# PRE-SERVICE TEACHERS AND TECHNOLOGY: GENDER, TECHNOLOGY

## **EXPERIENCE, BELIEFS AND PREDISPOSITION TO TECHNOPHOBIA**

Salih BARDAKCI<sup>\*</sup>, Turgay ALAKURT<sup>\*</sup>, Halil İbrahim AKYÜZ<sup>\*</sup>, Serap SAMSA<sup>\*</sup>

## Abstract

The purpose of the present study is to describe technophobia tendencies among the pre-service teachers. Besides, is to investigate the differentiation according to gender, computer experience, computer self-efficacy and technology related beliefs as a related pre-service teachers' technophobia levels. The study is conducted with the survey methods and the research group consisted of 266 students enrolled in teacher training graduate programs (the non- thesis Master of Arts programs) that are offered in the Ankara University, Graduate School of Educational Sciences in 2009-2010. The research packet included the Turkish versions of the Rosen & Weil (1992, 1995) The Computer Anxiety Rating Scale, Computer Thoughts Scale, Computer Attitudes Scale (Technophobia Scales Packet) (Ursavaş, 2010) and a set of demographic questions including gender, computer experience, beliefs and computer self-efficacy. The results show that most of the pre-service teachers, who participated in this study, have technophobia tendencies low or moderate/high levels. Also, the technophobia tendencies did not differ significantly according to gender. However, statistically significant differences were detected according to technology experience, beliefs and self-efficacy.

Key words: technophobia, pre-service teachers, gender, technology experience and beliefs

## **INTRODUCTION**

Technophobia in the broadest sense defines the concerns, fears and attitudes obstructing the use of new technologies and the negative reactions against their use. The concept stems from the "computer phobia" derived by Jay (1981) (Rosen and Maguire, 1990). Jay defines the computer phobia as the computer related fear or concerns, hostile and aggressive thoughts about computer and resistance against using, thinking of and even talking about computers. Based on this concept, Rosen and Weil (1992) developed technophobia concept as a type of phobia towards computer based technologies. Accordingly, there are three basic indicators of technophobia: to get anxious about the present and future of the computer based technologies; having negative attitudes against the computer (Rosen and Weil, 1992; Gilbert, Lee-Kelley & Barton, 2003). Today there is no common opinion on the use of the concept and concepts like computer fear, computer phobia, technologia, technology fear, cyber phobia and computer hatred are used synonymously. Upon the literature review, it is seen that many researches on technophobia base on the Rosen and Weil (1992) approach and are built on the

<sup>\*</sup> Research Assistant, Ankara University, Faculty of Educational Sciences. Department of Computer Education & Instructional Technology, Ankara–Turkey. Phone: +90 312 363 33 50/ 3208-7106.

E-mails: sbardakci@education.ankara.edu.tr, talakurt@yahoo.com, hiakyuz@education.ankara.edu.tr, serap.samsa@gmail.com, hiakyuz@education.edu.tr, serap.samsa@gmail.com, hiakyuz@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiakyu@gmail.com, hiaky

anxiety, fear and negative attitudes related to the computer based technologies (e.g. Gilbert, Lee-Kelley and Barton, 2003; Sinkovics, Stöttinger, Schlegelmilch and Ram, 2002).

The fact that computer based technologies affect the professional and social life in almost layer of the society makes technophobia a psychological variable that needs to be focused on with its resources and impacts. Studies conducted on groups like students, police, teachers, civil servants who have had to interact with these technologies in their professional lives throughout the nineties indicate that almost one third of them demonstrate technophobia predispositions (Marcolulides, Mayers and Wiseman, 1995; Chau, Chen and Wong, 1999; Rosen and Maguire, 1990; Brosnan and Thorpe, 2006). Brosnan (1999) explains the reasons of technophobia based on the technology acknowledgement model developed by Davis (1986). Accordingly, the adaptation of the individual to the technology is influenced by two psychological processes. These are the perceived usefulness that defines the perception of the individual regarding the ability to use the concerned technology easily for a certain task and the perceived ease of use that defines his perception regarding the effort he expect to spend while realizing that job. According to Brosnan (1999), computer related concerns are in relation with attitude, self-efficacy perceptions and the underlying experiences. It is seen in the literature that there are studies on the relations between the technophobia predispositions and the elements like age, gender, ethnic origin, negative cognition developed against the computer technologies in the early age, academic major, computer ownership, cognitive orientation as well as the above variables (Kuşkaya-Mumcu and Altun, 2008; Rosen and Maigure, 1994; Brosnan and Thorpe, 2006; Rosen and Maigure, 1990; Brosnan and Davidson, 1994; Rosen, Sears and Weil, 1987; Brosnan and Davidson, 1996; Korukonda, 2005; Chou, 2003).

