consisting of negative behaviors displayed through digital devices (ANNEX-1). Qualitative data of the study were collected by means of semi-structured interviews. Semi-structured interviews contained 5 basic questions, which were aimed at determining the causes of inappropriate behaviors displayed by prospective teachers through digital devices, and 5 in depth questions associated with these questions.

Data Analysis

Quantitative data of the study were analyzed by means of multiple linear regression analysis and independent sample t-test. In multiple linear regression analysis, assumptions were tested, and then "ENTER" method where all independent variables were analyzed together was employed (Muijs, 2004; Pallant, 2005). For analysis of qualitative data of the study, content analysis was performed, and themes constituting the research framework were determined by closely examining the interview texts (Boyatzis, 1998; Cresswell, 2007; Patton, 2002; Strauss & Corbin, 1990). Validity and reliability of the data were investigated through peer debriefing, member checks, and inter-coder reliability processes (Lincoln & Guba, 1985).

Peer Debriefing

A peer is a person who is outside the context of the research, is not interested in the topic under examination, but is knowledgeable about research methods and capable of discussing problems about the research process with the researcher (Lincoln & Guba, 1985). A faculty member specialized in the field of educational administration and inspection took part in the present study as a peer. Documents containing the data obtained from prospective teachers were examined by both the researcher and peer separately. The researcher and peer exchanged opinions in regard to analysis of the data.

Member Checking

Member checking refers to the process where comments made by the researcher based on data obtained from the participants are tested by sharing such comments with participants of the study. This process is the salient part of the establishment of trustworthiness because it allows the researcher to find out if her/his interpretations of the data reflect the realities of the participants' lived experiences (Lincoln & Guba, 1985). In the present study, after views of any one of the participants were transcribed, they were reviewed together with the participant, and opinions of the participant were taken in regard to the comments made by the researcher. This process helped the researcher to confirm the comments made by him/her concerning opinions of the students.

Inter-Coder Reliability

Inter-coder reliability refers to the degree to which two coders come to agreement in regard to quality of any content (Miles & Huberman; 1994; Boyatzis, 1998). The second coder must have comprehensive knowledge and competence about both research methods and topic of the research. A faculty member specialized in the field of computer and instructional technologies education took part in the present study as the second coder. The researcher and the second coder separately examined the documents containing views of the participants, and deducted the relevant themes. Then, functional definitions were made in regard to each theme. At the end of the analyses conducted by the coders, participants' views were collected under the themes of compulsion, absent-mindedness, and indifference.

Findings

RQ 1: Do gender, social media usage status, and duration of daily internet usage and mobile phone usage of prospective teachers significantly predict the frequency of inappropriate behaviors displayed by them through digital devices? Multiple regression analysis was performed in order to find an answer to this problem.

Table 2. Regression analysis results

Variable	B	S.E.	β	t	p	Bivariate r	Partial r
Constant	1.196	.137		8.758	.000		
Gender*	.172	.071	.170	2.434	.016	.205	.178
Duration of the Internet Usage	.088	.032	.206	2.757	.006	.296	.201
Duration of Mobile Phone Usage	.098	.038	.179	2.587	.010	.189	.189
Social Media Usage**	.160	.096	.124	1.672	.096	.220	.124

F=8.363; p=0.000; R=0.396; R²=0.157

*Female students were taken as reference.

**Those not using social media were taken as reference.

At the end of the regression analysis, it was seen that four variables collectively had a significant (low-level) relationship with scores about inappropriate behaviors displayed by prospective teachers through digital devices (F=8.363; p=0.000; R²=0.157), and explained approximately 16% of the variance. According to the standardized regression coefficient, the order of importance of predictor variables over inappropriate behaviors displayed through digital devices seems to be as follows: duration of the internet usage, duration of mobile phone usage, and gender. Examining the "t" values concerning significance of regression coefficients, it is seen that gender variable and duration of the internet usage and mobile phone usage are significant predictors of inappropriate behaviors displayed through digital devices. Accordingly, it can be said that gender (in particular) and duration of the internet usage and mobile phone usage of prospective teachers are predictive characteristics for predicting the frequency of inappropriate behaviors displayed by them through digital devices, but social media usage status does not bear such a characteristic.

