

# Relationship Between Turkish Graduate Students' Research Anxiety and Uneasiness Levels in Information Literacy

Türk Lisansüstü Öğrencilerin Araştırmaya Yönelik Kaygıları ve Bilgi Okuryazarlığı Zorlanma Düzeyleri Arasındaki İlişki

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## ABSTRACT

The aim of this study is to investigate the relationship between the graduate students' research anxiety and their levels of uneasiness in information literacy. In accordance with this aim, the study was designed through the use of a correlational survey method. The sample of the study consisted of 401 graduate students from the teacher education programs at public universities in Turkey. Research Anxiety Scale and Information Literacy Scale were used as data collection instruments in the study. Descriptive statistics, t-test, ANOVA, Pearson Correlation Coefficient and simple linear regression were used to analyze data. The results indicated that there was a positive significant relationship between research anxiety and levels of uneasiness in information literacy and the strength of the relationship was moderate. Finally, uneasiness levels in information literacy were found to be a significant predictor of research anxiety.

**Keywords:** Information literacy, Research anxiety, Graduate students

## ÖZ

Araştırmanın amacı lisansüstü öğrencilerin araştırmaya yönelik kaygı düzeyleri ile bilgi okuryazarlığı zorlanma düzeyleri arasındaki ilişkiyi belirlemektir. Bu amaç doğrultusunda araştırma ilişkisel tarama modelinde tasarlanmıştır. Araştırmanın örneklemini Türkiye'deki devlet üniversitelerinde öğretmen yetiştirme programlarında lisansüstü öğrenim gören 401 öğrenci oluşturmaktadır. Araştırmada Araştırmaya Yönelik Kaygı Ölçeği ve Bilgi Okuryazarlığı Ölçeği kullanılmıştır. Verilerin analizinde betimsel istatistikler, Pearson Korelasyon Katsayısı ve basit doğrusal regresyon kullanılmıştır. Araştırma sonuçlarına göre, öğrencilerin araştırmaya yönelik kaygı düzeyleri ile bilgi okuryazarlığı zorlanma düzeyleri arasında orta düzeyde pozitif ve anlamlı bir ilişki olduğu ve bilgi okuryazarlığı zorlanma düzeylerinin araştırmaya yönelik kaygı düzeylerinin anlamlı bir yordayıcısı olduğu belirlenmiştir.

**Anahtar Sözcükler:** Bilgi okuryazarlığı, Araştırmaya yönelik kaygı, Lisansüstü öğrenciler

## INTRODUCTION

The rapid increase in the knowledge, technology and science in today's information age has necessitated changes in societies' needs. Societies need individuals that question, search, improve and be equipped with the knowledge and competen-

cies of their period in order to be able to increase their level of development, be contemporary, powerful and keep pace with changes in science. Today, one of the most important indicators of development is the ability to use existing information and produce new ones (Özden & Açıkgül Fırat, 2013). Therefore,

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Received/Geliş Tarihi : 18.03.2016

Accepted/Kabul Tarihi : 07.06.2016

societies are striving to train qualified scientists to bring new information into the world by giving priority to scientific studies. Scientists that play an important role in development of a country by striving to improve science and technology require to expertise in doing research and the culture of research to obtain benefit from the research by being influenced by them and to contribute to them. To address these needs, scientists should receive research education (Karasar, 2013) and this education is a part of graduate education (Çelik, Önder, Durmaz, Yurdusever & Uysal, 2014).

Graduate education is an educational process that enables graduate students enables graduate students to specialize in master and doctoral education in a science field. In this process, knowledge, skills, competencies related to the field and scientific attitudes and behaviors to be able to do research should be entitled to individuals (Erdem, 2012; Saracaloğlu, Varol & Ercan, 2005). Although equipping individuals with these features is sine qua non, it is not enough to do research. Affective features of individuals also govern their research process (Büyükoztürk, 1999). They shouldn't feel anxious about completing the research and achieve the result before starting the research or while doing it. According to Bandura (1981), individuals have a tendency to undertake the activity they are able to do, but they do not prefer doing the activity they cannot, they show a negative tendency and feel uneasy while performing it. In this context, it can be said that individual's feeling anxious about doing research affect research process negatively.

