



Explicit Grammar Teaching Through Multimedia and the Development of L2 Writing

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Abstract

Writing is perceived as one of the most demanding skills which requires extensive and specialized instruction. Furthermore, grammar is regarded as one of the most vital components of written discourse that makes writing even more daunting, particularly for L2 learners. Consequently, students are often uninspired and frustrated when struggling with writing and grammar. One common problem with grammar instruction is the boredom which it usually creates in the classroom. The application of multimedia and CALL may make the teaching of grammar more absorbing and the retrieval of grammatical knowledge easier. In recent years, the communicative aspects of CALL have been researched profusely; however, not much research has been conducted on its application to teaching grammar. The participants of this research were 30 upper-intermediate EFL learners in an English language institute in Tehran who were divided into two experimental groups: the FonFs group and the FonF group receiving forms-focused and form-focused methods of grammar instruction, respectively, through multimedia. Two different multimedia packages were utilized to fulfill this purpose: The Complete English Grammar Series and Longman Dictionary of Contemporary English 5 for the FonFs group, and Talking Faces Flash Lessons, Audio files, PowerPoint presentations, and Video clips for the FonF group. The students of both groups also received writing instruction during the course. Two essay writing tests, one as a pre-test and the other as a post-test, were administered to evaluate the students' written performance before and after the treatment. Moreover, a writing attitude questionnaire was given to both groups to check their attitude toward writing at the beginning and at the end of the course. The statistical analysis of the data indicated that there was no significant difference between the mean scores of the two groups on the writing and attitude questionnaire post-tests, and neither of the approaches to grammar teaching was superior to the other in producing better student writers and altering their attitude toward writing. However, the results of four paired samples t-tests revealed that the learners' writing skill and attitude toward writing had significantly improved in both groups at the end of the treatment.

1. Introduction

Writing is becoming increasingly paramount as more and more of the world's communicative activities are conducted in written form on the Internet [1]. Writing also plays an important role in the L2 acquisition process owing to the fact that its function provides learners with the opportunity to practice and perfect their knowledge of the target language [1]. Grammar, among several other factors, is believed to have a more significant practical impact on writing [2]. Thus a challenge for almost all practitioners is to make grammar learning more interesting and useful [3]. The application of multimedia and CALL may make the teaching of grammar more absorbing and the retrieval of grammatical knowledge easier.

2. Focus on forms vs. focus on form

Focus on forms (FonFs) is a grammar teaching approach equated with the traditional teaching of discrete points of grammar in separate lessons [4] [5]. On the other hand, focus on form (FonF) is a way of teaching which draws the learner's attention to linguistic forms in the context of meaningful communication [5] [6]. A main difference between the two approaches lies in how the instruction orientates the learner to language: viewing the language as a tool for communicating in the case of focus on form or treating it as an object to be studied and mastered in the case of focus on forms [7]. Exercise assignment, consciousness-raising through the provision of explicit rules, provision of structured input, controlled production practice, and free production practice are typical activities in FonFs instruction. On the other hand, FonF instruction includes tasks, scaffolded production, dynamic assessment, input-priming, negotiation of meaning, and consciousness-raising through tasks.



3. Dual coding theory

According to the dual coding theory (DCT), cognition involves the activity of two separate subsystems: a verbal system specialized for dealing directly with language, and a nonverbal (imagery) system specialized for dealing with nonlinguistic objects and events [8] [9]. These systems consist of some internal representational units called logogens (hypothetical verbal representations), and imagens (representations from which mental images are generated). They are activated when one recognizes, manipulates, or just thinks about words or things. The representations are connected to sensory input and response output systems as well as to each other so that they can function independently or cooperatively to mediate nonverbal and verbal behavior [10]. This theory indicates that both systems are generally involved even in language phenomena. Accordingly, verbal explanations accompanied by illustrations depicting their content can provide external support for the learner's mental simulations of that content [11].

4. Cognitive theory of multimedia learning

Multimedia instructional messages that are designed in congruence with how the human mind works are more likely to lead to meaningful learning than those that are not, which is the underlying rationale for exploring grammar learning through multimedia [12] [13]. Three assumptions comprise the theoretical foundations of the cognitive theory of multimedia learning [12] [14]: 1. Dual channel assumption, which, in collaboration with DCT, posits that humans possess separate information processing channels for verbal and visual material; 2. Limited capacity assumption, which entails that there is only a limited amount of processing capacity available in the verbal and visual channels; 3. Active processing, which signifies human's engagement in active learning by selecting and organizing new information and integrating it into existing knowledge systems. In addition, the principles of effective multimedia instructional design are: 1. The multimedia principle (both words and pictures must be used); 2. The coherence principle (any extraneous words or pictures must be minimized); 3. The modality principle (words must be presented as narration rather than as on-screen text); and 4. The temporal contiguity principle (narration must be presented at the same time the corresponding event is depicted in the graphics) [15].

5. Method

5.1 Research questions

Given the purposes of this study, the following questions were raised:

1. To what extent does explicit (forms-focused vs. form-focused) grammar teaching through multimedia influence the development of L2 writing?
2. To what extent does (forms-focused vs. form-focused) grammar instruction through multimedia affect EFL learners' attitude toward writing?

5.2 Participants

The participants were 30 female upper-intermediate students in an English institute in Tehran who were randomly assigned to two FonFs and FonF experimental groups, each consisting of 15 students.

