

Original Paper

The Impact of Extroversion and Introversion on Iranian EFL Learners Grammar

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Received: June 22, 2023

Accepted: August 02, 2023

Online Published: August 06, 2023

doi:10.22158/eltls.v5n3p179

URL: <http://dx.doi.org/10.22158/eltls.v5n3p179>

Abstract

The way we learn is affected by our personality. Regarding the significant role of different personality types in language learning in general and mastering L2 grammar in particular, the present study investigated the impact of extrovert/introvert personality types of Iranian EFL learners in grammar learning. It was hypothesized that in an EFL situation, extroverted students would attain a higher proficiency in English. An additional aim was to find out whether there is a significant effect of gender differences' extroversion/ introversion on their grammar ability. Therefore, 220 high school students took a standardized English test, completed a personality questionnaire and provided information on a bio data form. The collected data were analyzed by Statistical Package for Social Sciences (SPSS). Distribution was conducted for evaluating extraverts and introverts' grammar with respect to their gender differences. The main finding was extroversion vs. introversion has no significant impact in grammar learning. Moreover, there was no significant effect of gender differences' extraverts/introverts on their grammar proficiency. The results revealed that both extraverts and introverts have the capability to be proficient in English grammar.

Keywords

Personality, Grammar, EFL Learners, extrovert and introvert

1. Introduction

In recent decades, the affective factors and individual differences have received a considerable attention in language learning and educational psychology. Therefore, concerning with cognitive skills has been shifted to the whole person; the individuality of learners, their needs, feelings and personality. Among a number of personality variables in predicting English language proficiency, extraversion/introversion has been extensively studied than other personality traits. Extraverts are characterized as sociable,

active, risk taking, impulsive, expressive and they enjoy participating in groups while introverts tend to be, quiet, introspective and reserved except to intimate friends (Eysenck & Eysenck, 2009). Extraversion and introversion are potentially important factors in second language acquisition (Brown, 2007). Dewaele and Furnham (2005) mentions that extraverts are likely to be more fluent than introverts in both L1 and L2; however, they are not significantly accurate. Teachers admire sociable students, who always raise their hands to answer the questions. Extraverts are perceived as good learners who usually have something to say. This stereotypical extraversion side leads many educators to look at introverts as passive students who are not as bright as extroverts (Brown, 2007). However, Dörnyei (2009) believes that introverts' better ability to consolidate learning, their less distractibility and better study habits may help them to obtain better results in learning than extraverts. Ellis (2010) identifies that extraverted learners do better in acquisition of basic interpersonal communication skills while introverted learners show a better performance at developing cognitive academic language ability.

In Iranian EFL learning context, teachers admire students who use more interactional strategies in the classroom, without having knowledge of extraversion/ introversion's biological bases. Consequently, teachers may have a positive view toward extraverts, and this positive view affects their judgments about the students' ability in EFL. Additionally, the findings in the area of EFL skills in relation to Extraversion/ introversion are not conclusive enough and the mixed results have been reported. BabaeiKhu (2005) explored the relationship between extraversion/introversion and Iranian EFL learners' proficiency. The results showed that extraverts outperformed than introverts. However, Karami (2004) found that there is no significant difference between the grammatical performances of Iranian extravert and introvert learners. Besides, the study evidently observed that some Iranian EFL teachers and learners have this assumption that introverts may perform better in conceptual task i.e. grammar than extraverts where there is no requirement of oral performance and interactions. This Study investigates to what extent these claims are true in grammar learning.

The present study aims at exploring the role of individual differences in terms of extraversion vs. introversion in grammar learning of EFL learners. In this study Introversion is a tendency to lower level of extraversion, and the introverts are who obtain lower scores in extraversion trait Eysenck and Eysenck (2003). An additional aim is to find out whether there is a significant effect of gender differences' extraversion/introversion on their grammar ability.

2. Methodology

2.1 Participants

The investigation is carried out on 98 male and 98 female subjects at the age of 16 to 17 at a secondary school in the city of Arak. In addition, these learners were not enrolled in private English institutes; it means that they are at same level proficient in English language. All subjects were enrolled in obligatory English courses and the study was carried out during one of their English classes.

