Collaborative Method and Vocabulary Retention of Teenage EFL Learners

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Abstract—Nowadays most researchers argue that incorporating vocabulary in classroom tasks can facilitate vocabulary teaching. The goal of the study was to investigate the impact of collaboration on vocabulary development of teenage EFL learners in a language institute in Kahnouj. To this purpose and as an experimental method of research, two intact groups of learners were chosen to participate in the experiment. The population of the study was made up of 85 EFL learners in a language institute in Kahnouj. To homogenize the study subjects, an Oxford Placement Test was administered and only those subjects whose scores fell one standard deviation above and below the mean were selected for the study. The other instrument was using two sets of vocabulary tests which were used to tap the initial vocabulary knowledge of the learners in both groups: pre and post vocabulary tests. The same type of material was used for both experimental group (EG) and control group (CG). In other words, the learners in both groups were instructed through the same sources, the same teacher, and the same teaching hours. Based on the achieved data, the participants in the CG did not benefit from the individual teaching processes as much as the learners in EG.

Index Terms—collaboration, learner-based, vocabulary, language learning

I. INTRODUCTION

Since L2 learners need a large number of words to successfully use the target language, one of the main issues for L2 learners is the great number of activities that they have to follow for learning the L2 they study. They may include activities such as finding meaning, taking notes, making sentences, asking questions, etc. This shows the role of teachers in classrooms where the teacher should consider different things in the field of L2 teaching because not only the ability of the students but also the teaching method is important. In order to have a successful language learning situation, the teacher should consider the language learning process including methodological approach, learning environment, and utilized pedagogical tools, all of which are pertinent to vocabulary acquisition.

Learning lexical items and meaning-bearing items is far more important than other components of language. Thus, nowadays there is an attempt give enough emphasis to the presentation and practice of the second language lexicon in an appropriate and logical manner.

Teachers should know that language learners enjoy learning vocabulary that they need in speech and writing. This can be undertaken in parallel with the selection of the approaches and procedures that may facilitate the acquisition of the appropriate load of vocabulary they need. In other words, teaching new words has to happen in contrast with approaches that try to teach a language by referring to an out-of-context approach. We cannot ignore the role of context in teaching the new words. Besides, “Teachers have to refrain from emphasizing linguistic rules and grammar forms which do not serve any functional and immediate need for the rather novice learner in contrast with teaching L2 lexical items” (Ellis, 2003, p. 144).

Since Vocabulary learning is an important part of EFL curriculum in Iran, this thesis explores the role of collaboration in VL in a secondary school in Kerman (Kahnouj), in Iran. Specifically, this thesis is an experimental study that uses a special treatment for one group of learners, whose goal is learning new vocabularies of their school books with partners and the other group who follow the activity in isolation. The research seeks to determine if individual learning versus collaborative learning of the vocabularies have any serious impact on the vocabulary retention of the secondary school learners.

There are different traditional and non-traditional teaching methods and approaches (in the post method era which methods and approaches are combined eclectically) frequently used in L2 instructions which implement old and out of date techniques in order to present new vocabularies.

For this study, two frameworks have been utilized. It first of all uses the ideas about the collaborative approach in language teaching. A core aspect of Vygotskian theory is the concept of zone of proximal development (ZPD).

The zone of proximal development (ZPD) has been defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem
solving under adult guidance, or in collaboration with more capable peers.” Lev Vygotsky views interaction with peers as an effective way of developing skills and strategies. He suggests that teachers use cooperative learning exercises where less competent children develop with help from more skillful peers - within the zone of proximal development. Vygotsky believed that when a student is in the ZPD for a particular task, providing the appropriate assistance will give the student enough of a “boost” to achieve the task. (Vygotsky, 1978, p. 86).

**Research Questions and Hypothesis**

To undertake the study, first we start by asking the following questions that consider the method and the approach having been incorporated in this study:

1. To what extent collaboration facilitate vocabulary retention of the EFL learners?
2. To what extent can collaboration increase learners’ participation in learning activities?

**Materials**

Primarily, an Oxford Placement Test was administered to homogenize the study subjects. This test contains 100 items on basic and elementary grammar, vocabulary, and reading comprehension in the form of multiple choice tests and limited completion tests.

The other instrument was using two sets of vocabulary tests which were used to tap the initial vocabulary knowledge of the learners in both groups; pre and post vocabulary tests. All tests were constructed based on the glossary of the new words that appear at the end of each lesson of their English Books, and they were chosen from the test collection of the textbooks which are normally taught in the language institute. They are supplementary sources that tend to improve the vocabulary knowledge of the learners of English by providing a lot of multiple choice test items.