Anxiety is a feeling of fear and worry under threat (Büyükoztürk, 1997). Individuals who are anxious against a stimulus feel concerned about being in a relationship with this stimulus and have a negative attitude towards it (Williams, 2010). Research anxiety is an inability to do research without feeling any force, feeling bored while doing research, feeling uncomfortable and worried while doing research, and feeling uncomfortable to do research (Çokluk-Bökeoğlu & Yılmaz, 2005). In this context, individuals having anxiety towards research avoid both doing research and having a negative attitude towards it. Anxiety is an important reason why graduate students fail to carry out their thesis and why they have some problems in this process. Also, because of anxiety, some graduate students can procrastinate to complete their thesis (Rezaei & Zamani-Miandashti, 2013).

In literature, it is observed that high research anxiety decreases academic performance (Büyükoztürk, 1999; Onwuegbuzie & Wilson, 2003; Tekin, 2007) and self-confidence (Lei, 2008; Rezaei & Zamani-Miandashti, 2013), research anxiety level of students that take research method lesson is low (Hebert, Kulkin & Ahn, 2014; Lei, 2008; Maschi et al., 2007; Saracaloğlu, Varol & Ercan, 2005; Unrau & Beck, 2004) and critical thinking skills of students with low research anxiety level is high (Çokluk-Bökeoğlu & Yılmaz, 2005).

Some researches indicate that one of the reasons for research anxiety is the inability to obtain, use, synthesize and evaluate the information of the research. Onwuegbuzie and Wilson (2003)

state that research anxiety is derived from individuals' lack of background knowledge about a subject while Wilensky (1997) state that individuals' incomprehension of the meaning, purpose, source and validity of the information they use is among the reasons of research anxiety. Furthermore, Birch (2012) indicates that graduate students have anxiety on account of their uneasiness for using library source, collecting, remembering and using information for the research. In this context, one of the reasons for research anxiety is uneasiness in information literacy which is the skill for obtaining, using and evaluating information (Bruce, 1997).

Information literacy is "when and why you need information, where to find it and how to evaluate, use and communicate it in an ethical manner" (Chartered Institute of Library and Information Professionals (CILIP), 2015). Information literate individuals can describe and understand the knowledge they need, can know and use the most suitable source, can evaluate the knowledge, and can use information technologies (Association of College & Research Libraries (ACRL), 2000). It can be said that they have no difficulty in information retrieval, using these information accurately and ethically, making interpretation and evaluation (Bellard, 2007; Breivik, 1989). Information literacy is very important for graduate students to gain research skills. In literature, although there are many researches (Akkoyunlu & Yılmaz, 2005; Aşıkcan, Akdemir & Saban, 2015; Geçer, 2012; Korkut & Akkoyunlu, 2008; Özbay & Çelik, 2013; Tuncer, 2013; Usluel, 2006) that investigate information literacy of undergraduate students at universities, there are limited research for graduate students (Polat, 2005; Özel, 2013). The reason behind this limitation is that graduate students are assumed to acquire information literacy skills throughout their undergraduate education period (Onwuegbuzie, 2002). Students in graduate education need information literacy skills more (Arabacı, 2007; Barrett, 2005; Bellard, 2007; Cooney & Hiris, 2003; Green, 2001; Özel, 2013), because students need in-depth examination of information more during their education. To do this, they should have information literacy skills and they should not have any difficulty in these skills. In his research Polat (2005) found that graduate students' information literacy skills are not developed at all and they have uneasiness in information literacy. Also, Özel (2013) indicated that research assistants, who are graduate students at the same time, have uneasiness in information literacy and they have difficulty in searching and finding information, using, evaluating and communicating it. Furthermore, some research (Bakioğlu & Gürdal, 2001; Kalem & Akman, 2007; Sevinç, 2001; Suna, Karadağ & Selanik-Ay, 2007) carried on including graduate students show that they have some problems for reaching and using information sources.