Furthermore, all the subject are in a same grade in grade 11 at a secondary or high school. Obviously, the validity of the results would increase if the participants had learnt English more or less under the same circumstances. To assure the criterion of homogeneity, all the students were selected based on the result obtained from a Nelson Test, which was conducted at the beginning of the study.

2.2 Instruments

To carry this project out of the following instruments were used:

- 1) **The Nelson Test:** The Nelson test (Test 050 A) was carried out in order to homogenize the students. In this test the students were asked to answer twenty five multiple choice questions in thirty minutes. The test was according to the level of students.
- 2) **Grammar Test:** Second test is a grammar test from Basic Grammar in Use book, by Rymon Morphy. In this test, the students were asked to answer twenty-five multiple-choice questions. This test was carried out to determine the students' grammar level.
- 3) **NEO-FFI Test:** In this test, the students were asked to answer fifty psychological multiple-choice test. This test was carried out to find the psychological character of each participant. To find out the exact attribute, the test has a formulation that is calculated by the score of each answer, which students point. NEO Test is a standard well-known psychology test.

2.3 Procedures

In order to homogenize 196 participants, the Nelson test was taken .After collecting the data, mean and standard deviation, 15 participants who were below an up of two SD were excluded from the research. Then in order to find out the participant's grammar level, a grammar test was given to the groups. This grammar-test was from Basic Grammar in Use book by Rymon Morphy at the level of basic, and the participants answered 25 multiple question. After collecting the scores, mean and standard deviation, the researcher ensure that the participants of two groups male and female are in a same level in grammar.

Then it was the time of psychology or NEO-tests. NEO-test was taken from groups. The study that I carried out aimed at measuring the impact of personality items on L2-learners grammar.

The purpose of judging validity is to estimate if a test accurately measures what it is intended to measure (Hughes, 2006). With an aim of confirming the validity, the researcher asked two university teachers who had Ph.D. degree. The modification was made to reflect a reasonable domain of the content before the study was formally conducted.

It is worth mentioning that the researcher made sure of the reliability and validity of the used instruments in this project. A reliable test means that whenever there are multiple administrations, especially over a short period, the results would be identical or near identical. Therefore, reliability also means consistency over different times taking the test or taking the survey. Hughes (2006) defines it as "The more similar the test scores would have been, the more reliable the test is to be.

3. Data Analysis

3.1 Descriptive Statistics

Descriptive statistics encompassed the means, standard deviations, and frequency counts obtained from the scores of students on both Nelson test and grammar test of Basic Grammar in Use by Raymond Morphy, third edition.

Table 4.1 Frequency and Percentage of Gender of Learners

				Valid	Cumulative
				Percent	Percent
Valid	female	98	50.0	50.0	50.0
	male	98	50.0	50.0	100.0
	Total	196	100.0	100.0	

Chart. 4.1 percentage of students' gender

According to Table 4-1, it is noted that the gender of the respondents is equal to 98 (50%)

In order to provide a brief report on the variables of grammar learning scores among male and female students, we have reviewed their descriptive statistics. Descriptive Statistics tables include Mean, Median, Variance, Std. Deviation, Skewness, Kurtosis, Minimum, and Maximum. The research variables are:

Table 4.2 Descriptive Statistics Grammar Learning Grade among Male and Female Learners

gender			Statistic
grammar score	female	Mean	13.8367
		Median	14.0000
		Variance	24.447
		Std. Deviation	4.94442
		Minimum	1.00
		Maximum	23.00
		Interquartile Range	7.00
		Skewness	-.157
		Kurtosis	-.453
	male	Mean	13.4388
		Median	13.0000
		Variance	22.228
		Std. Deviation	4.71468
		Minimum	2.00

Maximum	25.00
Skewness	.554
Kurtosis	-.277

Table 4-2. Descriptive graphs show the grammar score among male and female learners. It should be noted that the average grammar score among female students is 13.84, moderate 14, variance is 24.447, standard deviation is 4.944, minimum score is 1, maximum score is 23, stretch is 0.453, and skewness is 0.157.