RQ 2: Is gender a factor that makes a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices? Independent sample t-test was carried out in order to find an answer to this question.

Table 3. Independent sample t-test results concerning the variable of gender

Variable		N	Mean	SD	t	df	p
Gender	Female	110	1.82	0.38	-2.609	183	.01*
	Male	75	2.02	0.61			

*p<0.05

The findings demonstrate that the variable of gender is a factor that makes a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices ($p < 0.05$). Examining the Table 3, it is seen that male prospective teachers (Mean=2.02) display negative behaviors more frequently than female prospective teachers. It is observed that male participants of the study exhibit inappropriate behaviors in a wider frequency range (SD=0.61) though the number of female students included in the research process is higher than that of the male students.

RQ 3: Is social media usage status a factor that makes a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices? Independent sample t-test was carried out in order to find an answer to this question.

Table 4. Independent sample t-test results concerning the social media usage status

		N	Mean	SD	t	df	p
Social Media Usage	No	33	1.67	0.30	-3.05	183	.00*
	Yes	152	1.96	0.52			

* $p < 0.05$

The findings demonstrate that the variable of social media usage status is a factor that makes a significant difference in terms of inappropriate behaviors displayed by prospective teachers through digital devices ($p < 0.05$). Examining the Table 4, it is seen that prospective teachers using social media (Mean=1.96) display negative behaviors more frequently than prospective teachers not using social media.

RQ 4: What are the causes of inappropriate behaviors displayed by prospective teachers through digital devices? At the end of data analyses, the findings were collected under the themes of compulsion, indifference and absent-mindedness.

For analysis of qualitative data of the study, content analysis was performed, and themes constituting the research framework were determined by closely examining the interview texts. Participants' views regarding the fourth problem were provided as original. Students were encoded in order to identify the owner of a particular statement as well as gender of the participant making the relevant statement (e.g. S1M [The 1st Student, Male]) and S13F [The 13th Student, Female].

Table 5. Themes determined within the scope of the study, and sample statements

Themes	Functional Definitions	Sample Statements
Compulsion	<ul style="list-style-type: none"> • Displaying an inappropriate behavior in the face of an unavoidable situation 	<ul style="list-style-type: none"> • I answer my phone in environments requiring silence only when the call is highly important.
Absent-mindedness	<ul style="list-style-type: none"> • Displaying inappropriate behaviors unwittingly or absently 	<ul style="list-style-type: none"> • Generally, I am loudly speaking on the phone absently when I am angry.
Indifference	<ul style="list-style-type: none"> • Displaying inappropriate behaviors by ignoring reactions of the people 	<ul style="list-style-type: none"> • It gives me pleasure. In fact, I am recording their natural state.

Compulsion

Exhibition of inappropriate behaviors by participants through digital devices just because they are forced to do it was evaluated under the theme of "compulsion". For instance, some participants made the

following statements concerning the causes of the inappropriate behavior described as, “answering the mobile phone in situations requiring silence”:

- I do not answer my phone unless it is very urgent (S1M). I answer the phone only when it is important (S2M). Sometimes, I answer the calls in special conditions. In general, I try to speak in a low tone of voice without disturbing the people around me (S3F). I sometimes answer the calls from my family thinking that there may be an emergency situation though I know that it is an inappropriate behavior (S4F). I sometimes do it. I am answering if the person calling me is someone from my family. I do not want to cause them to be anxious about me. I consider that it may be an urgent issue. I talk for a short time, and then I finish the call (S5F). I sometimes answer the calls. I answer the phone if there is something urgent (S6M). I answer the phone when my mother or father calls. They have priority for me (S7F). I answer the phone when I have to do it (S8F). I answer the calls that I consider important. I have no chance other than saying “what can I do? I have to answer it” to people disturbed by this situation (S9F).

Under the theme of compulsion, participants stated that they displayed annoying and undesirable behaviors through digital devices when there was an urgent, special and important situation for them. Especially the female participants stated that they answered calls from family members without any hesitation though they knew sensitivity of the situation they were in, and they tried their best not to annoy the people around them.

