Internet Anxiety among Foreign Language Learners

By Selami Aydin

Abstract

Little attention has been paid to the demotivating potential of new technologies in foreign language research. Thus, this study aims to investigate Internet anxiety among foreign language learners and to determine the relationships between Internet anxiety and certain variables. A background questionnaire, an Internet information test, and an Internet anxiety scale were administered to a sample group of 115 foreign language learners. The collected data were used to provide a descriptive and correlational analysis. The results of the analysis indicated that the Internet is not in itself an anxiety source among foreign language learners; however, it is the situations in which learners have to use the Internet that provoke Internet anxiety. Furthermore, it was observed that factors such as gender, computer and Internet connection ownership, Internet instruction, Internet familiarity, and information level on the Internet significantly correlated with the level of Internet anxiety. In the light of the findings of the study, some recommendations were noted.

Keywords: Internet anxiety; English as a foreign language; language learners, English language learners

Along with the important role and the great potential it has for the academic life of today's world in general, the Internet brings significant benefits particularly to English as a foreign language (EFL) learning as well. First of all, the Internet increases language use (Kasanga, 1996); enhances synchronous and asynchronous communication of language learners (Kern, 1995; Warschauer & Healey, 1998); and helps learners use language in real communication situations (Wiburg & Butker Pasceo, 2002). Secondly, the Internet changes the interaction between language learners and teachers (Kern, 1995). To put it another way, it changes teachers' and students' roles (Peterson, 1997), makes learning

more student-centered (Means & Olson, 1997), and increases participation (Warschauer, Turbee, & Roberts, 1996). The third benefit of the Internet in EFL learning is that it is an almost endless source of authentic materials. In other words, it is useful and easy to retrieve, access, and use information via the Internet in foreign language contexts. On the whole, it should be emphasized that the Internet has opened up new dimensions and opportunities in foreign language learning in that it enhances communication and classroom interaction, and provides learners with authentic materials. Nevertheless, the advantages of the Internet can be truly realized in foreign language learning only when a higher level of awareness of learners' beliefs, attitudes, aptitudes, motivations, and affective states is achieved with regard to Internet use in educational settings.

Anxiety as an affective state is defined as an uncomfortable emotional state in which one perceives danger, feels powerless, and experiences tension in preparation for an expected danger (Blau, 1955) and it can be classified into three types. Trait anxiety, a more permanent disposition to be anxious (Scovel, 1978), is viewed as an aspect of personality. State anxiety is an apprehension that is experienced at a particular moment in time as a response to a specific learning situation such as an examination or an oral presentation (Spielberger, 1983). Finally, situation-specific anxiety is based on the general orientation of anxiety on certain learning contexts in which learners do not perceive themselves linguistically capable (Ellis, 1994). Internet anxiety, a type of situationspecific anxiety, is the distress of mind caused by fear of danger and powerlessness when using the Internet (Joiner, Brosnan, Duffield, Gavin, & Maras, 2007). Doubtlessly, the efficient use of the Internet as a communication and interaction environment and as a material source in foreign language learning is directly and closely related to the anxiety levels of learners since anxiety as an affective state seems to affect the

learning process. Hence, the study focuses on the level of Internet anxiety among foreign language learners as well as the relationship between Internet anxiety and certain variables: age, gender, grade, place of accommodation, parents' jobs, the amount of money spent in a month, foreign language proficiency, the types of high schools, duration of Internet use a day, Internet familiarity in years, information level on the Internet, the frequency of Internet use in hours, the places of Internet use, and computer ownership, Internet connection ownership, and internet instruction. Conclusively, though the Internet as underlined previously is a rich material source, and a learning and communication setting for foreign language learners, it is obvious that Internet anxiety itself as a demotivating factor may adversely affect the foreign language learning process. Thus, the scope of the present paper is limited to the investigation of Internet anxiety among EFL learners but not its effects on achievement and proficiency in the language learning process. In other words, the purpose is to see an overall level of Internet anxiety and its relationships to above-mentioned factors in order to see whether the Internet is a source of anxiety or not.