The average grammar score among the male students is 13.44, the middle 13, the variance is 22.228, the standard deviation is 4.714, the minimum score is 2, the maximum score is 25, the elongation is 0.277, the skewness is 0.554. The table shows that grammar score among female students is 13.84 and among male students is 13.44. So, although the average grammar among girl students seems a bit more. But this difference is negligible.

In order to provide a brief summary of the variables of the personality characteristics of extroversion (E), agreeableness (A), conscientiousness (C), neuroticism (N) and flexibility (O) among male and female learners, we describe them. Descriptive Statistics tables include Mean, Median, Variance, Std. Deviation, Skewness, Kurtosis, Minimum, and Maximum in the research variables are:

Table 4.3 Descriptive Statistics of Extroversion Score (E) among Male and Female Learners

Descriptives			
Extroversion	Gender		Statistic
	female	Mean	21.5306
		Median	22.0000
		Variance	24.252
		Std. Deviation	4.92459
		Minimum	11.00
		Maximum	32.00
		Skewness	-.097
		Kurtosis	-.555
	male	Mean	21.9388
		Median	22.0000
		Variance	25.048
		Std. Deviation	5.00477
		Minimum	7.00
		Maximum	34.00
		Range	27.00

Skewness	-.159
Kurtosis	.366

Table 4-3 shows descriptive patterns of extroversion score (E) among male and female learners. It should be noted that the mean of extraversion score among female students was 21.53, mean 22, variance 24.252, standard deviation 4.924, minimum score 11, maximum score 32, elongation -0.555, and skewness-0.097.

The mean score for extroversion (E) among male students is 21.94, mean 22, variance 25.048, standard deviation 5.00, minimum score 7, maximum score 34, elongation 0.366, skewness is -0.159. The table shows that the extroversion score (E) is 21.53 among the female learners and 21.94 among the female learners. Therefore, the average of extraversion (E) among boy students seems to be slightly higher. But this difference is negligible.

Table 4.4 Descriptive Statistics the Score for Agreeing to (A) among Male and Female Learners

Descriptive			
	gender		Statistic
Agreeableness	female	Mean	27.8061
		Median	29.0000
		Variance	21.044
		Std. Deviation	4.58743
		Minimum	16.00
		Maximum	40.00
		Skewness	-.274
		Kurtosis	.063
	male	Mean	27.4694
		Median	28.0000
		Variance	32.582
		Std. Deviation	5.70802
		Minimum	12.00
		Maximum	54.00
		Skewness	.725
		Kurtosis	3.803

Table 4-4. Descriptive stories show the grade of consent (A) among male and female learners. It should be noted that the average score for being in favor among female students is 27.81, the mean 29, variance is 21.04, the standard deviation is 4.59, the minimum score is 16, the maximum score is 40, the

elongation is 0.063, and the gravity is -0.274.

The average score for being (A) among male students is 27.47, mid 28, variance 32.58, standard deviation 5.71, minimum score 12, maximum score 54, elongation 3.803, skewness is -0.725. Chart 4-5 shows that the score of (A) is 27.81 among female students and 27.47 among male students. So, although the average acceptance (A) among girls seems to be slightly higher. But this difference is negligible.

Table 4.5 Descriptive Statistics a Conscientious Score (C) among Male and Female Learners

Descriptive			
	Gender		Statistic
Conscientiousness	female	Mean	25.5102
		Median	25.0000
		Variance	47.490
		Std. Deviation	6.89127
		Minimum	10.00
		Maximum	38.00
		Skewness	-.152
		Kurtosis	-.607
	male	Mean	27.6939
		Median	29.0000
		Variance	46.627
		Std. Deviation	6.82839
		Minimum	5.00
		Maximum	40.00
		Skewness	-.656
		Kurtosis	.664

Table 4.5 Descriptive characters show the conscientious score (C) among male and female learners. It should be noted that the average score of conscientiousness among female students is 25.51, mid 25, variance is 47.49, standard deviation 6.89, minimum score 10, maximum score 38, elongation -0.607, and skewness of -0.152.

