The Effect of Cooperative Learning Approach on Iranian EFL Students’ Proficiency among Different Majors in General English Course

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(Received: 13-9-13 / Accepted: 18-11-13)

Abstract
Since cooperative learning instructional approach is one of the most widespread and fruitful areas of theory, research, and practice in education, the present study intends to investigate the effect of cooperative learning versus traditional method on English Proficiency of undergraduate students with different majors. This quasi-experimental research used a pre-and post-test group design. Sixty Iranian undergraduate students in engineering and business administration majors at Shiraz Azad University who were taking General English course participated in this study. They were asked to do the Cambridge English proficiency key test at the level A2 both for pre and post-tests. The average gain score was taken to indicate students’ overall English language proficiency. Results indicated no significant difference between cooperative learning and teacher fronted instructional method in language learning in General English course. Moreover the outcomes of the study also showed insignificance of different majors through implementing cooperative language learning.

Keywords: Cooperative learning, gender, language learning, proficiency.

1. Introduction
Language learning in its path to gain the goal is achieved through communication as it is resulted by challenges of the time in second and foreign language pedagogy. Communicative is the key word to symbolize the changes in the field over the years: the idea that the surest way to engagement in learning another language lies in students communicating in that language. Group activities have to be one of the basic tools in communicative language teachers’ box because groups provide so many chances for learners to communicate and a means of integrating, listening, speaking, reading, and writing (Jacobs, Crookall & Thiyagararajali 1997; Harmer 2001; Jacobs 1997). Though, despite the many benefits of group activities, difficulties also arise – difficulties that have led some educators to give up on
applying group work. These difficulties include “members not participating, groups not getting along, or learners unable to do the task. Cooperative learning arose in mainstream education as an effort to address such difficulties and to generally expedite student-student interaction” (Mc Cafferty, et al. 2006:3).

According to Johnson and Johnson and Holubec (1998), a cooperative group is “a group whose members are committed to the common purpose of maximizing each other’s learning (p. 72). With this in mind, educators are to take into consideration how to structure and guide student’s group-learning experiences in order to make cooperative groups the key to successful education.

1.1. Problem Statement

There are four major problems regarding English teaching in our general English classes at college and university level which could be solved by the application of this method including:

a. teacher-centered classes
b. competition rather than cooperation
c. unfamiliarity of teachers with cooperative learning mechanism
d. students minimum knowledge of English proficiency

The researcher observed that to some extent the dominant atmosphere of the classes was teacher-centered except for one. The teacher began to read the new lesson, continued to explain the new terms and expressions, and asked some questions from the text to see whether students understand the lesson or not. Students usually listened to the teacher and they sometimes had questions that the teacher always answered by himself. Next session, ready to respond, students gave the correct answers in turn, again they sometimes had questions that the teacher answered. Even though there is the suggestion of applying pair and group work in the course book, the exercises are done individually. The high-achiever student was the one who answers all of the exercises or questions. It seemed that there was no sense of cooperation, no communication or interaction rather competition. The maximum amount of time to speak was about two minutes per each session for each student. Besides, after seven years of studying English in high school, students were just able to tell the greeting and talk about the weather though they knew a lot of words and rules of English language.

1.2. Objectives and Research Questions

The main objective of this study is to find out the effect of cooperative learning on proficiency of the students. Furthermore, it tries to expose the relation between the major of the students and the use of cooperative language learning.

Based on these purposes, the following questions are posed:

1. Is there any difference between proficiency of learners with different majors based on their gain score?
2. Does cooperative learning affect proficiency of learners with different majors?

2. Literature Review

According to Johnson, Johnson, and Stanne (2000), Cooperative Learning is based on a variety of theories in anthropology, economics, political science, psychology, and other social sciences. And “In psychology, where cooperation has received the most intense study, cooperative learning has its roots in social interdependence (Deutsch, 1949; Johnson &
Johnson 1989), cognitive-developmental (Johnson & Johnson, 1989; Vygotsky, 1978), and behavioral learning theories (Skinner, 1968). It is rare that an instructional procedure is central to such a wide range of social science theories. Cooperative Language Learning is based on the idea that second and foreign language learning can be done best in heterogeneous groups, when all students work collaboratively and cooperatively for one common goal. It replaces the idea that students have to work competitively against one another.

