Using Educational Social Networking Sites in Higher Education: Edmodo through the Lenses of Undergraduate Students

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Abstract

Social Networking Sites (SNSs) such as Facebook, Google+, MySpace, have been used intensively and effortlessly by students currently. Thus, the use of such SNS paves the way for questioning how these sites can be effectively used in educational environments. Since the SNSs in educational environments are potentially used, Educational Social Networking Sites (ESNSs) in the market such as Edmodo, Ning, Elgg, which are innovative educational environments with social networking capabilities, have also been employed in education. The aim of this study is to determine why the undergraduate students use the Internet, SNSs and Edmodo which is an ESNS and to investigate their views about these tools. In this context, Edmodo was used within the scope of an undergraduate course. And in order to collect data about this experience, interviews with 15 students and a focus group interview with 7 students were performed. In analysis and interpretation of the data used, both uses and gratifications theory and diffusions of innovations theory were taken into consideration. As a result, it was found that the students expressed their likes about Edmodo's features of assignment, quiz, poll and announcement / sharing. The study also reveals that the students also expressed their thoughts about the contributions of Edmodo to educational environments.

Keywords

Edmodo, Educational Social Networking Sites, Higher Education, Facebook

INTRODUCTION

The latest emerging Web 2.0 technologies, which simply provide individuals with interacting with the web site and each other, have brought about important developments in educational technologies (Abbitt, 2007). Among these innovative Web 2.0 applications, SNSs, wiki, blog, forum, instant messaging have been the most common ones. With the help of these Web 2.0 applications, the way of creating, using, sharing and

distributing of documents has changed significantly (Dearstnye, 2007). Among Web 2.0 applications one of the most important ones has been Social Networking Sites (SNSs) currently. Accordingly, SNSs, which makes it easy for their users to build communities and collaborate with each other, are also the products of Web 2.0 technologies (Balcikanli, 2010).

SNSs such as MySpace, Facebook, Cyworld, and Bebo have come up one after another and attracted millions of people's attentions (Boyd & Ellison, 2007; Yu, Tian, Vogel, & Chi-Wai Kwok, 2010). In the world, over a billion of people use SNSs to be in touch with their friends and others who share similar interests with them and they also perform the actions of creating content, sharing, collaborating, and contributing through their knowledge over SNSs(Cheung, Chiu, & Lee, 2011). Additionally, people use SNSs most often for social interaction primarily with friends (Pempek, Yermolayeva, & Calvert, 2009; Wodzicki, Schwämmlein, & Moskaliuk, 2012). And moreover, young adults also use identity markers of SNSs such as religion, political ideology, and work to express their own identity (Pempek et al., 2009).

Boyd and Ellison (2007) define the SNSs as web based services which allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. Ozkan and McKenzie (2008), examined the existing SNSs and described their common features and characteristics as follows:

- Most SNSs provide services like email, instant messaging, chat, video, blogging, file sharing, photo-sharing and etc.
- Most SNSs provide a database of users so people can find their friends and form communities.
- Most SNSs allow users to create their profiles online.
- Most SNSs are free of charge.
- Most SNSs allow users to set up their own access and privacy rules. To what degree users would like to share their information with the outside world is completely based on users' choice.

Boyd and Ellison (2007) argued that the rise of SNSs shifted the focus from content, topic or interest based first generation online communities to individual-focused, personal online ones. SNSs have paramount importance and advantages on the individualized and personalized communities. Thus, the benefits of SNSs, with ever-increasing importance for social life, can be summarized as social support and accessibility, discovery through cooperation and sharing, content formation, and developed autonomous skills (Lee & McLoughlin as cited in Balcikanli, 2010).

Thanks to technology, life styles of people especially young individuals have changed substantially and unlike their parents the young have their own tastes in some special areas such as learning, playing, communicating, working, and building communities (Prensky, 2001a, 2001b; Sahin, 2010). What is more, SNSs will continue to change the way people act socially and relate to other people personally (Westlake, 2013) are their distinctive features. And currently, through the agency of SNSs the students introduce themselves, collaborate with each other and build communities (Shier, 2005).