The average score for conscientiousness (C) among male students was 27.69, mean 29, variance was 46.62, standard deviation 6.82, minimum score 5, maximum score 40, extension 0.664, skewness -0.656. The table shows that the score with conscientiousness (C) is among female students 25.51 and among male students 27.69. Therefore, the average conscientiousness (C) seems to be more pronounced among male students.

Table 4-6 Descriptive Statistics of Neuroticism Score (N) among Male and Female Learners

Descriptives			
Neuroticism	gender		Statistic
	female	Mean	21.5510
		Median	22.0000
		Variance	38.765
		Std. Deviation	6.22619
		Minimum	6.00
		Maximum	34.00
		Skewness	-.148
		Kurtosis	-.172
	male	Mean	22.0816
		Median	21.5000
		Variance	51.437
		Std. Deviation	7.17193
		Minimum	6.00
		Maximum	39.00
		Skewness	.163
		Kurtosis	-.530

Table 4-6. Descriptive characters show the psychoanalytic score (N) among male and female learners. It should be noted that the mean neuroticism score among female students is 21.55, mean 22, variance is 38.76, standard deviation 6.22, minimum score 6, maximum score 34, elongation -0.172, and skewness is -0.148.

The mean neuroticism score (N) between male students is 22.08, mean 21.50, variance 51.43, standard deviation 7.17, minimum score 6, maximum score 39, elongation -0.530, skewness is 0.163. The table shows that neuroticism score (N) among female students is 21.55 and among male learners is 22.08. Therefore, the average neuroticism (N) seems to be slightly higher among male students. But this difference is negligible.

Table 4-7 Descriptive Statistics The Flexibility Score (O) among Male and Female Learners

Descriptives			
Openness	Gender		Statistic
	female	Mean	25.6735
		Median	26.0000
		Variance	42.655

	Std. Deviation	6.53109
	Minimum	11.00
	Maximum	40.00
	Skewness	.139
	Kurtosis	-.426
male	Mean	25.6633
	Median	26.0000
	Variance	33.648
	Std. Deviation	5.80072
	Minimum	11.00
	Maximum	40.00
	Skewness	-.304
	Kurtosis	.444

Table 4.7. Descriptive Descriptions show the flexibility (O) score among male and female learners. It should be noted that the mean score of flexibility among female students is 25.67, mean 26, variance 42.65, standard deviation 6.53, minimum 11, maximum score 40, elongation 0.426, and skewness was 0.139, respectively.

The mean flexibility score (O) among male students was 25.66, mean 26, variance was 33.64, standard deviation was 5.80, minimum score was 11, maximum score was 40, elongation was 0.444, skewness was -0.304.

The table shows that the flexibility score (O) among female students is 25.67 and among male students is 25.66. Therefore, the mean flexibility (O) among male and female learners is not significantly different.

4.3 Inferential Statistics

Inferential statistics comprised hypothesizes. The method of data analyzing and hypothesis test is calculating the first gathered data and research variables. At first normality of data has studied by Kolmogorov-Smirnov test then regarding the normality of the research variables, researcher's used Independent Samples Test, Correlations test, Regression test and ANOVA.

In this section, we will examine the research hypotheses. For this purpose, first, each hypothesis is expressed and then test it by the hypothesis test if it's meaningful or not.

4.3.1 Investigating the Normality of the Research Variables

Initially, Kolmogorov-Smirnov's normality test was used to evaluate the assumption of normalization of the research variables and its results are summarized in the following Table:

Table 4.8 Tests of Normality Research Variables

	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
grammar score	.098	196	.105
Extroversion	.074	196	.114
Agreeableness	.078	196	.513
Conscientiousness	.079	196	.447
Neuroticism	.045	196	.200
Openness	.072	196	.153

The reported results in the normalization test table show that in all variables a significant level is greater than 0.05 (Sig > 0.05). Therefore, the assumption of the normalization of variables is accepted.

4.3.2 Review the Research Hypotheses Using Appropriate Statistical Tests

First hypothesis: Grammar score seems to have a significant difference between male and female learners. The zero and the opposite hypothesis are:

$$\begin{cases} H_0: \mu_{female} = \mu_{male} \\ H_1: \mu_{female} \neq \mu_{male} \end{cases}$$

To test the first hypothesis among male and female learners, we use (T- test) independent sample test based on the normality of these variables. The results are presented in the Table below.