Uneasiness in information literacy is an important handicap for students' research skills, because the students feeling uneasiness have inability in information literacy skills (Polat, 2005; Özel, 2013). They have difficulty in finding and using information, synthesizing, evaluating and communicating it in an ethical way. Individuals having difficulty in information literacy can be said to feel anxious about doing research. The problems to

examine literature and underpin the research which is the first step of a qualified research according to McMillan and Schumacher (2001) cause individuals to avoid doing research and feeling anxious about it. This anxiety can continue throughout the process. In this context, it is observed that there is a relationship between research anxiety and information literacy uneasiness. When the literature was reviewed, there was no research that examine this relationship was found. A research study on this relation can shed a light for the regulations being done in graduate curriculum. Therefore, the overall aim of this research is to find an answer for the following problems and sub-problems.

### Problem

Is there a relationship between graduate students' research anxiety and uneasiness in information literacy?

### Sub Problems

In line with this problem, answers are sought for the following questions:

1. What is the level of graduate students' research anxiety?
2. Is there a significant relationship between research anxiety and uneasiness in information literacy?
3. Is uneasiness in information literacy a significant predictor of research anxiety?
4. Is common effect of graduate students'
  - Gender and uneasiness in information literacy
  - Education level and uneasiness in information literacy
  - University and uneasiness in information literacy
  - Field and uneasiness in information literacy on students' research anxiety?

## METHODOLOGY

### Research Design

The research was designed using a correlational survey method. This method is a research model that aims to determine the change between two or more variables together (McMillan & Schumacher, 2001). In this study, the relationship between research anxiety (RA) and uneasiness in information literacy (UIL) and effect of some variables on research anxiety are determined.

### Participants

37107 graduate students of 62 universities that have graduate education program in Turkey that have graduate education program. Cluster sampling method is used to determine the sample of research and universities are divided into 4 clusters (universities founded between the years 1850-1970, between the years 1970-1990, between the years 1990-2000 and founded after 2000) according to their foundation year. The reason why universities was clustered in terms of foundation year is that universities' level of development in financial, physical and academic aspects is in parallel with their foundation years. For

example, according to Kavili-Arap (2010), universities founded after 2000 have some physical and financial problems and on the other hand there are well-established universities that are in welfare status. It is thought that universities with different qualities in Turkey can be represented in this way. In total, 401 students participated in the research. 215 (53.6%) of students are female (F) and 186 (46.4%) of them are male (M). 85 (% 21.2) of them are following courses in MA degree (MA-C), 112 (%27.9) of them are writing MA thesis (MA-T), 107 (26.7) of them are training course in PhD degree and 97 (% 24.2) of them are writing PhD thesis. 100 (% 24.9) of them are in Educational Sciences field (ES), 80 (% 20) of them are in Primary Education field (PE), 48 (% 12) of them are in secondary school field (SE), 36 (% 9) of them fine arts field (FA), 42 (% 10) of them are in computer and instructional technologies field (CIT), 46 (% 11.5) of them are in Turkish education field (TE), 49 (% 12.2) of them are in foreign language teaching field (FLT). 103 (% 25.7) of them are in the universities founded between the years 1850-1970, 84 (% 20.9) of them are in the universities founded between the years 1970-1990, 125 (% 31.2) of them are in the universities founded between the years 1990-2000 and 89 (% 22.2) of them are in the universities founded after 2000.

### Data Collection

"Research Anxiety Scale" (RAS) and "Information Literacy Scale" (ILS) were used for data collection. Scales were applied to participants via a written form and a scale transferred into Google Survey.

"Research Anxiety Scale" (Büyüköztürk, 1997) is a five point likert scale with one factor consisting 12 items. The Cronbach's Alpha reliability coefficient of RAS is .87 and in this study, it is .89. "Information Literacy Scale" is a five point likert scale with 5 factors consisting 64 items. The Cronbach's Alpha reliability coefficient of ILS is .98 and it is .98 in this study.