2.1. Communicative Competence

The concept of communicative competence is one of the theories that underlie the communicative approach to foreign language teaching. Richards & Rogers (2011:194) state that: “a central premise of CLL (Cooperative Language Learning) is that learners develop communicative competence in a language by conversing in socially or pedagogically structured situations”. The idea is originally derived from Chomsky’s distinction between competence and performance. Hymes (1967, 1972), a sociolinguist, finds Chomsky’s distinction of competence and performance too narrow to describe language behavior as a whole. Hymes points out that the theory does not account for socio-cultural factors or differential competence in a heterogeneous speech community. He maintains that social life affects not only outward performance, but also inner competence itself. Hymes (1972: 283) also notes that the ability to use language appropriately rather than accurately in different contexts refers to communicative competence.

2.2. Critical Thinking

One of the important issues in cooperative language learning as in any other field of education is the development of critical thinking skills. Kagan (1992) noted that some authors suppose critical thinking at the same level of focus as the basic language skills of reading, writing, listening, and speaking. To think critically means to act effectively in the changing world of the 21st century. Therefore, only conscious learning and reasonably active teaching with the focus on critical thinking skills might help a learner to achieve positive results in any field, foreign languages included (Klimoviene, et al., 2006).

Cooperative language learning is a valuable instrument for developing critical thinking, for it creates the most desirable classroom surrounding where the learners experience psychological safety, intellectual freedom, and respect for one another as individuals of worth. Cooperative learning structures contribute to the growth of critical thinking if the right strategy is chosen.

2.3. Relevant Studies

Romero (2009) in his article described a comparison between the effect of cooperative learning and traditional method in secondary and early post-secondary classroom on the basis of a systematic review of 2506 published and unpublished citations. The overall effect size (.308) showed that cooperative learning increases students’ accomplishment in science. Jalilifar’s (2010) investigation in which two techniques of Cooperative Learning including Student Team Achievement Divisions and Group Investigation were used, examined students’ reading comprehension achievement of English as a Foreign Language. The researcher found that Student Team Achievement Divisions technique is more effective in improving EFL reading comprehension achievement in spite of the fact that both techniques could not improve reading comprehension significantly.

Another similar study but qualitative conducted by Momtaz and Garner (2010) investigated the effect of cooperation learning on students’ reading comprehension in a non-western
country (Iran) under question. Collaborative reading has significantly shown higher grades than private reading for all texts.

Javadi Rahavard (2010) explored the relationship between cooperative learning strategies and reading comprehension. Cooperative learning methods have been a major part of learning methodologist debates. The current paper studied the cooperative learning effect in EFL classes of Iranian learners quantitatively in an English institute at Bandar-Abbas. The Correlation coefficient formula using SPSS software, graphs and diagrams showed that cooperative learning strategies groups achieved significantly better results compare to their counterparts in reading comprehension test.

Moreover, Tok Hoon Seng (2012) investigated the relationship between cooperative learning and achievement in English language acquisition in literature class in a secondary school. Four instruments including pre-test and post-test examinations, questionnaire, classroom observation, and interviews were administrated. The results revealed a significant effect in posttest of experimental group. The qualitative part of the research indicated that using cooperative learning strategies could improve learner’s social behavior.

On the other hand, Ekawat (2010) investigated the effects of cooperative learning on EFL university students’ summary writing and their preferences for cooperative learning. The results showed that the cooperative learning method had a greater significance and generated a higher median. Moreover, a comparison was run for the participants’ accuracy, distortion, and grammatical errors made during the cooperative learning intervention. The relevant findings revealed significantly more accurate idea units, fewer distortions, and fewer grammatical errors in the case of intervention.

Implementing cooperative learning in EFL teaching, Tsailing Liang (2002) attempted to explore the effect of cooperative learning on the junior high school learners. They showed that the experiment group significantly outscored the control group. The study resulted that cooperative learning could significantly improve junior high school learners’ oral communicative competence and their motivation toward learning English. Finally, the researcher suggested teachers to use cooperation learning method as the pedagogical implication of the paper.

3. Methodology

3.1. Participants

The participants of this study were 80 male and female students at Shiraz Islamic Azad University. They were randomly selected from two fields of Engineering and Business Administration. Twenty of them were excluded because they did not take the final test. This brought the final number of participants to 60 out of 80. In the beginning, the 40 participants in the field of Engineering were from two classrooms which one of the classes was randomly selected as the experiment group and the other as the control group. The same procedure was done for the students whose major was Business Administration. They were all native speakers of Persian and their age ranged from 18 to 25. The study was performed in General English classrooms. The course which was examined in the present study was offered in spring 2012 in Shiraz Azad University.

