

## Writing Anxiety among Iranian EFL Learners and its Relationship with Tolerance of Ambiguity: A Gender Perspective

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### Abstract

This study aims to investigate the relationship between writing anxiety and ambiguity tolerance among Iranian Intermediate EFL learners. Moreover, the researcher explored the role of gender in this matter. Random sampling was employed to select about 60 Iranian intermediate EFL learners (23 males and 37 females) from two private language schools in Karaj, Iran, whose ages range from 16 to 25. Before the data collection, a QOPT was administered as a standardized measure to check the homogeneity of subjects. Later, the selected participants were provided with the Second Language AT Scale (SLTAS) (Ely, 1995). After completing this scale, the Language Writing Anxiety Inventory (SLWAI) was completed by them. After the data collection, the obtained scores were analyzed by SPSS Software. The following results were reached upon the completion of the experiment: (a) that there is a significant relationship between these two variables. It was found that the participants with a high level of ambiguity tolerance are less anxious; (b) male and female learners are different in the levels of writing anxiety. It was found that females are more anxious while writing in L2, and (c) it was found no significant relationship between gender and tolerance of ambiguity.

**Keywords:** Ambiguity Tolerance; Language Anxiety; Writing Anxiety

### 1. Introduction

While some people savor the experience of writing, others may find it a daunting and quite an arduous experience, especially when writing in their L2 (second language) (Silva, 1992). Writing in L2 requires

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knowledge of writing conventions, grammar, vocabulary, and rhetorical and strategic skills, which can be far different from writing in L1 (first language). It is a complex activity that demands linguistic and cognitive knowledge and the ability to deliver the message clearly to a specific audience. Therefore, second language writers may exhibit less ability to plan, write, proofread and revise because they lack the lexical resources and/or compositional skills to write in their L2. These obstacles, in turn, may provoke several challenges for L2 writers (Cumming, 2001; Erkan & Saban 2011; Gilmore, 2009; Giridharan, 2020; Silva et al., 1997).

L2 writing challenges have been attributed to several factors, including limited exposure to L2; limited opportunities to practice L2 in a natural setting; deficiency in certain dimensions of writing skills; lack of knowledge of L2 structure and writing conventions; lack of knowledge of L2 writing process; inadequate vocabulary and linguistic knowledge; and/or psychological factors, such as self-confidence, self-efficacy and/or anxiety (Alasmari, 2013; Cheng, 2005; Fareh, 2010; Jebreil, Azizifar & Gowhary, 2015; Kara, 2013; Olanezhad, 2015). Language learners, hence, may experience anxiety/ apprehension as they are very much aware of their lack of proficiency in their L2 and their inability to authentically communicate who they are in their L1 (Gregersen & MacIntyre, 2014; Horwitz, 2001). Anxiety is commonly described as "a subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system" (Young, 1991, p. 434). It has been found that anxiety interferes with language learning, and its effect may culminate in lower proficiency (Gregersen & MacIntyre, 2014; Horwitz, Horwitz, & Cope, 1986; Ni, 2012). Although anxiety is usually associated with listening and speaking skills, recent investigations reveal that language learners may experience anxiety when they read or write in their L2 (Gregersen & MacIntyre, 2014; Horwitz, 2001).

Writing in L2 is a complex task as it requires gaining control of several prerequisites and composing skills before being able to master writing (Gregersen & MacIntyre, 2014; Silva, 1992). Mastering this demanding task can leave learners apprehensive, and their deficiency may heighten their feelings of anxiety when writing in their L2 (Gregersen & MacIntyre, 2014). Sheng et al. (2013) argues that anxiety is "pervasive in EFL writing classrooms no matter how many years students have learned English writing in the past" (p. 9). Thus, there has been a recent interest in the literature to identify the sources of writing anxiety in a foreign language (FL) classroom and determine its effect on students' writing performance (Kara, 2013). Yet, there is a shortage of research on writing anxiety in FL classrooms (Cheng, 2002). Those that exist have revealed several features

of apprehensive writers in English as a foreign language (EFL) classroom. Their English writing anxiety has been attributed to factors such as L1 interference; lack of motivation to write; L2 writing instruction; fear of teachers' feedback; lack of knowledge of the L2 writing process, skills, and vocabulary; inadequate linguistic knowledge of their L2; and psychological factors, such as self-confidence and self-efficacy, tolerance of ambiguity (AlAsmari, 2013; Cheng, 2004; Daud et al., 2005; Fareh, 2010; Jebreila et al., 2015; Kara, 2013)

The concept of tolerance of ambiguity (TA), which was originally developed by Frenkel-Brunswik (1948), has attracted a great deal of research over the last 60 years (Merrotsy, 2013). Having considered ambiguity tolerance as one of the most important learning styles, which can hinder or facilitate language learning, researchers have carried out some studies on ambiguity tolerance and its impact on language learning.

