The Effect of Strategy-based Grammar Instruction on Iranian EFL Learner's Grammar Achievement

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Abstract

This study investigates the effect of the strategy-based instruction on grammatical achievement of Iranian EFL learners. To this end, the study carried out among 66 female EFL learners studying at Simin and Namavaran Institutes in Shiraz. The participants were selected out of a population of around 90 based on a placement test intermediate level learners. Then participants were divided into experimental and control groups. The performance of the learners on the "structure and written expression" section of this test was also scored separately as the pretest. Then, after treatment sessions, the post-test was given to groups. Finally t –tests were used to compare the means of the groups for the pre-test and post-test. The results indicated that the experimental group performed significantly better than the control groups.

Keywords: grammatical achievement, metacognitive strategy, strategy-based instruction

INTRODUCTION

The conflict between focusing on form and focusing on meaning can be considered the foundation of the current grammar teaching options and the prevailing SLA theories underlying them (Hernandez, 2011). The main problem that motivated the studies related to grammar teaching was the less proficiency gains of the students in grammar lessons. Therefore, the main question regarding grammar is not whether to teach it or not since there is empirical evidence revealing that grammar instruction appears to promote rapid SLA and to contribute to higher levels of ultimate achievement (Long, 1983, 1991; N. Ellis, 1994). Rather, the important question seems to be whether certain types of grammar instruction are more effective than others in promoting the relations between form, meaning and function. As a result, it is important to look for new instructional options that are suitable for classroom settings.

An overview of the literature on learning strategies suggests that these techniques might be beneficial for promoting form-focused grammar instruction (e.g. Swan, 2002). It seems

that the answer to the question of "Should teachers instruct grammar in schools" is "yes"; but how to teach this grammar is still subject to some changes. What is important is that grammar should be taught in a way that students find it more interesting and useful. The progress in the field of "learning strategies" indicates that *metacognitive* instructions affect learning reading, writing, listening, and even vocabularies.

Through the recorded literature on metacognitive strategies and their implications in teaching various skills and components of language are vast: writing (Wenden, 1991), speaking (Chamot & Küpper, 1989; Cohen, 1999), listening comprehension (O'Malley, Chamot, & Küpper, 1989;), and reading comprehension (Sen, 2012), scarcity of empirical research concerning teaching metacognitive strategies to help learners develop knowledge of second language structure is obvious. As far as the final aim of the study is to enhance classroom practice, such an objective was desirable, to improve the quality of classroom teacher and teaching. This study is an attempt to investigate the effect of *metacognitive* strategy-based grammar instructions, as learning strategies, on developing the structural knowledge achievement of intermediate EFL learners. Teaching grammar seems a boring task for EFL teachers because they do not know how to facilitate and make this process more interesting. Therefore, it is important that learners know learning strategies which is required to pave the way in learning EFL.

THE STUDY

The present study aimed at examining the effects of explicit teaching of metacognitive strategies on EFL learner's structural knowledge. So, this study combined the grammar with *metacognitive* strategy instructions in order to help foreign language learners develop structural knowledge achievement autonomously. Therefore, a need for explicit strategy-based grammar instructions is the focus of the present research.

To fulfill the objectives of this study, these questions and hypotheses are posed:

RQ1. Is there any significant difference between the performance of the control group on MC grammar pre and post -tests?

RQ2. Does cognitive strategy-based grammar instruction has any significant effect on Iranian intermediate EFL learners' development of structural knowledge?

H1. There is not any significant difference between the performance of the control group on MC grammar pre and post –tests.

H2. Cognitive strategy-based grammar instruction doesn't have any significant effect on Iranian intermediate EFL learners' development of structural knowledge.

REVIEW OF LITERATURE

The past decade has witnessed a revived interest in grammar teaching in foreign and second language learning as evidenced by the many publications on the issue, including those demonstrating the importance and benefits of grammar instruction on students'

language acquisition (N. Ellis, 2005; R. Ellis, 2001,) and those advocating new theories and approaches to grammar instruction (Conrad, 2000).

