

The Relationship among Iranian EFL Learners' Motivation, Personality Traits, and Ambiguity Tolerance

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Abstract

The present study investigated the relationship among intermediate Iranian EFL learners' motivation, personality traits, and ambiguity tolerance. The participants were 120 intermediate EFL learners (60 male & 60 female) which were selected from Zabansara Institute in Mahabad, based on their results on the Nelson English Language Proficiency Test (Fowler & Coe, 1976). After the selection of the participants, three questionnaires of NEO Five-Factor Inventory (Costa & McCrae 1992), The Motivated Strategies for Learning Questionnaire (Pintrich & De Groot, 1990), and The Second Language Tolerance of Ambiguity Scale (Ely, 1995) were administered to the participants. After employing the Pearson Product-Moment Correlation test, the results of the study indicated that: a) there was a significant negative correlation between the learners' motivation and Neuroticism; b) there were significant positive correlations between the learners' motivation scores and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores; c) there was a significant positive correlation between the learners' motivation and ambiguity tolerance; d) there was a significant negative correlation between the learners' ambiguity tolerance and Neuroticism; and e) there were significant positive correlations between the EFL learners' ambiguity tolerance and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores. It was suggested that, the results of the present study may have both theoretical and practical implications for the field of second language acquisition. Theoretically, the results can lead to a redefinition of the role of individual learner differences in the process of second language acquisition in foreign language contexts. Practically, the results can help syllabus designers to prepare more appropriate materials which are compatible with the language learners' personality traits, and increase their motivation in language classrooms. Moreover, the results can help language teachers to recognize their learners' cognitive styles including their tolerance of ambiguity and design appropriate tasks for them.

Keywords: Ambiguity Tolerance, Individual Learner Differences, Motivation, Personality Traits.

1. Introduction

According to Ellis (2008), the study of individual learner differences has a long history and these differences have been among the extensively investigated areas in language teaching. As he further noted, the early studies of these individual differences which were conducted before the beginning of the field of Second Language Acquisition (SLA), focused on designing specific testing instruments such as the Modern Language Aptitude Battery (Carroll & Sapon, 1959). According to Dörnyei (2005), a large number of empirical studies have shown that individual learner differences correlate with achievement in learning a second language much more than the other SLA variables.

As Dörnyei (2005) noted, some of the individual learner differences have attracted the attention of researchers in SLA more than the others. Another important factor that has been extensively researched in the field of SLA is the learners' personality (Dörnyei, 2005). Finally, as Dörnyei (2005) argued, language learners' tolerance of ambiguity in learning a second language has been one of the interesting learner differences for SLA researchers.

A review of the related literature regarding the language learners' individual differences shows that most of these studies have been conducted to investigate the relationship between these variables and success in learning a second or foreign language (e.g. Benson, 1991; Chapelle & Roberts, 1986; Krashen, 1981; Sadighi & Maghsudi, 2000). However, there is a lack of research regarding the relationship among these individual learner differences (Ellis, 2008). That is, the previous research studies have focused on the effect of these variables on the learners' language development and have mostly ignored the investigation of the correlation among different individual variables. Based on this need for research, the present study aims to investigate the relationship among Iranian EFL learners' motivation, personality traits, and ambiguity tolerance and by doing so tries to fill a gap in the literature and provide more illuminating information regarding this area of SLA which has been ignored in previous empirical studies.

1.1 Statement of the Problem

According to Ellis (2008), in learning a second or foreign language a large number of factors that may be related to the language learning context, the materials of the teaching context, the language teacher, and the learners themselves may affect the learning process. As he further noted, among these factors, the variables that are related to the language learners themselves are called individual learner differences. As Dörnyei (2005) stated, since individual learner differences are regarded to be one of the main factors which determine the language learners' success in learning a second or foreign language, they have to be fully investigated in both second and foreign language classrooms.

The review of literature regarding these individual differences reveals that most of the studies regarding individual variables have investigated the relationship between these factors and the EFL learners' language acquisition (e.g. Chapelle & Roberts, 1986). Moreover, a large number of these studies have been conducted in second language contexts (e.g. Krashen, 1981). Finally, there is a lack of research regarding the relationship among different individual learner differences including the learners' personality, motivation, and ambiguity tolerance. Therefore it is clear that there is a need for more studies which investigate the relationship among the language learners' individual differences (e.g. personality, motivation, & ambiguity tolerance) in different foreign language contexts such as Iran.

1.2 Research Questions and Hypotheses

The present study tried to answer the following research questions:

Research Question 1: Is there any significant relationship between Iranian EFL learners' motivation and personality traits?

Research Question 2: Is there any significant relationship between Iranian EFL learners' motivation and ambiguity tolerance?

Research Question 3: Is there any significant relationship between Iranian EFL learners' personality traits and ambiguity tolerance?

Hypothesis Research

Hypothesis 1: There is a significant relationship between Iranian EFL learners' motivation and personality traits.

Hypothesis 2: There is a significant relationship between Iranian EFL learners' motivation and ambiguity tolerance.

Hypothesis 3: There is a significant relationship between Iranian EFL learners' personality traits and ambiguity tolerance.

1.3 Purpose of the Study

The present study tried to fill the gap that exists in the related literature regarding the foreign language learners' individual differences. That is, it aimed to determine the relationship among a number of individual learner differences in the foreign language context of Iran. More specifically, the present study investigated the relationship among intermediate Iranian EFL learners' motivation, personality traits, and ambiguity tolerance. Based on this purpose the study employed the NEO Five-Factor Inventory (Costa & McCrae, 1992), The Motivated Strategies for Learning Questionnaire (Pintrich & De Groot, 1990), and The Second Language Tolerance of Ambiguity Scale (Ely, 1995) in order to determine the participants' personality, motivation, and ambiguity tolerance respectively.

1.4 Significance of the Study

As Ellis (2008) stated, there is a need for more studies regarding individual learner differences in both second and foreign language contexts in order to determine the effects of these variables on the language learners' acquisition of a second or foreign language. Therefore, it is clear that studies that investigate learner differences have both theoretical and practical implications for the field of second language acquisition.

According to Ellis (2008), there is a lack of research regarding individual learner variables in foreign language contexts. Therefore, it can be argued that the present study may be significant for the field of second language acquisition since it fills a gap in the literature by providing information regarding the relationships among three of the mostly investigated learner differences (i.e. personality, motivation, & ambiguity tolerance) in the foreign language context of Iran. Moreover, the results of the present study may provide a better understanding of the importance of individual learner differences in the process of learning a second or foreign language.

2. Review of the Related Literature

2.1 Definition of Individual Learner Differences

According to Dörnyei (2005, p. 4), individual learner differences are "enduring personal characteristics that are assumed to apply to everybody and on which people differ by degree". As Ellis (2008) noted, the early studies of learner difference (e.g. Altman, 1980) provided long lists which involved a variety of different language learner variables. However, as he stated, recent studies (e.g. Dörnyei, 2005) have reduced the number of these variables into a few number of main variables. According to him, these variables can be classified into core factors including: motivation, personality, and anxiety, and the less central factors such as intelligence, and age.