To explain about the concept of ambiguity tolerance, at first, we describe the two terms ambiguity and tolerance separately. The concept of ambiguity has been described in various terms throughout the literature. According to Johnson (2000), it refers to 'uncertainty about the future.' According to McLain (1993), ambiguity means 'perceived insufficiency of information regarding a particular stimulus or context.' *Ambiguity* is also described as 'too little, too much, or seemingly contradictory information' (Norton, 1975).

Kazamina (1999) noted that ambiguity is characterized by newness, complication, insolubility, and shortage of structure. An ambiguous situation is, therefore, characterized by a lack of adequate cues, which results in insufficient reorganization or categorization by an individual (Budner, 1962). Budner (1962) categorizes ambiguous situations into three basic types: new, complex, and contradictory situations.

Language anxiety and ambiguity tolerance are the two affective variables which are going to be studied in this study. Language anxiety has been considered to be an important affective variable in the foreign language learning process. Krashen (1982) asserts that as part of the learners' affective filter, anxiety might interfere with the process of learning and acquiring a language. Anxiety experienced in communication in English can be debilitating and can influence students' adaptation to the target environment and, ultimately, the achievement of their educational goals (Woodrow, 2006). Moreover, ambiguity tolerance is a learning style that represents the extent to which learners are capable of tolerating the ambiguity involved in learning a foreign or second language and thus, can exert great influence on individuals' learning and performance. Therefore, tolerance of ambiguity plays an important role in

various aspects of language performance and learners' beliefs about learning (Erten & Topkaya, 2009; Ashouri & Fotovatnia, 2010).

In recent years, many studies have investigated the relationship between ambiguity tolerance and different language skills (writing, reading, speaking, listening, grammar, vocabulary, and cloze test). Results of some studies indicated a significant correlation between AT level and EFL learners' general English scores (Chapelle, 1985; Khajeh, 2002; Mori, 1999; Yea-Fen, 1995). Despite the importance of writing ability among the other three language skills, and also writing anxiety and ambiguity tolerance as two affective variables in the foreign language learning process, there are a limited number of studies done on the subjects. This study is intended to address the problem of rare studies on the relationship between L2 writing anxiety and ambiguity tolerance in Iran as an EFL context. Moreover, the investigation of the effects of gender will be addressed.

Thus, the present study was conducted based on the following objectives:

1. To investigate the relationship between writing anxiety and ambiguity tolerance among Iranian Intermediate EFL learners, and
2. To investigate the role of gender in writing anxiety and ambiguity tolerance.

Writing activities are generally one of the most challenging tasks for L2 learners. Many L2 learners feel discouraged if they cannot write as they wish in written discourse. For this reason, learners can disengage from writing activities very easily. The present study investigated the relationship between the concept of tolerance of ambiguity (TA)—which refers to the degree of acceptance of uncertainty—and writing anxiety in a second language. The present research is thus significant in several respects. The first and the most important aspect of this study is that many cognitive processes are important for social development and academic achievement as they allow an individual to adapt to the contextual demands of a given situation or interaction. So, it is significant to explore the role of ambiguity tolerance as a cognitive process in different language skills. Secondly, most of the studies are about the role of TA in reading, listening, and speaking, while there are few studies done on writing skills. Finally, writing anxiety is a crucial variable that can be affected by several reasons. So, exploring the cognitive processes as the reason of writing anxiety is crucial. This study will be carried out in order to investigate the issue at hand in the EFL context of Iran. Therefore, it is hoped that the findings of this study can help both EFL teachers and learners for considering the role of TA in second language speaking

## **2. Literature review**

### **2.1. Writing Anxiety**

Writing is one of the productive skills that are paid special attention in English language teaching. However, students may experience some difficulties while writing in English. One of these problems is writing anxiety. It affects students negatively and causes them to form negative attitudes towards it. This case might be mainly caused by the fact that written text production is complex by nature and requires plenty of cognitive procedures (Grabe, 2001). Related studies make a reference to the fact that writing anxiety occurs because of language complexity in general and the complexity of writing as a skill in particular (Balemir, 2009; Bruning & Horn, 2000; Schweiker-Marra & Marra, 2000).

