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THE EFFECT OF ZOBL'S SUPERSET AND SUBSET PRINCIPLE ON IRANIAN EFL LEARNER'S GRAMMATICAL ERRORS

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ABSTRACT

This study investigated common English language errors made Iranian First Language speakers and used them for teaching grammar. The study examined Zobl's preference task (superset/ subset) to teach grammar. Subjects were adult Iranian EFL learners of English at the Azad University of Tonekabon, in levels ranging from beginner to intermediate. They were in two groups. One experimental and the other control group. These two groups were selected by an OPT. A same pretest was held. There was not any treatment for our control group. However, in the experimental group there was Zobl's superset principle and preference task. Then, a posttest (the repetition of the pretest) was held to see which group had the least grammatical errors. The study is important to educators and study material developers who want to teach grammar.

Keywords: Error Analysis, Zobl's Preference Task, Superset/ Subset Principle, English Second Language, First Language, Language Acquisition, Language Learning, Grammatical Errors, Frequency of Occurrence, VERBS, Prepositions, Adverbs

INTRODUCTION

Complaints about poor English results of freshman students have been commonly heard from the public, the Ministry of Education and even the teachers in schools all over Iran. The blame is either placed on teachers for not being competent enough to teach the language properly or learners who do not want to take their learning seriously; or the education system which is perceived to be ineffective. Many ESL instructors and students alike regard the teaching and learning of sentence-level grammar as boring or somewhat ineffectual, and consequently, grammar does not receive a lot of attention in many ESL classes. Researchers such as Kaplan (1966) and Nunan (2001) have reflected that learners' errors are systematic, rather than random, and many learners tend to commit the same kinds of errors during a certain stage of language learning. Error analysis is also significant as a mechanism for improving writing skills. As Corder (1974) puts it, "We should be aware that different types of written material may produce a different distribution of error or a different set of error types."

Since foreign language, on the other hand, seems to play a significant role in language communication, and since grammatical patterns are considered the base here, without which learning grammar cannot be accomplished any research study made on the improvement of EFL learners' grammatical patterns can be considered innovative, particularly in this study, the effectiveness of using Zobl's superset/subset principle on Iranian EFL learners' grammatical error is, in fact, a new aspect of such studies with contribution to teach English as foreign language.

Review of the Literature

Richards and Schmidt (2002) define error analysis as "the study and analysis of the errors made by second language learners". Another view of error analysis is given by Brown (1980, cited by Hasyim (2002), when he defines error analysis as the process of observing, analyzing, and classifying the deviations of the rules of the second language and then to reveal the systems operated by a learner.

Error analysis is not only beneficial to teachers, syllabus designers and textbook writers by showing them a student's progress, but it is also significant to researchers and to the learners. It can show researchers what strategies learners use to learn a second language and also indicate the type of errors learners make and why. Carroll's proposal (cited in Corder, 1974) is that the learner should find the correct linguistic form by searching for it.

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Error analysis was used in many places as a diagnostic tool, helping to identify the causes of errors. Today, Khodabandeh (2007) defined error analysis as a kind of linguistic analysis consisting comparison and focusing on errors learners make and believed error analysis has manifested for identifying, classifying and interpreting the language learners' mistakes and has associated with hypotheses and theories of language learning. Richard (1974) held that error analysis at classroom level could be a means of assessing learning and teaching.

Keshavarz (1993) put errors in two main categories; the first category as Syntactical-morphological errors including wrong use of prepositions, articles, plural morphemes, qualifier and intensifier, and the use of typical Persian construction in English. The second category as Lexical-semantic errors include cross association and language switch.