### Data Analysis

In the data analysis, descriptive statistics such as percentage and frequency two-way ANOVA, a Pearson's correlation coefficient and Simple Linear Regression were used. Before the analysis, skewness and kurtosis value were calculated to control the normality of data distribution. Because these values were between -1.5 and +1.5, the distribution was accepted as normal (Tabachnick & Fidell, 2013).

## RESULTS

### What is the level of students' research anxiety?

Descriptive statistics were used to determine students' research anxiety level. To conclude items of scale, it is interpreted based on the range 4.20-5.00 for "Strongly Agree", 3.40-4.19 for "Agree", 2.60-3.39 for "No idea", 1.80-2.59 for "Disagree" and 1.00-1.79 for "Strongly Disagree". Results of descriptive statistic were presented in Table 1:

In Table 1, it is seen that students answer to items in research anxiety scale mostly in "No idea" level. Students mostly agree with the item "Problems that can arise while doing research does not cause concern for me" with 3.25 mean score and they

mostly disagree with the item “Even the word “Research” is enough to make me restless” with 2.00 mean score.

### Is there a significant relationship between research anxiety and uneasiness in information literacy?

Pearson’s correlation coefficient was used to determine relationship between research anxiety and uneasiness in informa-

tion literacy of students. Results of the analysis were presented in Table 2:

In Table 2, it is seen that there is a positive significant relationship in medium level between students’ research anxiety and uneasiness in information literacy o ( $r=.662$ ;  $p<.05$ ). Correlation Coefficient is high if it is between 0.70 and 1.00; it is medium

**Table 1:** Descriptive Statistics Results for Students’ Research Anxiety Level

Items		Students’ View						Result
		1	2	3	4	5		
1. Unless I have to do, I do not want to do research.	f	158	107	36	65	35	2.28	NA
	%	39.4	26.7	9.0	16.2	8.7		
2. While doing research, I often felt myself comfortable.	f	72	118	91	67	53	2.77	A
	%	18.0	29.4	22.7	16.7	13.2		
3. I feel pleasure to do research.	f	115	121	81	48	36	2.42	NA
	%	28.7	30.2	20.2	12.0	9.0		
4. Research does not cause discomfort.	f	122	122	61	61	35	2.41	NA
	%	30.4	30.4	15.2	15.2	8.7		
5. I feel bored when I have to do research.	f	116	111	73	71	30	2.47	NA
	%	28.9	27.7	18.2	17.7	7.5		
6. Even the word “Research” is enough to make me restless.	f	183	115	46	32	25	2.00	NA
	%	45.6	28.7	11.5	8.0	6.2		
7. Even the thought of research make me anxious.	f	183	110	46	39	23	2.02	NA
	%	45.6	27.4	11.5	9.7	5.7		
8. Research is an entertaining occupation for me.	f	104	118	86	56	37	2.51	NA
	%	25.9	29.4	21.4	14.0	9.2		
9. I usually feel restless while doing research.	f	134	126	56	58	27	2.29	NA
	%	33.4	31.4	14.0	14.5	6.7		
10. I’m tired of doing research in a short time while doing research.	f	118	132	62	59	30	2.37	NA
	%	29.4	32.9	15.5	14.7	7.5		
11. Problems that can arise while doing research does not cause concern for me.	f	77	112	90	82	40	3.25	A
	%	19.2	27.9	22.4	20.4	10.0		
12. I don’t feel self-confident to do research.	f	137	104	54	56	50	2.44	NA
	%	34.2	25.9	13.5	14.0	12.5		

NA: No idea; A: Agree.

**Table 2:** Pearson Correlation Coefficient Results

	Research Anxiety	Uneasiness in Information Literacy
Research Anxiety	-	.662
Uneasiness in Information Literacy	.662	-

if it is between 0.69 and 0.30 and it is low if it is 0.29 and 0.00 (Büyükoztürk, 2012).