All the changes enumerated above necessitate that novel educational approaches should be developed extensively in order to meet the demands of the present students' need of innovative educational opportunities. When it is considered that students participate willingly to the discussions and group activities through SNSs, the notion of potentially used of SNSs in educational environments cannot be ignored(Bosch, 2009; Kabilan, Ahmad, & Abidin, 2010; Odabasi et al., 2012; Selwyn, 2009; Tonta, 2009). Since SNSs attracted the interest of the educators they started to seek out the ways of using SNSs in education (Schwartz, 2009). Thus, the use SNSs in education becomes a highly influential technique Lave and Wenger (1991) argued that learning emerges from engagement in social interaction.

SNSs in education is not only functional in social interaction but is also purposeful in organizing learning activities by utilizing video clips, power point presentations and other role-playing exercises over a SNS group created for the course(Moody, 2010; Ziegler, 2007). And additionally, the use of SNSs together with teachers and students enable students to become more conscious about the educational opportunities of SNSs. And as a result, students would be affected less from the negative aspects of the SNSs (Ziegler, 2007).

It is possible to compare educational use of SNSs with Learning Management Systems (LMSs) like Moodle and Blackboard and to indicate that educational use of SNSs is an alternative to LMSs. However, there are some differences between them. Firstly, the main difference lies in the fact that LMSs are course and teacher oriented systems and also they are lack of social networking and community building capabilities, which means that as a student his/her chatting on LMSs can only be allowed with the teacher's approval. Secondly, in LMSs discussions are opened or closed by the teacher. And, online courses have a weekly schedule and all processes are managed by the teacher. On the other hand SNSs are students oriented and SNSs focus on community, communication and collaboration(Arnold & Paulus, 2010). Thus, SNSs encourage building communities and extend the learning beyond the borders of a class (Smith, 2009). Moreover, it is recommended to foster a sense of community in an online course where students often do not have a chance to meet face-to-face with other students or the instructor (Brady, Holcomb, & Smith, 2010). It can be said that community building, communication and

collaboration capabilities of SNSs are compatible with the statements of social cognitive theory and constructivism (Kert & Kert, 2010).

Besides previous research showed that social presence, which is an essential component of education and learning (Garrison, Anderson, & Archer, 2000), is one of the most significant factors among the many others that promote a sense of community in online courses (Cheung et al., 2011; Cobb, 2009). It is known that social presence reduces the feelings of isolation and detachment, at the same time it encourages student interaction and participation in online courses (Dawson, 2006). According to Anderson (2005), SNSs may be the "killer app" for distance education as it enhances social presence.

Benefits of using a SNS in educational environments can be given as that it can improve (1) students' learning, (2) their interaction with faculty and with other peers, (3) their writing abilities, and (4) their satisfaction with the course (Ajjan & Hartshorne, 2008). There are some certain researches in which it was found that SNSs can be used efficiently in educational environments (Ekici & Kiyici, 2012; Forkosh-Baruch & Hershkovitz, 2012; Grosseck, Bran, & Tiru, 2011; Kabilan et al., 2010; Lawson, Kleinholz, & Bodle, 2011; Wodzicki et al., 2012). For instance, Hung and Yuen stated that university students expressed favorable feelings regarding their learning experiences in the classes where SNSs were used as a supplementary tool (Hung & Yuen, 2010). In an another research it was found that students reported the credibility of a teacher high if the teacher's profile is high in self-disclosure and inversely they reported the credibility of a teacher low if the teacher's profile is low in self-disclosure (Mazer, Murphy, & Simonds, 2007, 2009).

Whereas the use of SNS has some benefits, it is also known that there even may be some disadvantages of SNS use in educational environments. For instance, in SNSs teachers and students become typically friends with each other, namely they develop a false-friendship together. However, forming a false-friendship atmosphere in the class can cause some role conflicts and can weaken the authority of teacher (Warner & Esposito, 2009). In addition, if a teacher uses SNSs to support his/her courses in the school, school administration would certainly want to monitor the SNS use. Since the teacher himself/herself is a representative of her/his school in the public. What is more, a comment made by an intolerable student on the SNS is able to terminate teacher's career (Kist, 2008). For SNS use in educational institutions, it is recommended to establish roles and rules to be followed by both teachers and students (Podger, 2009). It is known that in group activities if roles are defined, group members show a tendency to behave according to their roles (Yeh, 2010).

