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Abstract

The present study intended to see if, everything else being equal, participants' study major really affected their language achievement. It was hypothesized that the exact EFL sub-discipline (i.e., Translation, Literature, or Teaching English as a Foreign Language (TEFL)) in which students are majoring affects their language achievement in meaningful ways. A total of 198 ($N=198$) university students all majoring in English took their ordinary courses and at the end of the semester, they were given their exams. Their semester-end cumulative grade point averages (GPA) were compared to their previous-term GPAs. SPANOVA results did not identify study major to be a predictor of language achievement.

1. Introduction

Language achievement has been studied in the context of a multitude of social, political, educational, cultural, and individual-learner factors. To the researcher's knowledge, however, no study has addressed language achievement in the context of the exact sub-discipline in which language learners major.

In the case of EFL education, this is crucial and requires attention. In most, if not all countries, university students who pursue EFL as their line of undergraduate education usually choose between one of the three sub-disciplines: English literature, Translation, and Teaching English as a Foreign Language (TEFL). In some countries, like Iran, they are allowed to pursue their studies at the graduate level in any of these sub-disciplines they like no matter what their undergraduate line of study had been. If empirical studies show that study major differentially affects language achievement, this practice can be called into question. As such, the present study sought to show if, everything else being equal, EFL students' study major really affected their language achievement. It was therefore hypothesized that students' study major (i.e., TEFL, Literature, or Translation) differentially affects their overall language achievement as measured by their cumulative grade point averages (GPAs) across time.

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2. Background

The variables under study here are not psychological constructs that require a firm grounding in literature. However, it is necessary to provide a review of the notion of cumulative grade point average here.

The concept of grading students' work quantitatively was first implemented by the University of Cambridge in 1792. A Grade Point Average is a numerical calculation of the mean of the grades received over a defined study period (e.g., semester/term), program or career. Grade Point Average (GPA) is a numerical calculation, weighted by credit points or hours, of the mean of the grades received by a student over a defined study period, or over an entire program (Bressand, 1990).

A close look at the uses to which GPA has been put in different countries reveals that the GPA has a number of uses:

- as a measure used to select students for Prizes and Scholarships;
- as the basis for eligibility for awarding degrees with Honors and Pass with Distinction;
- for setting minimum entry levels for students articulating from TAFE to Higher Education programs;
- as a basis for eligibility for selection into research programs; and
- as a selection criterion or ranking tool for selection into undergraduate and postgraduate programs.

In other words, in many countries the GPA provides an overall view of student performance in a program and is a leading indicator of student achievement. It is an internationally recognized measure of a student's performance.

Most nations have individual grading systems unique to their own schools. However, several international standards for grading have arisen over the past century. The most commonly used quality index in the US uses five letter grades: A, B, C, D, and F with 'A' being the highest and 'F' denoting failure. In the mid-twentieth century, many American educational institutions began to use the letter 'E' instead of 'F'.

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The grade 'E' is sometimes used in Canada as a conditional failing grade. In Canada, grade point averages vary by province, by level of education, by institutions, and even by different faculties in the same institution. The following are commonly used conversions from percentile grades to letter grades.

Table 1.

Description of Grading System in Canada

Letter	Percentile	Letter	Percentile
A+	90–100	C+	64–67
A	85–89	C	60–63
A–	80–84	C–	55–59
B+	76–79	D	50–54
B	72–75	I	0–49 (temporary)
B–	68–71	F	0–49 (permanent)

The Iranian grading system is similar to what is practiced in secondary schools and universities of some European countries (e.g., Belgium); the passing grade is 10. Graduate programs require 12 as passing grade.

Table 2.

Description of Grading System in Iran

Grade	Qualification
18-20	Excellent
16-17	Very Good
13-16	Sufficient
10-12	Poor but Passing
9 & below	fail

It should be noted that, although in Iranian universities tests are very often scored on a 0-100 scale, they are converted to the 1-20 scale and reported to the educational system.