The results of previous studies indicate that Internet unfamiliarity and communication apprehension via the Internet are among the sources of Internet anxiety. Furthermore, a review of related literature reveals that there is a significant correlation between Internet anxiety and gender, attitudes, and self-efficacy. In a qualitative analysis (Lewis & Atzert, 2000) on computer-related anxiety in the project-oriented CALL classroom, it was stated that students' misgivings increased anxiety around unfamiliar technologies. In an investigation on student attitudes and perceptions towards the web as an educational resource, Yang (2001a) focused on cognitive disorientation, learning anxiety, and perceived enhancement of language ability and of cultural understanding. The results of the mentioned research suggest that computer networks have the potential to empower students when they are appropriately implemented. On the other hand, another study conducted by Yang (2001b) concentrated on the integration of Web resources as instructional and learning tools into an EFL class and examined learners' subjective responses to the use of the web within the context of a research project. The findings of the study showed that information seeking on the Internet simultaneously engendered both anxiety and excitement in learners. In Ng's study (2001), it was discovered that some students studying online felt anxious when communicating electronically. The anxiety level detected

in the research correlated with online communication, which requires new social and communication skills. O'Regan's study (2003), which examined the emotional experiences of students learning online, identified significant particular emotions for the participant students that included frustration, fear/anxiety, shame/embarrassment, enthusiasm/excitement, and pride. In a study (Joiner et al., 2007) examining the relationship between Internet identification, Internet anxiety, and Internet use it was discovered that most of the participant students were not anxious about using the Internet while the participants who developed Internet anxiety were those who stayed away from computers. In their study aiming to

investigate computer selfefficacy, computer anxiety, and attitudes towards the Internet, Durndell and Haag (2002) noted that higher computer selfefficacy significantly correlated with lower computer anxiety. What is more, the findings of the same study also indicated that males had lower anxiety levels and more positive attitudes towards the Internet and used the Internet for longer durations than females did. In conclusion, related literature has shown that the level of Internet anxiety correlates with Internet unfamiliarity and commu-

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nication apprehension on the part of students and that gender, particular attitudes, and selfefficacy are among the significant variables that affect the level of Internet anxiety.

Apparently, there are two calls for investigation into Internet anxiety among EFL learners. Firstly, though the Internet has certain advantages in foreign language learning and teaching, its efficient use seems to depend on the awareness about learners' affective states. To be more specific, investigating Internet anxiety as an affective state that may adversely affect language achievement and proficiency, and that inhibits language acquisition in some learners (Lewis & Atzert, 2000) will contribute to the use of the Internet in EFL learning as a real environment. The second reason is that, as noted by Lewis & Atzert (2000), while previous research has focused on the motivating power of technology, little attention has been paid to the demotivating potential of new technologies in language learning. Accordingly, with these concerns in mind, this paper examines three research questions:

- 1. What is the level of Internet anxiety among EFL learners?
- 2. Is there a relationship between the anxiety level and certain variables, age, gender, grade, place of accommodation, parents' jobs, the amount of money spent in a month, foreign language proficiency, and the types of high schools?
- 3. Is there a correlation between the level of internet anxiety and the factors related to the Internet such as duration of Internet use a day, Internet familiarity in years, information level on the Internet, the frequency of Internet use in hours, the places of Internet use, and computer ownership, Internet connection ownership, and Internet instruction?