Clinical studies on technophobia reveal that the individual with this predisposition possesses six basic phobia indicators. These are; excessive and baseless fear from information technologies, showing constant anxiety reaction when subjected to these technologies, avoidance from these technologies, otherwise tolerating them with high level of anxiety, the fact that this anxiety or avoidance hinders the academic, professional or social life of the individual or causes stress and that this condition lasts at least for 6 months (Brosnan, 1998; Brosnan and Thorpe, 2006). Kuşkaya-Mumcu and Altun (2008),

however, suggest five basic indicators related to technophobia based on different definitions. These are finding technology complex and useless, avoidance from/resistance against technology, high level of anxiety, negative attitude against technology and hate from technology. Accordingly, the existence of one or more of these indicators in an individual in different ways and densities indicates technophobia. Korukonda (2005), too, similarly emphasizes the fact that the technophobia predisposition and therefore its indicators may exist at different individuals with different levels.

The literature shows that there are various studies conducted for reducing the technophobia predisposition. For example, Rosen, Sears and Weil (1993) and Brosnan and Thorpe (2006) considered technophobia as condition of anxiety and fear created by negative experiences of early ages just like other phobia types and developed controlled computer experience environments to reduce the computer anxiety by taking advantage of the clinic anxiety reduction techniques. The studies showed that these environments might reduce the anxiety and avoidance conditions of the individuals against the computer technology.

When we consider the responsibility expected from teachers to effectively benefit from technology in today's education processes, technophobia predisposition of teachers comes forward as a condition that needs to be focused on. According to Rosen and Weil (1995), an important factor behind the avoidance of the teachers from utilizing information technologies despite there are facilities available in their schools and classrooms is the technophobia predispositions and the condition of anxiety and avoidance. Other studies concentrate on the fact that the technology related resistance and fear of teachers would have influences not only in benefitting from the information technologies but also their condition of transferring the technology literacy skills to the students. These studies also reveal the necessity to determine the causes of the fear and resistance of the teachers and to produce solutions. (Gürcan-Namlu, 2002; Shapka and Ferrari, 2003). Lloyd and Albion (2005) consider technophobia as a fundamental cause of the teacher resistance created in the process of infusing the information technologies to education through an approach centering teacher in the reform and change movements and change process at school. This study deals with the differences of the technophobia levels and technophobia predispositions of the pre-service teachers according to the social factors, gender,

computer technology experience, self-efficacy perception and their opinion on the impacts of the new technology.

### **METHOD**

*Study Group:* The study has been patterned in the survey model. The research data has been obtained from 266 master students of teaching at the Ankara University Education Sciences Institute. The breakdown of the study group per gender and degree fields are as follows. Gender: 34 women (87.22%) 232 men (12.78%). Degree field: Numeric fields 94 (35.34%), social fields 46 (17.29%), linguistic 91 (34.21%), vocational education 30 (11.28%).

Data Collection Instruments: In the data collection process, the Technology Anxiety Scale Package developed by Rosen and Weil (1992, 1995) and adapted to Turkish by Ursavas (2010) has been used. In this package, there are three instruments of Five Point Likert Scale each consisting of 20 items, i.e. Computer Thought (CTS), Computer Anxiety (CARS) and Computer Attitude (CAS). The Cronbach Alpha Internal Consistency Coefficients of the instruments obtained in relation to their original and Turkish forms are respectively as follows: CTS: .80, .78; CARS: .95, .94; CAS: .75, .72 (Rosen and Weil, 1992; Ursavaş, 2010). In this present study, the coefficients are determined as follows: CTS: .83; CARS: .92; CAS: .41. Rosen and Weil (1992) group the technophobia levels of the participants as "no technophobia, low technophobia, moderate/high technophobia" according to the score ranges obtained from CTS, CARS and CAS. Accordingly it is determined that the technophobia predisposition of the individual is moderate/high if he has moderate/high score from at least one of these three instruments; low if he has low score from at least one instrument and no technophobia if his score from all instruments is no technophobia. The point ranges for these three levels are as follows (Ursavaş, 2010). No technophobia (CTS: 69–100, CARS: 20–41, CAS: 64–100), low technophobia (CTS: 61–68, CARS: 42-49, CAS: 56-63), moderate/high technophobia (CTS: 20-60, CARS: 50-100, CAS: 20-55). Apart from these three measurement instruments in the study, the scale package also included a group of demographical questions developed by the researchers containing various opinion related to gender, computer experience, efficacy perception and technology.