### Is uneasiness in information literacy a significant predictor of research anxiety?

Simple linear regression was used to determine how uneasiness in information literacy predicts research anxiety. Results of the analysis were presented in Table 3:

In Table 3, it is seen that there is a relationship between students' research anxiety and uneasiness in information literacy ( $R=.662$ ;  $R^2=.438$ ) and uneasiness in information literacy is a significant predictor of research anxiety ( $F_{(1-399)}=311.246$ ;  $p<.05$ ). Uneasiness in information literacy explains 43% of research anxiety. Coefficient of the predictor variable ( $B=0.146$ ) show that uneasiness in information literacy is a significant predictor ( $p<.05$ ). Based on the findings, the regression equation of research anxiety can be as follows:

$$\text{Research anxiety} = (0.146 \times \text{Uneasiness in information literacy}) + 7.171$$

### Is common effect of some variables significant on research anxiety?

Two-way ANOVA was used to determine the common effect of some variables on research anxiety. Descriptive statistics of research anxiety according to some variables were presented in Table 4 and Two-way ANOVA results were given in Table 5:

Mean score in research anxiety of female is  $=27.70$  and male students' is  $=31.70$  (M). It is  $=37.23$  for students training course in MA degree, it is  $=28.57$  for students writing MA thesis, it is  $=25.63$  for students training course in PhD degree and it is  $=27.09$  for students writing PhD thesis. It is  $=27.62$  for students in educational sciences field, it is  $=30.13$  for students in primary education field, it is  $=25.08$  for students in secondary school field, it is  $=34.44$  for students in fine arts field, it is  $=31.28$  for students in computer and instructional technologies field, it is  $=30.39$  for students in Turkish education field and it is  $=28.71$  for students in foreign language teaching field. It is  $=26.15$  for students in the universities founded between the years 1850-1970, it is  $=28.94$  for students in in the universities founded between the years 1970-1990, it is  $=30.56$  for students in in the universities founded between the years 1990-2000 and it is  $=31.35$  for students in in the universities founded after 2000.

In Table 4, it is seen that gender ( $p<.05$ ) and uneasiness in information literacy ( $p<.05$ ) has a significant effect on research anxiety, but common effect of gender and uneasiness in information literacy ( $p>.05$ ) is trivial. Furthermore, education level ( $p<.05$ ) and uneasiness in information literacy ( $p<.05$ ) has a

significant effect on research anxiety, but common effect of education level and uneasiness in information literacy ( $p>.05$ ) is trivial. Uneasiness in information literacy ( $p<.05$ ) has a significant effect on research anxiety, but effect of university ( $p>.05$ ) and common effect of university and uneasiness in information literacy ( $p>.05$ ) is trivial. Uneasiness in information literacy ( $p<.05$ ) and common effect of field and uneasiness in information literacy ( $p<.05$ ) has a significant effect on research anxiety, but effect of field ( $p>.05$ ) isn't significant. Moreover,  $\eta^2$  (eta-squared) statistics were used to determine effect degree of differences for significant F value.  $\eta^2$  value that shows how independent variable is effective on dependent variable takes a value between 0 and 1 and the value increase as it is closer to 1. Effect size is low if  $\eta^2$  is between 0.01 and 0.05; it is medium if it is between 0.06 and 0.13 and it is high if it is more than 0.14 (Pallant, 2003). When effect sizes are examined, it is seen that gender, educational level, uneasiness in information literacy and the common effect of field and uneasiness in information literacy have a low effect size on research anxiety.