Method

The sample group of the study consisted of 115 students at the English Language Teaching Department (ELT) of Balikesir University. The group included all the students in the department. The mean age of participants was 19.8 in the range of 17 and 23. 78.3% of the participants were females (90) whereas 21.7% of the sample group consisted of male students (25). The group consisted of 31 freshmen (27.0), 27 sophomores (23.5%), 30 juniors (26.1%) and 27 seniors (23.5%). 38.3% stated that they lived at dormitories while 61.8% lived with their parents or friends. To add, the participants were the graduates from super (38.3%) and Anatolian (61.7) high schools. In order to determine the level of language proficiency and achievement of the subjects, their scores in the Foreign Language Examination, an official student selection and placement examination administered once a year, were examined and the mean score was calculated as 360.6. The students stated that they spent 286 YTL (158 Euros) a month; used the Internet for 1.88 hours a day; and have been familiar with it for 4 years. The parents of the students mostly worked for public establishments. According to the data set, more than half of the participants had their own computers while only 27% of them had Internet connection. The values also indicated that 67.8% of the students had not received any Internet instruction. Most of the learners stated that they last used the Internet on the day of survey or a few days prior to it. However, 67% of the students said that they used the Internet at Internet cafés. Finally, the mean value of Internet information

level was found to be 51.5 in a scale of 100. The range of the test was between 0 and 90 while the standard deviation was 17.9.

The instruments used to gather data consisted of a test, a background questionnaire, and an Internet Anxiety Scale. The test with 20 items aimed to measure the students' level of Internet information on Internet basics such as e-mailing, websites, forums, multimedia, and chatting. The background questionnaire interrogated the students' age, gender, grade, places of accommodation, the high schools they graduated from, the scores they received in the Foreign Language Examination, how much money they spend a month, the duration of Internet use a day, Internet familiarity in years, and the sectors in which their parents are employed. Through the questionnaire, it was also aimed to collect data about computer availability, Internet connection, Internet instruction, and the frequency and places of Internet use. The Internet Anxiety Scale, adapted from the Computer Anxiety Scale (CAS) designed by Cohen and Waugh (1989), contained 15 Likert type items (always=5, usually=4, sometimes=3, rarely=2, never=1) and aimed to measure the degree of Internet anxiety among the subjects. The reliability coefficient in Cronbach's Alpha Model was .76 for the IAS. The value indicated that the scale has a moderate level of reliability. Factor analysis showed that the scale was valid as the cumulative percent was found to be 61.92 (See Appendix).

The procedure of the study included the administration of the instruments and statistical analysis. The author administered the Internet test during the second week of the Fall 2008. The background questionnaire and Internet Anxiety Scale were administered the following week. Subsequently, the collected data were analyzed with the aid of the SPPS program. In the process of analysis the reliability coefficient of IAS in Cronbach's Alpha Model, a model of internal consistency based on the average inter-item correlation, was computed. As for the statistical analysis on the research questions, the data were examined under two subheadings: The means and standard deviations for each of the items in the Internet Anxiety Scale were used to see the anxiety level of the participants and the homogeneity of the group, and the values of ANOVA and independent samples tests to see the correlations between the dependent and independent variables. In the study, the dependent variables consisted of 15 items in the IAS while the variables were age, gender, grade, place of accommodation, parents' jobs, the amount of money spent in a month, the scores received in the Foreign Language Examination as an indication of foreign language proficiency, the types of high schools, duration of Internet use a day, Internet familiarity in years, information level on the Internet, the frequency of Internet use in hours, the places of Internet use, and information concerning computer ownership, Internet connection, and Internet instruction.

Results

The findings in the study were divided into two sub-sections: the level of Internet anxiety and the relationship between Internet anxiety and independent variables. To put it another way, a descriptive and correlational presentation of the collected data has been provided. The descriptive data included the means and standard deviations of the items in the IAS whereas the correlational data consisted of the findings related to the correlations between the level of Internet anxiety and the independent variables.

The first research question concerned the level of Internet anxiety among the EFL learners. Hence, the findings about the anxiety levels of the participants are given in Table 4. These values indicate that most of the students believed in the importance of the Internet, and that they felt calm when they used it. On the other hand, more than half of the participants stated that they used the Internet only when necessary, and interestingly enough, felt anxious when they had to use it. Most of the students also thought that they had sufficient knowledge and skills about Internet use though few had Internet instruction. The findings reveal that they did not have any fear of making mistakes when they used it since they did not plan to choose a job related to the Internet. For most of the subjects, it was easy to use the Internet, and they did not feel anxious, nervous, bad, unhappy, uncomfortable or fearful during Internet use. Finally, most of them stated that they did not like to waste time on the Internet. To sum up the findings, it could be concluded that the Internet was not a source of anxiety among the surveyed EFL learners. (Table 1 appears on the following page.)