According to Ellis (2008), there is a lack of order regarding the examination of individual learner differences which is related to the lack of a unifying theory for these differences. In order to bring some order into this field of enquiry he provided a classification which divides the individual learner differences into four categories including: abilities, propensities, learner cognitions about L2 learning, and learner actions. In defining these categories, he stated that "1) abilities involve cognitive capabilities for language learning that are relatively immutable; 2) propensities are cognitive and affective qualities

involving preparedness or orientation to language learning that can change as a result of experience; 3) learner cognitions about L2 learning involve conceptions and beliefs about L2 learning; and 4) learner actions involve learning strategies” (p. 644).

2.2 Motivation

According to Dörnyei (2001a), the study of motivation has been an interesting area for research in psychology and education for many years. This interest may reflect the classroom teachers’ widespread perceptions, since they regard learner motivation as the most important factor in educational success (Dörnyei, 2001b).

Motivation is “the combination of effort plus desire to achieve the goal of learning the second language plus favorable attitudes toward learning the language. That is, motivation to learn a second language is seen as referring to the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity ” (Gardner 1985, p. 10). Broussard and Garrison (2004) broadly defined motivation as “the attribute that moves us to do or not to do something” (p. 106). MacIntyre, MacMaster, and Baker (2001) stated that, motivation is “an attribute of an individual describing the psychological qualities underlying behavior with respect to a particular task” (p. 463). Dörnyei (2003) argued that, the motivated individual expends effort, is persistent and attentive to the task at hand, has goals, desires and aspirations, enjoys the activity, experiences reinforcement from success and disappointment from failure, makes attributions concerning success and or failure, is aroused, and makes use of strategies to aid in achieving goals.

2.3 Personality Traits

Personality is “the set of psychological traits and mechanisms within the individual that are organized and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical and social environments” (Randy & Buss, 2009, p. 4). According to McCrae and Costa (1990), personality traits are the consistent and persistent traits in the affective domain of every individual which make him/her different from other individuals. As McCrae (2001) argued, one of the most noticeable models in current psychological research is the Five Factor Model (FFM) which characterizes human personality in terms of five macro components including: Conscientiousness, Agreeableness, Neuroticism, Extroversion, and Openness to Experience. As he further argued, this model can be considered as an organization of the different personality traits , moreover it defines each trait as the differences in the personal inclinations of different individuals for certain consistent patterns of thoughts and feelings. Church (2000) provided a similar definition of traits and suggested that, traits can be considered as endogenous basic personal tendencies which in different cultural contexts generate fixed and consistent patterns of behaviors, values, tendencies, and needs.

2.4 Ambiguity Tolerance

In the literature of ambiguity tolerance, a substantial body of research has been set to the definitions of ambiguity and tolerance as two related concepts in language learning. Kazamia (1999), for instance, assumed that tolerance proposes begrudging acceptance whereas intolerance proposes rejection and stated that, tolerance stretches along a continuum from rejection to attraction. He further specified ambiguity as not having enough information about a context.

Budner (1962) noted that ambiguous situations can be of three different kinds: new situations in which cues are not enough or are nonexistent, complex conditions where there are too many cues, and opposing situations in which cues are not simple to discern. Norton (1975), moreover, listed reasons for ambiguity including: 1) multiple meanings, 2) vagueness, incompleteness, or fragmentation, 3) a probability, 4) unstructured, 5) lack of information, 6) uncertainty, 7) inconsistencies and contradictions, and 8) unclear. In short, ambiguous situations “may be marked by novelty, complexity, insolubility and lack of structure”

(Kazamia, 1999, p. 69). Regarding the stated characteristics, second language condition can also be considered as ambiguous (Ellis, 1994).

2.5 Empirical Studies of Motivation, Personality Traits, and Ambiguity Tolerance

In this part some of the empirical studies which have investigated language learners' motivation, personality, and ambiguity tolerance in second and foreign language contexts are provided:

Sadighi and Maghsudi, (2000) in a correlational study investigated the effect of the two types of motivation (integrative & instrumental) on the English proficiency of 114 EFL students (50 male & 64 female) at Islamic Azad University of Kerman city. The results of their study showed a significant difference between the English proficiency scores of the integratively motivated students and the instrumentally motivated ones. Moreover, there were significant correlations between the integrative and instrumental motivation with the students' English proficiency scores. Finally, it was found that, the personal, social, and educational factors had significant relationships with the EFL students' motivation. Khajeh (2002) explored the impact of tolerance of ambiguity on the strategy use and on the level of language proficiency. She indicated that, there was a significant positive relationship between ambiguity tolerance and strategy use on the one hand and overall language proficiency on the other hand. Kaufman, Agars, and Lopez-Wagner (2008) examined the relationship between Big-Five Personality Traits and two types of academic motivation. Their findings showed that, intrinsic motivation is positively and significantly related to Extraversion, Agreeableness, Conscientiousness, and Openness to Experience. Moreover, based on the results, extrinsic motivation was also significantly and positively related to Extraversion and Neuroticism.

3. Methodology

3.1 Participants

The participants of this study were 120 (60 male & 60 female) EFL learners in Zabansara Institute in Mahabad. They were in the intermediate level. The participants were selected from among 180 students of the institute. Therefore, the sampling design of the study was convenience non-probability. For the purpose of homogeneity, prior to the beginning of the study, the Nelson English Language Test (Fowler & Coe, 1976) was administered to the students as a proficiency test and the participants of the study were selected based on their results of the proficiency test. The students whose scores were between one standard deviation minus and plus the mean took part in the study. The age range of all of the students was about 18 to 22. The reason for the selection of the participants from the intermediate level was that they had been given some preliminary instructions in paragraph and essay writing.

3.2 Instruments

The following instruments were employed in the present study:

3.2.1 Proficiency Test

The researcher administered the Nelson English Language Proficiency Test (Fowler & Coe, 1976) to the selected participants before the beginning of the study to make sure that they were homogeneous. This test involves three main parts including: grammar, vocabulary, and reading comprehension with a total number of 50 multiple choice items. As the authors of the test argued, all of the items in this test have been carefully pre-tested and the test is a valid and reliable instrument for measuring the language learners' proficiency. The researcher assigned one point for each items, and therefore the overall score of the test was 50.

3.2.2 The NEO Five-Factor Inventory (NEO-FFI)

This inventory was taken from Costa and McCrae (1992) and involves 60 items about the personality of participants. This self-report paper and pencil questionnaire involves five sections which cover five

domains of Big-Five Model including Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness. Each personality trait in this inventory is measured by 12 items. In order that students cannot identify the items which measure each trait, the items related to the five traits are mixed together in the questionnaire without characterizing them explicitly. Only the manual of the NEO-FFI determines which item is related to which trait. These behavior-descriptive statements are designed in a Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree) which indicate the degree of their personality characteristics.