Table 4.9 Independent T Test-Compare Grammar Scores among Male and Female Learners

Group Statistics					Independent Samples Test		
	gender	N	Mean	Std. Deviation	T	Df	Sig
grammar score	female	98	13.8367	4.94442	.577	194	.565
	Male	98	13.4388	4.71468			

According to Table 4-9, it is noted that the grammar average among female students is 13.84 and among male students is 13.44. It is noteworthy that although the grammar score for female learners is slightly higher than that of boys, this difference is not significant.

The t-test with $t = 0.577$, $df = 194$, $sig = 0.565 > 0.05$ shows that there is no significant difference between the grammar score of the male and female learners and the hypothesis is not rejected. Second hypothesis: Extraversion seems to affect student grammar score.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: R_{Extroversion} = R_{Extroversion} \\ H_1: R_{Extroversion} \neq R_{Extroversion} \end{cases}$$

In order to investigate the second hypothesis, the correlations and regression tests are used for

normalization of these variables. The results are presented in the following Tables.

Table 4-10 Pearson Correlation of Grammar Learning Scores and Extraversion Score

		grammar score	Extraversion
grammar score	Pearson Correlation	1	.020
	Sig. (2-tailed)		.776
	N	196	196
Extraversion	Pearson Correlation	.020	1
	Sig. (2-tailed)	.776	
	N	196	196

According to Table 4-10, the correlation between the grammar scores and the outsourcing score of the people is 0.02 and the significance level is 0.776, which is greater than 0.05. Therefore, there is no meaningful relationship between grammar scores and extraversion score.

Table 4-11. Regression Test to Influence Extraversion on Grammar Learning Scores

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	13.206	1.557		8.483	.000
	Extraversion	.020	.070	.020	.284	.776

a. Dependent Variable: grammar score.

Regression test results show that the effect of extraversion on the grammar score of learners is rejected with a value of $B = 0.020$ and $t = 0.284$ and a significant level of $\text{sig} = 0.776 > 0.05$. Therefore, extraversion does not affect the grammar learning score, and the hypothesis of the researcher is rejected.

Second hypothesis: Agreeableness seems to affect student grammar score.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: R_{\text{Agreeableness}} = R_{\text{Agreeableness}} \\ H_1: R_{\text{Agreeableness}} \neq R_{\text{Agreeableness}} \end{cases}$$

In order to investigate the second hypothesis, the correlations and regression tests are used for normalization of these variables. The results are presented in the following Tables.

Table 4-12 Shows the Pearson Correlation of the Grammar Learning Scores and the Score of Agreeableness

		grammar score	Agreeableness
grammar score	Pearson Correlation	1	-.064
	Sig. (2-tailed)		.372
	N	196	196
Agreeableness	Pearson Correlation	-.064	1
	Sig. (2-tailed)	.372	
	N	196	196

According to Table 4-12, the correlation between the grammar scores and the score for the agreeableness of the people is -0.064 and the significance level is 0.372 greater than 0.05. Therefore, there is not a meaningful relationship between grammar scores and the score of consenting people.

Table 4-13 Regression Test to Influence the Grammar Learning Scores

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	14.336	.854		16.796	.000
	Agreeableness	-.025	.027	-.064	-.894	.372

a. Dependent Variable: grammar score.

Regression test results show that the effect of agreeableness on the grammar score of learners with a value of B= -0.064 and test t= -0.894 and a significant level of sig = 0.372 > 0.05 is rejected. Therefore, it does not have an effect on the grammar learning score and the hypothesis of the scholar is not rejected.

Fourth hypothesis: It seems conscientiousness affects students' grammar score.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: R_{\text{Conscientiousness}} = R_{\text{Conscientiousness}} \\ H_1: R_{\text{Conscientiousness}} \neq R_{\text{Conscientiousness}} \end{cases}$$

In order to investigate the fourth hypothesis, the Correlations and Regression tests are used to determine the normal variables. The results are presented in the following Tables.

