

## The Impact of Cooperative Performance on the Cloze Test on the Development of Vocabulary Knowledge

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### Abstract

*This study investigated the impact of cooperative performance on the cloze test on the development of EFL learners' vocabulary knowledge. Based on the results of a homogenizing achievement test, 70 students were chosen as the main participants of the study and divided into two experimental and control groups. Ten cloze passages with some of their content words deleted following the rational cloze procedure were used for the experimental group, who worked cooperatively in order to retain the deleted words. The control group received the same passages in their intact form as reading comprehension texts. The results of a post-test constructed on the basis of the taught vocabularies to both groups revealed that the experimental group had significantly outperformed the control group. So, it was concluded that cooperative performance on cloze tests can be very useful in increasing students' vocabulary knowledge.*

### 1. Introduction

In order to produce comprehensible and meaningful sentences in a foreign language and express one's ideas, beside syntactic knowledge, one requires vocabulary knowledge. Vocabulary is needed for expressing meaning and using the receptive and productive skills. There are different approaches to developing vocabulary knowledge. Some of them recommend using the context to promote incidental learning and some are based on decontextualized, explicit learning. However, convictions are strong among many language professionals that contextualized vocabulary learning is more effective than learning words in lists. From among different approaches to teaching vocabulary, the cloze procedure has been recognized as an effective teaching device in vocabulary instruction (Soudek and Soudek, [1]). The cloze procedure first appeared in the work of Wilson Taylor [2], who studied the effectiveness of the cloze as an instrument for assessing the relative readability of written materials for school children. Research then turned to the utility of cloze as a test of reading proficiency among native speakers (Bormuth 1965, 1967; Crawford 1970; Gallant 1965; or Ruddell 1964, cited in Brown [3]). During the sixties, Alderson [4], Oller [5], and Cohen [6] studied the value of the cloze test as a measure of overall ESL/EFL proficiency. Many researchers used cloze tests to measure listening comprehension, text readability, language variables, information gain, and specific and general comprehension (Jongsma [7]), but few researchers considered it as a teaching device. They suggested that discussions could be used after the completion of cloze exercises to encourage students to explain their reasons for selecting responses. (Schneyer, 1956; Bloomer, et. al., 1966; Martin, 1968 cited in Jongsma [8]). Such discussions could be conducted either individually, between students and teacher, or on a group basis, having small groups or classes work cooperatively through the cloze task. Nowadays, group interaction is recognized as an effective technique in all area and levels of ESL to promote students-to-students communication and maximize opportunities



for language practice. The combination of the cloze procedure and group interaction can be of particular significance in the EFL classroom because it can involve students in group activities such as discussion and brain storming and, as a result, increase their motivation for improving their vocabulary knowledge.

## 2. Background

Different proposals have been made as to what is involved in knowing a word. Qian's framework, developed on the collective strength of earlier models of vocabulary knowledge (2002 cited in Ma [9]), proposed that vocabulary knowledge comprises four intrinsically connected dimensions: (a) vocabulary size, (b) depth of vocabulary knowledge, (c) lexical organization, and (d) automaticity of receptive–productive knowledge. Presenting words in context can help students improve their knowledge in all these four areas, and using the cloze procedure as a teaching technique could be a good way for contextualized vocabulary teaching. Johns [10] assessed whether gains in vocabulary and comprehension would result from the use of the cloze procedure as a teaching technique. Although this study showed no significant findings, it revealed that the cloze procedure does have potential as a teaching technique.

Johnson, Johnson and Holubec [11] defined three basic types of interaction among students: An interpersonal, competitive situation, which is characterized by negative goal interdependence, where, when one person wins, the others lose. In an individualistic learning situation, students are independent of one another and are working toward a set criterion where their success depends on their own performance in relation to an established criterion. The success or failure of other students does not affect their score. In a cooperative learning situation, interaction is characterized by positive goal interdependence with individual accountability. Positive goal interdependence requires acceptance by a group that they "sink or swim together". They defined cooperative learning for the first time as follows: "Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning". They believe that cooperation means working together to accomplish shared goals. This cooperation can build positive relationships among students. Within cooperative activities, individuals seek outcomes that are beneficial to themselves and beneficial to all group members. Each member of a group is responsible for not only learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Instead of competing each other, students work in team-based, high-performance organizational structure, which helps them to experience healthy social, psychological, and cognitive development. As Nunan [12], Olsen and Kagan (1992, cited in Richards & Rogers, [13]), and Johnson, Johnson and Holubec, [14] mention, the following five elements are necessary for successful cooperative learning: a) positive interdependence, b) individual and group accountability, c) face to face promotive interaction, d) interpersonal and small group skills, and e) group processing. As Richards and Rodgers [13] and Cuseo (1992, cited in Barkley et al., [15]) mention, cooperative learning is part of a more general instructional approach known as collaborative learning.

