

ATTITUDES TOWARD ONLINE COMMUNICATIONS IN OPEN AND DISTANCE LEARNING

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ABSTRACT

This article intended to reveal the results of a survey study in which the students' attitudes toward online communication in open and distance learning were investigated. In the study, affects of the students' gender and computer experience on their attitudes were also examined.

A total of 626 subjects participated in the study and 'Online Communication Attitude Scale', developed by Ledbetter, was adapted as the data collection instrument. Mean, standard deviation, independent t-test, one-way analysis of variance and Tukey HSD tests were used to analyze the data gathered. The results of the study indicated that students have in general positive attitudes toward online communication in ODL. Also, it showed that there is a significant difference in 'miscommunication', 'social connection' and 'ease' dimensions of online communication between the males and the female students.

The female students see online environments as open to communication errors. On the other hand, the study supported the literature about the affect of the students' computer experience and their attitudes toward online communication in ODL.

Keywords: Online communication, attitudes, open and distance learning, gender differences, computer experience, the Internet experience

INTRODUCTION

Recent developments in communication technologies have caused new trends in many fields including education. Today, using communication technologies has become one of the important characteristics of successful educators. Especially increasing interest in offering online courses, due to wide spread usage of Internet and Web technologies as well as economic reasons, has been forcing educators to use these communication technologies more than ever before. Online learning offerings help students not only reach multiple learning resources but also establish better interaction among themselves and with the instructors.

Increasing number of technology-based learning has led a raise in the studies on how the technology shapes learning and teaching processes. In the field of instructional media, the research was mostly concentrated on how to increase the effectiveness of the messages transferred via media during 1970s and 80s. As a result, effects of the attributes of the technology or media on learning were often investigated (Bubas, 2006; Hannafin & Young, 2008).

These studies examined how the various attributes of different media used in learning-teaching processes influence the students' interaction styles, their attitudes and behaviors. Social presence and media richness are the most used conceptual frameworks used in these studies.

After the 1990s, studies on cognitive and affective characteristics of the individuals that influence their media selection were also conducted as well as technology-oriented studies. Additionally, studies focusing on affects of the individual characteristics on use of media, learning-teaching processes and how these characteristics shape communication behaviors of the students were observed. Various studies have revealed that communication behavior, motives, their self-confidence and self-efficacy levels, learning styles, learning preferences, and motivation levels of the students have significant effects on learning (Meyer, 2002; Fulford and Zhang, 1993; Spitzberg, 2006). In addition, it became evident that students' attitude toward the use of technology is an important determiner in the effective and efficient use of technology (Harrison et al, 2002; Köse & Gezer, 2006). Watson (2007) mentioned that in online learning environments, students' perceptions and attitudes toward computers are important determiners of how effectively they can use these environments. Attitude is a cognitive, affective and behavioral reaction the individual organizes toward himself/herself or any object, subject or fact around him/her based on information, feelings and motivation (İnceoğlu 2004; Silah, 2005). According to Tezbaşaran (1997), attitude is a learned tendency to react positively or negatively to a particular object, situation, institution or other people. At this point, attitudes can be considered as powers that direct and shape individuals' behaviors. For this reason, it will be useful to have some knowledge about students' attitudes toward computers in order to better understand their communication behaviors in online environments.

In the literature, there are numerous studies in which students' attitudes towards online communication were investigated (Aşkar et al, 1992; Selwyn, 1999; Young, 2000; Yuen & Ma, 2001; Altun et al, 2004; Saparniene et al, 2005; Çelik & Ceylan, 2009; Tezci, 2010; Taghavi, 2006; Loyd and Gressard, 1984; Roussos, 2007; Smith et al, 2000). In the majority of these studies, it was revealed that attitudes are important determiners in online communication and that they affect students' behaviors about the use of computers. Studies clearly indicated that students' attitudes toward and proficiency in the use of technology are significant factors in the effective integration of technology into learning-teaching process (Kyriakidou et al, 2000). Likewise, Lee (1997) mentioned those students' feelings about the use of computers, as communication tools are significant determiners of their success in the effective use of the technology.

Students' positive attitudes toward online communication will positively influence their motivation to use technology and their performance (Kennewell & Morgan, 2003; Easton & Damodaran, 1981; Omar, 1992, Fahy & Ally, 2005; Bates & Khasawneh, 2007; Offir et al, 2007).

According to Shneiderman (1980), positive attitudes speed up the learning process and enhance student's motivation, especially in the learning-teaching process in which computer technology is involved. On the contrary, the existence of negative attitudes causes the student to refuse to use the computer as a communication and learning tool. Taghavi (2006) investigated whether age and classroom level have an effect on the attitudes toward computer or not and found that only classroom level is influential on attitudes.