The second research question inquired whether there was a relationship between the level of Internet anxiety and the variables, age, gender, grade, place of accommodation, parents' jobs, the amount of money spent in a month, foreign language proficiency, and the types of high schools. The values presented below indicate that some variables were significantly correlated with some of the items given in the Internet Anxiety Scale. The correlational data are given below in accordance with the factors mentioned before.

The data indicate that there exist significant correlations between the items in the scale and

some of the variables, one of which, gender, negatively correlated with the Internet anxiety level among the students. According to the values given in Table 2 (on the following page), female students felt more uncomfortable when they use the Internet than males did. The second variable that affects the level of Internet anxiety among the learners was computer availability at home. As seen in Table 3 (on the following page), students who did not have computers at their homes stated that they felt more anxious, more fearful, worse, more uncomfortable and less calm when they used the Internet when compared to those who had their own computers at home. Moreover, those who did not own computers had more fear of making mistakes during Internet use.

The last research question aimed to investigate the relationship between Internet anxiety and certain variables related to the Internet such as Internet connection ownership at home, Internet instruction, daily rate of Internet use, Internet familiarity in years, and information level on the Internet. The values in Table 4 (see page 50) indicate that the participants who had Internet connection at home felt better, happier, more comfortable, and less fearful during Internet use. Besides, Table 5 (see page 50) shows that the students who had received Internet instruction were less afraid of making mistakes. The findings indicate that the rate of daily Internet use was a significant factor that had an effect on the level of Internet anxiety. According to Table 6, the less the participants used the Internet, the more they felt anxious. In addition, higher level of Internet familiarity was a factor that reduced the fear of making mistakes and the possibility of feeling uncomfortable when learners were busy with the Internet, as seen in Table 8. Finally, a significant correlation was found between the Internet test results and the anxiety level among the participants. In other words, learners who had higher scores on the Internet information test felt less anxious, and felt better when they used the Internet.

In conclusion, the results indicate that the participants did not have computer anxiety. However, according to the correlational data, gender, computer and Internet connection ownership, Internet instruction, daily use rate, Internet familiarity in years and information level on the Internet were among the variables that affected the level of Internet anxiety of the students. On the other hand, the factors such as age, grade, place of accommodation, parents' jobs, the amount of money spent a month, the scores received in the Foreign Language Ex-

amination, the types of high schools they graduated from, the frequency of Internet use in hours, and the place of Internet use did not seem significant in terms of Internet anxiety.

Conclusions and Discussion

This study aims to examine the level of Internet anxiety among EFL learners and the relationship between

certain variables and the level of Internet anxiety since little attention has been paid to the demotivating potential of new technologies in the area of foreign languages research and Internet anxiety is a considerable factor that

might negatively affect achievement and proficiency in foreign language learning. The results of previous studies demonstrate that Internet unfamiliarity, low levels of Internet self-efficacy and apprehension towards communicating via the Internet are among the sources of Internet anxiety. Furthermore, a review of related literature shows that Internet anxiety is significantly correlated with gender, attitudes, perceptions and particular emotions of participants. The sample group of this study consisted of 115 EFL learners. In order to collect data, a background questionnaire and the Internet anxiety scale were used. The collected data were used to provide a descriptive and correlational analysis to address the research questions. Two main results were obtained from the study. Firstly, the Internet is not an anxiety source among EFL learners. However, the situations in which learners have to use the Internet may provoke Internet anxiety. Secondly, some variables affect the anxiety level of EFL learners who do not suffer from Internet anxiety under normal circumstances. One of these variables is that females feel more uncomfortable when they use the Internet than males do. Moreover, computer and Internet connection ownership and Internet instruction decrease the level of Internet anxiety and fear of making mistakes when using the Internet. Apart from these, there are some other factors that make learners calmer, more comfortable and less worried when they use the Internet; these include the duration of Internet use a day, Internet familiarity in years, and the information level on the Internet.