 Harmer (2007) points out that, focus on form occurs when students direct their conscious attention to some feature of the language, such as a verb tense or the organization of paragraphs. It will occur naturally when students try to complete communicative tasks. In Task-based learning focus on form is often incidental and opportunistic, growing out of tasks which students are involved in, rather than being pre-determined by a book or syllabus. Many language syllabuses and course books are structured around a series of language forms, however. Teachers and students focus on them one by one because they are on the syllabus. This is often called "focus on forms" because one of the chief organizing principles behind a course is the learning of these forms. Although focus on form has recently been considered as a working strategy for teaching grammar, there are some scholars who are strictly against it.

METHODOLOGY

Design of the Study

Overall, there are two different kinds of variables in this study; one dependent and one independent variables. The dependent variable is a variable which may be changed or influenced by other variables especially independent variable(s). The dependent variable of the present study is the grammar achievement and the independent variable is explicit teaching of metacognitive strategies.

Participants

Learners were chosen from 90 EFL learners of Simin and Namavaran institutes in Shiraz, Iran, who were studying English as a foreign language. The participants were either female or male learners and they were between the ages 20 to 30. An oxford placement test, was first administered in order to homogenize the learners in terms of language proficiency level. Then 66 participants whose scores lied ± 1 SD were selected. Moreover, they were also screened on the basis of their performance on the grammar sub-test of the same proficiency test. Similarly, those whose scores lied ± 1 SD were further selected. Therefore, in this way, the samples of this study were selected. Then, they divided into two groups. One group was taken as a control group who did not receive strategy-based instructions, but rather they taught in the traditional way. The second group was considered as the experimental group who received metacognitive strategy-based instructions in grammar.

Instruments

The Oxford placement Test (Pre-Test)

In the first session 90 students who were the candidates took Oxford Proficiency Test (Appendix A). This test included 50 multiple choice questions of grammar and vocabulary from easy to difficult and from elementary to intermediate.

Grammar Test

In order to evaluate the effectiveness of cognitive and metacognitive strategy-based grammar instruction, structure and written expression section of the TOEFL's (2007) including 40 multiple-choice items was also administered for 25 minutes as the post test.

A paper-based form of the TOEFL (2007) consists of 3 sections: listening, structure and written expression, and reading comprehension in a multiple-choice fashion. To achieve the objectives of this study and to save the time, only the structure and written expression sections were administered and because the aim of this study boiled down to measuring the amount of learners' achievement in developing structural knowledge in general and learning target grammar in specific, grammar section was focused.

The structure and written expression tests consist of 40 multiple-choice items. The learners were supposed to answer it during 25 minutes.

Procedures

At first, 90 Iranian EFL learners (male & female), were chosen from the Simin and Namavaran institutes in Shiraz, Iran. After the administration of Oxford placement test, learners whose scores lied between one standard deviation above and below the mean were selected. The performance of the learners on the "structure and written expression" section of this test was also scored separately as the pretest. In other words, after the learners were chosen on the basis of their performance in placement test in general, once more their performance on the "structure and expression" section of the same test was evaluated separately to ensure that the participants were homogeneous and of the same English structural proficiency level. Therefore, the sample of this study was selected on the basis of both the learners' mean scores in general Oxford placement test and also their specific scores in the "structure and written expression" section.

The learners' mean score revealed that only 66 learners could participate in this study. The selected sample was divided randomly into two groups in terms of the class that the learners had registered for. One of the groups, as the control group, received non-strategy-based instruction i.e. was taught in the traditional way, and the other, as the experimental group received strategy-based instruction. Traditional grammar teaching has employed a structural syllabus and lessons composed of three phases: presentation, practice, and production (or communication), often referred to as "the PPP" approach.

 Meanwhile, both groups encountered the grammatical points either through the conversations inserted in their textbook or through the conversations that the lecturer herself provided for the learners.

Research Treatments to the Experimental Group

As a result, the metacognitive strategies such as the functional planning, self-management, self-monitoring, and self-evaluating could assist the learners in the development of their structural knowledge.

Before teaching, an instructor developed a comprehensive lesson plan about the way of teaching cognitive and metacognitive strategy-based grammar. Ten 90 minute sessions were allotted to metacognitive strategy-based grammar instruction explicitly in cognitive and metacognitive classes, respectively. The present researcher also participated in all sessions in order to be assured that these strategies were taught and employed correctly. In addition, before and after each session, the present researcher and instructor evaluated the ways of teaching for experimental group.