In certain researches it was stated that there was a negative correlation between frequency of SNS use and academic performance (Cohen, 2011; Junco, 2012; Kirschner &

Karpinski, 2010; O'Brien, 2011). In another research it was found that students neither perceived SNSs as a useful tool in achieving their academic goals nor desired to contact with their teachers over SNSs (Cohen, 2011). And Cohen (2011) also indicated that students did not believe SNSs should be integrated into the educational process.

It is obvious that in contrast to LSMS, the primary purpose of SNSs is not educational and they are lack of structures such as library, quiz and assignment which are useful tools in online educational environments. And it is possible to assert the idea that in SNSs there can be contents which are not appropriate for educational environments. Educational Social Networking Sites (ESNSs) like Edmodo, Ning, and Elgg emerged under these circumstances. These sites can provide educators and students with the opportunity to use social networking technologies while minimizing privacy and safety concerns commonly associated with the general use SNSs (Brady et al., 2010).

As an ESNS Edmodo provides activities such as micro blogging discussions, manage and respond to polls, manage and submit assignments, manage and submit quizzes for teachers and students. And since Edmodo is a private platform and its content is not open to anyone. Thus, this means that students must enter an access code generated automatically and given by the teacher in order to access the course. Because creating accounts in Edmodo only belongs to teachers. It must also be noted that developers of Edmodo were inspired from Facebook, and designed the Edmodo interface similar to Facebook. Thus, they estimated that students who are already Facebook users can use Edmodo effortlessly. Just like Facebook, Edmodo is free of charge and does not need any program installation. Besides, there are some applications for mobile platforms to use Edmodo in tablets and smart phones without difficulty.

In a research, the effect of Edmodo on student engagement and responsible learning was investigated with 42 high school students in a chemistry course. As a result, the research in which both qualitative and quantitative methods conducted, suggested that incorporating Edmodo encourages both student engagement and responsible learning when particular Edmodo features are employed (Sanders, 2012).

In another research, how 17 non-digital-native teachers made use of Edmodo was investigated. As a result it was found that Edmodo is perceived to be a wonderful and user-friendly social learning network that enabled even a non-digital-native teacher to take charge of his/her own exploring and make use of the site to set up and run his/her online classes (Kongchan, 2008).

THEORETICAL FRAMEWORK

In this study both Uses and Gratifications Theory (UGT) and Diffusions of Innovations Theory (DIT) were taken into consideration. These theories provide basis for the researches about communication, media and new technologies. DIT was suggested by Rogers (2003) and consists of four main elements: the innovation, communication channels, time, and a social system. Innovation can be an idea, an application or an object which is considered as new by the individual or organization. It is not needed that the innovation should not be known by anybody before. If the individuals or organization have not used it yet, it can be considered as an innovation (Berger, 2005 as cited in Demir, 2006). From a theoretical point of view, innovation can be defined as a new product, technology, point of view or solution to a problem for individuals or organizations (Demir, 2006). Rogers (1995), argued that diffusion of an innovation occurs through a five–step process: knowledge, persuasion, decision, implementation and lastly confirmation. In knowledge stage, the individual gets information about the innovation and what it is for. Whereas in persuasion stage, the individual evaluates the positive and negative aspects of the innovation and determines his/her attitude towards it in decision stage, the individual decides to accept or reject the innovation. And in implementation stage, if the individual decides to accept the innovation, he/she employs it to a varying degree depending on the situation. Last of all, in confirmation stage, if the individual finds the innovation useful, he/she finalizes his/her decision whether to continue using it (Orr, 2003). In this research, Edmodo is regarded as an innovation for students, because they have not used it before the research.

Another theory about the use of media is UGT which was first suggested by Katz and Blumler (1974). According to them in communication researches, researchers often try to look for solution to the question on "how does media affect people?", but the real questions that should be asked are that "Why do people use media and what do they use them for?" (McQuail & Windahl, 1993). Along with television, radio, newspaper, and etc. It is possible to explain why people use new technologies like SNSs and what they use them for (Ozkeskin, Durak, & Ataizi, 2013). Katz, Gurevitch & Haas (1973) who grounded their research on UGT suggested that there are five types of requirements for people to use mass communication media: (1) cognitive needs (related to strengthening information, knowledge, and understanding), (2) affective needs (related to strengthening aesthetic, pleasurable and emotional experience), (3) personal adaptation needs (related to strengthening credibility, confidence, stability, and status), (4) social adaptation needs (related to strengthening contact with family, friends, and the world, (5) escape needs (related to escape or tension-release from the daily stress.