*Analysis*: Rosen and Weil (1992) score ranges have been used in order to determine the technophobia levels of the study group. While studying the change of the technophobia level according to the demographic variables like gender and experience, the total scores obtained from three measurement instruments and the CAS and CTS items were included in the scoring by being reversed enabling the total point from the scales to indicate high technophobia. In the analysis process, independent *t*-tests and one way analysis of variance (ANOVA) have been used. Among the Post Hoc multiple comparison tests, Scheffe is used to determine the reasons of differences in ANOVA.

## FINDINGS

*Technophobia Levels of the Pre-service teachers*: The technophobia levels of the study group have been determined as CTS, CARS, CAS and General Technophobia Level based on the Rosen and Weil (1992) score ranges. This is given in Table 1.

Table 1. Technophobia predispositions of the Study Group in total and in sub dimensions.

	CTS		CARS		CAS		General Tecnophobia L.	
	f	%	f	%	f	%	f	%
No	158	59.40	127	47.74	145	54.51	80	30.1
Low	70	26.32	43	16.17	103	38.72	69	25.9
Moderate/High	38	14.29	96	36.09	18	6.77	117	44.0

When Table 1 is examined, it is seen that majority of the pre-service teachers has low or moderate/high technophobia predisposition (f = 186, % = 69.90). When the dimension of technophobia is examined, it is seen that the technophobia of the pre-service teachers are caused by computer anxieties (f = 139, % = 52.259), and then by negative attitude towards computer (f = 121, % = 45.49).

*Gender*: When the gender based change of the total technophobia scores of the participants are examined with independent *t*-test, it is seen that there are no significant differences between the technophobia scores of the female participants ( $\overline{X} = 150.34$ , SD = 1.65) and that of male participants ( $\overline{X} = 149.63$ , SD = 1.65) (p = .70). Again, when the gender based technophobia levels over the Rosen and Weil (1992) score ranges, it is seen that technophobia levels among female and male groups are similar over moderate/high technophobia (women: f = 17, % 50; men: f = 100, % 43.10 ), low

technophobia (women: f = 8, % 23.52; men: f = 63, % 27.26) and no technophobia levels (women: f = 9, % 26.40; men: f = 69, % 29.74). Based on these findings, it can be said that the technophobia levels of the participants do not vary per gender.

*Experience and Efficacy Perception*: When the technophobia levels of the participants are examined according to their computer ownership time, it is seen that the technophobia levels vary according to the duration of personal computer ownership. This is shown in Table 2.

	Don't own (n=25)		1-3 years ( <i>n</i> =67)		4-6 years (n=83)		7-9 years ( <i>n</i> =43)		10 years or more (n=47)		F (df=4,264)
	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	_
Technophobia	157.07	19.62	155.00	22.99	153.75	23.26	146.59	28.28	137.55	25.77	5.04**
CTS	50.76	7.47	49.51	9.67	49.63	10.74	44.97	12.54	44.61	11.89	3.99
CARS	46.92	15.80	46.68	14.03	45.08	13.35	43.15	16.57	36.56	15.13	3.24**
CAS	56.23	6.45	55.87	6.24	56.11	5.78	55.95	6.91	53.94	7.39	1.02

Table 2. Change of technophobia levels per the duration of computer ownership

\*\* *p*<.01; \**p*<.05

As a result of the Post Hoc analyses, it is seen that the technophobia levels of the participants owning a computer for 10 years or more are significantly lower than those who don't own a personal computer and those owning a computer for 1-3 years and 4-6 years. The similar outcome is seen in the CARS dimension too. When the change of the technophobia levels of the participants according to their computer related self-efficacy perception, it is seen that there are differences in the technophobia levels depending on the condition of self-efficacy in computer. This is expressed in Table 3.