Many researchers have worked on group vs. individual completion of cloze passages by ESL students (Khodabakhshi, [16]; Grant, [17]; Jacobson, [18]). Many of them have stated that groups outperformed the individuals. The results suggest a very productive, though not always easy to define, role played by group work in fostering improved performance at both group and later individual stages among the strongest as well as the less able students. Nevertheless, none of them have focused on the effect of using this technique on the improvement of students' vocabulary knowledge in particular. Given the importance of this knowledge in foreign language learners' performance in other skills, this study investigated the impact of cooperative performance on the cloze test on the development of Iranian pre-intermediate EFL learners' vocabulary knowledge.



### **3. The study**

#### **3.1 Research question**

This study aimed at answering the following question:

Does cooperative performance on cloze tests have any effect on the development of vocabulary knowledge?

#### **3.2 Participants**

Based on the results of a standardized achievement, 70 homogenous students within the age range of 20-30 who studied English as a foreign language in a Language Institute in Tehran participated in this study. Later, they were randomly divided into two experimental and control groups, each with 35 students, studying Top Notch book 2 (Saslow, et. al. [19]), units 1 to 5, in the course of 1 semester (18 weeks).

#### **3.3 Instrumentation**

The first instrument was a standardized achievement test consisting of 57 vocabulary, grammar, and reading multiple-choice items used to choose the ultimate participants of this study. All the items had been selected from the books studied by the learners previously. The vocabulary part of the achievement test was also used as a pre-test to ensure the homogeneity of the two groups in terms of their vocabulary knowledge at the outset of the study. The material used in the experimental group consisted of 10 cloze passages chosen from different pre-intermediate English books. Some of the content words were deleted from these passages following the rational deletion procedure, and the students were required to work cooperatively on these passages in order to retain the deleted words. The same passages were used in the control group in their intact form as reading comprehension texts and sources of vocabulary learning. They were studied in 10 sessions each in 20 minutes.

At the end of treatment, a 40-item multiple choice vocabulary post-test based on the words taught during the semester was administered to both groups to measure the effects of the treatment.

#### **3.4 Procedure**

After choosing 70 homogenized students, the researchers divided them into two experimental and control groups taught by the same teacher. During the 10 session treatment, 10 cloze tests were used in the experimental group, where the students formed small groups with three or four members and tried to retain the deleted word for each blank on the cloze tests cooperatively. The tests were displayed on the whiteboard in the form of Power Point slides and each group sent one of the members to write the words in the blanks. The students interacted with each other, exchanged their opinions, and tried to help each other to understand the meanings of new words. After 10 minutes, the teacher read the mutilated text loudly and paused for each blank. Each group gave their opinions about the suitable words which could complete the blank, and the teacher provided feedback on their choices. If they failed to guess the correct word, the teacher gave them some clues in a variety of ways such as giving them the number of letters, part of speech, initial sound or letter of the word or its antonyms. These clues added great fun to the process of learning. The feedback phase lasted about 10 minutes.

The control group received the same ten passages in their intact form as reading comprehension texts, and the teacher helped them with difficult words by encouraging them to use the context to guess their meanings or by giving them near equivalents in English.

At the end of the treatment, the same post-test was given to the learners to compare them in terms of their gain in vocabulary knowledge.

## 4. Data analysis and results

### 4.1 Achievement test

The descriptive statistics for the achievement test used for homogenizing the students are given below.

Table 1. Descriptive statistics of the achievement test

	Items	Mean	V	SD	Cronbach- $\alpha$
<b>G</b>	20	20.65	30.08	5.48	0.888
<b>V</b>	20	16.19	27.71	5.26	0.838
<b>R</b>	17	17.1	26.95	5.19	0.832

G= Grammar, V= Vocabulary, R= Reading

The reliability of the test was computed by the Cronbach- $\alpha$  formula. It was equal to 0.94, which was acceptable. Moreover, the content validity of the test was examined by having colleagues teaching the same book to the same level students judge the level of conformity between the table of specifications of the test and the table of contents of the book. They unanimously decided that the test enjoyed content validity and was at the right level of difficulty.

### 4.2 Pre-test

The vocabulary section of the achievement test was also used as a pre-test to ensure that there was no significant difference between the two groups in terms of their vocabulary knowledge.

Table 2. Descriptive statistics of the vocabulary pretest

	N	Min	Max	Mean	V	SD
<b>Ex</b>	35	10	19	15.62	5.71	2.38
<b>C</b>	35	11	20	15.57	4.25	2.06

Ex= Experimental group, C= Control group

The result of a pooled variance between the variances of the two groups' scores on the pretest indicated that they enjoyed equal variances ( $F=1.34$ ). Moreover, an independent t-test was run to compare the mean scores of the control and experimental groups on the vocabulary pretest. The t-observed value was -0.107, which was lower than the t-critical value of 2.00 at 0.05 degrees of freedom. This indicated that the difference between the means of the two groups on the vocabulary pretest was not statistically significant.