3.2.3 The Motivated Strategies for Learning Questionnaire (MSLQ)

This questionnaire was used to measure the participants' motivation. It was developed by Pint rich and De Groot (1990), and consists of 44 seven-point Likert-scale type items which range from "not at all true of me" to "very true of me". This questionnaire is divided into two parts. The first is the Motivation section and the second one is the Learning Strategies section. In this study, only the motivation section which consists of 31 items that assess the students' goals and value beliefs for a course, their beliefs about their skill to succeed in a course, and their anxiety about tests in a course was employed. The learners had to complete it in 20 minutes.

3.2.4 The Second Language Tolerance of Ambiguity Scale (SLTAS)

This scale was designed by Ely (1995) and has 12 items with 4-point Likert-scale responses including: strongly agree, agree, disagree, and strongly disagree, assigned with values of 1, 2, 3, and 4. Five minutes was given to the candidates to complete this questionnaire.

3.3 Procedure

In this study, first, 120 EFL learners (60 male & 60 female) of Zabansara Institute in Mahabad were selected as the participants of the study. The participants ranged in age from 18 to 22. All of them were selected from the intermediate proficiency level based on their results on the Nelson English Language Test (Fowler & Coe, 1976). After the selection of the participants, first, the researcher distributed The NEO Five-Factor Inventory (Costa & McCrae, 1992) among the participants, and asked them to answer its items by selecting one of the response choices for each item. The students completed this questionnaire in 30 minutes.

Next, the researcher distributed The Motivated Strategies for Learning Questionnaire (Pintrich & De Groot, 1990) among the participants and asked them to complete it. The students completed this questionnaire in 20 minutes. Finally, the researcher distributed The Second Language Tolerance of Ambiguity Scale (Ely, 1995) among the participants and asked them to complete it in 10 minutes. After collecting the data, the researcher first analyzed the collected questionnaires and then employed the Pearson Product-Moment Correlation test in order to determine the relationship among the participants' motivation, personality traits, and ambiguity tolerance. SPSS 20 was employed for analyzing the collected data.

3.4 Design

This study was a descriptive, survey-based, correlational research that aimed to assess the degree of correlation among Iranian EFL learner's personality traits, motivation, and tolerance of ambiguity. A correlational study determines whether or not two variables are correlated. That is, it tries to determine whether an increase or decrease in one variable corresponds to an increase or decrease in the other variable (Dornyei, 2003). Therefore, the sampling design of the study was convenience non-probability.

4. Results

4-4-1-Kolmogorov-Smirnov test (K-S Test)

In this part the statistical distribution of variables of the research examined using Kolmogorov-Smirnov test in the 5 percent error level (with 95 percent confidence).here results of Kolmogorov-Smirnov test express that if the statistical distribution of the variables is normal? The hypothesis for Kolmogorov-Smirnov test are as following:

H: The variable under investigation follow the normal statistical distribution.

H₁: The variable under investigation isn't follow the normal statistical distribution.

When for Kolmogorov-Smirnov test the significance level of the test or P-value is bigger than 0.05 error level (P-value=sig>0/05) with 95 percent confidence the null hypothesis of the test is confirmed.it means that the considered variable has normal distribution with 95 percent confidence, but if the significance or P-value is smaller than 0.05 error level (P-value=sig<0.05) with 90 percent confidence the null hypothesis is rejected.it means that the considered variable with 90 percent confidence has not normal distribution. Results of Kolmogorov-Smirnov test are come in table 1.it is seen that for all variables of the research the significance of the test is bigger than 0.05 error level (P-value=sig>0.05).it means that distribution all variables of the research are normal with 95 percent confidence and the null hypothesis is confirmed. According results of Kolmogorov-Smirnov test it was observed that variables of the research following normal statistical distribution. Thus we can use parametric tests to test research hypothesis.

Table 1: results of Kolmogorov-Smirnov test to measure normality of variables distribution

Variable	Numbers of observations	Kolmogorov-Smirnov test	Sig
Neuroticism	180	066.0	187.0
Extroversion	180	126.0	084.0
Openness	180	132.0	056.0
Agreement	180	132.0	057.0
Conscientiousness	180	118.0	148.0
Creativity	180	057.0	200.0
Motivation	180	1320.	156

Table 2: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Neuroticism

		Motivation	Neuroticism
Motivation	Pearson Correlation	1	-.425**
	Sig. (2-tailed)		.000
	N	120	120
Neuroticism	Pearson Correlation	-.425**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 2, there was a significant negative correlation between the learners' motivation and Neuroticism since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was -.425, which according to Cohen (1988), is a strong negative correlation coefficient. That is, the students who scored high on Neuroticism had a low level of motivation. This significant correlation is depicted in Figure 1below.

Next the researcher answered the research questions of the study. The first research question of the present study tried to determine whether there was a significant relationship between Iranian EFL learners' motivation and personality traits. Based on this aim, a Pearson product-moment correlation was

employed between the EFL learners' motivation scores and each of the five factor personality traits. The first factor to be correlated with motivation was Neuroticism. The results of the data analysis are provided in Table 2 below:

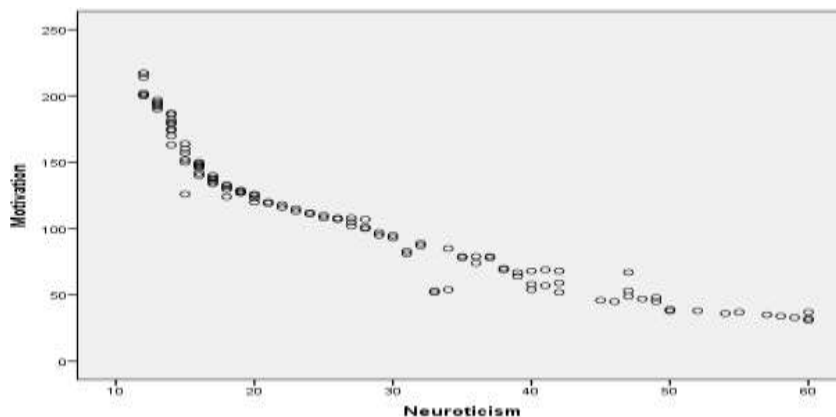


Figure 1. Correlation between the EFL learners' Motivation and Neuroticism

The second factor to be correlated with motivation was Agreeableness. The results of the data analysis are provided in Table 3 below:

Table 3: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Agreeableness

		Motivation	Agreeableness
Motivation	Pearson Correlation	1	.421**
	Sig. (2-tailed)		.000
	N	120	120
Agreeableness	Pearson Correlation	.421**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

As Table 3 shows, there was a significant positive correlation between the learners' motivation and Agreeableness since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .421 which is regarded as a strong correlation coefficient. Based on these results, the students who scored high on Agreeableness had a high level of motivation. This significant correlation is depicted in Figure 2 below:

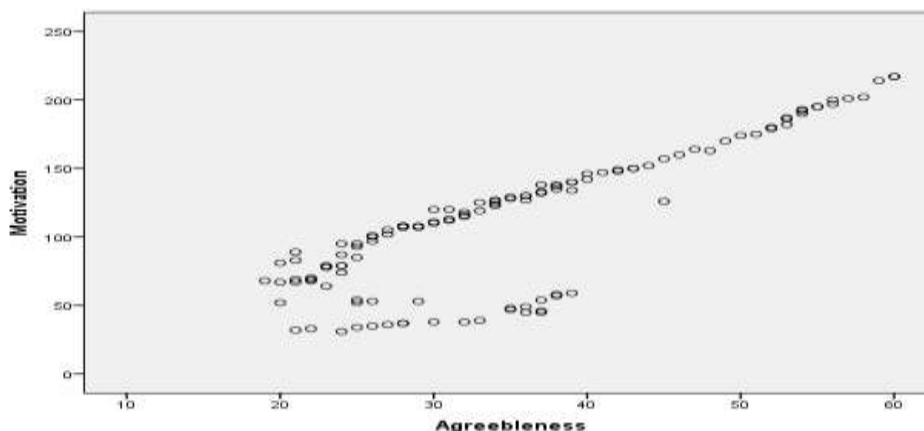


Figure 2. Correlation between the EFL learners' Motivation and Agreeableness

The third factor to be correlated with motivation was Extraversion. The results of the data analysis are provided in Table 4 below:

Table 4: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Extraversion

		Motivation	Extraversion
Motivation	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.000
	N	120	120
Extraversion	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 4, there was a significant positive correlation between the learners' motivation and Extraversion since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .468, which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Extraversion had a high level of motivation. This significant correlation is depicted in Figure 3 below:

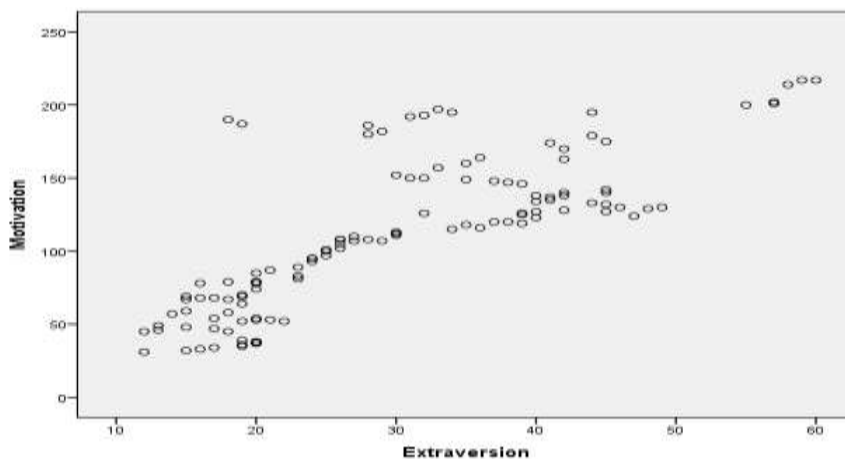


Figure 3. Correlation between the EFL learners' Motivation and Extraversion

The forth factor to be correlated with motivation was Conscientiousness. The results of the data analysis are provided in Table 5 below:

Table 5: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Conscientiousness

		Motivation	Conscientiousness
Motivation	Pearson Correlation	1	.493**
	Sig. (2-tailed)		.000
	N	120	120
Conscientiousness	Pearson Correlation	.493**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 5, there was a significant positive correlation between the learners' motivation and Conscientiousness since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .493 which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Conscientiousness had a high level of motivation. This significant correlation is depicted in Figure 4 below:

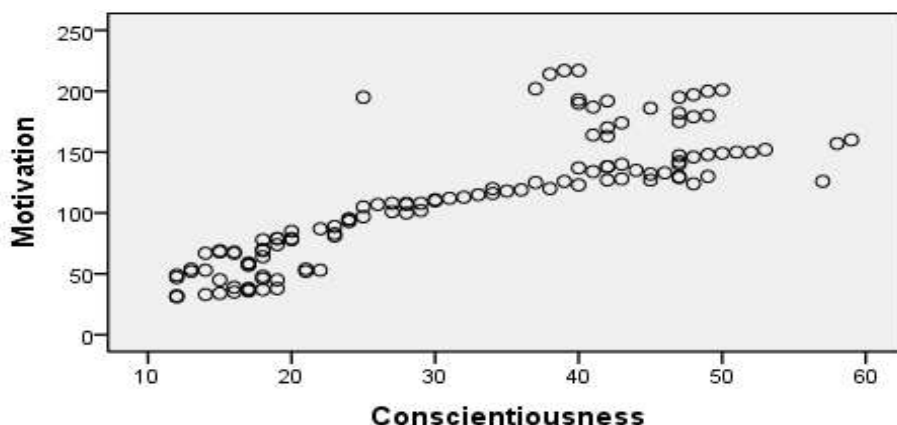


Figure 4. Correlation between the EFL learners' Motivation and Conscientiousness
Finally, the last factor to be correlated with motivation was Openness to Experience. The results of the data analysis are provided in Table 6 below:

Table 6: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Openness to Experience

		Motivation	Openness to Experience
Motivation	Pearson Correlation	1	.463**
	Sig. (2-tailed)		.000
	N	120	120
Openness	Pearson Correlation	.463**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

As Table 6 shows, there was a significant positive correlation between the learners' motivation and Openness to Experience since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .463 which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Openness to Experience had a high level of motivation. This significant correlation is depicted in Figure 5 below:

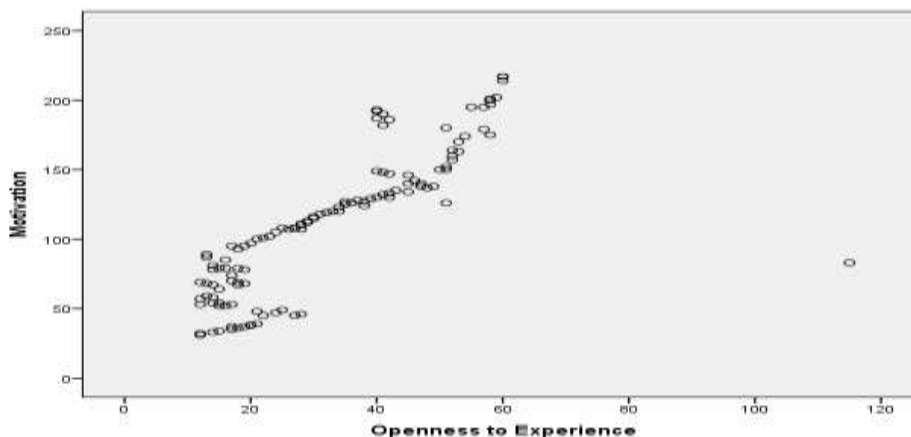


Figure 5. Correlation between the EFL learners' Motivation and Openness to Experience
Therefore, based on these results, the first null hypothesis was rejected. That is, the results showed that there was a significant correlation between the EFL learners' motivation and personality traits. The second research question tried to determine whether there was a significant relationship between Iranian EFL learners' motivation and ambiguity tolerance. Based on this aim, the EFL learners' scores on motivation were correlated with their scores on ambiguity tolerance. The results of the analysis are provided in Table 7 below:

Table 7: Pearson Product-Moment Correlation between the EFL Learners' Motivation and Ambiguity Tolerance