In a research with 308 students as a sample group, the Internet use habits and motivations of undergraduate students in Kyrgyzstan were tried to be determined by using UGT as a basis and four factors that drive use of the Internet were identified as enlightenment/interaction, social escape, economic benefits and fun (Ayhan & Balci, 2009). In another study with 377 learners as a sample group from Korea and United States, seven gratification factors were identified as social communication, information-surveillance, pastime-escape, download-entertainment, personal communications, and research and transaction (Park, 2004). Moreover, Papacharissi and Rubin (2010) examined the Internet use from the UGT perspective with a sample group of 279 learners. And they came up with the factors of interpersonal utility, information seeking, pass time, social presence, convenience, entertainment after utilizing factor analysis technique. According to the literature reviewed, the most repeated and common factors of the Internet use from the UGT perspective are information seeking, fun, surveillance, communication, status gaining, and income (Charney & Greenberg, 2001; Larose, Mastro, & Eastin, 2001; Papacharissi & Rubin, 2010).

In Ireland the use of SNSs of 12-14 years old teenagers was investigated from the UGT perspective. In this research, teenagers who considered themselves as regular Internet users expressed the main factors of SNS use as communication, making friends, developing and managing identity, fun, escaping from realities, moving away from nuisances, information seeking and interacting with opposite sex from the UGT perspective (Dunne, Lawlor, & Rowley, 2010).

In literature there are limited numbers of studies about ESNSs (Brady et al., 2010; Bynum, 2011) and there is not any study about the use of ESNSs from the UGT perspective. Thus, it is important to investigate the views of students and identify the intended use of both SNS and ESNSs from the UGT perspective.

AIM

The aim of this study is to determine why the undergraduate students use the Internet, SNSs and Edmodo which is an ESNS and to investigate their views about these tools.

METHOD

In this study in order to investigate the views of students about the Internet, SNSs, and Edmodo a qualitative research methodology was utilized. In this part, data collection process, participants of the study, data analysis, and validity and reliability precautions, and application stage of the study were introduced.

Participants

Participants of the study were 22 undergraduate students in Balıkesir University in Turkey. They are between the ages of 19 and 21 in second grade of the department of Mathematics Education in Education Faculty and taking Algorithms and Programming course. With 15 students one to one interviews were performed and with 7 students a focus group interview was performed. And the students' identities were kept confidential.

Data Collection

Data was collected with a semi-structured interview, which forms for both one to one interviews and a focus group interview. Interview forms were prepared according to the literature view and the theoretical framework. And they took their final shape after reviewed by educational technology experts. In combination with one to one interviews, it was supposed that a focus group interview could enrich the data held in an interactive group setting where participants are free to talk with other group members. And it is known that using more than one data collection technique supports the validity and reliability of the study (Yildirim & Simsek, 2008).

Data Analysis

In interview sessions participants were informed about the aim of the study and the expectations from them. One to one interviews took 5 to 15 minutes. And the focus group interview took 30 minutes. Interviews were recorded with a voice recorder. NVivo software was used to transcribe the recorded interview voices. Then data was dumped into tables properly according to the coding scheme prepared beforehand.

Validity and Reliability

In order to support validity, participants were informed that their views will be used only in this academic research and their names will be confidential before the interviews. Only under these circumstances it was anticipated that they could express their own opinions. Interviews were recorded with a voice recorder. Recorded voices and transcripts were stored in Google Drive, in case of necessity they can easily be accessed by researchers.

Transcripts produced were analyzed recursively one by one by two researchers, and codes were generated. Then in order to support the reliability of the study, consistency of codes generated by each researcher was examined by a third researcher who had experience in qualitative research methodology. After confirming the consistency of the codes, themes were generated according to the theoretical framework of the study.

Besides, direct quotations were given in order to reflect the notions of the students truthfully and straightforwardly.

Application Stage

Application stage took four weeks. Edmodo was used in Algorithms and Programming course which took place in a Computer Laboratory. Instructor of the course is also one of the researchers. In the first week, researchers introduced Edmodo and its basic features. Researchers created a course group in Edmodo. And students joined the group with the access code given to them by researchers. They used some sharing features of Edmodo in this lesson. In the second week, before the lesson a quiz was applied on Edmodo. The quiz consisted of 10 questions and the time allowed for the students to answer is 5 minutes. As soon as the quiz was completed their grades were announced and furthermore, the students were given some feedback about their mistakes and correct answers instantaneously. Researchers also showed the instructor part of the quiz application and statistical information such as average point, percent of correct answers for each question in the quiz.