Zobl's Superset/ Subset Principle: the Concept of Preference Task

The Subset Principle

Within the Principles and Parameters approach to Universal Grammar, children acquire language by setting the parameters to match the input data. Although UG severely constrains the acquisition task, it may still be possible for a learner to arrive at an incorrect grammar through a mistake in parameter setting. In this event, the question arises as to how the learner could acquire the correct setting, under the (generally accepted) assumption that only positive evidence is available. In particular, a learning problem arises if the language generated by one value of a parameter is included in the language generated by the other value. According to the Subset Principle, the learner faced with a learning situation is forced to choose the subset value (when both values are compatible with the input). A definition of the Subset Principle, from Wexler and Manzini (1987), is given in (1).

(1) *Subset Principle (Wexler and Manzini, 1987)*

The learning function maps the input data to that value of a parameter which generates a language:

- (a) Compatible with the input data; and
- (b) Smallest among the languages compatible with the input data.

The issue of the availability of Universal Grammar to second language learners has become a topic of great interest in the field of second language research (see White, 1989b for an overview). Second language acquisition, like first language acquisition, is considered by many to proceed from positive evidence only, in which case the same subset learning problem might arise for second language learners.

Experiments on the Superset/Subset Principle

Zobl tested 38 adult Japanese ESL learners of varying proficiency. He assumes that Japanese is a non-configurational language. Given this assumption, his investigation is intended to test if learners whose first language instantiates the superset value can acquire the subset value of the target grammar. Zobl used a preference task where subjects were asked to mark the best position for a constituent in a given sentence.

Zobl's hypothesis, summarized below was that subjects with a configurational setting would not place the constituent between the verb and arguments (that is, within the VP), while subjects with a non-configurational setting would allow the constituent to be placed between the verb and arguments (these subjects would have no VP projection). The results were that in 36% of the responses, the constituent was placed between the verb and its arguments. This response was given more frequently by less advanced subjects than by the more advanced subjects. Zobl concluded that the subjects initially adopted a non-configurational setting, but some were able to acquire the correct configurational setting - they were able to move from a superset grammar to a subset grammar (space does not permit a discussion of Zobl's explanation for this learning, involving the parser and empty categories). According to Zobl, the adoption of the superset value as the initial setting contradicts the predictions of the Subset Principle.

Zobl's Hypothesis: Subjects with a configurational setting would not place the constituent between the verb and arguments (within the VP); subjects with a non-configurational setting would allow the constituent to be placed between the verb and arguments (these subjects would have no VP projection).

Zobl's Results: In 36% of responses, the constituent was placed between the verb and arguments. This response was given more frequently by less advanced subjects than by more advanced subjects.

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Purpose of Study

If someone wants to learn a foreign language, he will obviously meet with many kinds of learning problems dealing with its sound system, vocabulary, structure, etc. This is understandable since the student learning the foreign language has spoken his own native language, which has been deeply implanted in him as part of his habit. Very often, he transfers his habit into the target language he learns, which perhaps will cause errors.

Contrastive analysis theory pioneered by Fries assumed that these errors are caused by the different elements between the native language and the target language. Thus, contrastive analysis followers suggest that teachers do contrastive analysis between the native language and the target language so as to predict the learning problems that will be faced by the students. However, not all problems predicted by contrastive analysis always appear to be difficult for the students. On the other hand, many errors that do turn up are not predicted by contrastive analysis. This shortcoming has inspired the appearance of error analysis which was pioneered by Corder (1960). The key finding of error analysis is that many learner errors are produced by the learners making faulty inferences about the rules of the target language. To overcome the shortcoming of contrastive analysis, it is suggested that teachers accompany contrastive analysis with error analysis. It is carried out by identifying the errors actually made by the students in the classroom.

Research Questions and Hypotheses

Research Question of the Study

1. Are the mean scores of the experimental and control group of the study different?
2. Do Iranian EFL learners assume a preference over the terminal position of the ADV in the sentence?
3. Does Zobl's preference task (super/ subset) have effect on Iranian learner's grammar knowledge?

Hypothesis of the Study

1. The mean scores of the experimental and control group of the study are not different.
2. Iranian EFL learners assume a preference over the terminal position of the ADV in the sentence.
3. Zobl's preference task (super/ subset) doesn't have effect on Iranian learners' grammar knowledge.