Thus, it will be a great mistake to assume the writing process is only cognitive. In other words, the effect of anxiety as an affective property in the writing process must not be ignored. According to Cheng, Horwitz, and Schallert (1999), there is a relationship between foreign language classroom anxiety and foreign language writing anxiety. Students with writing anxiety find all the stages writing process extremely demanding and challenging.

In addition, they feel anxious about the perception of the outcome of the writing process. Hence, such anxiety appears to be the fear of negative evaluation (Madigan, Linton, & Johnson, 1996). Some factors, such as classroom, teacher, exam, and personality traits, lead to anxiety (Young, 1991). As a result, anxiety adversely affects written text production. Many studies in the literature have also noted that (Daly, & Witte, 1981; Veit, 1980). Therefore, anxiety is a critical and decisive notion in the language learning process and writing process. As mentioned above, writing anxiety is a critical factor in the writing process.

Second language writing anxiety (SLWA) can be defined as “a general avoidance of writing and of situations perceived by the individuals to potentially require some amount of writing accompanied by the potential for evaluation on that writing” (Hassan, 2001, P.4). Studies on ESL (English as a second language) writing showed that ESL writing anxiety could have profound effects on ESL writing performance (Hassan, 2001; Horwitz, 2001; Cheng, 2005).

Some studies showed that students with high levels of writing anxiety wrote shorter compositions and qualified their writing less than their low, anxious counterparts did (Hassan, 2001, Pp.20-21). Cheng analyzed factors associated with second language writing anxiety (Cheng, 2005), and he also offered a measure, the Second Language Writing Anxiety

Inventory (SLWAI), to assess the levels and types of second language writing anxiety (Cheng, 2005).

Iranian EFL students' weakness in writing has long been attributed, among other things, to lack of motivation to write, absence of good writing skills, and the difficult nature of the writing task itself, regardless of the anxiety-arousing context or situation in which students have to write; therefore, little effort is, so far, made to take a step further to investigate the possible sources of SLWA in EFL contexts. Although research exploring SLWA is abundant, this issue has relatively been underestimated for Iranian university students.

Writing skill also has some unique features leading to anxiety. Unlike speaking, writing does not involve gestures, mimes, and intonation; it does not address a listening audience in the immediate environment but a reading one within a certain distance; thus, writing entails being extra clear and precise in explaining opinions and feelings. Therefore, a writer has to have a good command of grammar knowledge and meticulously follow the rules of writing (such as spelling and punctuation) (Simard et al., 1992, p. 286) because as soon as the text is before the readers' eyes, there is no way back to correct any mistakes or improve any poor points as opposed to speaking, which always permits rewinding and clarifying.

Thus, the text has to be meaningful, crystal clear, understandable, to the point, and straightforward. In order to achieve this, a writer has to plan the content and filter his/her opinions before starting to write and has to be seriously careful about grammar, syntax, spelling, coherence, cohesion, page layout, style, and legibility. Designated as one of the difficult and complicated skills even in one's native language, writing in a foreign language becomes harder for learners due to target language-specific rules, and it leads to anxiety on learners.

Related studies make a reference to the fact that writing anxiety occurs because of language complexity in general and the complexity of writing as a skill in particular (Balemir, 2009; Schweiker-Marra & Marra, 2000). Thus, it will be a great mistake to assume the writing process is only cognitive. In other words, the effect of anxiety as an affective property in the writing process must not be ignored. Because according to Cheng, Horwitz, and Schallert (1999), there is a relationship between foreign language classroom anxiety and foreign language writing anxiety.

Investigating second/foreign language anxiety is a necessity and of great significance due to the negative effects, it can have on language learning, performance, achievement, and perception towards the whole educational process. A considerable number of studies have pointed to the detrimental effects of anxiety on learners' language achievement (e.g.,

Horwitz et al., 1986) and on social-communicative interaction MacIntyre, 1995), in addition to its interference in the three stages of learning; input, process, and output (Tobias, 2022).