Table 4-14 Shows the Pearson Correlation of Grammar Learning Scores and Conscientiousness Scores

		grammar score	Conscientiousness
grammar score	Pearson Correlation	1	.042
	Sig. (2-tailed)		.559
	N	196	196
Conscientiousness	Pearson Correlation	.042	1
	Sig. (2-tailed)	.559	
	N	196	196

According to Table 4-14, the correlation between the grammar scores and the conscientiousness score of the people is 0.422 and the significance level is 0.559, which is greater than 0.05. Therefore, there is no meaningful relationship between grammar scores and conscientiousness scores.

Table 4-15 Regression Test for the Effect of Conscientiousness on the Grammar Learning Scores

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.860	1.372		9.372	.000
	Conscientiousness	.029	.050	.042	.586	.559

a. Dependent Variable: grammar score

a. Dependent Variable: grammar score.

Regression test results show that the effect of conscientiousness on the grammar score of learners with a value of $B = 0.042$ and $t = 0.586$ and a significant level of $\text{sig} = 0.559 > 0.05$ is rejected. Therefore, conscientiousness does not affect the grammar learning score and the hypothesis of the researcher is not rejected.

Fifth hypothesis: Neuroticism seems to affect student grammar score.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: R_{\text{Neuroticism}} = R_{\text{Neuroticism}} \\ H_1: R_{\text{Neuroticism}} \neq R_{\text{Neuroticism}} \end{cases}$$

In order to investigate the fourth hypothesis, the Correlations and Regression tests are used to determine the normal variables. The results are presented in the following Tables.

Table 4-16 Pearson Correlation of Grammar Learning Scores and Neuroticism Scores

		grammar score	Neuroticism
grammar score	Pearson Correlation	1	.074
	Sig. (2-tailed)		.300
	N	196	196
Neuroticism	Pearson Correlation	.074	1
	Sig. (2-tailed)	.300	
	N	196	196

According to Table 4-16, the correlation between grammar scores and Neuroticism scores is 0.074 and the significance level is 0.300 greater than 0.05. Therefore, there is no meaningful relationship between grammar scores and Neuroticism scores.

Table 4-17 Regression Test for the Effect of Neuroticism on Grammar Learning Scores

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	12.470	1.175		10.611	.000
	Neuroticism	.054	.052	.074	1.039	.300

a. Dependent Variable: grammar score.

The results of Regression test show that the Neuroticism effect on the grammar score of learners with a value of $B = 0.074$ and $t = 1.039$ and a significant level of $\text{sig} = 0.300 > 0.05$ is rejected. Therefore, neuroticism has no effect on the grammar learning score, and the hypothesis of the scholar is not rejected.

Sixth hypothesis: Openness seems to affect student grammar score.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: R_{\text{Openness}} = R_{\text{Openness}} \\ H_1: R_{\text{Openness}} \neq R_{\text{Openness}} \end{cases}$$

In order to investigate the sixth hypothesis, the Correlations and Regression tests are used to determine the normal variables. The results are presented in the following tables.

Table 4-18 Shows the Pearson Correlation of Grammar Learning Scores and Flexibility Scores

		grammar score	Openness
grammar score	Pearson Correlation	1	.001
	Sig. (2-tailed)		.991
	N	196	196
Openness	Pearson Correlation	.001	1
	Sig. (2-tailed)	.991	
	N	196	196

According to Table 4-18, the correlation between the grammar scores and the Openness score of the people is 0.001 and the significance level is 0.991 greater than 0.05. Therefore, there is not a meaningful relationship between grammar scores and Openness score.

Table 4-19 Regression Test to Influence the Openness of Grammar Learning Scores

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	13.622	1.483		9.183	.000
	Openness	.001	.056	.001	.011	.991

a. Dependent Variable: grammar score.

Regression test results show that the effect of Openness on the grammar score of learners with a value of $B = 0.001$ and $t = 0.011$ and a significant level of $\text{sig} = 0.991 > 0.05$ is rejected. Therefore, Openness is not affected by the grammar learning score and the hypothesis of the scholar is not rejected.