In another study, he intended to find out the influence of owning a computer on students' attitudes and found that those students who have computers in their homes have more positive attitudes compared to the others.

The Internet offers tremendous opportunities to the open and distance learning institutions and as a result this institution provides a lot of means for their students to interact with other students and the instructors. In that respect, it is important for students to adopt the technology, to catch up with it and to display positive attitudes toward it so that they can make use of the ever-changing technology. On the other hand, as uncovered in some studies, the students are abstaining and unwilling to communicate online. In order to make the best of the facilities the learning environment offers, it is vital to elaborately evaluate the students' attitudes leading them to limited communication. In this study, the students' attitudes toward online communications in open and distance learning environments are investigated.

Studies (Scott & Rockwell, 1997; Brown et al, 2002; Schliesman and Ayres, 1999; Bubas, 2007; Watson, 2007; McCarson, 2006) revealed that existence of the technology itself is not enough for an effective online communication, and the characteristics of individuals involved in the communication process are also influential on this process. Participants' apprehension levels and competencies in communication in online environments are influential on the effective running of the communication process. For this reason, it is vital to examine individuals' characteristics related to communicating via computers. When the studies on online communication are examined, it is seen that there are too few studies investigating the relationship between the environment and the user. Individuals' characteristics are not only determinants in online communication, but they also affect the type of communication and the quality of the messages transmitted. For this reason, in this study, students' attitudes toward online communication were examined as a factor shaping the communication process. Students' attitudes were discussed within the context of their gender and their experiences related to the use of the environment.

PURPOSE AND RESEARCH QUESTIONS

The purpose of this study is to examine the students' attitudes toward online communication in open and distance learning environments. Additionally, the relationship between the students' attitudes and their gender, and experiences in using computers and the Internet were also investigated. Therefore, the study intended to answer the following research questions:

- What kinds of attitudes do the university freshmen students' possess toward online communication in open and distance learning?
- Is there a difference in the students' attitudes according to their gender?
- Is there a difference in the students' attitudes according to their computer experience?

METHODOLOGY

In this survey study, quantitative methodology was employed to be able to describe the phenomenon investigated. Descriptive studies intend to determine any state and to describe the particular characteristics of a group (Büyüköztürk et al, 2009). Mostly these studies try to answer the current status and are conducted with either whole population or a large number of samples.

Participants

This study was conducted with voluntarily participation of 626 students who are studying in English language preparation classes of the Osmangazi University, Eskisehir. Among these participants 259 were females and 362 were males. In order to determine the sampling a non-probability sampling method, convenient sampling was chosen. The students were asked to take a part in the study in May 2012 with answering the questions in the questionnaire. The paper-pencil type survey instrument was handed over to 1000 students and 626 voluntarily returned (62 percent return rate).

Instrumentation

In this study, a questionnaire composed of two parts was used. In the first part of the questionnaire, 'Online Communication Attitude Scale' developed by Andrew M. Ledbetter (2009) was used. The scale aims to measure individuals' cognitive and affective attitudes toward online communication. The scale, which is a 7 point Likert scale consisting of five dimensions, includes 31 items in total.

The first dimension of the scale is self-disclosure ($\alpha=.90$), which is explained as an individual's expressing himself/herself to another one during the communication process (Joinson & Paine, 2007). This is an individual's sharing his/her personal information such as his/her thoughts, feelings and experiences. Some people can share these more comfortably in online environments while some other not. At this point, individual's skill to use computers, his/her efficiency in communication and his/her tendency to use technology are important determiners. Online environments can be much more motivating especially for those who have difficulty in communicating with others in social environments (Caplan, 2002). The act of expressing oneself is influenced by some factors such as gender and the subject to be explained. Studies on gender mainstreaming and self-disclosure indicate that women tend to give more information about them than men do (Darlega et al, 1993). The scale includes 7 items related to this dimension.

The second dimension of the scale is apprehension ($\alpha=.87$), which is defined as an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons (Brown et al, 2002). High levels of communication apprehension negatively affect students' attitudes toward the use of new communication technologies (Scott & Timmerman, 2005; Wrench & Carter, 2007).