Absent-mindedness

Exhibition of inappropriate behaviors by participants through digital devices just because they are absent-minded or unaware was evaluated under the theme of “absent-mindedness”. For instance, participants made the following statements concerning the causes of the inappropriate behavior described as, “speaking on mobile phone at a tone of voice that may disturb people (loudly)”:

- In general, I speak loudly on the phone when I am angry. I feel relieved when I speak loudly. I am unaware of speaking loudly at that moment (S10M). In general, I speak loudly on the phone when I talk with my mother. It is beyond my power. I am lost at those moments (S11F). In general, I display this behavior when I am angry. So, I speak loudly. I realize later on that I have made a mistake (S12F). It sometimes happens to me, though not always. I start to shout when I think that the person I talk with does not understand me. In fact, I do not do it intentionally. It occurs automatically (S13M). I shout when I get very angry with the person I speak to. This is a bad temper of mine. I cannot control myself when I get angry. I realize the situation when I calm down (S14M). I shout on the phone if I am angry at that moment. I am unaware of it. In any case, I can't help when I am angry even if I am aware of it (S15F). In general, I speak loudly unwittingly when I am angry or I cross with someone (S16F). To a certain degree, it is about how tense the environment is. All in all, we are human beings, and our feelings may reach peak from time to time. I sometimes lose my control when I am very angry (S3F).

Under the theme of absent-mindedness, participants stated that they were not aware of the negative behaviors they displayed. For instance, participants who stated that they displayed the negative behavior described as, “speaking on mobile phone at a tone of voice that may disturb people (loudly)” when they

were very angry told that they realized that they were speaking loudly only when they got reaction from people around them.

Indifference

Inappropriate behaviors exhibited by participants ignoring reactions of other people around them were evaluated under the theme of “indifference”. For instance, participants made the following statements concerning the causes of the inappropriate behavior described as, “recording voices and images of people by means of digital devices (camera, mobile phone, video camera etc.) without permission”:

- I usually record images of my friends without getting permission from them. I think they will not give trouble because I am very close with them. From time to time, I use these images for playing a joke on them. However, it is not a problem even if they react. All in all, they are my friends (S14M). I only record the images of people I am acquainted with without permission. I do not think intimacy gives problem. If a problem arises, it means that there is no intimacy (S6M). As I like it, I record voices and images of people around me. It gives me pleasure. In fact, this is a kind of hobby for me. I am recording their natural state (S17F). I record the moments I consider important so that I can have an evidence or reference. In fact, I do not see any negative side of this behavior as long as people do not notice his situation. In addition, people must be careful, because it is their problem (S7F). I display this behavior towards my close friends. I take more pleasure when they get angry. It amuses me (S18F). I have done it once. I was waiting for a tramway with my friends. Two black students arrived at the station. I told my friend to secretly record us while I was chatting with them. They were so sweet (S5F). I have a great fun while recording. It relieves me to record funny or blushing states of others. I am watching those moments again and again. I laugh more every time (S19M). I record images of people around me because I do not think that it is something bad. So, I feel good while recording them (S8F). I mostly do this for humor. People who realize that I record them without notice are disturbed by this situation. Still, (the participant uses a sarcastic tone of voice here) I continue to record secretly if they do not politely warn me (S12F). I record voices and images of lecturers annoying me during lessons. Then, I have fun when I watch them. I laugh so much (S4F).

Likewise, participants made the following statements concerning the causes of the inappropriate behavior described as, “busying oneself with digital devices during face-to-face meetings (both writing a SMS or using Facebook, Twitter, etc. and listening to the person talking”:

- I generally do that when I am bored of the things told by the person talking with me. I feel the need of busying myself with some things (S16F). Firstly, I would like to mention that I do not feel uncomfortable about displaying this behavior. I do that when I am bored of listening to the person talking with me. This is better than telling the annoyance to one’s face (S20F). I think this is something normal. Everyone does the same. It does not disturb me. I do not understand why others are disrupted (S18F). I do that when I do not attach importance to what is told by the person speaking to me or the person himself/herself. In these kinds of situations, I avoid making an eye contact. Then, I start to play with my phone (S19M). I can both listen to the other person and busy myself with my phone. All in all, I can do both of the activities at the same time. In my opinion, it is not something disturbing. I do not understand the reason why they react to me. I think this is something

normal (S21F). I do that depending on the person talking with me. If s/he is someone important for me, I never display this behavior. However, if s/he is a regular person, I do not behave carefully. People sometimes react to me. For example, some of my friends tell me, "Look at my face". (...) still, this is something normal for me. This is because; this behavior has become part of the life (S13M). I do that when I do not want to listen to the person talking with me. In fact, I want him/her to finish the speech. However, they do not understand my intention (S1M).