In this study only functional planning and self-management were taught to the learners. The functional planning and self-management were done before teaching the grammatical points. The instructor asked participants to do the followings at their home:

1. To think about the new structure and features in the text and sentences,
2. To find the known structures through thinking,
3. To think about the relationship between new and old structures, and
4. To think about the ways the sentence may be organized.

The monitoring engaged the learners' minds before and during teaching. Therefore, the instructor encouraged the learners:

1. To use their findings in sentences,
2. To monitor their comprehension by themselves (self-monitoring) through thinking aloud; that is to reflect and express what was happening in their minds through engaging with the problem,
3. To ask themselves "Do I understand the grammatical points of the sentences?"
4. To make connections,
5. To make predictions,
6. To make inferences, and
7. To find what part of the sentences prevents them from understanding.

The evaluation was carried out during and after teaching the grammatical points by the learners themselves in the following manner:

1. The instructor teaches the grammatical points in the classroom.
2. Students evaluate their findings (self-evaluating).
3. Students ask themselves how well did I understand?
4. What strategies worked well for me? e.g., thinking before teaching, monitoring and thinking aloud or evaluating the findings after teaching the grammatical points, and etc.
5. What strategies did not work well for me?
6. Do I need some help for the next time?

The book "Communicate What You Mean: A concise Advanced Grammar" (Pollock, 1997) was chosen as the base of teaching grammar during this research. Then, the grammatical points were selected randomly from this book. Meanwhile, the same grammatical point was taught in each class, that is, the difference between these two classes was only in the

kind of instruction that they received (i.e., through traditional way or metacognitive strategies) rather than the grammatical points.

The first session was also allocated to teaching coordinating conjunctions (and, yet, but, so, for, or, and nor) in all three classes. In the first class, the instructor taught the coordinating conjunctions through cognitive strategies, that is, she indicated the grammatical points of these coordinating conjunctions through repetition, recombination, deduction, elaboration, translation, and transfer. To teach this coordination type in the second class, the instructor applied metacognitive strategies: functional planning, self-management, self-monitoring, self-evaluation, and thinking aloud. The rest of the time of the classes was allotted to more exercise in this field.

In the second session, how to make use of metacognitive strategies for learning correlative conjunctions (neither/nor, either/or, not only/but also, and both/and). In the first class and of metacognitive strategies (functional planning, self-management, self-monitoring, self-evaluation, and thinking aloud) in the second class were taught. In the third session, the instructor corrected the learner's problem about the coordinating and correlative conjunctions and encouraged learners to put into practice the metacognitive strategies appropriate in each exercise.

In the fourth and fifth sessions, how to apply the metacognitive strategies in order to facilitate the learning of conjunctive adverbs (however, nevertheless, still, on the contrary, moreover, furthermore, also, besides, in fact, hence, therefore, consequently, thus as a result, otherwise, then, afterward, and later (on)). Then, the learners checked the related examples.

In the sixth, seventh, eighth, ninth, and tenth sessions, indirect speech, subordinations, that is, adverb clause (as long as, as soon as, after, as, since, until, when, while, where, so that, such that, although) and adjective clause (who, whom, which, that, whose, when, where, why), and all three types of conditionals were taught respectively. During these sessions, all efforts of the instructor was to encourage students to practice the metacognitive strategies in different contexts. This was because the aim of this research was to teach students 'when' and 'where' these strategies should be applied.

In the control group, teaching of the same grammatical points was done according to the traditional way, that is, one of the learners read the conversation that had grammatical point (rule) and gave some examples. Next, the instructor taught the rule followed by some examples. Then the learners were asked to answer the questions related to the same grammatical points at their homes. The next session was devoted to correcting the problems of the learners in answering the questions.

After the treatment was given to the experimental group and the grammatical points were practiced sufficiently, one session was devoted to the evaluation of the experimental and control groups by the 2007 version of the TOEFL's structure and written expression parts for 25 minutes.

RESULTS

The assumption of normality was also met. As displayed in table 1, the ratios of skewness and kurtosis over their respective standard errors were within the ranges of +/- 2.

Table 1. Normality Tests of Pre-test and Post-test

GROUPS		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Normality	Statistic	Std. Error	Normality
Experimental	Pre-test	33	-0.81	0.43	-1.89	1.42	0.33	1.71
	Post-test	33	-0.21	0.43	-0.49	0.83	0.83	1.00
Control	Pre-test	33	-0.35	0.43	-0.82	-0.89	0.83	-1.07

The assumption of homogeneity of variances will be discussed when reporting the results of the independent t-test.