MATERIALS AND METHODS

Method

In order to investigate effect of Preference task on Iranian learners' grammar knowledge, this study adopts a quantitative approach.

This study found a quantitative research design to be appropriate for this study because it is statistically reliable and allow results to be analyzed and compared with similar studies.

The current study consists of two groups of intermediate EFL students participated in class with a teacher in which one group was thought grammar according preference task (zobl's superset/subset), the other group received grammar by the traditional method used in Iranian universities. Both groups had pretest and posttest to measure their grammar. Only experimental groups received preference task to improve grammar, that is, the other group (control Group) didn't receive any preference task at all. At the end of the study, the results of pre- and post-tests of all three groups were compared with each other to see the possible effect of preference task (zobl'ssuperset/ subset).

Participants

The participants for this study consisted of 50 sophomore BA translator trainees From Azad university of Tonekabon, Iran. The students came from the same L1 background. The students' age range was from 19-23 years old. They were both male and female. sophomore BA translator trainees were ideal for the current study because they were learning all skills of language at the same time, and they were familiar with a lot of words, also their English proficiency was reasonable to speak English and to understand the importance of grammar but they were not high enough to not make grammar errors during writing. The students were selected via administrating OPT which divided into two groups, one experimental groups (with preference task) and one control group (no preference task). The research was conducted during their grammar course in the classroom within 15 sessions in fall course, 2013.

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Materials

In each fifteen sessions students of experimental were thought grammar through Zobl’s preference task. Zobl used a preference task where subjects were asked to mark the best position for a constituent in a given sentence.

Procedure

Each group received the same amount of instruction. The students were divided into two groups, one experimental group received Zobl’s preference task, the other, and the control group received the traditional way of teaching grammar. Prior to the treatment, a pretest was conducted to gain information on their grammar knowledge before the treatment, in order to compare with the post-test taken at the end of the treatment. In pretest the students were given a multiple choice test that all participants answer them. The questions consisted of sentences that students have difficulty in word order. The total score for each participant, then, was 15. The same process happened for the post-test. At the end, a post-test was used, similar to the pre-test, to evaluate the changes that had occurred in the participants’ grammar knowledge as the result of applying preference task and the traditional way of teaching grammar. Then, the results of pre- and post-tests were compared with each other to see any possible changes that will be discussed in the next chapter.

Methods of Analyzing Data

Following the collection of data through pre-test and post-test, descriptive statistics and percentages were calculated for both tests. Both tests were scored separately for each participant. For each student, they were then entered into a computer-based statistical program .The first format of the data collection process was designed for quantitative analyses, and involved listing the participants of both control and experimental groups, with their individual scores for each test. The data obtained from testing the hypotheses of this study were analyzed via calculating the descriptive statistics as well as the inferential statistical method of T-test and correlation coefficient for determining the effect of the independent variable of the study on the dependent variable and the degree of progress of the participants from the pretest to the posttest of the study.

RESULTS AND DISCUSSION

Data Analysis and Results

Following the end of the data collection period, which consisted of the students’ grammar, was scored. After the coding and scoring were complete, the data was inputted into SPSS and descriptive and inferential statistical tests were carried out.

Descriptive Analysis of the Data

This section focuses on the descriptive analysis of the obtained data in this study. Such analysis was done using the SPSS software. Table (4.1) shows the descriptive analysis for the pretest and the posttest of grammar in both groups of the study:

Table 4.1: Group Statistics; the Pretest and Posttest of the Study (PT= preference task; +PT= experimental group; -PT== control group)

	PT	N	Mean	Std. Deviation	Std. Error Mean
Grammar	+PT	25	12.6400	2.11896	.42379
	_PT	25	5.4000	2.00000	.40000

As indicated in Table (4.1), the number of participants has been 50 (ex= 25; con= 25). The mean score for Experimental group, and control group was shown to be 12.64, and 5.4, respectively. The mean of experimental group was higher than control one. The standard deviation for both groups was 2.11, and 2 respectively. As for the standard deviation obtained for these two groups, there seems to be the same variability among scores of both groups. This may give an image of the participants' posttest scores being less homogeneous after conducting the treatment of the study (preference task).