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3. Method**3.1. Participants**

Participants in the present study ($N=198$) were all Iranian EFL university students majoring in Translation ($n_{Trans}=59$), Literature ($n_{Lit}=73$), and Teaching English as a Foreign Language (TEFL) ($n_{TEFL}=66$). They belonged in different proficiency groups: Beginner ($n_{big}=58$), Lower-intermediate ($n_{li}=43$), Upper-intermediate ($n_{ui}=48$), and Advanced ($n_a=49$).

3.2. Instruments and measures

To measure participants' achievement, gain in cumulative grade point average (GPA) across time was used. A GPA is an internationally recognized measure which provides an overall view of students' performance in a program and is a leading indicator of students' achievement. In Iranian universities, a scale from 0 to 100 is often used for scoring students' test performance, wherein >70 to 100 equals to Good to Excellent, 70 is the Average point, 60 is the Passing thresholds, and <60 equals to Failed.

3.3. Procedures

Participants' GPAs from previous term were used as the pre-test data. They then took their ordinary courses and at the end of the semester, they were given their exams. Their semester-end GPAs (used as post-test data) were then compared to their previous-semester GPAs. To control the probable teacher effects, the classes were taught by the same group of teachers.

To ensure that the groups were homogeneous prior to their entry into the study, their previous-term GPAs were compared through a one-way ANOVA and no significant differences were found. Results of the analysis of variance and the Tukey post-hoc test are presented in tables 3 and 4 respectively.

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Table 3.

One Way ANOVA for Previous Term GPA across Study Majors

	Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Between Groups	1933.349	2	966.674	.888	.413	.009
Within Groups	212394.625	195	1089.203			
Total	214327.974	197				

Table 4.

Tukey HSD Test for Previous Term GPA across Study Majors

(I) Student Major	(J) Student Major	Mean Difference (I-J)	Std. Error	Sig.
Literature	Translation	7.67190	5.77769	.381
	TEFL	2.88798	5.60568	.864
Translation	TEFL	-4.78392	5.91305	.698

Results are significant at alpha = .05

4. Results and discussion

The study was based on a mixed between-within subjects design with proficiency and sub-major as the independent variables (i.e., the between subjects variables) and achievement (or change in GPA over time) as the dependent variable (i.e., the within subjects variable). Therefore, two sets of 'mixed between-within subjects' analysis of variance (also known as SPANOVA) were conducted for data analysis (see Pallant, 2001). The main aim of this paper, as it has already been delineated in the 'introduction' section, was to address the question of whether study sub-major differentially affects achievement. The question can be presented as:

- Is there a change in subjects' GPA across two time phases (Previous semester and this semester) as a result of the effect of their study major?

Here the within-subjects factor was time. Subjects' GPAs from two different educational semesters were used as the scale for the within-subjects variable of the study (i.e., GPA from previous semester, and GPA from this semester). As such, the within-subjects variable of the study can be described as (GPA-1 or time-1) and GPA-

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2 (or Time-2). The between-subjects variable for this first SPANOVA set was students' study major (i.e., Literature, TEFL, or Translation).

This SPANOVA was conducted to see if there were main effects for each of the independent variables (i.e., Main effect for subjects' study major and main effect for time (i.e., semester)) and also for their interaction to tell if the change in GPA over time was different for the study-major groups.

It was necessary to check for *Homogeneity of intercorrelations*—to see if for each of the levels of the between-subjects variable (i.e., study major) the pattern of intercorrelations among the levels of within-subjects variable (i.e., GPA) were the same. To test this assumption, Box's M statistic with the *alpha* level of .05 was used with the hope that the statistic would not be significant (i.e., that the *p* level would be greater than 0.055). Table 5 displays the result and indicates that this assumption was met (*Sig.*=0.592).

Table 5.