The students' communication apprehension is an important factor on the students' communication behaviors about participating in Internet-based discussion environments (Burnett, 1984). Burnett found out that students with high levels of communication apprehension do not share their ideas with others, do not ask questions and do not participate group discussions in Internet-based discussion environments. For this reason, it is highly important to identify students' anxieties so as to better evaluate the opportunities online environments offer. In the scale, there are 8 items related to the apprehension dimension. The third dimension in the scale is miscommunication ($\alpha=.86$), which is about expressing oneself properly in online environments.

This dimension can be considered as more related to individuals' competency to communicate in online environments. Miscommunication is a strong determinant about the frequency of the use of online communication. Besides, students' negative attitudes toward online communication increase miscommunication in the environment (Ledbeter, 2009). The part of the scale concerning this dimension consists of 5 items.

The fourth dimension of the scale is social connection ($\alpha=.84$), an individual's belief in the facilitating effect of communication in social networking. In this sense, students' efficiency in using online communication tools and their positive attitudes are quite important. There are 6 items related to this dimension. The last dimension of the scale, ease ($\alpha=.83$), is about students' evaluating online communication as an environment facilitating especially their social lives. This dimension is related to the willingness to communicate in online environments and enjoying it. Individuals' evaluating the environment from these aspects is also associated with their attitudes toward the environment, and the scale includes 5 items about this dimension. In the second part of the scale, there are questions regarding the students' demographics and their experiences of the use of the Internet. Students were asked to choose the option which best describes their levels of experience as beginner, bad, average, good or very good.

Data Analysis

SPSS 16.0 statistical packages was used in the analysis of the data. In the analysis of the data aiming to identify attitudes, descriptive statistical technique was used while frequency, percentage and standard deviation were used in the interpretation of the results gathered. A significant difference of .005 was tried to be found in the variables of gender and the experience of using computers on students' online communication attitudes and group t-test and one-way variance (ANOVA) analysis were used. Also, for the factors in which variance was found, Tukey HSD tests were applied in order to find the source of the difference.

RESULTS

Reporting of the findings is divided into three sections according to the research questions.

The Students' Attitudes toward Online Communication

The participants' average attitude points for online communication can be seen in Table 1. Overall, the table indicates that students' attitudes toward communication in online environments are positive. According to the results, the students gave the highest points for the scale's 'ease' dimension. These results reveal that the students in general perceive online communication as a factor that facilitates their lives. When the results are evaluated one by one in terms of scale items, it is found that the item 'When I fail to connect to the Internet, this totally changes my social life' in the 'ease' dimension got the highest average point. This also helps us to come to the conclusion that the students view online communication as a part of their social lives. In the studies conducted, asynchronous communication environments are found to be at least as effective as face-to-face communication environments and they are viewed as environments that enhance active student participation and help social relationships among participants to improve (Jonassen & Kwon, 2001; Lui, 2002).

Table: 1
The students' attitudes toward online communication

Dimensions	N	Min.	Max.	X	Sd.
Apprehension	626	1,00	7,00	3,2136	1,13530
Self-Disclosure	626	1,00	11,33	4,1364	1,46410
Social Connection	626	2,17	7,00	4,2579	0,95194
Miscommunication	626	1,00	7,00	4,5439	1,20022
Easy	626	1,00	7,00	4,9459	1,15011

It can be seen in Table: 1 that the students assessed the 'apprehension' dimension with the lowest average point. When we evaluate the results one by one in terms of item average points, we can also find that the item with the lowest point (I feel nervous and tense while communicating in an online environment) is in the 'apprehension' dimension. This finding indicates that the students do not have apprehension about communication via computers. This can also be evaluated as an indicator of the students' positive attitudes toward online communication.

Gender and Attitudes Toward Online Communication

Independent t-test was used in order to find out whether students' average points for their attitudes toward online communication differ or not (Table 2). As can be seen in the table, there is a significant difference of .005 related to the third, fourth and fifth dimensions of the scale. If we evaluate them one by one, the average points of females (X=4.66) are higher than those of males (X=4.46) in 'miscommunication' dimension. At this point, it can be said that women think communication errors resulting from misunderstandings may occur more in online environments.

Likewise, Liu (2002) mentioned that individuals may make incorrect judgments about each other due to lack of non-verbal communication clues; because Liu thinks non-verbal clues not only arrange nonverbal communication but they also provide important information about the individuals that communicate. Female students' evaluating online environments as areas open to communication errors may be directly related to their apprehension levels about online communication. When Table 2 is analyzed, it can be found that although there were no significant differences, average apprehension levels of female students are higher than those of males.