## DISCUSSION and CONCLUSION

According to this research, students answer to items in research anxiety scale mostly as "No idea" level. In this context, it can be said that students' research anxiety level is in medium level. Although students answer all other items as "no idea", the items "while doing research, i often felt myself comfortable" and "problems that can arise while doing research does not cause concern for me" was answered as "agree". Therefore, it can be said that, students generally feel relaxed while doing research and they can solve the problems they encounter during the process. Research by Yılmaz and Çokluk (2008) on students graduated from Faculty of Science and Literature and the research by Konokman, Yelken and Yokuş (2015) on prospective teachers show that research anxiety level of students is high. Difference between the result of these studies and the current study can be derived from difference of the participants in the studies. Graduate students are constantly in research culture while both doing tasks and projects and writing article and thesis. Positive experiences they have and the success they accomplished can bring a decline in their research anxiety level. But, according to this study, research anxiety level of the students is in medium level. Graduate students constantly in research culture are expected to have low level of research anxiety. So, some measures can be taken. When the literature was examined, it is seen that students that take research method and statistic course have low level of research anxiety (Hebert, Kulkin & Ahn, 2014; Lei, 2008; Maschi et al., 2007; Saracaloğlu, Varol & Ercan, 2005; Unrau & Beck, 2004). Therefore, it can be suggested that students should take these

**Table 3:** Simple Linear Regression Results

	B	Sh	$\beta$	t	p
Constant	7.171	1.325	-	5.411	.000
UIL	.146	.008	.662	17.642	.000
$R = .662, R^2 = .438, F_{(1-399)} = 311.246, p = .000$					

**Table 4:** Descriptive Statistics of Research Anxiety According to Some Variables

	Uneasiness in Information Literacy											
	Low			Middle			High			Total		
<b>Gender</b>	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
F	25	44.48	12.36	62	31.16	7.45	128	22.75	7.17	215	27.70	10.70
M	22	49.31	7.14	64	34.78	10.28	100	24.68	8.87	186	31.06	12.26
Total	47	46.74	10.44	126	33.00	9.15	228	23.60	8.00	401	29.26	11.56
<b>Education Level</b>	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
MA-C	28	48.14	9.34	38	33.97	9.78	19	27.68	10.13	85	37.23	12.54
MA-T	14	44.85	12.45	44	31.09	8.59	54	22.29	6.98	112	28.57	11.19
PhD-C	-	-	-	22	35.50	8.94	85	23.08	6.85	107	25.63	8.85
PhD-T	5	44.20	11.25	22	32.63	9.08	70	24.12	9.10	97	27.09	10.56
Total	47	46.74	10.44	126	33.00	9.15	228	23.60	8.00	401	29.26	11.56
<b>University</b>	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
2000-...	12	48.08	10.21	34	33.61	8.99	43	24.90	6.85	89	31.35	11.23
1990-2000	21	46.66	11.19	45	34.04	9.79	59	22.16	8.03	125	30.56	12.89
1970-1990	8	44.50	9.60	20	32.55	5.70	56	25.42	8.65	84	28.94	9.98
1850-1970	6	47.33	11.41	27	30.81	10.31	70	22.54	7.84	103	26.15	10.78
Total	47	46.74	10.44	126	33.00	9.15	228	23.60	8.00	401	29.26	11.56
<b>Field</b>	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
ES	5	39.80	19.91	38	33.50	9.44	57	22.63	8.05	100	27.62	11.00
PE	17	49.29	6.49	23	32.52	9.28	40	20.62	7.60	80	30.13	13.69
SE	1	37.00	-	15	29.73	9.16	32	22.53	5.05	48	25.08	7.49
FA	9	44.22	9.53	9	31.55	6.69	18	31.00	9.65	36	34.44	10.44
CIT	5	50.20	10.98	16	32.81	8.44	21	25.61	9.43	42	31.28	11.92
TE	6	45.83	12.08	12	36.16	9.89	28	24.60	8.99	46	30.39	12.25
FLT	4	49.75	8.34	13	34.46	10.21	32	23.60	8.00	49	28.71	10.43
Total	47	46.74	10.44	126	33.00	9.15	228	23.60	8.00	401	29.26	11.56

lesson even in undergraduate level and undergraduate curriculum should be reviewed in this context again. These lessons in graduate level should be developed qualitatively and they should also increase in number. Furthermore, according to the results of research on graduate students by Saracaloğlu, Varol and Ercan (2005), students that have enough research competence have low level of research anxiety. With reference to this research, it can be said that students should have enough research competence. So, courses in undergraduate education process should develop students' competence for doing research and they should be motivated and directed for doing research while writing their thesis.