Each pre and posttest contained 50 items which were constructed in the form of multiple choice tests and were accompanied with an answer sheet, the technique which made the scoring reliable, easy and economical. Also to make sure of the validity of the questions, the tests were given to three colleagues of the researcher. They were asked to read them and tick any irrelevant questions. No irrelevant ones were found. To ensure the test reliability, the researcher used test-retest method. To do so, ten similar learners were asked to answer the questions of the intended tests. After two weeks, the test was repeated with the same learners. Using Karl Pearson mathematical parameter, the test was proved to be reliable at 0.78.

**Design of the Study**

The study, being a true experimental study, started with two intact elementary groups of EFL learners in a language institute in Kahnouj. As the nature of experimental studies indicates, two groups of subjects, the pre and posttests as well as the treatment were the most important qualities for the present study. A pre-test including test of vocabulary was administered and only those subjects whose score fell one standard deviation above and below the mean were selected for the study. They made a population of 40 subjects who were randomly classified into two groups, each group included 20 female students, aged 15 to 18. They constituted the experimental and control group for the study.

**II. METHODOLOGY**

The population of the study was made up of 85 EFL learners in a language institute in Kahnouj. To homogenize the study subjects, an Oxford Placement Test was administered and only those subjects whose score fell one standard deviation above and below the mean were selected for the study. They made a population of 40 subjects who were randomly classified into two groups, each group included 20 female students, aged 15 to 18. They constituted the experimental and control group for the study.

To what extent can collaboration increase learners’ participation in learning activities?

As the teaching processes indicate, the sense of cooperation and cooperative language learning is fostered among the language learners. The learners were encouraged to cooperate closely during the processes of new words teaching and
learning. However, as it can moreover be observed, the role given to the teacher is reduced to a coordinator, organizer of the activities and facilitator.

On the other hand, the teaching processes for the CG who tend to learn vocabularies traditionally followed the following steps:
1. The teacher introduced the topic
2. He wrote a list of presumably new words on the board with synonyms and or definitions following each
3. The learners wrote the meanings and later on tried to memorize them
4. Asking questions by the teacher to check the learners knowledge of the new words

As the teaching processes indicate with the CG, this group receives instruction from the teacher. In fact, the teacher is viewed to be the class manager, organizer, and the coordinator. He also monitors the learners in various ways and tries to describe the points, discuss ideas on his own, and provide the learners with any idea belonging to the teaching of the new words.

The experiment for both groups last two months, all together 15 sessions. The same instructor, materials and teaching hours were used for both EG and CG.

Data collection and Analysis Procedures

The data of the experiment was based on the pre and post test scores. The researcher applied T-student test as a parameter to discover any difference between the performances of the two groups from pre to post test and if any of the groups had outperformed the other. The other parameter, reliability of the test, was also estimated. Besides, the Spearman Correlation (In statistics, Spearman's rank correlation coefficient or Spearman's rho, named after Charles Spearman and often denoted by the Greek letter (rho) or as , is a nonparametric measure of statistical dependence between two variables.) was implemented to discover any meaningful relationship between the two pre and posttest of each group.

In order to examine the research hypotheses, the researcher used both descriptive and inferential statistics (Mathematical methods that employ probability theory for deducing (inferring) the properties of a population from the analysis of the properties of a dataset drawn from it. The researcher used an independent T-student test to analyze the difference between the means of the two groups regarding their score on vocabulary retention.

III. RESULTS AND ANALYSIS

This part reflected all of the qualities necessary for an experimental research. The type of participants in terms of their age, gender, and size were reflected. In the same way, the instruments having been used here were discussed and presented. The research procedure, moreover, was discussed in detail. The next section will present the data of the study by data analysis of the data of the study.

As it was stated before, the goal of the study was to investigate the influence of incorporating a collaborative approach to improve and facilitate the vocabulary acquisition of the EFL learners of the study. To this purpose, two groups of EFL learners participated in the experiment being instructed using two different approaches. All conditions for teaching the learners were controlled and treated almost in the same way. This chapter presents the required information about the pre and posttests of vocabulary for both EG and CG groups. It will also present the T-value tests and the coefficient correlation of the two pre and posttests.

One-tailed Tables

The one-tailed test gets its name from testing the area under one of the tails (sides) of a normal distribution, although the test can be used in other non-normal distributions as well. Table 1 demonstrates the information about the pretest for CG. As it can be understood, the students participated in the examination is 20 for both pre and posttest. On the other hand, as the means of the two tests indicate, the mean for the pretest CG is calculated to be 12.80 while this changes to 14.20 for the posttest. Here the mean of the final score increases. It can potentially reveal the effect of the procedure used by the teacher. Besides, the similar standard deviations of the two tests can be an indication of homogeneous scoring and level of the group from pre to posttest of CG.