Table 3. Difference of the technophobia levels according to their computer related self-efficacy

perception.	

	Insufficien	ent-Partly t $(n = 138)$	Sufficier $(n - 125)$	t-Perfect	
	$\frac{\text{sufficien}}{\overline{x}}$	$\frac{1}{SD}$	$\frac{(n-123)}{\overline{x}}$	) SD	t
Technophobia	158.91	20.87	140.95	25.80	6.25**
CTS	52.41	9.18	43.34	10.76	$7.39^{**}$
CARS	46.80	13.58	40.53	15.82	$3.47^{**}$
CAS	56.82	5.87	54.39	6.84	3.11**
** <i>p</i> <.01					

As a result of the analyses, it is seen that the technophobia levels of the participants who believe to have sufficient-perfect computer skills are significantly lower than the participants who believe to have insufficient-partly sufficient technophobia levels.

For the experience aspect, based on the idea that that the computer based technology related experiences of the participants coming from different academic areas will vary, the changes of the technophobia levels according to the specialism are examined and it is seen that the technophobia level is influenced by the academic specialism. This is expressed in Table 4.

	Numeric fields		Social fields		Linguistic		Vocational ed.		
	( <i>n</i> =94)		( <i>n</i> =46)		( <i>n</i> =91)		( <i>n</i> =30)		F
	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	(df=3,260)
Technophobia	142.74	25.11	157.69	24.18	156.03	22.91	142.03	24.07	7.41**
CTS	46.76	12.00	50.04	10.93	49.16	9.59	44.78	10.80	2.17
CARS	38.33	13.28	47.43	14.38	48.37	15.60	40.08	13.40	9.30**
CAS	55.03	7.19	57.03	6.49	55.72	5.86	54.36	5.39	1.38
** • 01 * • • (	5								

Table 4. Changes of the technophobia levels according to the academic specialism

\*\* *p*<.01; \* *p*<.05

When we examine the causes of the differences, it is seen that the technophobia levels of the participants coming from numeric fields are significantly lower than those coming from social sciences and linguistics. In terms of computer anxiety aspect, it is seen that the anxiety level of the participants coming from the numeric fields is significantly lower than those coming from the social fields. It is also seen that there are significant changes in the technophobia levels for all of the independent variables related to experience and self-efficacy. Based on these facts, it is possible to state that the technophobia predispositions are reduced as the computer related experiences of the participants increase and their self-efficacy perceptions are improved.

*Interest and Belief in Technology*: When the changes of the technophobia levels of the participants are examined according to their opinion on the willingliness to possess new technologies, the obligation to keep pace with the technology, the facilitation of life by technology and the harmful effects of technology, it is seen that the technophobia levels vary significantly according to all of these variables. Table 5 shows the changes of the technophobia levels of the participants according to their willingliness to follow new technologies.

Table 5. The changes of the technophobia levels according to willingliness to follow new technologies

	Yes		Part	ially	No		
	( <i>n</i> =46)		( <i>n</i> =154)		( <i>n</i> =65)		F
	$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$	SD	(df=4,264)
Technophobia	143.41	27.27	148.72	24.24	159.29	22.53	$6.58^{**}$
CTS	43.32	11.55	47.92	10.70	51.84	9.70	$8.72^{**}$
CARS	44.29	17.25	42.87	14.83	45.82	13.45	.92

Pre-Service Teachers And Technology: Gender, Technology Experience, Beliefs And Predisposition To Technophobia. BARDAKCI, ALAKURT, AKYÜZ & SAMSA, Paper Presented, 9th International Internet Education Conference & Exhibition, September 14-16, 2010, Cairo/ Egypt.