The discussion of the study results in relation to the results of

			Fı	requencie	es			on
Item	s	Never	Rarely	Sometimes	Usually	Always	Mean	Std. Deviation
1.	I feel anxious when I use the Internet.	42.6	28.7	19.1	5.2	4.4	2.00	1.11
2.	I feel calm when I use the Internet.	3.5	6.1	12.2	52.2	26.1	3.91	.97
3.	I have sufficient knowledge and skills about Internet use.	13.9	15.7	33.0	31.3	6.1	3.00	1.13
4.	I feel nervous when I use the Internet.	47.0	30.4	14.8	5.3	3.5	1.87	1.05
5.	I fear of making mistakes when I use the Internet.	26.2	37.4	24.3	7.8	4.3	2.27	1.07
6.	I use the Internet only when necessary.	5.2	7.0	17.4	44.3	26.1	3.79	1.07
7.	I like wasting time on the Internet.	54.8	20.9	15.7	4.3	4.3	1.83	1.12
8.	Whenever I have to use the Internet, I feel anxious.	2.5	9.6	23.5	46.1	18.3	3.68	.97
9.	I am planning to choose a job related to the Internet.	34.7	32.2	23.5	7.0	2.6	2.10	1.05
10.	I feel bad when I am busy with the Internet.	57.4	20.9	14.8	5.2	1.7	1.73	1.01
11.	I think that the Internet is important.	0.0	0.9	4.3	32.2	62.6	4.67	.62
12.	I feel fear during Internet use.	68.7	15.7	11.3	2.6	1.7	1.53	.92
13.	I feel unhappy when I am busy with the Internet.	56.6	25.2	13.9	2.6	1.7	1.68	.93
14.	I feel uncomfortable whenever I use the Internet.	67.8	16.5	9.6	5.2	0.9	1.55	.93
15.	It is hard for me to use the Internet.	44.3	17.4	27.0	9.6	1.7	2.07	1.12

Table 1. The mean values and standard deviations of the items in the Internet anxiety scale

Item	Gender	Mean	St. D.	F	Sig.
I feel uncomfortable whenever I use the Internet.	Male (n=25)	1.3	0.8		0.01
	Female (n=90)	1.6	0.9	6.4	

Table 2. Internet anxiety and gender (Independent Samples Test)

previous research can be summarized under two headings: the level of Internet anxiety, and the relationships between anxiety level and certain factors. First of all, EFL students do not have a general Internet anxiety, as Joiner et al. (2007) noted that most students do not feel any anxiety about using it. However, the results of this study indicate that learners experience a high level of Internet anxiety when they use the Internet in particular situations such as gender difference, the problems about computer and Internet access, lack of Internet instruction and knowledge, and Internet unfamiliarity. According to results of the previous research, the situations and variables that provoke anxiety are information seeking on the net (Yang, 2001a), online communication that requires new social and communication skills (Ng, 2001), gender difference, and Internet unfamiliarity (Lewis & Atzert, 2000). To end, it can be stressed that the source of anxiety is not the Internet itself, but some situations such as gender difference, the problems about computer and Internet access, lack of Internet instruction and knowledge, and Internet unfamiliarity.