According to this research, there is a positive significant relationship in medium level between students' research anxiety

and uneasiness in information literacy and it is also seen in the study that uneasiness in information literacy is a significant predictor of research anxiety. Uneasiness in information literacy explains 43% of research anxiety. In line with this result of the study, it can be said that nearly half of the research anxiety level of students is derived from uneasiness in information literacy. Therefore, it can be thought that students that have a difficulty in obtaining information sources, using, evaluating the information and making a relation between information and referring to different researches correctly, have a high level of research anxiety. When the literature is examined, it is seen that graduate students have a difficulty in collecting information for their research, using and evaluating these information and this causes a growth in the level of research anxiety (Birch,

**Table 5:** Two-way ANOVA Results

Source of Variance	Sum of Square	df	Mean of Square	F	p	$\eta^2$
Gender	798.033	1	798.033	10.817	.001*	.027
UIL	23187.777	2	11593.888	157.149	.000*	.443
Gender*UIL	113.044	2	56.522	.766	.465	
Education Level	665.809	3	221.936	2.973	.032*	.022
UIL	13143.646	2	6571.823	88.043	.000*	.311
Education Level*UIL	322.532	5	64.506	.864	.505	
University	116.839	3	38.946	.517	.671	
UIL	19475.914	2	9737.957	129.211	.000*	.399
University*UIL	376.747	6	62.791	.833	.545	
Field	641.218	6	106.870	1.474	.186	
UIL	12297.293	2	6148.646	84.827	.000*	.309
Field*UIL	1711.866	12	142.656	1.958	.026*	.059

2012; Onwuegbuzie & Wilson, 2003; Wilensky, 1997). In this context, it can be thought that students have some problems with information literacy and this affect their feelings about research in a negative way. Developing of information literacy of students is important for them to gain research competence (Cooney & Hiris, 2003; Green, 2001). During graduate education period, tasks that develop students' information literacy should be given to them and graduate education curriculums should be reviewed.

According to this research, uneasiness in information literacy and gender has a significant effect on research anxiety. Considering that anxiety and uneasiness can be different according to gender (Canbaz, Sünter, Aker, & Pekşen, 2007; Doğan & Çoban, 2009), this result is significant. However, some research on graduate students (Büyüköztürk, 1999; Saracaloğlu, Varol & Ercan, 2005; Trimarco, 1998) shows that gender doesn't have an effect on research anxiety. This difference is because of the fact that this research is carried out in Turkey and the sample of the study is broader. The common effect of gender and uneasiness in information literacy doesn't have a significant effect on research anxiety. Level of education has a significant effect on research anxiety. Saracaloğlu (2008), Saracaloğlu, Varol and Ercan (2005) indicated that research anxiety differ significantly according to level of education. Result of this study is significant, because research anxiety decreases if individuals have positive experience in doing research. The common effect of education level and uneasiness in information literacy doesn't have a significant effect on research anxiety. The effect of university and the common effect of university and uneasiness in information literacy and the effect of field are not significant. However, common effect of field and uneasiness in information literacy has a significant effect on research anxiety.  $\eta^2$  (eta-squared) statistics were used to determine effect degree of differences for significant F value.  $\eta^2$  value that shows how

independent variable is effective on dependent variable takes a value between 0 and 1 and the value increase as it is closer to 1. Effect size is low if  $\eta^2$  is between 0.01 and 0.05; it is medium if it is between 0.06 and 0.13 and it is high if it is more than 0.14 (Pallant, 2003). When effect sizes are examined, it is seen that gender, educational level, uneasiness in information literacy and the common effect of field and uneasiness in information literacy has a low effect size on research anxiety.

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