		Motivation	Ambiguity Tolerance
Motivation	Pearson Correlation	1	.488**
	Sig. (2-tailed)		.000
	N	120	120
Ambiguity Tolerance	Pearson Correlation	.488**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 7, there was a significant positive correlation between the learners' motivation and ambiguity tolerance since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .488 which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who were more ambiguity tolerant had a high level of motivation. This significant correlation is shown in Figure 6 below:

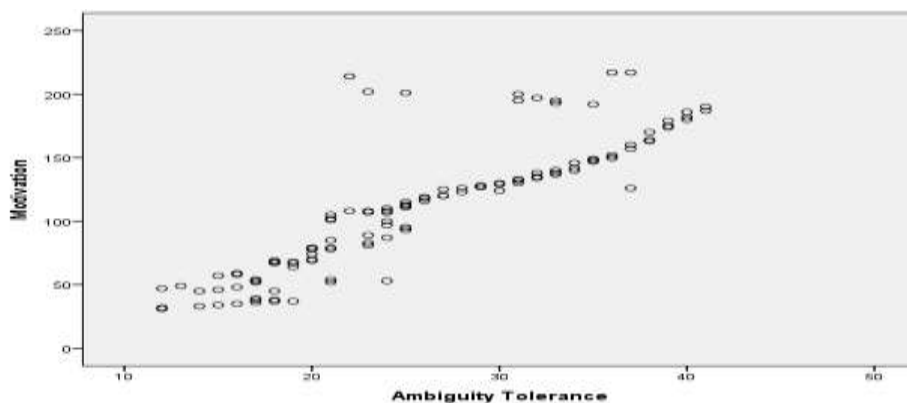


Figure 6. Correlation between the EFL learners' Motivation and Ambiguity Tolerance

Therefore, the second null hypothesis of the study was rejected. That is, based on the results, there was a significant correlation between the EFL learners' motivation and ambiguity tolerance.

The third research question of the study tried to determine whether there was a significant relationship between Iranian EFL learners' personality traits and ambiguity tolerance. Based on this aim, the students' scores on ambiguity tolerance were correlated with their personality traits. The first factor to be correlated with ambiguity tolerance was Neuroticism. The results of the analysis are provided in Table 8 below:

Table 8: Pearson Product-Moment Correlation between the EFL Learners' Ambiguity Tolerance and Neuroticism

		Ambiguity Tolerance	Neuroticism
Ambiguity Tolerance	Pearson Correlation	1	-.415**
	Sig. (2-tailed)		.000
	N	120	120
Neuroticism	Pearson Correlation	-.415**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

As Table 8 shows, there was a significant negative correlation between the learners' ambiguity tolerance and Neuroticism since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was -.415, which according to Cohen (1988), is a strong negative correlation coefficient. That is, the students who scored high on Neuroticism had a low level of ambiguity tolerance. This significant correlation is depicted in Figure 7 below

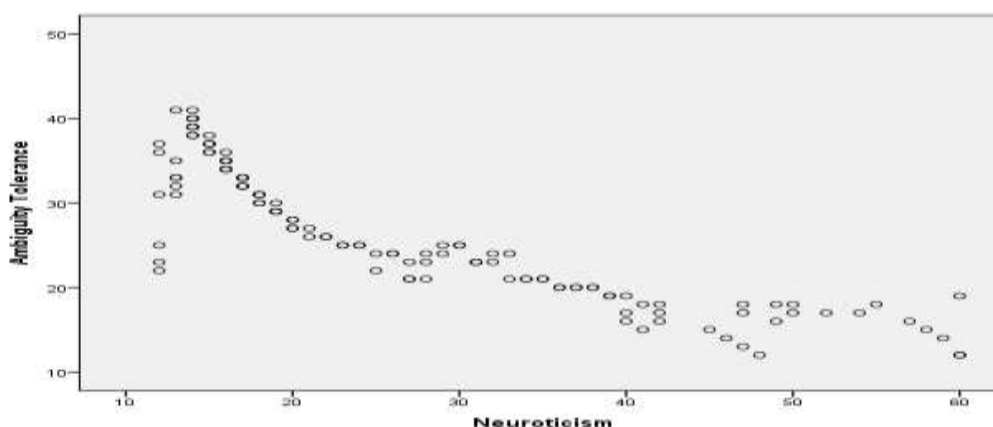


Figure 7. Correlation between the EFL learners' Ambiguity Tolerance and Neuroticism
The second factor to be correlated with ambiguity tolerance was Agreeableness. The results of the analysis are provided in Table 9 below:

Table 9: Pearson Product-Moment Correlation between the EFL Learners' Ambiguity Tolerance and Agreeableness

		Ambiguity Tolerance	Agreeableness
Ambiguity Tolerance	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.000
	N	120	120
Agreeableness	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

As Table 9 shows, there was a significant positive correlation between the learners' ambiguity tolerance and Agreeableness since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .468, which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Agreeableness had a high level of ambiguity tolerance. This significant correlation is depicted in Figure 8 below:

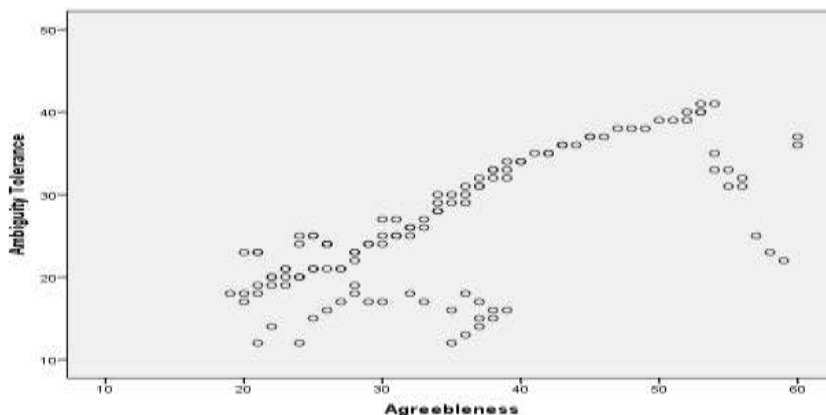


Figure 8. Correlation between the EFL learners' Ambiguity Tolerance and Agreeableness
The third factor to be correlated with ambiguity tolerance was Extraversion. The results of the analysis are provided in Table 10 below:

Table 10: Pearson Product-Moment Correlation between the EFL Learners' Ambiguity Tolerance and Extraversion

		Ambiguity Tolerance	Extraversion
Ambiguity Tolerance	Pearson Correlation	1	.429**
	Sig. (2-tailed)		.000
	N	120	120
Extraversion	Pearson Correlation	.429**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 10, there was a significant positive correlation between the learners' ambiguity tolerance and Extraversion since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .429, which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Extraversion had a high level of ambiguity tolerance. This significant correlation is depicted in Figure 9 below:

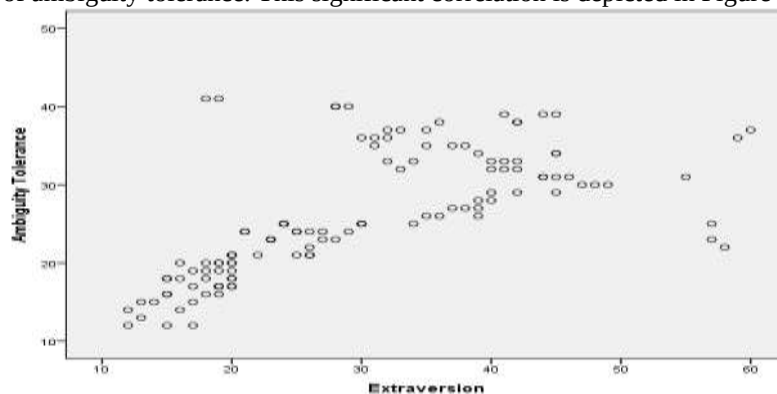


Figure 9. Correlation between the EFL learners' Ambiguity Tolerance and Extraversion

The forth factor to be correlated with ambiguity tolerance was Conscientiousness. The results of the analysis are provided in Table 11 below:

Table 11: Pearson Product-Moment Correlation between the EFL Learners' Ambiguity Tolerance and Conscientiousness

		Ambiguity Tolerance	Conscientiousness
Ambiguity Tolerance	Pearson Correlation	1	.401**
	Sig. (2-tailed)		.000
	N	120	120
Conscientiousness	Pearson Correlation	.401**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to Table 11, there was a significant positive correlation between the learners' ambiguity tolerance and Conscientiousness since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .401 which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Conscientiousness had a high level of ambiguity tolerance. This significant correlation is depicted in Figure 10 below:

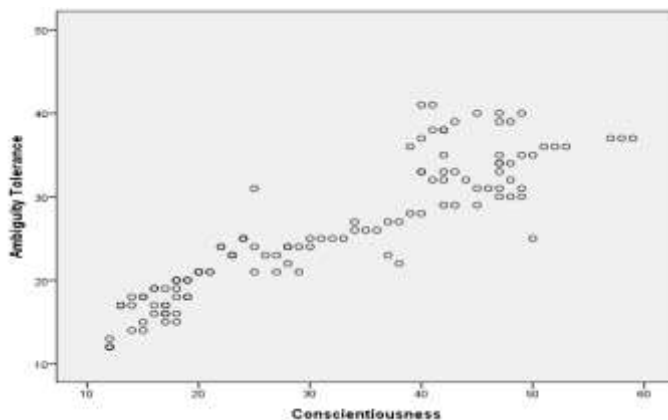


Figure 10. Correlation between the EFL learners' Ambiguity Tolerance and Conscientiousness
Finally, the last factor to be correlated with the EFL learners' ambiguity tolerance was Openness to Experience. The results of the data analysis are provided in Table 12 below:

Table 12: Pearson Product-Moment Correlation between the EFL Learners' Ambiguity Tolerance and Openness to Experience

		Ambiguity Tolerance	Openness to Experience
Ambiguity Tolerance	Pearson Correlation	1	.417**
	Sig. (2-tailed)		.000
	N	120	120
Openness to Experience	Pearson Correlation	.417**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

As Table 12 shows, there was a significant positive correlation between the learners' ambiguity tolerance and Openness to Experience since the p-value .000 (marked as Sig) was less than the level of significance .05, and the correlation coefficient between these two variables was .417 which according to Cohen (1988), is a strong positive correlation coefficient. That is, the students who scored high on Openness to Experience had a high level of ambiguity tolerance. This significant correlation is depicted in Figure 11 below:

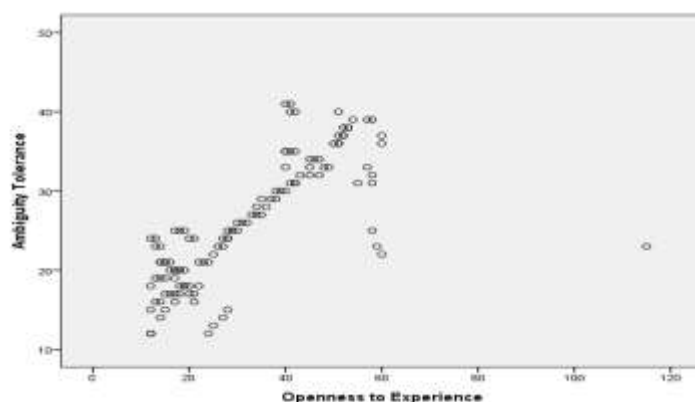


Figure 11. Correlation between the EFL learners' Ambiguity Tolerance and Openness to Experience
Therefore, the third null hypothesis of the study was rejected. That is, based on the results, there was a significant correlation between the EFL learners' ambiguity tolerance and personality traits. Multiple correlation coefficient® for relationship personality features with learners motivation is 0.598. The coefficient of determination (R^2) for the regression model suggests that 35.7 percent of changes are expressed in the learner's motivation by personality features

Table (13) Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.598	.357	.346	.21989

Analysis of variance (ANOVA) to test the validity of multiple linear regression model shows that F statistic with the value of 56.270 in 5 percent error level is significant(P -value= $\text{sig} < 0/05$).t means that

multi linear regression model of predicting the motivation of learners by personality features is meaningful in 5 percent error level

Table (14) ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.505	5	2.101	56.270	.000
	Residual	5.512	114	.048		
	Total	6.017	119			

Results of multi linear regression to predict motivation of learners by personality features is come in table (15). As can be seen fixed amount is not significant in the regression model (P-value=sig>0.05). And multiple linear regression coefficients are significant (P-value=sig<0.05).it means personality features are significant in predicting the motivation of learners.as can be seen the feature of Neuroticism predicts the motivation of learners in negative direction that means that this feature has negative impact on learners motivation and by increase in the amount of this feature the amount of learners motivation is decreased. The features of extraversion, openness, agreement and conscientiousness are predicting the motivation of learners in positive direction and in other words these features have positive impact on the motivation of learners and by increasing in these features the amount of learner's motivation is increased. Therefore results of multiple linear regression showed that personality features are predicting the motivation of learners.

Table (15) the multi linear regression model to predict learner's motivation by personality features

independent variables	Unstandardized Coefficients	Std. Error	Standardized Coefficients	T	Sig
Constant	0.167	0.210	-	0.795	0.563
Neuroticism	-0.329	0.069	-0.286	-4.768	0.000
Extroversion	0.378	0.086	0.214	4.395	0.000
Openness	0.268	0.073	0.182	3.671	0.000
Agreement	0.457	0.131	0.231	3.488	0.001
Conscientiousness	0.268	0.106	0.176	2.528	0.006

Multiple correlation coefficient for relationship of personality features with ambiguity tolerance is 0.489. The coefficient of determination for the regression model suggests that 23.9 percent changes in ambiguity tolerance among learners expressed by personality features. ANOVA test to assess the validity of multiple linear regression the model show that F statistic with 47.044 value is significant in 5 percent error level (P-value=sig<0/05).it means that multi linear regression model of predicting ambiguity tolerance by personality features is significant in 5 percent error level.