<table>
<thead>
<tr>
<th>Table 1: One-Sample Statistics for Pretest CG</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>pretestcg</td>
</tr>
<tr>
<td>posttestcg</td>
</tr>
</tbody>
</table>

Table 2 demonstrates the information about the pretest for EG. As it can be understood, the number of the students participated in the examination is 20 for both pre and posttest of EG. On the other hand, as the means of the two tests indicate, the mean for the pretest EG is calculated to be 12.95 while this changes to 15.95 for the posttest. Here the mean of the final score increases significantly. It can clearly reveal the effect of collaboration on the vocabulary improvement of the EFL learners of the study who were exposed to this type of procedure. The standard deviation for the two tests is almost similar without much difference. In other words, the two groups benefitted from homogeneity in the scoring procedures.
Table 2:
One-Sample Statistics for Pretest EG

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest EG</td>
<td>20</td>
<td>12.9500</td>
<td>1.87715</td>
<td>4.1974</td>
</tr>
<tr>
<td>Posttest EG</td>
<td>20</td>
<td>15.9500</td>
<td>1.66938</td>
<td>3.7329</td>
</tr>
</tbody>
</table>

On the other hand, table 3 presents the information about the t-value test, or the significance of the study. As it can be seen, the table t for the two pre and posttest is calculated to be 51.8 and 39.46 respectively at 19 degree of freedom. The relative significance of the two tests is .000 for both tests that is an indication of perfect relationship between the two tests.

Table 3:
Two-Tailed Test for Pretest CG

<table>
<thead>
<tr>
<th>Test Value = 0</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Pretest CG</td>
<td>51.803</td>
<td>19</td>
<td>.000</td>
<td>12.8000</td>
</tr>
</tbody>
</table>

Moreover, table 4 presents the information about the t-value test, or the degree of significance of the two tests. As it can be seen, the table t for the two pre and posttest is calculated to be 30.85 and 42.72 for both pre and posttest of EG at 19 degree of freedom. The relative significance of the two tests is .000 for both tests that is an indication of perfect relationship between the two tests since Sig=.000<.05.

Table 4:
One-Sample Test for Pretest EG

<table>
<thead>
<tr>
<th>Test Value = 0</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Pretest EG</td>
<td>30.852</td>
<td>19</td>
<td>.000</td>
<td>12.9500</td>
</tr>
<tr>
<td>Posttest EG</td>
<td>42.729</td>
<td>19</td>
<td>.000</td>
<td>15.9500</td>
</tr>
</tbody>
</table>

Table 5 below shows the overall information about the means and SD of all tests of both groups. The difference between the means of the two groups in terms of their pretest that was taken before the instruction had begun and the posttest which started after the instruction had come to an end. Besides, the SD for all tests circles around the unity, 1.

IV. DISCUSSIONS AND CONCLUSIONS

The purpose of doing the research was to investigate the influence of incorporating a collaborative approach to improve and facilitate the vocabulary acquisition of the EFL learners of the study. To this purpose, two groups of EFL learners participated in the experiment being instructed using two different approaches. All conditions for the experimental method of research were met.

Examining Research hypothesis

For the study the two following research question were offered:

H0: Collaboration cannot facilitate vocabulary retention of the EFL learners.
H0: Collaboration cannot increase learners’ participation in learning activities.

Based on the data in chapter four, the first hypothesis is rejected. The data in the previous section and the difference between the mean scores of the pre and posttest proved that the EG improved more satisfactorily in the collaborative and group-work. Based on the total mean score for the pretest of the EG, it was estimated to be 12.95 while it increased to 15.95 for the posttest of the same group. However, the standard deviation of the two groups did not change significantly. This is the criterion that signals more homogeneity of the group from pretest to posttest. In other words, the subjects performance from pre to posttest approaches homogeneity. The standard error of measurement has also decreased to .373 from .419. On the other hand, the estimated coefficient correlation of the two tests is estimated to be .772, with degree of significance of .000. The relevant correlation is not very high but somehow acceptable but the sig=.000<.05. The equation shows the meaningful relationship between the two pre and posttests for the EG.