CAS
53.51
7.78
55.25
5.91
58.25
5.86
$$8.61^{**}$$

\*\*\*  $p < .01; \ p < .05$ 

When Table 5 is examined, it is seen that the technophobia levels of the participants wishing to follow new technologies are significantly lower than those who partially have or don't have this wish. When the ideas of the participants on the facilitation of life by technology are examined, it is seen that the technophobia levels of those who believe that technology makes life easier ( $\overline{X} = 146.77$ , SD= 26.71) are significantly lower than those who don't believe it ( $\overline{X} = 157.83$ , SD= 19.87) (t =3.38, p< .01). Again, the technophobia levels of the participants who think technology has harmful effects ( $\overline{X} =$ 155.20, SD= 24.13) are significantly higher than those who don't think so ( $\overline{X} = 145.05$ , SD= 25.04) (t = 3.34, p< .01). All these variables reveal that the technophobia levels of the participants with positive ideas on technology are significantly lower.

## DISCUSSION AND CONCLUSION

The study reveals that the majority of the pre-service teachers (f = 186, % 69.9) has low or moderate /high technophobia predisposition. When the technophobia levels are examined in terms of gender, it is seen that there are no significant changes between the female and male participants in their general technophobia predispositions or in their levels of computer anxiety, opinion and attitude. Similarly, the female and male participants with no technophobia, low technophobia and moderate/high technophobia are equally distributed. The findings match with a similar study conducted by Ursavaş and Karal (2009) on the pre-service teachers in Turkey. In his study where he examines the relation between the gender and computer attitudes, Brosnan (1997) stresses on the fact that the differences arising from the new technology related attitude and usage conditions are caused by the social gender roles and thereby early chance of men to have more experience in these technologies rather than by the inherent gender characteristics. It is believed that the reason of the fact that there are no significant differences of the technophobia levels based on gender today contrary the case during nineties is the equal interaction of both sexes with technology.

Another important conclusion revealed is that the technophobia levels of the pre-service teachers decrease as their computer experiences and computer related self-efficacy perceptions increase. This suggests the importance of positive experiences on computer technologies in reducing the technophobia predispositions of the pre-service teachers. Rosen, Sears and Weil (1993) and Brosnan and Thorpe (2006) show that the positive computer experiences in the controlled environment in clinical studies might decrease the technophobia predispositions. In this case, increasing the interaction possibilities of pre-service teachers with computer based technologies can be put forward as a proposal that may decrease the technophobia risk in the long term. The study also reveals that the technophobia predispositions decrease as the positive beliefs and thoughts of the pre-service teachers increase. While Ajzen (2005) deals in his planned attitude theorem with the beliefs and values of the individual as the source of the attitude towards an object and the underlying manner behind this attitude, he puts to the base of these elements the individual experiences related to the object first. Inan and Lowther (2010), in a study they conducted on 1382 teachers to determine the elements that influence the infusion process of education with technology at schools, revealed that the two basic variables significantly affecting the adaptation of information technologies to classroom practices are the beliefs of teachers in technology and their readiness to use it. They also suggest the source of these processes consists of the support provided to them at the school as well as their computer skills and experiences. Based on these points, it is a fundamental proposal that technology supported practices should be given more importance in teacher training process in order to provide contribution to the belief and thought development processes and to develop the readiness of benefitting from technology in education process by increasing their technology competencies.

# REFERENCES

Ajzen, I. (2005). Attitudes, Personality and Behavior. Bungay, Suffolk: Open University Press