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Similarly the descriptive analysis for the pretest and posttest of grammar in experimental group of the study has been indicated in table (4.2) below:

Table 4.2: Descriptive Analysis of the Data of experimental group of the study (PR= pretest; PO= posttest)

	Mean	Std. Deviation	N
PREEX	4.0400	1.17189	25
POSEX	12.6400	2.11896	25

As indicated in Table (4.2), the number of participants has been 25 in experimental group (NPR= 25; NPO= 25). The mean for the pretest scores was shown to be 4.04 (XPR= 4.04) as compared to the mean for the posttest scores which was 12.64 (XPO= 12.64). As for the standard deviations obtained for this experimental group, there seems to be more variability among the pretest scores than the scores in the posttest.

This may give an image of the participants' posttest scores being more homogeneous after conducting the treatment of the study (the preference task).

Table 4.3: Descriptive Analysis of the Data of the control group of the study (PR= pretest; PO= posttest)

	Mean	Std. Deviation	N
Precon	4.6000	1.29099	25
Poscon	5.4000	2.00000	25

As indicated in table (4.3), the number of participants has been 25 in control group (NPR= 25; NPO= 25). The mean for the pretest scores was shown to be 4.6 (XPR=4.6) as compared to the mean for the posttest scores which was 5.4 (XPO= 5.4). As for the standard deviations obtained for this experimental group, there seems to be more variability among the pretest scores than the scores in the posttest. This may give an image of the participants' posttest scores being more homogeneous after conducting the treatment of the study.

Since the hypothesis of the study target the impact of using preference task on the participants' grammar knowledge, the specifications of the posttests of the study have been illustrated separately in table (4.4) below:

Table 4.4: Group Statistics; the Pretest and Posttest of the Study

Test	Group	N	Mean	Std. Deviation
Pretest	A(+PT)	25	4.0400	1.17189
	B (-PT)	25	4.6000	1.29099
Posttest	A (+PT)	25	12.6400	2.11896
	B (-PT)	25	5.4000	2.0000

Table 4.5: T-Test for test scores

95% Confidence Interval of the Difference							
t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
12.424	47.841	.000	7.24000	.582752	.06820	8.41180	

As has been indicated in table (4.4), the number of participants in experimental group of the study is (N ex=25). Apparently, the means of posttests of the two groups were significantly different; however, the

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correlation between the variables had to be determined when the correlation coefficient could be calculated.

Inferential Analysis of the Data

This section focuses on the inferential analysis of the obtained data of this study. Such analysis was done using the SPSS (Statistical Package for Social Science).

Given that there were two groups in the present study, a T-Test was used to determine whether there were any differences in equal variances not assumed. Summaries of the results of T-Test are presented in table (4.5). The T-Tests performed on the posttest scores of the two groups revealed significant differences among groups. The critical T for 50 subjects is 2.67 and the observed T is 12.24 so the observed T is bigger than critical T and in this way we can reject the H3 and say that Zobl’s preference task (superset/subset) has effect on Iranian learners’ grammar knowledge. Finally, the level of significance was calculated to be 0.00 (P=0.00) which has been used in interpreting the data for the rejection or support of the hypotheses of the study. As sig. value is .00 (less than .05), there is a significant difference somewhere among the mean scorers on the grammar for the two groups. This suggested that the differences existing after the treatment were the result of treatment and preference task was not by chance. It is real.