It can be confirmed that more participation can lead to more learning and improvement in the acquisition of the L2 vocabulary. To support the idea, the above discussion can be attributed to this claim, too. In other words, it can be confirmed that based on the achieved data mentioned in the previous chapter, the participants in the CG did not benefit from the individual teaching processes as much as the learners in EG. In other words, the learners in the CG in spite of depending on the teacher and his assistance in various level of vocabulary presentation did not improve as satisfactorily as the EG and thus were left behind the EG.

Data from this study showed that the difference in growth in vocabulary knowledge was statistically significant, because the collaborative group showed a significantly higher amount of growth in vocabulary knowledge compared to
the individual group. Working together in a collaborative environment and creating an interactive process in the vocabulary learning can cause better retention of vocabularies among the students.

This is true for the participants of this research but can be the same for other students in other schools at the same age too. It’s better for the second year language instructors to consider making use of collaborative techniques in order to enhance their own students’ development in knowledge of the vocabularies.

Based on the achieved results, it was proved that collaborative language learning can facilitate the process of vocabulary acquisition. Regarding the goal of the study, enough emphasis was given to the role of the learners by exposing them to group and collaborative work. The result showed improvement in the vocabulary development of the learners in the EG more than that of the CG.

In the traditional teaching methods, the role and basic qualities of the learners are ignored and the teacher role is emphasized over the learners. Based on the achieved results, regarding the goal of the study, the required focus was given to the active role of the learners in order to use their cognitive mental abilities to learn the L2 vocabularies more feasibly than the traditional methods (Laal & Ghodsi, 2011; Nemati, 2010).

As discussed before, research findings have so far shown numerous individual benefits resulting from an integration of collaborative learning into pedagogical approaches. “The individual learner who transitions into a collaborative learning environment experiences more control over his/her learning”, (Sharan 1990, p 20). In the present study, it was concluded when the individual learner transitions into a collaborative learning environment, he was given a complete responsibility to deal with the problem posed to him, whether learning a single new word or getting him to make a novel sentence with the learned words. Besides, it can be discussed that collaborative learning obviously encouraged the learners to ask the questions they didn’t know without feeling shy in front of the teacher or the class, explain and justify their opinions to the extent they could, articulate their reasoning as far as they had the required knowledge to do it, and elaborate and reflect upon their knowledge.

The achieved results are in line with the new teaching approaches such as community language learning, communicative language learning, the total physical response and other recent methods where learners are regarded as independent in nature and to learn better, they have to develop this own self criteria.

Besides, the results of the study are compatible with the similar studies carried out in other countries and other similar context for the same purposes, some of which are Gokhale (1995), Stacey (1999), Slusser& Erickson (2006), Slusser& Erickson (2006), Jones (2000, 2006) and Lin, Chan & Hsiao (2011). All of the cited studies confirmed strongly that collaboration can suitably lead to more and effective vocabulary acquisition as well as developing the motivational level of the earners for more classroom participation.

The intent of this study has been to examine the impact of two different learning styles on the development of vocabulary knowledge. Because the data were derived from a representative sample of learners in an EFL secondary school setting, inferences could be made about the potential effects of the two learning styles on larger populations of second language learners studying in higher educational EFL contexts. It is the goal of this section to suggest how findings from this research may be used to generate real-world applications in second language vocabulary instruction.

One important implication that can be drawn involves the selection of an appropriate learning style to yield increased development of vocabulary knowledge. Data from this study show that the difference in the growth of vocabulary knowledge was statistically significant based on the learning style in which the participants completed the collaborative tasks.

It should be mentioned that the interactive communicative process involved in completing the task may not have been the sole source of increased vocabulary knowledge among collaborative learners. The growth in vocabulary knowledge may have been brought about by a range of other relevant contributing factors. Perhaps one reason for the increased growth in vocabulary knowledge among collaborative learners was learners’ sense of shared responsibility to complete the task, possibly causing an increased degree of engagement with and internalization of the target vocabulary.

Whatever the reason for the increased growth in the collaborative treatment group, second language instructors should consider incorporating cooperative learning activities into their vocabulary instruction to provide greater engagement with the language.

The other implication relates to task design. One implication for second language teachers is to create tasks which are suitably challenging for the learners. Because collaborative learning environments involve partners in brainstorming, planning, negotiating, developing and revising content related to the assigned task, learners are capable of accomplishing more challenging tasks than they would if completing the tasks alone.

As a consequence, instructors using collaboration in the classrooms should create activities that have higher expectations.

Though the specific implications from this study will be best applied to higher educational EFL settings with advanced language learners, adaptations could be made to suit the needs of learners of varying levels of English language proficiency, native language backgrounds, ages and environments of study (ESL or EFL) to effectively promote vocabulary knowledge.
REFERENCES

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