Box's Test of Equality of Covariance Matrices

Box's M	4.703
F	.772
df1	6
df2	787447.163
Sig.	.592

Design: Intercept+study major

Within Subjects Design: Time

A look at the Multivariate Tests table also indicated that there was a change in GPA across time. The main effect for time was significant. There was, however, an indication that the groups were not different in terms of GPA across time. The main effect for the interaction between time and study major was not significant either. These findings are indicated by Wilks' Lambda values and the associated probability values given in the column labeled *Sig.* in Table 6 below.

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Table 6.

Multivariate Tests

Effect		Value	F	Sig.	Partial Eta ²
Time	Pillai's Trace	.031	6.154(b)	.014	.031
	Wilks' Lambda	.969	6.154(b)	.014	.031
	Hotelling's Trace	.032	6.154(b)	.014	.031
	Roy's Largest Root	.032	6.154(b)	.014	.031
Time * Study Major	Pillai's Trace	.001	.124(b)	.884	.001
	Wilks' Lambda	.999	.124(b)	.884	.001
	Hotelling's Trace	.001	.124(b)	.884	.001
	Roy's Largest Root	.001	.124(b)	.884	.001

Based on the values in the Wilks' Lambda's part of the "Multivariate Tests" table, it was found that there was a statistically significant change in GPA as a result of study major. The value for Wilks' Lambda for time was 0.969, with a *Sig.* value of .014 (which means $p < .0145$). Because the p value was less than .05, it was concluded that there was a statistically significant effect for time. This suggested that there was a change in GPA across time; technically speaking, it showed the effect of study major on GPA. The value for partial Eta squared for time was 0.031. Using the commonly used guidelines proposed by Cohen's (1988) (0.01=small effect, 0.06=moderate effect, and 0.14=large effect), this result suggested a small effect size for time.

Furthermore, the value for Wilks' Lambda for time and study-major interaction was 0.999, with a *Sig.* value of .884 (which means $p < .8845$). Because the p value was bigger than .05, it was concluded that there was no statistically significant effect for time and study-major interaction. The partial Eta squared value for the interaction effect was 0.001. This suggests no effect for time and study-major interaction. This means that there was the same change in GPA over time for the three study-major groups. In other words, gain in GPA for the literature, TEFL, and Translation students was the same. Figure 1 visualizes this similarity in GPA gains across subject groups.

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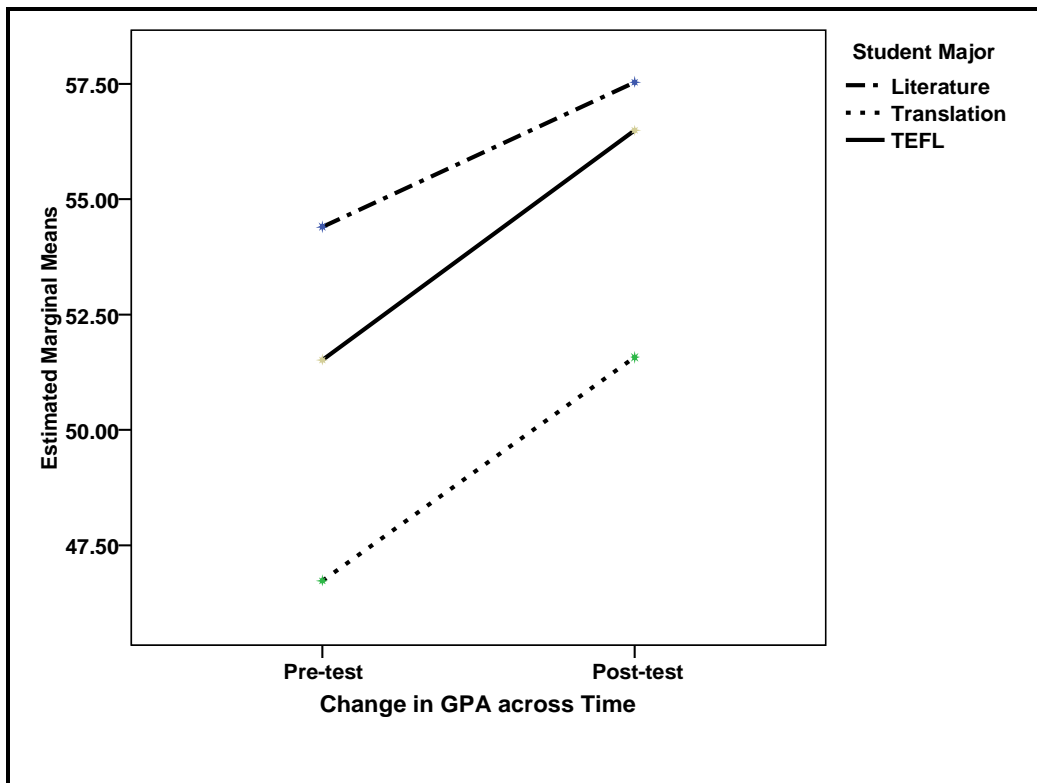