### **2.3. Causes of Anxiety**

Anxiety has been considered as one of the most important affective barriers in language learning achievement (MacIntyre & Gregersen, 2012). And foreign language learning anxiety has been the topic of a growing body of researches. Horwitz, Horwitz, and Cope (1986) and Young (1992) stated that the psychological construct of foreign language anxiety has many dimensions. The researchers such as Arnold and Brown (1999), and Gardner and MacIntyre (1993) clarified foreign language anxiety might contribute to feelings of apprehension, nervousness, and worry. But, Chastain (1975) believed anxiety may enhance foreign-language performance. Also, Young (1990) found that there is no relationship between anxiety and language proficiency performance. In brief, the relationship between anxiety and foreign language learning was complex.

Gardner and MacIntyre (1993) specified there is a relationship between the learning of English as a foreign language and the awareness about individual differences, such as the beliefs, attitudes, aptitudes, motivations, and affective states of learners. And language anxiety is defined as one of the individual differences and as an affective state disrupting foreign language achievement. Also, Scovel (1978) defined anxiety as an affective state in which an individual perceives danger and feels powerless.

There are many studies being conducted regarding foreign language anxiety. While some of them indicated learners' beliefs about learning a foreign language, teachers' beliefs about teaching a foreign language, classroom procedures, and testing as the main sources of anxiety (Young, 1991), the others showed the level of language course, language skills, motivation, and proficiency as being other factors arousing anxiety (Ellis, 2001; Young, 1990). But it can be said prior studies focused on the identification of foreign language anxiety. One of them is the study of Horwitz, Horwitz, and Cope (1986). In order to measure communication apprehension, test anxiety, and fear of negative evaluation, they developed the Foreign Language Anxiety Scale (FLAS). According to the results of their study, it was suggested language anxiety is distinct from other types of anxiety.

It can be seen that related studies conducted are limited. One of these studies was conducted by Dalkilic (2001). It was focused on the

relationship between achievement and foreign language anxiety. The findings indicated foreign language anxiety is a significant variable affecting learners' achievement. Also, Batumlu and Erden (2007) examined the relationship between language and anxiety. The results of this study suggested that there is a negative correlation between achievement and anxiety. Yet, it was stated that the proficiency levels of learners and gender do not affect language anxiety. Furthermore, Tuncer and Dogan (2015) made research so as to identify to what extent the Turkish students' English classroom anxiety affects their academic achievement in the English language.

#### **2.4. Ambiguity Tolerance**

McLain (1993:184) proposes that tolerance refers to “begrudging acceptance” while “intolerance suggests rejection.” Further, he mentions that tolerance “extends along a continuum from rejection to attraction.” Budner (1962:29) perceived tolerance of ambiguity as a “desirable” situation and intolerance of ambiguity as “sources of threat.” According to Norton (1975), intolerance of ambiguity is “a tendency to perceive or interpret information marked by vague, incomplete, fragmental, multiple, probable, unstructured, uncertain, inconsistent, contrary, contradictory or unclear meanings as actual or potential sources of psychological discomfort or threat” (p.608). Frenkel-Brunswick (1949) referred to intolerance of ambiguity as “a tendency to resort to black-and-white solutions, to arrive at premature closure, often at the neglect of reality” (P. 115).

There is no agreed-upon definition of ambiguity in language learning. All the definitions available are rather vague since many gradations and nuances are interwoven in this term. Based on the analogy of Qiu (2002), it is believed that ambiguity is like the door behind which there are many opportunities for learning, thinking, and understanding, and tolerance towards ambiguities neither closes the door nor opens it. A student who is aware of different language forms and who treats them as a chance for making introspections in the language is the one for whom tolerance of ambiguity might help and never be an obstacle. According to Qiu (2002), ambiguity is viewed from different perspectives: both desirable and undesirable. If viewed as a desirable state, it can be a helpful, engaging, and evocative power for language learning. But it can also be a source of frustration, threat, and disorientation, depending on the kind and degree of ambiguity.