In the third week, assignment part of Edmodo was introduced to students. Students were given an assignment over Edmodo. Students were required to complete their assignment till next week. In the fourth week, assignments were evaluated and researchers also showed the instructor part of the assignment application of Edmodo. And additionally, other features of Edmodo such as poll, sharing a note, sending an alert, and third-party applications were introduced. Lastly, it was certified that students used the features of Edmodo once again. Then application stage was finished. In the fifth week, interviews were performed.

FINDINGS

After the data was analyzed and coded all themes were generated from coded data. Resultant findings were interpreted according to both DIT and UGT. Findings gathered from both the semi-structured interviews and the focus group interview are grouped according to (1) the use of the Internet and SNSs, (2) the use of Edmodo, and (3) Edmodo's contribution to learning and making it widespread.

Use of the Internet and SNSs

Findings about students' aims of the use of the internet and SNSs were analyzed and reduced into themes. These themes and frequencies were given in Table 1.

Table 1. Themes about the use of the Internet and SNSs

Themes	Frequencies (f)
Frequency of the Internet use	
Low usage	1
Average usage	3
High usage	18
Aims of the Internet use	
Playing video games	14
Assignment-research	20
SNSs	21
Watching TV episodes/movies	10
Communication	21
News	12
Aims of SNS use	
Communication	21
Sharing/monitoring shares of others	19
Playing video games	14
Disadvantages of SNSs	
Addiction	18
Misusing by individuals like hacking, deceiving	11
Abusing by ill-minded individuals	12
Lots of distracting features	14

It was found that participants' Internet usage level was high. Participants were using the Internet for playing video games, doing assignments or making researches, using SNSs, watching TV episodes/movies, communicating and reading news. A participant expressed his thoughts about the Internet use as follows:

"I use the Internet intensively. I could not think a life without it. Mostly, I enter SNSs. Besides, I have video talk with my family over the Internet. Sometimes I watch movies and sometimes I play video games on the Internet. In addition I search the Internet in order to complete the assignment given by instructors."

Similarly, another participant expressed his thoughts about the Internet use by instinctively expressing himself as an aficionado of games as follows:

"It is the Internet era whenever possible, I surf on the Internet. There is also a game which I am addicted to. I always keep it open and I play it intensively. In addition, my Facebook page remains open all the time. I contact with my friend over it. I primarily consult to the Internet for the solutions of mathematical theorems."

It was found that most of the participants had Facebook account and they used it habitually. Along with Facebook, three other students also had Twitter account. Participants were using SNSs for communicating, sharing, and playing games. And a participant expressed her thoughts about SNS use by attracting attention to the financial support of SNSas follows:

"I only use Facebook as SNS. I also access Facebook by my mobile phone. I can find my old friends and talk with them on Facebook. After finishing my free monthly SMSs (Short Message Service), I use Facebook to contact with my friends. We can see what others do. We can share pictures. It is really a nice feature. Besides, if I get bored, I play video games on Facebook."

Similarly, another participant expressed her thoughts on SNS use as follows:

"Since we are far from our hometowns for undergraduate education, Facebook makes it very easy to communicate with people in our hometowns. We can see what everybody does. And it is really fun. I play video games at addiction level on Facebook."

Themes generated from the participants thoughts about disadvantages of SNSs can be enumerated such as addiction, misusing by individuals like hacking and deceiving, abusing by ill-minded individuals, and distracting attentions of the individuals. Especially female students expressed that the misusing and abusing behaviors of people are its disadvantages. And male students expressed the video game addiction as a disadvantage of the Facebook.

A female participant expressed her thoughts on misusing and abusing behaviors of people by stating that one of most disadvantages of SNSs is its lack of control mechanism:

"I have been using Facebook for three years now and there is not any day that I don't enter into Facebook. Beside its positive features, there are also some disadvantages of Facebook. For example, sometimes people who I don't know try to be my friend. I reject the requests but they can use fake accounts sometimes. Unfortunately, there is not a strict control mechanism over misusing."