In light of the findings, some practical recommendations can be noted. First of all, as the results of the study indicate that gender is a significant factor affecting the level of Internet anxiety and female students are more worried about Internet use than males are, and as previously found (Joiner, Gavin, Duffield, Brosnan, Crook, Durndell, Maras, Miller, Scott, & Lovatt, 2005) that there exists a number of gender differences in learners' use of the Internet, language teachers should have the awareness of gender difference in terms of both the use of the Internet and the level of Internet anxiety. What is more, language teachers should create a learning environment in which they are encouraged to interact online and face to face in order to decrease the level of anxiety among female learners, as noted by Myers and Bright (2006). Secondly, as learners who have computers, Internet access and familiarity are less anxious about Internet use in language learning, the lack of computer ownership, Internet access and familiarity are some potential problems that cannot be solved by learners, teachers, researchers, and curriculum improvers since it is closely and directly related to the economic, social, and educational levels and policies. Hence, policy makers need to be informed about the needs of learners in order to create a synthesis of technological investments and educational aims. In conclusion, the results of the study suggest that the Internet as a natural and real learning environment should be accessible and familiar to foreign language learners who do not find it as an anxiety source. As a final point, as it was found that the Internet is not a source of anxiety itself, it can be stated that the benefits of Internet use in language learning and teaching processes can be realized.

As a final note on the limitations of the research, the subjects of the

Items	Computer availability	Mean	St. D.	F	Sig.	
I feel and an I are the Internet	Yes (n=49)	1.7	0.8	0.2	001	
I feel anxious when I use the Internet.	No (n=66)	2.2	1.2	8.2	.001	
I feel calm when I use the Internet.	Yes	4.2	0.6	9.9	002	
Their carm when it use the internet.	No	3.7	1.1	9.9	.002	
I fear of making mistakes when I use the	Yes	2.0	0.9		0.4	
Internet.	No	2.5	1.1	4.4	.04	
I feel bad when I am busy with the	Yes	1.4	0.7	101	000	
Internet.	No	1.9	1.1	10.1	.002	
I feel formula on I was the Internet	Yes	1.4	0.6	17.0	00	
I feel fear when I use the Internet.	No	1.7	1.1	17.2	.00	
I feel uncomfortable whenever I use the	Yes	1.3	0.6	25.2	00	
Internet.	No	1.7	1.1	25.2	.00	

Table 3. Internet anxiety and computer availability at home (Independent Samples Test)

Item	Internet connection	Mean	St. D.	F	Sig.	
I feel bad when I am busy with	Yes (n=32)	1.3	0.5			
the Internet.	No (n=83)	1.9	1.1	19.4	.00	
	Yes	1.4	0.6			
I feel fear during Internet use.	No	1.6	1.0	7.0	.01	
I feel unhappy when I am busy	Yes	1.3	0.5			
with the Internet.	No	1.8	1.0	15.9	.00	
I feel uncomfortable whenever	Yes	1.3	0.5			
I use the Internet.	No	1.6	1.0	13.7	.00	

Table 4. Internet anxiety and connection at home (Independent Samples Test)

Item	Internet instruction	Mean	St. D.	F	Sig.
I fear of making	Yes (n=38)	2.4	0.8		
mistakes when I use the Internet.	No (n=77)	2.2	1.2	4.2	.04

Table 5. Internet anxiety and instruction (Independent Samples Test)

Item	Hours	Mean	St. D.	F	Sig.
	1 – 2 (n=59)	2.3	1.2		
I feel anxious when I use the Internet.	2 – 3 (n=46)	1.7	0.9	3.6	.02
the internet.	3 – 4 (n=10)	1.6	0.7		
Whenever I have to	1 – 2	3.3	1.0		
use the Internet, I feel	2 – 3	4.0	0.8	6.6	.00
anxious.	3 – 4	4.3	0.8		
	1 – 2	2.1	1.1		
I feel bad when I am busy with the Internet.	2 – 3	1.4	0.8	5.1	.002
	3 – 4	1.2	0.4		

Table 6. Internet anxiety and daily use (ANOVA)

study were limited to 115 EFL learners at the ELT Department of Education Faculty of Balikesir University, Turkey. Moreover, the scope of the study was confined with the data gathered through the *Internet Anxiety Scale* adapted from *Computer Anxiety Scale* designed by Cohen and Waugh (1989), and some variables selected. Considering that the study examines

Internet anxiety among EFL learners, further studies should focus on the relationship between gender and Internet use and the reasons for the higher levels of Internet anxiety among female learners.