5.3 Instrumentation

The following instruments were used in order to collect the required data:

- a. A 60-item teacher-made achievement test
- b. An essay writing pre-test
- c. An essay writing post-test
- d. A writing attitude questionnaire [16]
- e. The Vantage 6-point Independent Writing Rubric

5.4 Materials

The following materials were utilized for grammar instruction in the FonFs group:

- a. The Complete English Grammar Series
- b. Longman Dictionary of Contemporary English 5 (LDOCE 5)

The following materials were used for grammar instruction in the FonF group:

- a. Talking Faces Flash Lessons
- b. Audio files
- c. PowerPoint presentations
- d. Video clips



Additionally, a teacher-made Writing Pamphlet was used in both groups.

5.5 Procedure

During the 10-session treatment period, both groups were taught grammar through multimedia. Each session of the FonFs group began with an episode of The Complete English Grammar Series. Then the students did the exercises related to the lessons of the episode and received immediate feedback. A number of relevant exercises from LDOCE 5 grammar and exercise components were also done. Next, a section from the Writing Pamphlet was covered. The activities of the FonFs group mainly focused on explicit explanations of the grammatical rules, while the activities of the FonF group were more communicative. In the FonF, the class began with a piece of music, audio file, or a video clip. Then the structures were highlighted using a lesson from Talking Faces Flash Lessons and PowerPoint presentations followed by some communicative activities such as class discussion or pair work. Sometimes these communicative activities occurred simultaneously with a piece of music or a video clip or during PowerPoint presentations. In the end, similar to the FonFs group, a part of the Writing Pamphlet was covered. Two essay writing tests, one as a pre-test and the other as a post-test were administered to evaluate the students' written performance prior to and after the treatment. A writing attitude questionnaire was also given to them in order to check their attitude toward writing.

6. Data analysis and results

In order to provide answers to the research questions, several statistical analyses were performed, the results of which are reported and discussed below.

6.1 Analysis of the writing tests

The t-test results, $t(28) = 0.572$, $p = 0.572$ (two-tailed), showed that there was no statistically significant difference between the mean scores (2.167 and 2) of the two groups on the writing pre-test. To check the effect of the treatment on the students' writing skill, an independent samples t-test was run to compare the mean scores of the two groups on the post-test. As shown in Table 1, the results, $t(28) = 0.861$, $p = 0.397$ (two-tailed), indicated that there was no statistically significant difference between the mean scores (3.233 and 3) of the two experimental groups on the writing post-test.

Table 1. Independent samples t-test for the writing pre-test and post-test

Test	t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	Error
Pre-test	.572	28	.572	.167	.291	
Post-test	.861	28	.397	.233	.271	

Two paired samples t-tests were also run to compare the means of the pre-test and post-test scores of each group and check the students' progress at the end of the course. As given in Table 2, with $t(14) = -7.341$, $p = 0.000$ (two-tailed) for the FonFs group (Ex 1), and $t(14) = -4.830$, $p = 0.000$ (two-tailed) for the FonF group, it was concluded that the difference between the pre-test and post-test mean scores of both groups were statistically significant at the 0.05 level.

Table 2. Paired samples t-test for the writing pre-test and post-test

Group	Pre-test Mean	Post-test Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	Error
Ex 1	2.167	3.233	-7.341	14	.000*	-1.066	.145	
Ex 2	2.000	3.000	-4.830	14	.000*	-1.000	.207	

* Significant at the .05 level

6.2 Analysis of the questionnaire results

An independent samples t-test was used to compare the post-test mean scores of the two groups on the writing attitude questionnaire. As demonstrated in Table 3, with $t(28) = -0.63$, $p = 0.532$ (two-tailed), it was decided that there was no statistically significant difference between the post-test mean scores (3.39 and 3.49) of the two groups on the questionnaire.



Table 3. Independent samples t-test for the questionnaire post-test

t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	Error
-.63	28	.532	.098	.155	

In addition, 2 paired samples t-tests were carried out to compare the learners' attitude toward writing before and after receiving the treatment. As indicated in Table 4, with $t(14) = -4.907$, $p = 0.000$ (two-tailed) for the FonFs group (Ex 1) and $t(14) = -2.331$, $p = 0.035$ (two-tailed) for the FonF group (Ex 2), it was concluded that the difference between the pre-test and post-test mean scores of both groups on the attitude questionnaires was statistically significant at the 0.05 level.

Table 4. Paired samples t-test for the questionnaire pre-tests and post-tests

Group	Pre-test Mean	Post-test Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	Error
Ex 1	3.03	3.39	-4.907	14	.000*	-.359	.073	
Ex 2	3.23	3.49	-2.331	14	.035*	-.255	.109	

* Significant at the .05 level

7. Conclusion

The results of this study revealed that neither of the two grammar teaching approaches (focus on forms and focus on form) was superior to the other regarding its contribution to developing the participants' writing ability. This finding is in line with Ellis's argument [7] entailing that the distinction between focus on form and focus on forms is less definite than it seems, and both approaches are effective. In the present study, the learners of both groups improved in terms of their writing skill and their attitude toward writing. One of the claimed virtues of computer-assisted instruction is that it increases students' motivation, which leads to the feeling of personal empowerment and sense of achievement [17]. This may explain why the learners adopted a more positive attitude toward writing at the end of the course. All in all, it is suggested that teachers integrate technology with their routine classroom practices to provide students with more effective instruction. Although the main focus of this research was grammar instruction, given the short period of the course, the students' progress in writing was quite surprising. In addition, their attitude toward writing altered markedly. Hence, teachers can help learners improve their writing by simply allocating more time, which, as a result, may lead to a more positive attitude toward this skill.

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