Seventh hypothesis: There seems to be no significant difference between the grammar learners' learning scores based on their personality traits.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: \mu_{\text{Extroversion}} = \mu_{\text{Agreeableness}} = \mu_{\text{Conscientiousness}} = \mu_{\text{Neuroticism}} = \mu_{\text{Openness}} \\ H_1: \mu_{\text{Extroversion}} \neq \mu_{\text{Agreeableness}} \neq \mu_{\text{Conscientiousness}} \neq \mu_{\text{Neuroticism}} \neq \mu_{\text{Openness}} \end{cases}$$

In order to study the seventh hypothesis, using variables (ANOVA), we use normal variables. The results are presented in the following Tables.

Table 4-20 Descriptive Statistic the Effect of Personality Characteristics on the Learners' Grammar Score

Personality	Mean	Std.		N
		Deviation		
Extroversion	13.8889	6.66041		9
Agreeableness	13.8219	4.54099		73
Conscientiousness	13.2571	4.79639		70
Neuroticism	14.0000	4.02266		12
Openness	13.8438	5.43055		32
Total	13.6378	4.82264		196

According to Table 4-20, it is noted that the average of the Extroverts grammar score (E) is 13.88, the A-character learners 13.82, the C-character learners 13.25, the learners with N character 14 , Learners with a personality attribute O are 13.84. ANOVA test has been used to determine the existence of a significant difference between the grammar scores based on personality trait. The results are presented in the following Table:

Table 4.21 ANOVA Results to Examine the Effect of Personality Traits on Students' Grammar Score

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	16.117	4	4.029	.170	.953
Within Groups	4519.164	191	23.661		
Total	4535.281	195			

The results of ANOVA test show that $F = 0.170$ and $SIG = 0.953 > 0.05$. Therefore, there is no significant difference between the grammar of learners based on personality characteristics and the hypothesis is rejected.

Eighth hypothesis: It seems that there is no significant difference between the personality characteristics of learners based on their gender.

The zero and the opposite hypothesis are:

$$\begin{cases} H_0: \mu_{\text{Extroversion}} = \mu_{\text{Agreeableness}} = \mu_{\text{Conscientiousness}} = \mu_{\text{Neuroticism}} = \mu_{\text{Openness}} \\ H_1: \mu_{\text{Extroversion}} \neq \mu_{\text{Agreeableness}} \neq \mu_{\text{Conscientiousness}} \neq \mu_{\text{Neuroticism}} \neq \mu_{\text{Openness}} \end{cases}$$

In order to study the eighth hypothesis, using variables (ANOVA), we use normal variables. The results are presented in the following Tables.

Table 4.22 Independent Samples Test to Examine the Effect of Personality Traits on Students' Grammar Score

	gender	N	Mean	Std. Deviation	T	df	Sig
Extroversion	female	98	21.5306	4.92459	0.575	194	0.566
	Male	98	21.9388	5.00477			
Agreeableness	female	98	27.8061	4.58743	0.455	194	0.649
	Male	98	27.4694	5.70802			
Conscientiousness	female	98	25.5102	6.89127	-2.288	194	0.027
	Male	98	27.6939	6.82839			
Neuroticism	female	98	21.5510	6.22619	-0.553	194	0.581
	Male	98	22.0816	7.17193			
Openness	female	98	25.6735	6.53109	0.012	194	0.991
	Male	98	25.6633	5.80072			

According to Table 4-22, it is noted that the mean of Extraversion score (E) among female students is 21.53 and among male students 21.94. T test with $t = 0.575$, $\text{sig} = 0.566 > 0.05$ shows that there is no significant difference between girls and boys Extraversion scores.

The average score for (A) is 27.81 for female learners and 27.47 for male students. T-test with $t = 0.455$, $\text{sig} = 0.649 > 0.05$ shows that there is no significant difference between the scores A of male and female learners.

The mean score of Conscientiousness (C) among female students is 25.51 and among male students is 27.69. T test with $t = -2.288$, $\text{sig} = 0.027 < 0.05$ shows that there is a significant difference between male and female learners C scores. And the C score is higher among male learners.

The mean Neuroticism score (N) among female students is 21.55 and among male students is 22.08. T test with $t = -0.553$, $\text{sig} = 0.581 > 0.05$ shows that there is no significant difference between the scores of N students girls and boys.