Table 3. Independent t-test for vocabulary pretest

vocabulary Pretest	t-test for equality of means		
	T	df	Sig (2-tailed)
	-0.107	68	2.00

\* $P < .05$

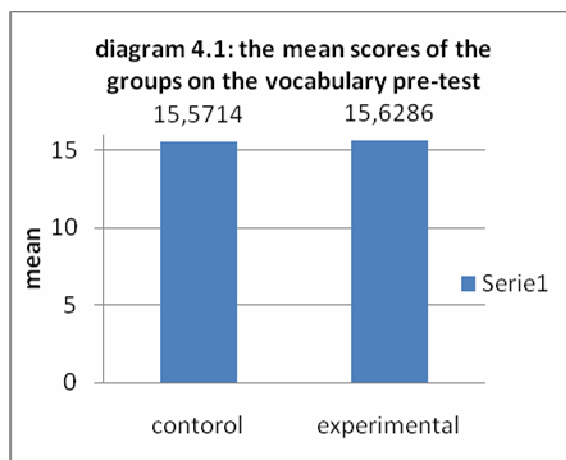


Diagram 4.1 shows the mean difference between the experimental and control groups on the vocabulary pre-test.

### 4.3 Post-test

At the end of the treatment, a 40-item vocabulary post-test constructed based on the words which had been taught during the semester was administered to both groups. The descriptive statistics of these tests are given below.

Table 4. Descriptive statistics of vocabulary posttest

	N	Min	Max	Mean	V	SD
<b>Ex</b>	35	24	40	33.77	21.94	4.68
<b>C</b>	35	8	27	16.34	14.703	3.83

Ex= Experimental group, C= Control group

The Cronback- $\alpha$  reliability of this test was 0.92. In order to compare the means of the control and experimental groups on the post-test, an independent t-test was utilized. The results are given in Table 5.

Table 5. Independent t-test for vocabulary posttest

vocabulary Posttest	t-test for equality of means		
	T	df	Sig (2-tailed)
	17.032	68	2.00

\*P<.05

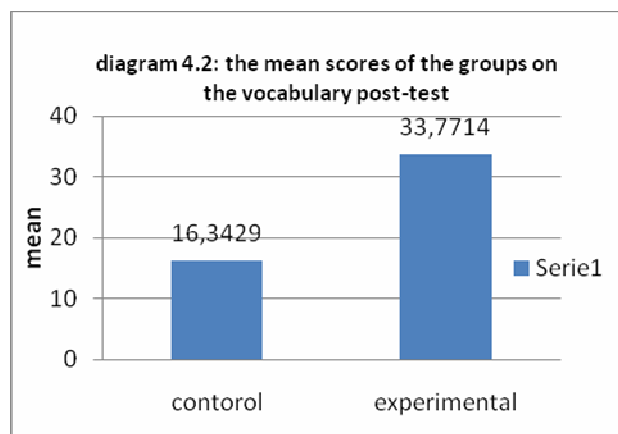


Diagram 4.2 shows the mean difference between the experimental and control groups on the vocabulary post-test.

A careful study of table 5 reveals that there was a significant difference between the means of the two groups on the posttest at 0.05 level of significance indicating that the experimental group had outperformed the control group at the end of the treatment.

## 5. Conclusions

Based on the results of the study, the researchers concluded that the use of cooperative performance on cloze tests significantly improved the vocabulary knowledge of pre-intermediate foreign language learners.

The experimental group also expressed great satisfaction in the use of this technique for vocabulary learning and found it very interesting. The findings confirmed that cooperative language learning can increase students' motivation for learning and self-esteem, redirecting attributions for success and failure, fostering positive feelings toward classmates, and increasing performance on tests of comprehension, reasoning, and problem solving (Johnson, Johnson, and Holubec, [20]; Slavin, [21], [22]). They also indicated that cooperative learning in the classroom is of great importance for vocabulary development because students learn from each other and each member devises a strategy to develop his/her teammate's vocabulary knowledge. Working cooperatively, gives them the opportunity to activate their passive vocabulary and use their full potential of active vocabulary. On the other hand, working in small groups increases the amount of the input students receive. Cooperative performance gives an opportunity to less confident students to act in a less stressful environment. On the other hand, using the cloze procedure as a teaching technique could provide the opportunity for students to increase their vocabulary knowledge in a contextualized manner. Finally, the researchers suggest cooperative performance on cloze tests as an innovative technique for improving EFL learners' vocabulary knowledge.

## 6. Implications

The results of this research can be of interest to English teachers who are in search of effective techniques for teaching vocabulary in the context and in a non-threatening environment. Combining cooperative learning with performance on the cloze helps students learn from each other and become familiar with different learning strategies. They can also be of importance to materials developers who



wish to include innovative exercises in relation to vocabulary acquisition to make their products more interesting and useful.

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