Figure 1. Comparison of gains in GPA across subject groups.

Table 7 presents the descriptive statistics for the three treatment groups across time. It indicates that the pre-test (GPA-1) mean for Literature students was 54.40 while the post test (GPA-2) mean was 57.53; the pre-test mean for Translation students was 46.73 whereas the post test mean was 51.57; and the pre-test mean for TEFL students was 51.52 whereas the post test mean was 56.49.

Table 7.

Descriptive Statistics for LOC Groups across Time

	Study Major	Mean	Std. Deviation	N
Pre-test (GPA-1)	Literature	54.4031	31.82448	73
	Translation	46.7312	32.25411	59
	TEFL	51.5152	34.89196	66
Post-test (GPA-2)	Literature	57.5342	31.13250	73
	Translation	51.5738	29.30306	59
	TEFL	56.4935	30.73478	66

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The mean change was mathematically small but the researcher had to check it for statistical significance; to this end, the researcher looked at the data displayed in Table 8. As table 8 indicates, the Sig. value for study major was not statistically significant ($Sig.=0.404$). The Sig. value was not less than the alpha level of 0.05. Therefore, the researcher concluded that the main effect for study-major group was not significant. That is, there was no significant difference in gains in GPA for the three groups (those majoring in Literature or TEFL or Translation). The effect size of the between-subject effect also supported this finding; the eta-squared value for study major (or group) was 0.009. This is very small. It is therefore not surprising that it did not reach statistical significance.

Table 8.

Tests of Between-Subjects Effects

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	Partial Eta ²
Intercept	1105735.027	1	1105735.027	642.960	.000	.767
Major	3134.929	2	1567.464	.911	.404	.009
Error	335352.496	195	1719.756			

Transformed Variable: Average

Computed using alpha = .05

The results of data analysis presented above indicated that study major is not an important factor in GPA gain across time. It can therefore be argued that the kind of study sub-major is not a predictor of GPA gain. That is, students do not achieve greater language competency as a result of the exact EFL major they study.

It is also noticed that the gain in mean GPA slightly differs, mathematically of course, for the three groups. TEFL students gained greater GPA than translation students who, in turn, outperformed literature students; their mean differences were 4.9, 4.8, and 3.0 respectively. This mean difference is not statistically significant. However, it might be an indication that TEFL students achieved more because of the meta-language (e.g., knowledge of grammar rules, etc.) awareness they acquire from the content they learn in their classes. Moreover, translation students, too, outperformed literature students. This may also be an indication that the use of mother tongue in

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language classes can aid EFL students. These claims, however, need further support from robust studies that address the impact of metalinguistic awareness and mother tongue on foreign language achievement.

5. Conclusion

It was found in this study that EFL students' exact study major is not an indicator of their language achievement. Although certain claims can be made about the effects of metalinguistic awareness and mother tongue on foreign language achievement, the present study did not show them to be predictors of achievement either. By far, the major conclusion of this study is that the concern raised in the introduction to this paper about allowing students to pursue their studies in majors other than their undergraduate ones is no longer an issue in the light of these findings.

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