Under the theme of indifference, it was determined that participants displayed inappropriate behaviors through digital devices by making nothing of the people around them or ignoring their reactions. Participants stated that they displayed the behavior described as, "recording voices and images of people through digital devices without permission" in order to have fun and feel satisfied by disregarding privacy of the people. Likewise, participants said that they displayed the behavior described as, "busying oneself with digital devices during face-to-face meetings" because they did not take the communicated person seriously or they thought it was a normal behavior for them.

DISCUSSION and CONCLUSION

A positive (low level) relationship was found between gender, social media usage status, and duration of the internet usage and mobile phone usage of prospective teachers and the inappropriate behaviors displayed by them through digital devices. The findings demonstrate that gender and duration of the internet usage and mobile phone usage have a significant effect on inappropriate behaviors displayed by prospective teachers through digital devices, but social media usage status does not have such an effect.

It was realized that men displayed inappropriate devices through digital devices more frequently than women, which created a significant difference. Likewise, it was understood that social media usage status of prospective teachers was a factor that made a significant difference in terms of inappropriate behaviors displayed through digital devices, and prospective teachers using social media displayed inappropriate behaviors more frequently. It is possible to say that male students' more frequent exhibition of inappropriate behaviors through digital technologies in comparison to female students stems from more usage of digital technologies by men. This situation shows parallelism with the result reached in regard to the first problem of the study.

The only limitation of the present study is that examination of the inappropriate behaviors displayed through digital devices did not allow reaching a large mass of participants. To draw a conclusion based on the research results limited to the study group, it can be said that the more prospective teachers use digital technologies, the more inappropriate behaviors they display through such technologies.

The causes of the inappropriate behaviors displayed by prospective teachers through digital technologies were discussed under the themes of compulsion, absent-mindedness, and indifference. Compulsorily or absently displaying an undesirable behavior can be understood, but it is an unacceptable situation especially for a prospective teacher that one disturbs his/her environment by ignoring the people around him/her. Digital etiquette emphasizes that teachers should serve as a role-model for students concerning the appropriate behaviors to be displayed through digital devices, and that teachers bear responsibility for internalization of this issue by students. The results demonstrate that prospective teachers do not perfectly have the digital etiquette norms, which is one of the criteria for them to serve as a role-model for their students.

The most important limitation of this study is that negative behaviors are tried to be determined only in one faculty of education and with a limited number of participants. In this sense, the results should be

interpreted only by considering the study group. If this study is comparatively reviewed from different aspects in national and international context in a broad perspective, more comprehensive results may be obtained.