Ehrnman (1999) also suggests viewing ambiguity at three levels: the first level is called intake, the second level is named tolerance of



ambiguity proper, and the third level is called accommodation. At the intake level, learners admit new information into their minds. In the tolerance of ambiguity proper, it is assumed that intake has happened, and at this stage, learners have to deal with some contradictory elements and incomplete intonation. At the third level, accommodation, learners begin to discriminate the new data and set priorities in order to process new information and to integrate new knowledge with the existing language schemata. There are a number of studies (e.g., Chapelle & Roberts, 1986; Ehrnman, 1999; Grace, 1998), which also indicate that novel, and unexpected intonation might be a result of frustration and vagueness. According to Norton (1975), psychologists have developed eight different categories that define ambiguity. They include: 1) multiple meanings (there are at least two meanings where the person is aware or unaware of them, or the meanings are clear or unclear), 2) vagueness, incompleteness, fragmented (parts of the whole are missing), 3) a probability (the situation can be analyzed as a function of some probability), 4) unstructured (the situation has no clear organization), 5) lack of information (the situation has little or no information), 6) uncertainty (a state of uncertainty is created in the mind of the person), 7) inconsistencies and contradictions (a situation in which parts of the information appear to disagree with each other) and 8) unclear (any situation perceived as unclear). Taking into account the classroom context and Norton's eight categories of ambiguity definition, all of the described categories might be applicable to language learning situations.

### **2.5. Research Questions**

Based on the objectives of this study, the following research questions are propounded:

1. Is there any significant relationship between Iranian EFL learners' writing anxiety and tolerance of ambiguity levels?
2. Is there any significant difference between Iranian EFL male and female learners' L2 writing anxiety?
3. Is there any significant difference between Iranian EFL male and female learners' ambiguity tolerance?

## **3. Methodology**

### **3.1. Research Design**

Quantitative research was conducted to study the association between writing anxiety and ambiguity tolerance. This study is unique as it observes intermediate students in the context of the Persian language. And the main two variables of the study that are going to be explored are

writing anxiety and ambiguity tolerance, with gender as a moderating variable.

### **3.2. Participants**

A random sampling was employed to select about 60 Iranian intermediate EFL learners (23 males and 37 females) from two private language schools in Karaj, Iran, whose ages ranged from 16 to 25. None of the participants had the experience of residence in English-speaking countries, and none of the participants reported any significant out-of-class contact with English native speakers.

### **3.3. Instruments**

In order to conduct the data collection procedure, several instruments were employed in this study. They are as follows.

#### **3.3.1. Quick Oxford Placement Test (QOPT)**

The QOPT was administered to assess the current level of language proficiency of the groups. According to the attached scoring chart of the QOPT, those students whose scores were between 30 to 47 would be Intermediate. The QOPT includes 60 multiple choice questions, which assessed students' knowledge of grammar and vocabulary.

#### **3.3.2. Writing Anxiety Inventory Questionnaire (WAI)**

The participants were measured by a questionnaire that allowed the collection of some quantitative evidence relating to perceive students' levels and types of anxiety in writing. The writing anxiety questionnaire by Cheng (2003) is a reliable instrument whose Cronbach's Alpha reliability was 0.89, as reported by the author. The validity of the instrument was checked by two Ph.D. holders in Applied Linguistics. The instrument includes two sections. In the first section, the participants' demographic information such as gender, age, and name are collected. The second section includes 23 items in a five-point Likert format that measures students' perceived writing anxiety.

#### **3.3.3. The Ambiguity Tolerance Questionnaire**

The Second Language AT Scale (SLTAS) (Ely, 1995) was employed to measure the participants' AT. It is a five-point Likert-scale device comprising 12 items that is in line with the revisions made in the original version by Erten and Topkaya (2009) and Dornyei (2001). Among the revisions is the insertion of the new level of "not sure," which is added to oblige the respondents to take a forced decision between a negative and

positive choice. The purpose of the revised scale is to quantify the respondents' agreement level with statements that indicate their tolerance of unambiguity in specific situations. The 12-item questionnaire taps on different factors such as comprehension, usage, mood, and feeling of learners and measures the respondents' AT on a 5-point scale, ranging from strongly agree = 4, agree = 3, undecided = 0, disagree = 2, and strongly disagree = 1, rendering a score range of 12 to 48, and the higher the mark, the higher was the ambiguity tolerance of the participants. The validity of the instrument was checked by two Ph.D. holders in Applied Linguistics. Moreover, the reliability of the instrument was piloted with ten participants from the sample of the study and turned out to be 0.81.