Table (17) ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.585	5	2.117	47.044	.000
	Residual	5.138	114	.045		
	Total	5.723	119			

Results of the multi linear regression model to predict ambiguity prediction among learners by personality features is come in table (18).as can be seen the fixed value in the regression model is not significant (P-value=sig>0.05) and coefficients of multiple linear regression are significant (P-value=sig<0.05), it means that personality features have meaningful role in predicting ambiguity tolerance.as can be seen the feature of Neuroticism predicts ambiguity tolerance in negative direction, it means that by increasing this feature the mount of ambiguity tolerance decreased. The features of extraversion, openness, agreement and conscientiousness are predicting ambiguity tolerance in positive direction, in other words the features of extraversion, openness, agreement and conscientiousness have positive impact on ambiguity tolerance of learners. And by increasing the features of extraversion, openness, agreement and conscientiousness the amount of ambiguity tolerance of learners is increased. Therefore results of multi linear regression model showed that personality features are predicting the ambiguity tolerance of learners.

Table 18: the multiple linear regression model to predict ambiguity tolerance by personality features.

independent variables	Unstandardized Coefficients	Std. Error	Standardized Coefficients	T	Sig
Constant	0.723	0.567	-	1.275	0.239
Neuroticism	-0.332	0.088	-0.280	-3.772	0.000
Extroversion	0.428	0.095	0.375	4.505	0.000
Openness	0.318	0.073	0.297	4.356	0.000
Agreement	0.301	0.098	0.219	3.071	0.000
Conscientiousness	0.296	0.126	0.201	2.349	0.012

5. Discussion

The first research question of the study tried to determine whether there was a significant relationship between Iranian EFL learners' motivation and personality traits. The results showed that there was a significant negative correlation between the learners' motivation and Neuroticism. According to McCrae and Costa (1990), Neuroticism deals with the general inclination of every individual in experiencing negative effects such as fear, sorrow, or embarrassment. As they noted, the individuals who score high on this trait are emotionally reactive and vulnerable to stress. On the other hand, according to Dörnyei (2001a), the individuals with a high level of motivation have a high degree of emotional stability and are able to deal with the stressful situation in an appropriate way. Therefore, it can be argued that, since motivated learners have high degrees of emotional stability, there was a negative correlation between the EFL learners' motivation and Neuroticism scores in this study.

The results also showed that, there were significant positive correlations between the students' motivation scores and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores. According to Church (2000, p. 654), the people with high scores on Agreeableness value social harmony and are generally "considerate, kind, generous, trusting and trustworthy, helpful, and willing to compromise their interests with others". Moreover, as Dörnyei (2005) noted, motivated learners are mostly optimistic people who value the interests of others and try to have harmonious relationships with them. Therefore, it can be argued that, since motivated learners value social harmony, there was a positive correlation between the EFL learners' motivation and Agreeableness scores in this study.

As Rolland (2002) stated, extraverted learners are full of energy, enjoy interacting with people, and are mostly action-oriented learners. Furthermore, Dörnyei (2001b) argued that, a high level of motivation is marked by interaction with the others and engaging in goal-oriented learning activities. Therefore, it can be argued that since motivated learners are mostly action-oriented, there was a positive correlation between the EFL learners' motivation and Extraversion scores in this study.

According to Ward (1996, p. 49), the people with high scores on Conscientiousness "show self-discipline, act dutifully, and aim for achievement against measures or outside expectations". As he further noted, these individuals are able to control their impulses in a good way. Moreover, as Williams (1994) stated, motivated people are the ones who aim to achieve their goals by any means that is available for them and are very serious in fulfilling their duties. Therefore, it can be noted that, since motivated people have a high degree of self-discipline, there was a positive correlation between the EFL learners' motivation and Conscientiousness scores.

Finally, as Church (2000, p. 665) argued, people who are open to experience "are intellectually curious, open to emotion, sensitive to beauty and willing to try new things". Furthermore, according to Dörnyei (2003), motivated people are the ones who try new things in order to be successful in achieving their goals. Therefore, it can be argued that, since the motivated learners like trying new things in life, there was a positive correlation between the EFL learners' motivation and Openness to Experience scores.

The second research question tried to determine whether there was a significant relationship between Iranian EFL learners' motivation and ambiguity tolerance. The results of the study showed that there was a significant positive correlation between these variables.

According to Chapelle and Roberts (1986), the people with a high degree of ambiguity tolerance are open to new things in life which run contradictory to their accepted values and cognitive structure. As Dörnyei (2003) argued, motivated people are the ones who try new things in order to be successful in achieving their goals. That is, these people are more open to the things that are contradictory with their beliefs. Therefore, it can be argued that, since the motivated learners are more open to the things which are not in line with their accepted beliefs, they are more tolerant of ambiguity.

The third research question of the study tried to determine whether there was a significant relationship between Iranian EFL learners' personality traits and ambiguity tolerance. The results showed that, there was a significant negative correlation between the learners' ambiguity tolerance and Neuroticism. According to McCare (2001, p. 825), the people with high scores on Neuroticism are more likely to "interpret ordinary situations as threatening, and minor frustrations as hopelessly difficult". According to him, these people are not able to deal with ambiguous situations and become frustrated. On the other hand, as Budner (1962) argued, the people with high levels of ambiguity tolerance can deal with ambiguous situations more confidently and do not become anxious under stressful situations. Therefore, it can be argued that, since ambiguity tolerant people are more confident in stressful situations, there was a negative correlation between the EFL learners' ambiguity tolerance and Neuroticism scores.

The results also showed that, there were significant positive correlations between the EFL learners' ambiguity tolerance and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores. According to Lawrence (1997), people with high scores on Agreeableness are more tolerant of contradictions between their views and the opinions of the other people and try to solve their problems by being open to new ideas. Moreover, As Norton (1975) argued, ambiguity tolerance is marked with openness to new ideas and thoughts. Therefore, it can be noted that, since the ambiguity tolerant people deal with the new ideas and thoughts in an open way, there was a positive correlation between the EFL learners' ambiguity tolerance and Agreeableness scores.

According to Day and Silverman (1989), people with high scores on Extraversion are the ones who enjoy interacting with the other people and getting familiar with their beliefs and opinions about life. Moreover, as Chapelle and Roberts (1986) stated, a high level of ambiguity tolerance is accompanied by an exploration of new belief systems which may be contradictory to a person's accepted beliefs and

behavior. Therefore, it can be argued that, since the ambiguity tolerant people are more open to new belief systems and ways of thinking, there was a positive correlation between the EFL learners' ambiguity tolerance and Extraversion scores.

According to Ackerman and Heggstad (1997), people who score high on Conscientiousness are the ones who are able to control their impulses in a better way. Furthermore, as Budner (1962) stated, ambiguity tolerant people are the ones who can regulate their impulsive feelings better than the others. Therefore, it can be stated that, since the ambiguity tolerant people have a better control on their impulsive feelings, there was a positive correlation between the EFL learners' ambiguity tolerance and Conscientiousness scores.

Finally, as Church (2000, p. 665) argued, people who are open to experience "are intellectually curious, open to emotion, sensitive to beauty and willing to try new things". Moreover, according to Budner (1962), a high degree of ambiguity tolerance is marked by openness to the things which are new and different with the accepted concepts of a person. Therefore, it can be argued that, since the ambiguity tolerant people are open to experience new things in life, there was a positive correlation between the EFL learners' ambiguity tolerance and Openness to Experience scores.