Similarly, a male participant articulated his words about disadvantages of SNSs as follows:

"There is not much annoying situations for males in the Facebook. However, sometimes we can be lost in video games. For example, I played a video game intensively for some time in the past."

Use of Edmodo

Findings about students' aims of the use of Edmodo were analyzed and reduced into themes. These themes and frequencies were given in Table 2.

Table 2. Themes about the use of Edmodo

Themes	Frequency (f)
Favorite features	
Assignment application	22
Quiz application	20
Poll application	10
Announcements and Sharing	8
Negative views	
Limited interaction	3
Incapability in the mobile application	1

It was found that all participants expressed positive attitudes about the assignment application in Edmodo. In addition, poll application and announcements/sharing features of Edmodo were mentioned as favorable by participants. A participant expressed her thoughts about favorite features of Edmodo use as follows:

"Assignment application caught my attention when our instructor introduced the feature for the first time. Then, we also attempted to use assignment application in the same lesson. Our instructor sent us a sample assignment and we replied it immediately for testing. He also showed the instructor part of the assignment application. Everything was in order. Lastly, he evaluated some of the assignments and we saw the results and his comments immediately in our screen."

Another participant made positive remarks about favorite features of Edmodo use as follows:

"First of all, assignment application of Edmodo is marvelous. Normally, we prepare and deliver assignments on paper, which is a difficult task. But through the use of Edmodo it becomes promptly an easy one. The Instructor can announce the deadline of assignments. Students cannot send the assignment after the due date. And additionally, the instructor had us quiz in Edmodo. After pressing End button, we saw out our grades immediately. It was very nice."

There were two criticisms about Edmodo: one is limited interaction and the other one is incapability in the mobile application. By attracting the attention of limited interaction of Edmodo, another participant suggested something new:

"I find Edmodo very useful. But I think some aspects of it should be improved. For example, we can send messages to the instructor, but we cannot send messages to other students in the class list. I think this should be improved."

Another participant, who used the mobile application of Edmodo, also had some negative implications about the inappropriate features of Edmodo as follows:

"I use the Internet mostly in my cell phone. Our instructor said that there is also a mobile application of Edmodo. Then I found and installed the application. But I realized that some of the features of the application don't work appropriately. For example, I could not send the assignment and I could not take the quiz in the mobile application. I think it would be more useful if these problems were fixed.

Edmodo's Contribution to Learning and Making its Use Widespread

Findings about students' thoughts about the Edmodo's contribution to learning and making its use widespread were analyzed and reduced into themes. These themes and frequencies were given in Table 3.

Table 3. Themes about the Edmodo's contribution to learning and making its use widespread

Themes	Frequency (f)
Edmodo's contribution to learning	
Making learning fun	19
Attracting students' attention	20
Appropriate for future students	18
Making teachers' work easier	20
Making the lesson effective and organized	21
Making Edmodo widespread	
I want to use it after becoming a teacher	20
It may not be appropriate for every type of subject	4
It is useful if the lessons are planned well	7

It was found that participants were of the same opinion mostly about Edmodo's contribution to learning such as making learning fun, attracting students' attention, making teachers work easier, making the lesson effective and organized and appropriateness for future students. A participant expressed her thoughts on how Edmodo will contribute to her career as a prospective teacher:

"Edmodo looks like Facebook, so it attracted our attention at first. It is fun. In future when I become a teacher, I want to use it as an instructor, because it makes the management of the lesson easier. Thus, it will make the lesson more effective."

Another participant expressed her thoughts on how Edmodo can enhance students' learning as follows:

"National Education Ministry gives tablet computers to every student for free. This innovation (Edmodo) can be very appropriate for students' learning. We used Edmodo without boring, and it was fun."

Almost all of the students were agreed on using Edmodo in the future, particularly after becoming a teacher. A participant expressed his perception about it as follows:

> "Before anything else, Edmodo is an innovation and I think it should be tried. Our experience with Edmodo was fun. It looks like Facebook, so I think students can use it easily. In the future, in my opinion, I want to use it in my classes. I think it will make my work easier."

And lastly, another participant by criticizing the motivation of the teachers questioned the appropriateness of Edmodo on each courses.