In order to make sure that the participants are homogenous in regards to their EFL knowledge, prior to the treatment, the Oxford proficiency test was administered as the pre-test of the study. The data are presented in Figure 1. To do so, those learners whose scores lied ± 1 SD were selected.
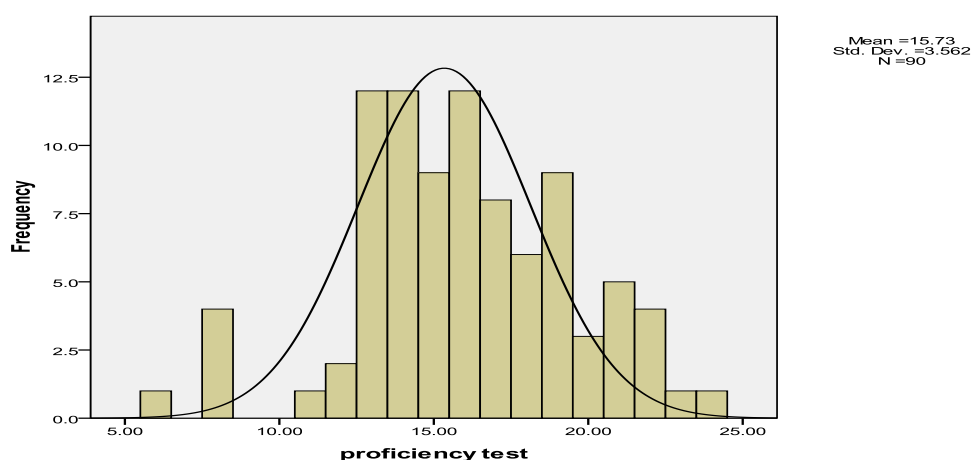
Figure 1. Participants' performance on the Proficiency Test.

In order to make sure that the participants are homogenous in regards to their EFL knowledge, prior to the treatment, pre- test was administered. The data are presented in Figure 1. To do so, those learners whose scores lied ± 1 SD were selected. The homogeneity of the students indicated that from among 90 learners, only 66 learners could take part in this study.

Inferential Statistics

The post-test, examined the participants' achievement in grammar at the end of their relevant courses of instruction. The participants' scores on this test were compared with

control group mean, to find points of differences and significance in each. The participants were also given a post-test to evaluate participants' achievement in grammar after explicit instruction of metacognitive strategies.

Demonstration of the result of post-test for participants:

The number of students participating in both groups was 33.The results of the independent t-test (t (58) = 5.48, P = .000 < .05; R = .58 it represents a large effect size) indicate that there is a significant difference between experimental and control groups' mean scores on the post-test of grammar.

The mean scores of the participants in control group was 15.10 the mean score after explicit instruction of metacognitive improved to 16.83, which demonstrates the improvement of post-test, mean after treatment.

Table 2. Descriptive Statistics Post-test of by groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	33	16.83	1.289	.235
Control	33	15.10	1.155	.211

The results of the independent t-test (t (58) = 5.48, P = .000 < .05; R = .58 it represents a large effect size) indicate that there is a significant difference between experimental and control groups' mean scores on the post-test of reading comprehension. Thus the first null-hypothesis as Iranian EFL learners who received strategy-based instruction do not significantly outperformed those who receive traditional instruction on the grammar posttest is rejected.

Table 3. Independent t-test Post-test by groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.009	.925	5.48	58	.000	1.73	.316	1.101	2.366
Equal variances not assumed			5.48	57.31	.000	1.73	.316	1.101	2.366

It should be noted that the assumption of homogeneity of variances is met (Levene's F = .009, P = .925 > .05). That is why the first row of table 4.5, i.e. "Equal variances assumed" is reported.

Table 4. Descriptive Statistics Pre-test and Post-test by Control Group

	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	14.83	33	1.289	.235
Post-test	15.01	33	1.639	.299

As the results indicate that, there is not a significant difference between control group's means on the pre-test and post-test of grammar. Thus, the second null-hypothesis **is rejected**. Since the students' mean scores on the post-test of reading comprehension (15.1) is higher than their mean on the delayed post-test (14.83).