Table: 2
The students' attitudes and their gender (t-Test Scores)

Dimensions	Gender	N	X	Sd.	t	p
Apprehension	F	259	3.8321	1.488	3.197	.074
	M	362	4.3547	1.411		
Self-Disclosure	F	259	3.2266	1.151	.062	.804
	M	362	3.1989	1.130		
Social Connection	F	259	4.6625	1.271	5.333	.021*
	M	362	4.4671	1.144		
Miscommunication	F	259	4.2837	1.049	8.469	.004*
	M	362	4.2399	0.881		
Easy	F	259	4.9639	1.257	5.732	.017*
	M	362	4.9384	1.069		

This result might be because of the fact that female students are more apprehensive about communication in this environment than male students are.

The literature provides mixed results regarding the gender and the attitudes toward online communication: in some studies male students' attitudes toward computers are higher than females' while in some others no significant differences found (Gerçek et al, 2006; Aşkar et al, 1992 Üzel & Özdemir, 2008).

In these studies, the male students were found to be more successful than females in terms of both competence and skills. Likewise, male students were found to be academically more successful than females in online learning environments.

Besides, the studies uncovered that male students have more positive attitudes than females toward both sparing time to using computers and being interested in tasks involving the use of computers (Schaumburg, 2001; Bebetos & Antoniou, 2008; Altun et al, 2007; Üzel & Özdemir, 2008; Fančovičová & Prokop, 2008; Kubiátko & Halakova, 2009; Köse & Gezer, 2006; Teo, 2008; Tezci, 2010 Altun et al, 2007). Similarly, while the average points are similar in the social connection dimension, the female students' average points ($X=4.28$) are higher than the males' ($X=4.23$). Online communication is more indispensable for the females than the male students. Finally, when genders are compared in the 'ease' dimension, it stands out that the female students' average points ($X=4.96$) are higher than the males' ($X=4.93$). The female students have a bit more positive attitudes toward online communication's facilitating their lives.

Computer Experience and Attitudes toward Online Communication

Studies about online communication in the literature (e.g., Loyd & Gressard, 1986; Busch, 1995) have shown that computer and Internet experience of the students is an important variable affecting their attitudes. In one of his studies, Levine (1997) stated that students' previous experiences of using computers are quite influential on their attitudes toward online communication.

The results of the current study also support the literature. According to the results of ANOVA analysis, there is a significant difference of .005 between students' experiences and 'self-disclosure', 'apprehension', 'social connection' and 'ease' dimensions of the scale.

Also, the results of Tukey HSD test, which was used to find out between which groups the significant difference is, have revealed that this significant difference was between the groups labeling themselves as 'beginner' and 'very good' in terms of their experiences of using the Internet.

Based on this finding, it can be put forward that the more experience of using computers the students have, the more positive attitudes they develop toward expressing themselves in online environments and viewing online communication as a part of their social lives. In addition to these, confidence, comfort and experience in using computers as communication tools are among the major factors affecting individuals' attitudes positively (Beckers & Schmidt, 2001; Chua et al, 1999).

Likewise, based-on these findings it may be true to claim that more interaction in online learning environments will help the students develop less online communication apprehension. The literature also suggests similar results regarding computer apprehension and computer experience: the more computer experience the less computer apprehension (Liu & Reed, 1992).

Studies show that there is a negative relationship between the computer experience and the apprehension experienced about communicating in an online environment and that as the experience increases, apprehension level decreases.

Similarly, the meta-analyses about the relationship between computer apprehension and attitudes toward computers state that the level of computer experience is a very important determinant (Brown et al, 2002; Necessary & Parish, 1996; Marcoulides, 1980).

Table: 3
The students' attitudes and their experience in computers and the Internet

Dimensions	Sum of Squares	Median of Squares	Experience Level	N	X	Sd	t	p
Self-Disclosure			Beginner	6	3.119	1.619	7.337	.000
Between groups	60.4	15.1	Bad	18	3.341	1.276		
Within group	1273.4	2.1	Average	179	3.863	1.501		
Total	1333.9		Good	258	4.144	1.400		
			Very Good	163	4.563	1.425		
Apprehension			Beginner	6	4.145	.7961	9.312	.000
Between groups	45.6	11.4	Bad	18	4.372	1.367		
Within group	758.0	1.2	Average	179	3.387	1.118		
Total	803.7		Good	258	3.135	1.027		
			Very Good	163	2.974	1.192		
Miscommunication			Beginner	6	4.666	1.211	.799	.526
Between groups	4.6	1.1	Bad	18	4.770	1.250		
Within group	892.8	1.4	Average	179	4.419	1.203		
Total	897.5		Good	258	4.594	1.180		
			Very Good	163	4.575	1.227		
Social Connection			Beginner	6	3.672	.5638	5.089	.000
Between groups	18.0	4.5	Bad	18	3.996	.8013		
Within group	547.7	.8	Average	179	4.092	.8325		
Total	565.7		Good	258	4.255	.9471		
			Very Good	163	4.504	1.061		
Ease			Beginner	6	4.516	.9683	7.491	.000
Between groups	37.9	9.4	Bad	18	4.605	1.071		
Within group	783.5	1.2	Average	179	4.683	1.083		
Total	821.5		Good	258	4.933	1.123		
			Very Good	163	5.317	1.183		