3.2 Instrument

The instruments utilized in this study consisted of: 1. sample Cambridge Key English test, 2.an observation scheme, and 3.Cambridge Key English Proficiency test (KET).There were forty items in proficiency test to check the purpose of the examinee’s proficiency. Thus, it
was the only part of the test that was administered in the present study. The test included 34 reading items (missing words and sentences, matching, and comprehension type of questions), 5 items to test both reading and writing (completing an order), and one writing item (writing a short message).

In order to evaluate the amount of progress during the process of cooperation learning performance, an observation scheme (Johnson, Johnson & Stanne, 2000: 19-20) was used. It consisted of six parts. Beginning with the information part, the observer had to clarify objectives of the treatment. The next step was to find the pre-instructional decisions such as group size or roles of the students. Considering the positive interdependence, individual accountability, and intergroup cooperation as the basic pillars of the cooperative learning, the observer had to explain task and cooperative goal structure for the fourth part of the observation scheme. Explaining the monitoring and intervening part were the fifth step of this scheme. Finally, the researcher reported evaluating and processing of the classroom.

To examine participants’ proficiency knowledge, a pre-test was administered. It was Cambridge key test which is A2 level according to Cambridge standards. Cambridge key English test (KET) is a basic level qualification that shows students can use English to communicate in simple situations and have achieved a good foundation in learning English. The purpose of the first part, that is the reading part was to show that the examinee “can deal confidently with different types of text, such as fiction and non-fiction books, journals, newspapers ad manuals” (Cambridge website, 2013). The writing part required the examinee “to be able to write a variety of items, such as essays, proposals and reviews. For the “use of English” part, it tested the ability to use the right words, tenses and idioms in the right situation, at the right time” (Cambridge website, 2013). Since there were not enough devices for the listening part of the test, it was not administered. In addition, because of not having the proficient examiner the speaking part was omitted. The Cambridge key test which was run, composed of 55 items: 25 items in multiple choice format, 10 items of matching type, and 20 items of completing with one word type.

To assess the effect of the treatment on the participants, a post-test had to be employed. After applying cooperative learning method during the course, the same pre-test KET exam was run at the end of the term.

Since Cambridge test is a standard test of English proficiency, the pre-assumption is that the reliability and validity of the test are convincing. Furthermore, to be sure about the validity of the two tests, they were checked by three experts in relevant field. The internal consistency reliability of the test was equal to 0.87 through Cronbach’s alpha coefficient procedure which is a highly reliable score.

### 3.3 Procedure

The participants who registered for General English course were in four classes: two in engineering major and the other two in business administration. One of the two samples in each major was considered as the experimental group which was exposed to the treatment. The other class in each major taken as the control group was deprived of the treatment. In the beginning of the term and for the sake of reliability, the sample Cambridge key test was run first. The pre-test was administered in the second week of the term. Students’ scores on the 55-item Cambridge key proficiency test were recorded. In order to become familiar with the cooperative learning, and to get a better result, the teacher explained the concept, the objectives, the principles, and the procedures the students were to follow. Then, the learning groups were assigned. The groups consisted of four students which usually sat beside each other. The researcher was as an observer in the classrooms while the teacher monitored group achievements and intervene if needed to explain the problems. The lesson divided into parts
according to the number of groups. Each group had to study the part cooperatively and deliver it by one member of their group. The teacher explained the missed points and extra materials if needed. One writing for each lesson was done by each group after the lesson had been studied. In addition, exercises were performed cooperatively by each group and were questioned by the teacher. During one term (Spring-term 2012), the treatment was achieved. Finally, the post-test was administered thereafter at the last week of the term.

3.4 Data Analysis

The results were analyzed through statistical procedures to answer the research questions. To find out participants’ language proficiency according to both major and treatment, descriptive and inferential statistics were used. The pre-and post-test scores obtained from each of the experimental and control groups in Engineering and Business Administration groups were compared through a series of independent sample t-tests within groups and between groups to see if the groups were significantly distinct from one another. In this study, dependent variable was students’ proficiency and students’ majors and the methods of teaching were independent variables.

4. Results

To find out if the proficiency of the learners improved at the end of semester, the gain score of the participants was calculated through the following equation: gain score = posttest-pretest. As Table 1 shows, the mean of gain score of students of Engineering (4.93) was higher than mean of gain score of the students of Business Administration (0.96). To find out if this difference is statistically significant, independent sample t-test was run. As depicted in table, P value (0.002) is lower than 0.05 (P<0.05) that proves the difference is statistically significant. Therefore, it can be concluded that students of Engineering achieved a higher proficiency at the end of semester.