Table 5. Paired-Samples t-test Pre-test and Post-test by Control Group

Paired Differences							
Mean				95% Confidence		T	Df Sig. (2-tailed)
	Std. Deviation	Std. Error Mean	Interval of the Difference				
			Lower	Upper			
1.567	1.478	.270	1.015	2.119	5.805	29	.688

DISCUSSION AND CONCLUSION

This research was designed to investigate whether metacognitive strategy-based grammar instruction can affect the development of structural knowledge of Iranian intermediate EFL learners or not. This study was based on O'Malley's and Chamot's (1990) taxonomy of language learning strategy. The instructor taught grammar through metacognitive strategies, the emphasis was on the functional planning, self-management, self-monitoring, and self-evaluating. Meanwhile, the technique of 'thinking aloud' was employed for the metacognitive group in order to enable them to reflect upon the process of their own learning. The results of the data analysis indicated that the metacognitive counterpart caused a significant difference in their development of this type of knowledge. The findings of the present study revealed that explicit teaching of metacognitive strategies had a significant effect on EFL students' grammar achievement. The findings are in line with the findings of other researchers recorded in the literature. For example Fraser (1999) ran a research concerning the effect of training the learners with lexical processing strategies (LSPs) and the effect they might have on the learners' vocabulary knowledge development and found that "LPSs lead to higher retention rates than other strategies" (p. 225).

Macaro (2006), in an attempt to revise the theoretical framework of strategies used for language learning and language use, suggested a possible relationship between strategy use and second language learning success. Though teaching metacognitive strategies to the second language learners of English has recorded invaluable supports, there are some researches the results of which minimize the usage of such strategies and shed doubts on their effectiveness, or at least on their applicability in certain proficiency levels.

In a large-scale research, Purpura (1997) analyzed the relationships between test takers' cognitive and metacognitive strategy use and second language test performance and came to know that metacognitive strategy practices had no direct effect on performance

on second language tests but a significant, positive direct influence on cognitive processing, implying that metacognitive processing exerts an executive function over cognitive processing.

The findings of the present study revealed that male students outperformed the female students in retention of collocations following metacognitive strategy training. This finding is new to the literature as the previous findings have argued the almost neutrality of gender effect on developing second language vocabulary.

REFERENCES

Chamot, A. U. and Kupper, L. (1989). The learning strategies of ESL students. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 71-83). London: Prentice/Hall International.

Cohen, A. D. (1989). *Strategies in learning and using a second language.* New York: Longman.

Ellis, R. (1994). *The study of second language acquisition*. New York: Oxford University Press.

Fraser, S. (1999). Cognitive approaches to grammar instruction. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 267-283). USA: Heinle & Heinle.

Gu, J. (2003). *Principles of instructional design*. New York: Holt, Rinehart and Winston.

Hernandez, H. (2001). The learner as manager: Managing learning or managing to learn?. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 145-157). London: Prentice/Hall International.

Long, M. H. (1983*).* Group work, interlanguage talk, and second language acquisition, TRSOL Quarterly, 19(2), 207-228.

Macaro, H. (2006). *Strategy and skill in learning a foreign language*. London: Edward Arnold.

Mor Mutlu, M. (2001). *The effect of metacognitive reading strategy training on the reading performance and student reading analysis strategies of third grade bilingual students. www.ncela.gwu.edu/pubs/nabe/bvj/v18/18-12-muniz.pdf*

Nassaji, D. (2003). *Collaborative learning*. New York, NY: Cambridge University Press.

O'Malley, J. M. (1991). The effects of training in the use of learning strategies on learning English as a second language. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 133-144). London: Prentice/Hall International.

Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House Publishers.

Pakyildiz, W. (1997). *Communicate what you mean: A concise advanced grammar*. New Jersey: Prentice Hall.

Purpura, J. E. (1999). *Learner strategy use and performance on language tests: A structural equation modeling approach*. New York: Cambridge University Press.

Sen, J. (2012). Learner strategies: Theoretical assumptions, research history and typology. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 15-30). London: Prentice/Hall International.

Swan, M. (2002). Seven bad reasons for teaching grammar-and two good ones. In J. C. Richards & W. A. Renandya (Eds.), *Methodology in language teaching* (pp. 148-152). New York: Cambridge University Press.

Wenden, A. L. (1991). Incorporating learner training in the classroom. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp.159-167). London: Prentice/Hall International