### **3.4. Procedures**

After getting the consent of the authorities in charge of language schools where the study was conducted, an QOPT was administered as a standardized measure to check the homogeneity of subjects in terms of their English proficiency. According to participants' performances, 60 intermediate EFL learners (23 males and 37 females) were selected to participate in this study. In the second phase of the study, the selected participants were provided with the Second Language AT Scale (SLTAS) (Ely, 1995). They were asked to fill in the questionnaire in due time at home and return it in the following session. In the class, the researcher had the students read the questionnaire and made sure there was no ambiguity regarding the content of the items. After completing the scale, the Writing Anxiety Inventory Questionnaire (WAI) was completed by the participants. The researcher provided instructions with the participants as to how to fill in the questionnaire, and the participants returned the questionnaire in the upcoming session.

### **3.5. Data Analysis**

The results reported in this study are of quantitative nature. The data were displayed, analyzed, and interpreted to reveal the findings of the study. The analysis and interpretations were based on learners' scores obtained from the two questionnaires, and the analysis was done by SPSS Software. As for the first research question, Pearson Correlation was applied to find the relationship between the levels of ambiguity tolerance and writing anxiety. The second and the third questions were answered through inferential statistics by using independent samples t-test to find the gender effect on writing anxiety and TA.

To answer the first research question, the relationship between writing anxiety and tolerance of ambiguity of the participants was investigated

through a Pearson Correlation. Then for the second and third research questions, we used independent samples T-test to find the difference between males' and females' writing anxiety as the first research question and the difference between males and females regarding their tolerance of ambiguity as the second research question. The results of the data analysis of the present study are detailed in this chapter.

## 4. Results and discussions

### 4.1. Results for the First Research Question

As it was stated above, the first research question of the study was, "Is there any significant relationship between Iranian EFL learners' L2 writing anxiety and different tolerance of ambiguity levels?" To find an answer to this research question, the relationship between L2 writing anxiety and Tolerance of ambiguity was investigated using the Pearson correlation coefficient. Table 1 shows the results of correlations performed for this purpose.

Table 1. *Pearson Correlation for writing anxiety and Tolerance of ambiguity*

		Tolerance of ambiguity	L2 writing anxiety
Tolerance of ambiguity	Pearson Correlation	1	-.714**
	Sig. (2-tailed)		.000
	N	60	60
L2 writing anxiety	Pearson Correlation	-.714**	1
	Sig. (2-tailed)	.000	
	N	60	60

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 1 shows the correlation value of writing anxiety and ambiguity tolerance, the Sig. (2-tailed) value and the number of cases. It could be seen in this table that the correlation value is -.714. This value indicates that there is a strong negative correlation between L2 writing anxiety and ambiguity tolerance. In other words, the higher tolerance of ambiguity level is, the less L2 writing anxiety they have. To find out whether this correlation was statistically significant or not, the researcher had to take a look at the p-value under the Sig. (2-tailed) row. As it can be seen in Table 4.1, the Sig. (2-tailed) value is .000. Thus, it can be concluded that the correlation value is significant since the p-value under the Sig. (2-tailed) row was lower than the significance level (.000 < .05). The conclusion to be drawn from this correlation would be that there is a negative relationship between writing anxiety and ambiguity tolerance.

#### 4.2. Results for the Second Research Question

As it was mentioned before, the second research question of the study was, "Is there any significant difference between males' and females' L2 writing anxiety?" To find an answer to this research question, the writing anxiety test scores of male and female learners were compared by means of an independent-samples *t*-test after all required assumptions for running the *t*-test were fulfilled. The results are in view in Tables 2 and 3.

Table 2. Descriptive Statistics for Comparing Male and Female Learners' writing anxiety

	groups	N	Mean	Std. Deviation	Std. Error Mean
writing anxiety	Male	23	41.7500	5.69279	1.27295
	Female	37	50.1000	5.91964	1.32367

Table 3 shows the group labels, the number of participants, the groups' mean scores, and standard deviations. It could be seen in this table that there was a difference between the L2 writing anxiety mean scores of the male (M = 41.75) and female (M = 50.10) learners. To find out whether this difference between the speaking anxiety scores of male and female learners was statistically significant or not, the researcher had to take a look at the p-value under the Sig. (2-tailed) column in the *t*-test table which follows (Table 3).