- Brosnan, M. J. (1998). The Role of Psychological Gener in The Computer-Related Attitudes and Attainments of Primary School Children (Aged 6–11). Computers Education, 30 (3-4), 203-208
- Brosnan, M. (1998). Technophobia: The Psychological İmpact Of İnformation Technology. London: Routledge
- Brosnan, M. J. (1999). Modeling technophobia: a case for word processing. Computers in Human Behavior, 15 (1999), 105–121
- Brosnan, M. J., & Thorpe, S. J. (2006). An Evaluation of Two Clinically-Deriver Treatments for Technophobia. Computers in Human Behaviour. 22 (6), 1080–1095
- Brosnan, M., & Davidson, M. (1994). Computerphobia: It is a particularly female phenomenon? The psychologist, 7, 73-80
- Brosnan, M., & Davidson, M. (1996). Psychological gender issues in computing. Journal of Gender, Work and Organization, 3 (1), 13–25
- Chau, S., Chen, D., & Wong, A. (1999). Computer anxiety and its correlates: a meta nalaysis. Computers in Human Behavior, 15 (5), 609–623
- Chou, C. (2003). Incidences and correlates of Internet anxiety among high schol teachers in Taiwan, Computers in Human Behavior 19 (2003), 731–749
- Davis, F. (1986). A Technology Acceptance Model For Emprically Testing New End-user Information Systems: Theory and Results. (Unpublished Doctoral Dissertation), Sloan School of Management, MIT
- Gilbert, D., Lee-Kelley, L., & Barton, M. (2003). Technophobia, gender influences and consumer decisionmaking for technology-related products. European Journal of Innovation Management, 6 (4), 253–263
- Gürcan-Namlu, A. (2002). Technophobia and its factos: A study on teacher candidates. Educational Sciences: Theory & Practice, 2 (1),
- Inan, F. A & Lowther, D. L. (2010). Factors affecting technology integration in K–12 classrooms: a path model. Educational Technology Research & Development, 58 (2), 137–154
- Jay, T. (1981). Computerphobia. What to do about it. Educational technology, 21, 47-48
- Korukonda, A. R. (2005). Personality, İndividual Characteristics, And Predispoposition To Technophobia: Some Answers, Questions, And Points To Ponder About. *Information Sciences* 170 (2–4), 309–328
- Kuşkaya-Mumcu, F., ve Altun, A. (2008). Teknoloji Korkusu: Teknofobi. D. Deryakulu (Ed.) Bilişim Teknolojileri Öğretiminde Sosyopsikolojik Sosyo-Psikolojik İçinde (ss. 55–70). Ankara: Maya Akademi
- Lloyd, M., & Albion, P. (2005). Mistaking the tool for the outcome: Using activity system theory to understand the complexity of teacher technophobia. In: society for Information Technology and Teacher Education International Conference (SITE). Marc–2005, Phoneix, Arizona
- Marcoulides, G., Mayers, B., & Wiseman, R. (1995). Measuring computer anxiety in the work environment. Educational and Psychological Measurement, 55 (5), 804–810
- Rosen, L. D., & Weil, M. M. (1995). Computer availability, computer experience and technophobia among public school teachers. Computers in Human Behavior, 11 (1), 9–31
- Rosen, L. D., Sears, D, C., & Weil, M. M. (1987). Computerphobia. Behavior research methods, insturmentation, & computers, 19 (2), 167–179
- Rosen, L. D., Sears, D. C., & Weil, M. M. (1993). Treating technophobia: A longitudinal evaluation of the computerphobia reduction program. Computers in Human Behavior, 9, 27–50
- Rosen, L. D., ve Weil, M. M., (1995). Computer availability, computer experience and technophobia among public school teachers. Computers in Human Behavior, 11, 1, 9–31.
- Rosen, L. D., ve Weil, M. M., 1992. Measuring Technophobia. A manual for the administration and scoring of the computer anxiety rating scale, the computer thoughts survey and the general attitude toward computer scale. USA: Chapman University.
- Rosen, L., & Maguire, P. (1990). Myths and realities of computerphobia: A meta-nalaysis. Anxiety Research, 3, 175–191
- Shapka, J. D., & Ferrari, M. (2003). Computer-related attitudes and actions of teacher candidates. Computers in Human Behavior 19(2003). 319–334
- Sinkovics, R. R., Stöttinger, B., Schlegelmilch, B. B., & Ram, S. (2002). Reluctance to Use Technology-Relatede products: Development of a Technophobia Scale. Thunderbird International Business review, 44 (4), 477–494
- Ursavaş, Ö. F. (2010). İlk ve ortaöğretim öğretmenlerinin teknoloji korku düzeylerin belirlenmesi.

(Yayımlanmamış Yüksek Lisans Tezi). Karadeniz Teknik Üniversitesi, Fen Bilimleri enstitüsü,

Bilgisayar ve Öğretim Teknolojileri Eğitimi Anabilim Dalı, Trabzon.

Ursavaş, Ö. F., & Karal, H. (2009). Assessing Pre-Service Teachers' Computer Phobia Levels İn Terms of Gender And Experience, Turkish Sample. International Journal Of Behavioral, Cognitive, Educational And Psychological Sciences, 1:1, 2009.