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Item	Years	Mean	St. D.	F	Sig.
	1 (n=4)	3.3	1.3		
	2 (n=20)	2.3	1.2		
I fear of making mistakes when I use the Internet.	3 (n=25)	2.5	1.2	2.1	.05
T doe the internet.	4 (n=22)	2.5	0.9		
	5 + (n=39)	2.0	0.9		
	1	2.3	1.9		
	2	1.9	1.2		
I feel uncomfortable whenever I use the Internet.	3	1.9	1.0	2.6	.01
	4	1.1	0.5		
	5 +	1.1	0.3		

Table 7. Internet anxiety and familiarity (ANOVA)

Items	Level	Mean	St. D.	F	Sig.
	2 (21 – 40) (n=37)	2.4	1.2		
I feel anxious when I use the Internet.	3 (41 – 60) (n=51)	2.1	1.1	3.1	.02
use the internet.	4 (61 – 80) (n=27)	1.5	0.7		
	2 (21 – 40)	2.2	1.2		
I feel bad when I am busy with the Internet	3 (41 – 60)	1.7	1.0	3.0	.02
	4 (61 – 80)	1.4	0.6		

Table 8. Anxiety and information level on the Internet (ANOVA)

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onent	Initial Eigenvalues		Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
Component	Total	% of	Cumulative %	Total	% of	Cumulative	Total	% of	Cumulative %
		Variance			Variance	<u>%</u>		Variance	
1	6.67	44.45	44.45	6.67	44.45	44.45	5.35	35.68	35.68
2	1.40	9.28	53.73	1.40	9.28	53.73	2.14	14.30	49.98
3	1.23	8.19	61.92	1.23	8.19	61.92	1.79	11.94	61.92
4	.94	6.25	68.17						
5	.88	5.86	74.03						
6	.71	4.70	78.73						
7	.59	3.91	82.64						
8	.51	3.41	86.05						
9	.47	3.12	89.17						
10	.44	2.92	92.09						
11	.34	2.27	94.36						
12	.27	1.78	96.14						
13	.24	1.57	97.71						
14	.19	1.26	98.98						
15	.15	1.02	100.00						

Appendix. Total Variance Explained



MI-aect **Upcoming Events**

March 9 - Panel Discussion - "Are you socially network savvy?" MIaect wants to make sure your social networks skills are up to par. Join a panel of social networking gurus from business, health care, higher education, and K-12 as they discuss how social networking has impacted their work. They will provide advice on integrating social networking into your profession.

April 13 - MI-aect members share their cutting-edge research. Not only is this event for the members, it's run by the members. Here is an opportunity to showcase your hard work and interests. It's a great venue to see what others are doing, and find ways to collaborate or assist other members. Contact us if you are interested in presenting your research.

May 11 - Celebrate the accomplishments of the Chapter and it's members by attending an end of the year dinner and strolling auction.

** For more information on upcoming events please contact Kelly Unger at kellyunger@wayne.edu **



What is MI-aect?

MI-aect is the state chapter of the Association for Educational Communications and Technology. A state association for students, academics and future academics, and professionals who are interested in researching and improving instructional design and education practice through all forms of technology.

Who should join MI-aect?

- Instructional designers or educators/ trainers in business or academe
- Future or current academics in instructional design and technology or education
- Educators interested in applying technology to improve teaching and learning

What can MI-aect do for you?

- Learn about technology and its impact on instruction
- Collaborate with other professionals on instructional design and educational technology research and practice
- Become part of the technology movement in education and business

March 9 - Panel Discussion - Are you socially network savvy?

April 13 - MI-aect members share their cutting-edge research

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February 9 - Panel Discussion - Waiting for

Superman...MI-aect responds

February 1 - aect Conference Presentation Writing Workshop

January 17 - aect Conference Presentation Writing

January 12 - Ring in the New Year with fellow members December 15 - aect Conference Presentation Writing

December 8 - End of the year celebration November 10-aect Conference Rewind

October 20 -Kickoff Social

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