6. Conclusion

The present study investigated the relationship among intermediate Iranian EFL learners' motivation, personality traits, and ambiguity tolerance. The results of the study showed that: a) there was a significant negative correlation between the learners' motivation and Neuroticism; b) there were significant positive correlations between the learners' motivation scores and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores; c) there was a significant positive correlation between the learners' motivation and ambiguity tolerance; d) there was a significant negative correlation between the learners' ambiguity tolerance and Neuroticism; and e) there were significant positive correlations between the EFL learners' ambiguity tolerance and their Agreeableness, Extraversion, Conscientiousness, and Openness to Experience scores.

The results of the present study may have both theoretical and practical implications for the field of second language acquisition. Theoretically, the results can lead to a redefinition of the role of individual learner differences in the process of second language acquisition in foreign language contexts. Practically, the results can help syllabus designers to prepare more appropriate materials which are compatible with the language learners' personality traits, and increase their motivation in language classrooms. Moreover, the results can help language teachers to recognize the cognitive styles of their learners including their tolerance of ambiguity and design appropriate tasks for them.

However, the present study had some limitations which should be dealt with in the future studies. More specifically, it did not control the language learners' age and involved learners only from the intermediate level of proficiency. It is suggested that future studies should involve learners' from different proficiency levels, should control the learners' age, and should deal with the correlations between the learners' other individual differences.

References

- Ackerman, P. L., & Heggstad, E. D. (1997). Intelligence, personality, and interests: Evidence for overlapping traits. *Psychological Bulletin*, 121(2), 219-245.
- Altman, H. (1980). Foreign language teaching: Focus on the language learner. In H. Altman & C. Vaughan James (Eds.), *Foreign language teaching: Meeting individual needs* (pp. 45-67). Oxford: Pergamon.
- Benson, M. J. (1991). Attitudes and motivation towards English: A survey of Japanese freshmen. *RELC Journal*, 22(1), 34-48.

- Broussard, S. C., & Garrison, M. E. B. (2004). The relationship between classroom motivation and academic achievement in elementary school-aged children. *Family and Consumer Sciences Research Journal*, 33(2), 106-120.
- Budner, S. (1962). Intolerance of ambiguity as a personality variable. *Journal of Personality*, 30, 29-50.
- Carroll, J. B., & Sapon, S. (1959). *Modern language aptitude test-Form A*. New York: The Psychological Corporation.
- Chapelle, C., & Roberts, C. (1986). Ambiguity tolerance and field independence as predictors in English as a second language. *Language Learning*, 36(1), 27-45.
- Church, A. T. (2000) Culture and personality: Toward an integrated cultural trait psychology. *Journal of Personality*, 68, 651-704.
- Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences* (2nd Ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Costa, P. T. J., & McCrae, R. R. (1992). *NEO PI-R professional manual*. Odessa: Psychological Assessment Resources.
- Day, D., & Silverman, S. (1989). Personality and job performance: Evidence of incremental validity. *Personnel Psychology*, 42(1), 25-36.
- Dörnyei, Z. (2001a). *Teaching and researching motivation*. Harlow, England: Pearson Education.
- Dörnyei, Z. (2001b). New themes and approaches in second language motivation research. *Annual Review of Applied Linguistics*, 21, 43-59.
- Dörnyei, Z. (2003). Attitudes, orientations, and motivations in language learning: Advances in theory, research and applications. In Z. Dörnyei (Ed.), *Attitudes, orientations and motivations in language learning* (pp. 3-32). Oxford: Blackwell.
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, N.J: Lawrence Erlbaum.
- Ellis, R. (2008). *The study of second language acquisition* (2nd Ed.). Oxford, England: Oxford University Press.
- Ely, C. M. (1995). *Tolerance of ambiguity and the teaching of ESL*. Boston: Heinle & Heinle.
- Fowler, W. S., & Coe, N. (1976). *Nelson English language texts*. London: Thomas Nelson and Sons Ltd.
- Gardner, R. C. (1985). *Social psychology and second language learning*. London: Edward Arnold.
- Horwitz, E. (2000). Teachers and students, students and teachers: An ever-evolving partnership. *The Modern Language Journal*, 84, 523-535.
- Kaufman, J. C., Agars, M. D., & Lopez-Wagner, M. C. (2008). The role of personality and motivation in predicting early college academic success in non-traditional students at a Hispanic-serving institution. *Learning and Individual Differences*, 18, 492-496.
- Kazamia, V. (1999). How tolerant are Greek EFL learners of foreign language ambiguities. *Leeds Working Papers in Linguistics*, 7, 69-78.
- Khajeh, A. (2002). *The relationship between tolerance of ambiguity, gender, level of proficiency, and use of second language learning strategies* (Unpublished master's thesis), Tarbiat Modarres University, Tehran, Iran.
- Krashen, S. D. (1981). *Second language acquisition and second language learning*. Oxford: Pergamon.
- Lawrence, G. (1997). *Looking at type and learning styles*. Gainesville, FL: Center for Application of Psychological Type.
- MacIntyre, P. D., MacMaster, K., & Baker, S. C. (2001). The convergence of multiple models of motivation for second language learning. In Z. Dörnyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 461-492). Honolulu: University of Hawaii Press.
- McCrae, R. (2001). Trait psychology and culture: Exploring intercultural comparisons. *Journal of Personality*, 69, 819-846.

- McCrae, R., & Costa, R. (1990) Cross cultural assessment of the five-factor model. *Journal of Cross-Cultural Psychology*, 29, 171-188.
- Naiman, N., Frohlich, M., Stern, H., & Todesco, A. (1978). *The good language learner*. Toronto: Ontario Institute for Studies in Education.
- Norton, R. W. (1975). Measurement of ambiguity tolerance. *Journal of Personality Assessment*, 39, 607-619.
- Pintrich, P. R., & De Groot, E. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
- Propat, A. (2009). A Meta-Analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 120(2), 65-98.
- Randy, J. L., & Buss, D. M. (2009). *Personality psychology: Domains of knowledge about human nature*. New York: McGraw-Hill.
- Rolland, J. P. (2002). Cross-cultural generalisability of the five factor model of personality. In R. McCrae, & J. Allik (Eds.), *The five-factor model of personality across cultures* (pp. 278-292). New York: Kluwer Academic.
- Sadighi, F., & Maghsudi, N. (2000). The relationship between motivation and English proficiency among Iranian EFL learners. *Indian journal of Applied Linguistics*, 26, 39-52.
- Segalowitz, N. (1997). Individual differences in second language acquisition. In A. de Groot, M. Kroll, & J. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 78-93). Mahwah, N.J: Lawrence Erlbaum.
- Skehan, P. (1989). *Individual differences in second language learning*. London: Edward Arnold.
- Ward, A. (1996). *Achievement and ability tests: Definition of the domain*. Educational Measurement, University Press of America.
- Williams, M. (1994). Motivation in foreign and second language learning: An interactive perspective. *Educational and Child Psychology*, 11, 78-84.