<table>
<thead>
<tr>
<th>Major</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>30</td>
<td>4.93</td>
<td>6.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Administration</td>
<td>30</td>
<td>0.96</td>
<td>2.47</td>
<td>3.24</td>
<td>58</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Table 1: Mean differences between majors’ gain score

To answer the second research question and investigate if this difference is due to the applied instruction method-cooperative learning- again independent sample t-test was run but between the mean of gain score of control and experimental groups of the learners with different majors.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>15</td>
<td>5.86</td>
<td>6.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>15</td>
<td>4.00</td>
<td>6.48</td>
<td>0.816</td>
<td>28</td>
<td>0.422</td>
</tr>
</tbody>
</table>

Table 2: Mean differences between gain score of control and experimental groups of engineering students

Table 2 reveals higher gain score for experimental group of participants whose major was engineering. However, P value (0.422) is higher than 0.05 (P>0.05). It proves that difference between experimental and control group is not significant and not due to the method of instruction. It can be concluded that cooperative learning didn’t affect the gain score of
experimental and control group of students. Thus, cooperative learning didn’t help proficiency of the learners. Table 3 investigates the difference between mean of gain score of the students whose major is Business Administration.

**Table 3:** Mean differences between gain score of control and experimental groups of Business Administration students

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>15</td>
<td>1.46</td>
<td>2.58</td>
<td></td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td>Control</td>
<td>15</td>
<td>0.46</td>
<td>2.32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Table 3, the gain score of experimental group of participants whose major was Business Administration was 1.46 which is higher in comparison with gain score of control group (0.46). However, independent sample t-test indicated that this difference is not significant since P value (0.275) is higher than 0.05. It indicated that similar to participant whose major was engineering, the students of Business Administration didn’t gain higher proficiency because of cooperative learning.

According to the results of Tables 2 and 3, it is clear that cooperative learning didn’t help students with different majors to gain higher proficiency. However, Table 1 indicates that engineering students had higher proficiency in comparison with students of Administration. Based on the results, it can be stated that higher proficiency of students of Engineering in comparison with students of Business Administration is due to another factor not the instruction method that is cooperative learning.

5. **Discussion and Conclusion**

Although cooperative learning is a student-led instructional model of students working in small cooperative groups to achieve a common learning goal, the findings in the present study have provided evidence that is not consistent with the more general claims about cooperative learning since cooperative learning was found ineffectiveness to improve proficiency of Iranian students majoring in Engineering and Business Administration. Mohamadian (2012) stated that Iranian students preferred to interact with others in group discussions the most and in meetings the least. The researcher continued: ‘This finding can be understood in the light of how a group discussion is carried out in Iranian classrooms. …. When a group discussion occurs, not all of the participants are expected to participate. Some students may dominate the discussion and take the floor most of the time, whereas the timid ones can sit back and just nod in agreement without the need for saying much’ (Mohammadian 2012:35). Since this is the real case in General English courses in university, the basic pillars of cooperative learning which were explained before have not been achieved completely. Furthermore, as Iranian students in college setting usually spoke their native language in classroom, and did not tend to use the English language as their interactional tool to learn, the use of cooperative learning did not depict any significance in learning.

The second research question dealt with the relationship between cooperative learning and the students’ major. Table 2 showed that Engineering students depict significant difference in English proficiency, whereas Table 2 and 3 didn’t show such a significance considering instructional method. In agreement with the present situation in universities in Iran, although engineering students showed higher English proficiency knowledge, they did not reveal any significance when instructional method was cooperative learning.

Notwithstanding the favorable results of the statistical tests, this researcher surmised that additional system of university classroom would have shown significantly higher means for
the cooperative learning group over the lecture group. Characteristics of the two aforementioned factors, such as (a) opportunities to interact with the instructor, (b) the instructor’s concern for the students, and (c) the extent to which students assist and are friendly to each other in class have been linked to success in a cooperative learning environment. When speaking about the lecture-based mode, “Some ideas are so widely accepted and successful that they become immune from criticism they become sacred cows. As a result, changing or challenging these sacred cows becomes increasingly difficult (Barger & McCoy, 2009; p. 414)”. Based on this study’s findings, university lecturers should be willing to re-evaluate their own classroom learning environments to determine if what they are doing is moving their students forward and supplying their students with the necessary tools for success.

This statement suggests that teachers must be aware of the techniques they most often use in their own classrooms and assess them to ensure that proper modeling takes place. Positive learning atmospheres do not happen automatically; they are climates the instructor forms. Cooperative learning techniques are not designed to preclude the use of lecture in the classroom (Panitz, 1999) but rather be a supplement to classroom activity.

References