Table 3. Independent-Samples *t*-Test Comparing Male and Female Learners' writing anxiety

	Levene's Test for Equality of Variances					t-Test for Equality of Means	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	
Equal variances assumed	.023	.881	-4.54	58	.000	-8.35	
Equal variances not assumed			-4.54	57.94	.000	-8.35	

As it can be seen in Table 3, the difference between the L2 writing anxiety scores of the male learners (M = 41.75) and their female counterparts (M = 50.10) was found to be significantly different since the p-value under the Sig. (2-tailed) column was less than the significance level (.000 < .05). The conclusion to be drawn from this comparison would be that male and female learners were performed differently in the L2 writing anxiety test, and since the mean score of female learners outperformed the male learners in the L2 writing anxiety questionnaire. The results indicate that females are more anxious than while writing in L2.

### 4.3. Results for the Third Research Question

Regarding the effect of gender, to identify any gender differences, the second research question of the study asked, "Is there any significant difference between males' and females' ambiguity tolerance?" To find an answer to this research question, like what was done for the first research question, the ambiguity tolerance test scores of male and female learners were compared by means of an independent-samples t-test. The results are in view in Tables 4 and 5.

Table 4. *Descriptive Statistics Comparing Male and Female Learners' Ambiguity Tolerance*

	Male and Female	N	Mean	Std. Deviation	Std. Error Mean
Ambiguity tolerance	Male	23	30.8500	8.70738	1.94703
	Female	37	35.0500	8.91170	1.99272

Table 4 shows the group labels, the number of participants, the groups' mean scores, and standard deviations. It could be seen in this table that there was a difference in the ambiguity tolerance scores of the males ( $M = 30.85$ ) and females ( $M = 35.05$ ) learners. To find out whether this difference between the ambiguity tolerance scores of male and female learners was statistically significant or not, the researcher had to take a look at the p-value under the Sig. (2-tailed) column in the t test table which follows (Table 5).

Table 5. *Independent-Samples t Test Comparing Male and Female Learners' Ambiguity Tolerance*

	Levene's Test for Equality of Variances					
	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	Mean Difference
Equal variances assumed	.790	.380	-1.50	58	.140	-4.20
Equal variances not assumed			-1.50	57.98	.140	-4.20

As it can be seen in Table 5, the difference between the ambiguity tolerance scores of the male learners ( $M = 30.85$ ) and their female counterparts ( $M = 35.05$ ) wasn't found to be significantly different since the p-value under the Sig. (2-tailed) column was higher than the significance level ( $.140 < .05$ ). The conclusion to be drawn from this comparison would be that male and female learners were performed similarly in the ambiguity tolerance test. So, the data didn't show a

significant difference between the two groups in their ambiguity tolerance.

## **5. Discussions**

### ***5.1 The First Null Hypothesis***

The first null hypothesis posited that there isn't any significant relationship between Iranian EFL learners' writing anxiety and different tolerance of ambiguity levels. Based on the analyzed data, the present study revealed a statistically significant negative relationship between of Ambiguity Tolerance and writing anxiety. The results indicated that the participants with high TA have less writing anxiety than their counterparts, giving rise to the rejection of the first null hypothesis of the study. In other words, the more tolerant you are, the less anxious you will be while writing in L2.

The findings are in line with Bochner's study (1965), a psychologist, who regarded TA as a personality trait, categorized primary and secondary characteristics of TA, in which "being anxious" was considered as one of the characteristics of TA belonging to the secondary category (together with dogmatic, rigid, closed-minded, aggressive). In addition, Smock's (1955) study was also believed to be consistent with the hypothesis that anxiety is a behavioral correlate of TA as a trait, namely that people feel anxious in uncertain and ambiguous situations and that the level of anxiety aroused depends on their TA.

The results obtained here firstly support the notion that perceptual-cognitive responses are important in the formation of frames of reference, which serve as guides for the interpretation of similar situations and subsequent behavior. Secondly, it has been demonstrated that stress results in an inability for some individuals to withhold response to a partially structured perceptual field until adequate cues are present for the most appropriate response. In brief, the individual under psychological stress or anxiety is likely to be intolerant of ambiguity.