> "I accept that Edmodo is nice. But is it appropriate for every lesson? I think no. First of all, teacher must be good at technology. Otherwise he/she cannot use Edmodo beneficially."

CONCLUSION AND DISCUSSION

In the study why the undergraduate students use the Internet and SNSs was attempted to find out. As a result, it was found that almost all of the students had technological devices and spent too much time in the Internet. In regard to UGT, factors of the Internet use was found as playing video games, undertaking assignments or making researches, using SNSs, watching TV episodes/movies, communicating and reading news. Similarly, most of the participants used SNSs very often. Participants were using SNSs for communicating, sharing, and playing games. Factors of SNS use were found as communicating, sharing, and playing games. Moreover, participants indicated some of the disadvantageous aspects of SNSs as addiction, misusing by individuals such as hacking and deceiving, abusing by ill-minded individuals, and lots of distracting features.

Participants expressed positive attitudes about the assignment application, poll application and announcements/sharing features in Edmodo. At the same time, there were two criticism about Edmodo: limited interaction and incapability in the mobile application by four participants. Factors about Edmodo's contribution to learning as making learning fun appeared to be as attracting students' attention, appropriate for future students, making teachers work easier, making the lesson effective and organized.

As a result of the conducted interviews, it was found that students had positive attitudes towards Edmodo use in education. For instance, they stated that they thought Edmodo was fun and almost all of the students wanted to use Edmodo in the future after becoming a teacher. This situation can be explained with DIT. Firstly, students did not have any experience and they did not known Edmodo before the study was conducted. Accordingly, Edmodo was an innovation for them. Since they thought that Edmodo is useful, it indicated that students are persuaded by using it. Lastly, they wanted to use it in

the future and they also wanted to recommend its use to their colleagues in future. It indicates that students supports the distribution of the innovation.

The gratification factors of the Internet use found in study like playing video games for fun, doing assignments or making researches, communicating on SNSs, watching TV episodes/movies, reading news confirms similarity with the study results performed by Ayhan and Balci (2009). Findings of this study also support some of the most repeated and common factors of the Internet use from the UGT perspective as information seeking, fun, and communication (Charney & Greenberg, 2001; Larose et al., 2001; Papacharissi & Rubin, 2010).

In literature, it was obvious that the use of SNSs have gradually increased (Boyd & Ellison, 2007; Yu et al., 2010)and educators started to use them in educational environments (Bosch, 2009; Kabilan et al., 2010; Odabasi et al., 2012; Selwyn, 2009; Tonta, 2009). Participant of the study also indicated that they use SNSs intensively in line with literature. However, it was found that participants' use of SNSs in education was limited to a Facebook group of their class where they share news about their lessons, exams, and etc. And additionally, it was found that participants have not used any learning management systems ever.

Participants' perceptions about Edmodo's contribution to learning such as making learning fun, attracting students' attention and making the lesson effective and organized show similarities with the findings about contribution of SNSs to educational environments in literature (Ajjan & Hartshorne, 2008). In addition findings of the study are also parallel with the findings of the study about Edmodo's contribution to student engagement and responsible learning performed by Sanders (2012). Moreover participants of the study expressed that Edmodo makes teachers' work easier. This finding is also compatible with the findings of the study performed by Kongchan(2008) about Edmodo use by non-digital-native teachers.

There may be some disadvantages of SNS use in educational environment mentioned in literature like causing some role conflicts and weakening the authority of teacher(Warner & Esposito, 2009), inappropriate contents (Kist, 2008), negative correlation between the frequency of SNS use and academic performance (Cohen, 2011; Junco, 2012; Kirschner & Karpinski, 2010; O'Brien, 2011). Participant of this study did not mention any disadvantages of Edmodo enumerated above. The reason for this can be that Edmodo's aim is educational and Edmodo does not have features which can be considered as unfavorable for educational environments.

As a consequence recommendations for application and future research are made as follows:

- On considering the attitudes of the participants in this study, it was suggested that Edmodo can be used as a supplementary tool in schools.

- Past researches about Edmodo were about how Edmodo could be integrated into formal face to face education. New researches can be performed about how Edmodo can be used in distance education.
- Application part of the research was limited to four weeks only. So new researches can be performed with an application part for a longer time.
- New researches can be performed about how teachers make use of Edmodo.
- Past researches about Edmodo were performed in undergraduate level. So new researches can be prepared for different level of education.

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