CONCLUSION

Recent developments in communication technologies have caused new trends in many fields including education. Today, using communication technologies has become one of the important characteristics of successful educators.

Technology, not only in open and distance learning but also in any form of learning, has become a significant medium for the interaction among students as well as between students and instructors. However, due to the nature of ODL (separation of students and learning resources including instructors), technology has never played an important role as it does today.

The interactions in many ODL initiatives heavily rely on computer-mediated communications, or online communications. Thus, it is very important that the students should be able to communicate online effectively and believe in the value of online communications in order to be successful in ODL.

Previous studies in the literature have revealed that there is a relationship between the computer experience and students' attitudes toward computers (Çelik & Bindak, 2005; Köseoğlu, Yılmaz, Gerçek & Soran, 2007; Arslan, 2008).

Also, there is a positive relationship between attitudes toward computers and attitudes toward using technology (Teo, 2008). Moreover, there is a growing interest in communication behaviors of the students in ODL. Especially more studies on determining the students' characteristics influencing on their attitudes, competencies and use of online communication tools can be observed in the literature. However, in Turkey there are a limited number of studies concentrated on online communication in ODL.

This survey study was conducted to identify the freshmen (first year) students' attitudes toward online communication in ODL and to examine whether two major characteristics of the students (gender and computer experience) have any influence on their attitudes. In the study, Ledbetter (2009)'s Online Communication Attitudes scale was used to collect data. The scale consists of five dimensions labeled as 'self-disclosure', 'apprehension', 'miscommunication', 'social connection' and 'ease'. According to the results of the study, the items with students' highest average points are 'When I fail to connect to the Internet, this totally changes my social life' and 'Online communication is an important part of my social life'. On the other hand, items with the lowest average points are 'I feel nervous and tense while communicating in an online environment' and 'I find myself unskillful at online communication'. At this point, it can be seen that students believe in their skills in online communication in ODL and their apprehension levels are low in this context. Also, in the study, it was revealed that students' competencies and apprehension are important determinants on their perceiving and using computers as communication tools. Likewise, there is a negative relationship between students' computer apprehension levels and their attitudes toward computers.

In terms of gender, a significant difference in 'miscommunication', 'social connection' and 'ease' dimensions of online communication is observed. According to these results, female students view online environments as open to communication errors. When the average points of the 'apprehension' dimension are analyzed, it can be identified that the female students are more apprehensive about communicating in online environments compared to the males. This might be one of the reasons for the female students' viewing online environments as open to communication errors. Some studies in the literature about online communication indicate that female students are less confident in their efficiency and skills of using computers.

Moreover, studies in different countries about social gender differences in adopting communication and information technologies reveal that expectations about performance affect males' adoption behaviors more than they do those of females'. They also indicate that there is a positive relationship between students' competence in using computers and their attitudes (Dambrot et al, 1985, Marcoulides, 1988). Similarly, these studies indicate that female students like using computers and communicating in online environments less than males do (Sanders and Stone, 1986; Reinen and Plomp, 1997; Hakkarainen, 2000).

Although results indicate that the female students have higher apprehension levels than the males and that the females think of higher likelihood of communication errors' occurrence in online environments, their average points in the dimensions of 'social connection' and 'ease' are a bit higher than the male.

This shows us that the female students use online communication as an effective tool while communicating with others.

As they generally have positive attitudes toward communication in this environment, online communication is thought by students to be not only an important part of their social lives but also a technology facilitating their lives.

When the findings of the study are analyzed in terms of students' computer experiences, the results seem to be in parallel with the literature. There have been numerous studies about the factors determining students' developing positive attitudes toward online communication. In many of these studies, computer experiences were found to be one of the most important variables (Burkes, 1991; Bongartz, 1988; Sultana, 1990). In the research, it was observed that students have positive attitudes toward expressing themselves comfortably in online environments and viewing these environments as a part of their social lives. Besides, students view online communication as a technology facilitating their lives as it provides them with the opportunity to communicate whenever and wherever they want.

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