REFERENCES

- Adam, A. (2005). *Gender, ethics and information technology*. New York, NY: Palgrave Macmillan.
- Barger, R.N. (2008). *Computer Ethics: A Case-Based Approach*. Cambridge, UK: Cambridge University Press.
- Bargh, J.A. & McKenna, K.Y.A (2004). The internet and social life. *Annual Review of Psychology*, 55, 573-590.
- Boyatzis, R.E. (1998). *Thematic analysis and code development: transforming qualitative information*. Thousand Oaks, London: Sage.
- Brooks-Young, S. (2006). *Critical Technology Issues for School Leaders*. Thousand Oaks, California: Corwin Press.
- Brooks-Young, S. (2007). *Digital Age Literacy for Teachers: Applying Technology Standards to Everyday Practice*. Washington, DC: ISTE.
- Cresswell, J. W. (2007). *Qualitative inquiry & research design: choosing among five approaches*. Thousand Oaks, London: Sage.
- Freeman, L. & Graham, P. (2005). *Information Ethics: Privacy and Intellectual Property*. London, UK: Information Science Publishing.
- Glatz, P.& Bertschi, S. (2006). People, Mobiles and Society: Concluding Insights from an International Expert Survey. *Knowledge, Technology & Policy*, 19(2), 69-92.
- ISTE (2008). *National Educational Technology Standards for Teachers and Performance Indicators*. Retrieved May 9, 2012, from <http://www.iste.org/standards/nets-for-teachers.aspx>
- Kizza, J.M. (2010). *Ethical and Social Issues in the Information Age*. New York, NY: Springer London Dordrecht Heidelberg.
- Lincoln, Y.S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Thousand Oaks, California: SAGE Publication Ltd.
- Pallant, J. (2005). *SPSS Survival Manual*. Crows Nest, NSW: Allen&Unwin.
- Patton, M. Q. (2002). *Variety in qualitative inquiry: theoretical orientations*. In C.D. Laughton, V. Novak, D. E. Axelsen, K. Journey, & K. Peterson (Eds.), *Qualitative research & evaluation methods*. Thousand Oaks, London: Sage.
- Poole, D. (2007). A study of beliefs and behaviors regarding digital technology. *New Media & Society*, 9(5), 771-793.
- Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9(5), 10-15.
- Ribble, M. & Bailey, G. (2005). Developing Ethical Direction. *Learning and Leading with Technology*, 32(7), 36-9.
- Ribble, M. & Bailey, G. (2007). *Digital Citizenship in Schools*. Washington, DC: ISTE.

Rooksby, E. (2002). *E-mail and ethics: Style and ethical relations in computer-mediated communications*. New York, NY: Routledge.

Shariff, S. (2009). *Confronting Cyber-Bullying*. Cambridge, UK: Cambridge University Press.

Sincar, M. (2011). An analysis of prospective teachers' digital citizenship behaviour norms. *International Journal of Cyber Ethics in Education*, (1)2, 25-40.

Stewart, M. (2000). The Classroom, Board Room, Chat Room and Court Room: School Computers at the Crossroads. *School Business Affairs*, 66(9), 23-8.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Newbury Park, CA: Sage.

Van Buren, C. (2001). Teaching Hackers: School Computing Culture and the Future of Cyber-rights. *Journal of Information Ethics*, 10(1), 51-72.

Woodbury, M. (2003) *Computer and Information Ethics*. Champaign, IL: Stipes Publishing.

ANNEX-1

Scale for Undesirable/Inappropriate Behaviors Displayed through Digital Devices

Gender Female Male

Do you use Social Media (*Facebook, Twitter, etc.*)? Yes No

How many hours a day do you use the internet averagely?

None 1 hour 2 hours 3 hours 4 hours+

How many hours a day do you talk on the phone averagely?

None 1 hour 2 hours 3 hours 4 hours+

Please mark the <u>most suitable</u> choice for you.	Never	Rarely	Sometimes	Frequently	Always
1. On my phone, I use ringtones having a sound level or type that may disturb people.	<input type="checkbox"/>				
2. I speak on my mobile phone at a tone of voice (e.g. loudly) that may disturb people around me.	<input type="checkbox"/>				
3. I send annoying messages to others via e-mail.	<input type="checkbox"/>				
4. I answer my mobile phone in situations requiring silence (in the seminary, in the lesson, in the cinema, etc.).	<input type="checkbox"/>				
5. When my mobile phone rings during face-to-face meetings, I answer the call by interrupting the meeting without getting permission from the person I meet.	<input type="checkbox"/>				
6. I busy myself with my digital devices during face-to-face meetings (I both write a SMS and listen to the person talking to me)	<input type="checkbox"/>				
7. I use elements that contain virus (e.g. CD/DVD) on computers of others.	<input type="checkbox"/>				
8. I publish images of people around me on the internet without getting permission from them.	<input type="checkbox"/>				
9. I record voices and images of people around me by means of digital devices (camera, mobile phone, video camera etc.) without permission.	<input type="checkbox"/>				
10. I do not behave meticulously concerning correct usage of the language while establishing a written communication with others by means of my digital devices.	<input type="checkbox"/>				