The mean Openness score (O) among female learners is 25.67 and among male students is 25.66. T test with $t = 0.012$, $\text{sig} = 0.991 > 0.05$ shows that there is no significant difference between the O-grade scores of boys and girls.

5. Conclusion and Discussion

The present study aims at exploring the role of individual differences in terms of extraversion vs. introversion on grammar ability of EFL learners (In this study Introversion is a tendency to lower level of extraversion, and the introverts are who obtain lower scores in extraversion trait (Eysenck & Eysenck, 1975). An additional aim is to find out whether there is a significant effect of gender

differences' extraversion/introversion on their writing ability. The study compared 97 extraverts and 97 introverts with their grammar performance. The collected data were analyzed by Statistical Package for Social Sciences (SPSS). Distribution of *t* was conducted for evaluating extraverts and introverts' grammar with respect to their gender differences. The main finding was extraversion vs. introversion has no significant impact on grammar ability. Moreover, there was no significant effect of gender differences' extraverts/introverts on their grammar proficiency. The results revealed that both extraverts and introverts have the capability to be proficient in grammar learning.

The implications of this study can provide teachers, educators, students' parents and syllabus designers a comprehensive answer to their prejudgments about the students' ability in different language skills. Besides, the implications may be applied to both male and female population of Iranian language learners at intermediate level. This also can settle the contradictory ideologies concerning with individual differences in Language learning. Every student can reach to the optimal level of performance. Additionally, the finding can change the views toward grammar task as a mere conceptual activity that required introspective students to be mastered. This also proves each task has an optimal level of arousal that being proficient on the task and skill may not contribute with the learners differences in their personality.

The results can be discussed in other way that the view to extraverts as good learners due to their sociability behaviors is misleading. Unfortunately, such admiring positive views toward extraverts have influenced teacher's perceptions and judgments about the students (brown, 2007). In EFL teaching classrooms, the speaking skill is most dominated than other skills. In fact, students who speak more and use the chances to interact would be considered as active learners and the positive attitude of teachers to such students will influence on their judgments about those students' learning abilities. The result of this research resolves these problems that extraverts are not better than introverts. To sum up, it seems that both extraverts and introverts have specific strengths and weaknesses in SLA and oral L2 production. Overall, these strengths and weaknesses cancel each other out, so that it impossible to conclude which is the desirable end of the extraversion–introversion dimension for SLA and oral L2 production (Dewaele, 2012). In addition, McDonough (2002) believes that although some personality types such as; introversion, self-confidence and self-efficacy have been suggested that they are conducive to learning a foreign language; these correlations have proved to be rather weak. The finding of the present study seems to be compatible with the above said studies, and the findings of Carellet *et al.*, 's (1996) study that reported there was no significant relationship between extraverts/introverts and their performance on grammar, writing and reading comprehension tests. Also it supports the findings of Nejad *et al.* (2012) which found no significant relationship between personality and writing ability.

Moreover the findings of this research are on the opposite side of some linguists and psychologists theories at least in writing skill. The findings, with emphasizing on no impact of extraversion and introversion with respect to gender differences on language ability, could resolve all disagreements. It gives a clear answer to the previous mixed results in this area and decreases the role of personality in

language proficiency, particularly grammar. In the other word, the notion of the person who is skilled at learning who then applies that skill to a language resolves some of the problems of conceptualizing individual differences and their significance (McDonugh, 2002). The results of this study make teachers aware of certain general realities that hold for most extroverted and introverted learn grammar and they can more directly address students' needs.

Having knowledge of learners' personality types enable grammar teachers to adjust their expectations with grammars' abilities. For instance, realizing that extroverts are not apt for grammar causes teachers to reduce their expectations and affects the scores they assign to students. Being informed of learners' personality types, teachers are able to choose appropriate grammar prompts. As Callahan (2000) suggests, extroverts show interest in thinking about the external world and their experiences, whereas, introverts prefer to reflect on their inner side. Also, the findings can help extrovert learners to improve their motivation and enhance their performance in learning through realizing their personality types and their difficulty in different subsets of grammar.

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