### ***5.2 The Second Null Hypothesis***

As for the second null hypothesis, "there is not any significant difference between males and females L2 writing anxiety." The obtained results found a significant difference between the writing anxiety scores of the male learners and their female counterparts, which leads to the rejection of the second hypothesis. It was indicated that female learners outperformed male learners in the writing anxiety questionnaire. Therefore, females are more anxious than males while writing in L2.

Some researchers wanted to investigate the impact of gender, which has been proved to be a prominent factor in the language learning process (Batters, 1986; Clark & Trafford, 1995; Powell & Batters, 1985; Pugsley, 1991), on foreign language writing anxiety and motivation. The results of our study are in line with Mendi (2009), Csizer & Dornyei (2005), Dornyei & Clement (2001), Balemir (2009), and Huang (2004) who found that gender plays a significant role on foreign language writing anxiety.

This finding supports the study conducted by Balemir (2009), who investigated the relationship between foreign language writing anxiety and proficiency level and found that female students experienced a higher level of writing anxiety than male students. With regard to these results, it can be said that female students are more anxious while writing English, and they are more worried about writing in English. In addition to this, the results of this study show parallelism with the study carried out by Huang (2004) in a Taiwanese context. He found out that female students were more anxious while writing English, and this situation might be originated from females' fear of negative evaluation in a higher level, which was reported to be a cultural characteristic of Taiwanese society. As a result, in the light of different studies, it can be seen that gender plays a remarkable role on writing anxiety.

### ***5.3 The Third Null Hypothesis***

The third null hypothesis stated that there is not any significant difference between males' and females' ambiguity tolerance. The obtained data were analyzed, and the results revealed that the difference between the ambiguity tolerance scores of the male learners and their female counterparts is not significantly different. The conclusion to be drawn from this comparison would be that male and female learners were performed similarly in the ambiguity tolerance test. So, the data did not show any significant difference between the two groups in their ambiguity tolerance. The results lead us to confirm the third null hypothesis.

The findings of our study are contradicted with Maubach and Morgan (2001), who revealed that male students have a higher tolerance for ambiguity than female students do. Similarly, Erten and Topkaya (2009) and Marzban, Barati, and Moinzadeh (2012) report a significant difference between male and female students in their tolerance of ambiguity, with females outperforming males. On the other hand, our findings are in line with Kissau (2006) and Kamran (2011) who found no statistically significant difference between male and female EFL learners in their ambiguity tolerance.



## 6. Conclusion and Implications

The present study was designed to investigate the relationship between writing anxiety and ambiguity tolerance among Iranian Intermediate EFL learners. The researcher also explored the role of gender in this matter. The following results were reached upon the completion of the experiment: (a) that there is a significant negative relationship between these two variables. It was found that the participants with a high level of ambiguity tolerance are less anxious; (b) male and female learners are different in the levels of writing anxiety. It was found that females are more anxious while writing in L2, and (c) it was found no significant relationship between gender and tolerance of ambiguity.

Obviously, one needs to be very cautious about carrying pedagogical implications from the result of this study. However, the findings of this study can be followed by an implication; the results of this study shed light on the importance of ambiguity tolerance and writing anxiety in learning a second language.

It is vital that teacher tends to be vigilant towards ambiguous or stressful situations which deteriorate learning and can predict or detect them and deal with them reasonably rather than trying to eliminate them. Designing guessing-provoking activities, the teacher's appropriate reaction to what may seem uncertain and ambiguous to learners, the provision of a risk-taking environment, and encouraging learners to take risks and guess all lead to having a suitable context for learners to explore their learning style, and level of ambiguity tolerance. On the part of gender effect, no difference was sought between male and female English language learners in their tolerance for ambiguity.

This finding has useful implications for English language teachers, articulating that they can regard their students homogenous regarding their ambiguity tolerance. Having a homogenous class (in the case of ambiguity tolerance) can decrease teachers' concern about gender affect when they are designing tasks or selecting activities for their classes. But in the case of writing anxiety, as it was found that females are more sensitive than males, teachers should react properly to female learners in order to reduce their anxiety.

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