The next inferential analysis of this study was related to the degree of relationship between the pretest and the posttest of grammar in the experimental groups. This was indicated by calculating the correlation coefficient. The results have been illustrated in tables (4.6) below:

Table 4.6: Correlation coefficient for pretest and posttest scores of the experimental group

		Preex	Posex
Preex	Pearson Correlation	1	.224
	Sig. (2-tailed)		.281
	Sum of Squares and Cross-products	32.960	13.360
	Covariance	1.373	.557
	N	25	25
	Posex	Pearson Correlation	.224
Sig. (2-tailed)		.281	
Sum of Squares and Cross-products		13.360	107.760
Covariance		.557	4.490
N		25	25

Table 4.7: Correlation coefficient for pretest and posttest scores of the Control group

		Precon	Poscon
Precon	Pearson Correlation	1	.403
	Sig. (2-tailed)		.046
	Sum of Squares and Cross-products	40.000	25.000
	Covariance	1.667	1.042
	N	25	25
	Poscon	Pearson Correlation	.403
Sig. (2-tailed)		.046	
Sum of Squares and Cross-products		25.000	96.000
Covariance		1.042	4.000
N		25	25

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As it is observable in table (4.6), the number of participants is 25 (N=25) that had scores on both of pretest and posttest. The Pearson correlation coefficient (.224) is positive, indicating a positive correlation between preference task and grammar.

As it is observable in table (4.7), the number of participants is 25 (N=25) that had scores on both of pretest and posttest. The Pearson correlation coefficient (.403) is positive.

Results of Hypothesis Testing

To test the main hypothesis of this, analysis of T-Test and correlation coefficient are used to show whether the difference among the means of two groups is significant. The results and hypotheses are described below:

H1: The mean scores of the experimental and control group of the study are not different.

To test this hypothesis, analysis of T-Test indicated that the experimental group had the higher mean (12.64) of posttest than the control group (5.4). It shows that the mean of the experimental and control group of the study are different and preference task affected grammar, so this hypothesis is rejected.

H2: 2. Iranian EFL learners assume a preference over the terminal position of the ADV in the sentence.

To test this hypothesis, by a lot of exercises which were given to the learners, it could be seen that most of the Iranian learners prefer to use ADV in the beginning of the sentences and it was also seen in the middle of the sentence too. However, it was not shown any terminal position of the ADV in the sentence.

- *H3:* Zobl's preference task does not affect on Iranian EFL learner's grammar knowledge.

To test this hypothesis, analysis of T-test indicated that the experimental group improved a lot. It can't be resulted in positive effect preference task on grammar knowledge because the improvement was noticeable. So this hypothesis is rejected too.

Conclusion

The teacher provided Zobl's preference task (superset/ subset) for one experimental group and traditional ways of teaching grammar for another control group. Students' proficiency level was a contributing factor for using preference task. In this particular classroom, more preference task led to the highest amount of learner uptake. Thus the first null hypothesis was rejected. In second language teaching and learning, errors tend to be viewed negatively. Errors are usually considered to be a sign of inadequacy of the teaching and learning. However, it is now generally accepted that error making is a necessary part of learning and language teachers should use the errors with a view of improving teaching. Ravem (1974) points out that "the more we know about language learning the more likely we are to be successful in our teaching of a second language As Lightbown and Spada (2000) argue when errors occur frequently, it is useful for teachers to bring the problem to the students' attention. The significance of this study is, therefore, to inform teachers, educators and language study material developers about the kind of errors that their target learners make. Easterby-Smith *et al.*, (2002) state that "research adds power to everyday observations ..." If teachers, educators and study material developers become conscious of likely problem areas that face specific ethnic groups, they will be in a better position to put appropriate intervention strategies into place. Finally, I concede that research of this nature is on-going and therefore no definite conclusions can be made because teaching and learning are both complex processes. While the results of the present study have given an insight into what types of errors are made by different ethnic groups and their frequency of occurrence, the findings can only be considered as suggestive. As Ilomaki (2005) clarifies, the results of studies of this nature cannot really be generalized and regarded as representing an entire population, since the study such as this one focused on three language groups only. Although much work remains to be done in the area of error correction in L2 writing, I hope this study contributes to the quest by Iranian teachers, learners and material developers to improve the standard of English language proficiency in Iranian schools.

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