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

Tahereh Dabaghmanesh(Corresponding author)

English Language Department, Shiraz Branch, Islamic Azad University, Shiraz, Iran

E-mail: tdabaghmanesh@gmail.com

Mostafa Zamanian

English Language Department, Shiraz Branch, Islamic Azad University, Shiraz, Iran

Mohammad Sadegh Bagheri

English Language Department, Shiraz Branch, Islamic Azad University, Shiraz, Iran

Abstract

The present study intends to investigate the effect of cooperative learning on English language achievement of undergraduate students in higher education classrooms. This quasi-experimental research used a pre and post-test group design. Fifty four Iranian undergraduate students in different majors at Shiraz Azad University who were taking general English course involved in this research. Some cooperative learning methods were implemented in reading comprehension and writing. The students were asked to do the pretest for the sake of homogeneity and the final exam as the post test for the sake of academic achievement. The average was taken to indicate students' overall English language achievement. An independent t-test was run to compare the achievement scores of the experimental and control groups. Results indicated significant difference between cooperative learning and teacher-fronted method of instructions in language learning in General English course.

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 & Thiyaragarajali 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" (McCafferty, 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:

Teacher-centered classes

Competition rather than cooperation

Unfamiliarity of teachers with cooperative learning mechanism

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 gain some understanding about the function and influence of applying cooperative language learning at the college environment. In addition, it aims to compare a teacher-centered classroom with a learner-centered classroom to find which enhances significantly EFL learner's achievement. Based on these purposes, the following question is posed:

Is there any effect between the application of cooperative learning method and the English knowledge of Iranian undergraduate students?

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.

Johnson, Johnson and Stanne (2000) defined achievement as "an outcome measure for some type of performance (standardized and teacher-made tests, grades, quality of performances such as composition and presentations, quality of products such as reports, and so forth)."Academic achievement or academic performance is the outcome of education, that is the extent to which a student or teacher has achieved their educational goals. Academic achievement is commonly measured by examinations.

2. Literature Review

2.1 Communicative Competence

The concept of communicative competence is one of 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

Two classes were randomly selected out of 37 General English course classes offered by the English department. One of the classes was randomly selected as the experimental group and the other as the control group. The participants of this study were 64 male and female students at Shiraz Islamic Azad University. Ten participants were excluded because they dropped the course. This brought the final number of participants to 54. They were all native speakers of Persian and their age ranged from 18 to 44. Except for the method used, the teacher, the source book and allotted time (one semester) for both groups were the same. The course which was examined in the present study was offered in spring 2013 in Shiraz Azad University.

3.2 Instrument

The instruments utilized in this study consisted of Pre-test, The observation scheme and Post-test as achievement test.

Pre-test was administered in the first phase of this study to homogenize the students. The test was previous term's final exam of pre-requisite English course. All of the questions were in multiple-choice form. It consisted of fifty six items at a basic level in present study. The test included 45 grammar items and 11vocabulary items.

Observation of small group work was conducted on 54 college students who enrolled in general English classes via time-sampling. Based on the group dynamics literature (Napier & Gershenfeld, 2004) and the observational research conducted in cooperative learning settings (Gillies, 2007; Kouros and Abrami, 2009) selected14 behaviors out of 18 behaviors (Kourous,

Abrami, 2009) for observation during cooperative group work: Task behaviors: asks for help (QS), is asked for help (QT),gives information (GI), receives information (RI), checking understanding (CH), group procedure information (GP), actively listening (LI), on-task(non-verbal) (ON), and reading text (RD). Maintenance or social behaviors: harmonizing (HA), encouraging (EN), and joking (JK). Self-oriented behaviors: off-task (verbal and non-verbal) (OF) and put downs (PD).

The observation scheme was developed to capture the selected behaviors at 20second intervals. That is, every 20 seconds the observer observed a targeted student and recorded on the scheme the behaviors that the student engaged in.

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 final exam was run at the end of the term by the English department. The exam included sixty items in two main parts. All the questions were in multiple-choice. The first part examined the students' understanding of syntactic structure and their vocabulary. There were forty questions. The second part of the final exam included four short prose passages in order to check the ability of students in guessing the meaning of words from context, grasping the main idea of the passage, comprehending the syntactic structure of the passage and getting the explicit and implicit ideas. This second part consisted of twenty items.

To be sure about the validity of pre- and post-tests, they were checked and confirmed by the experts in the field. The reliability of the tests was checked by Cronbach's alpha coefficient. The internal consistency reliability of the test was estimated at 0.787 and 0.893 for pre- and post-test respectively which shows they are highly reliable.

3.3 Procedure

At first, one of the classes was randomly considered as the experimental group which was exposed to the treatment. The other class taken as the control group was deprived of the treatment. The control class was taught traditionally: educator-fronted, lecturing the lessons. For the experimental class, at the beginning of the term, one pre-test was run for the sake of homogeneity. The pre-test was administered in the second week of the term. Students' scores on the 56-item test were recorded. On the basis of pre-test results the researcher selected the students from control and experimental groups with the same scores for this study. Also, To motivate students to cooperate effectively and feel responsible for the achievement, the teacher assigned six out of twenty points of the midterm score to class participation. The researcher observed the classrooms while the teacher monitored classroom to check group achievements and intervene if need arises.

Since it took time for groups to bond with one another and work together effectively, after the teacher taught the lesson, the process began with the implementation of pair work on exercises. For the next session, the teacher gave a short introduction for the lesson and explained the vocabularies. Then, the learning groups were formed at random. The groups consisted of four students which usually sat beside each other without any change in the arrangement of the class. The lesson divided into parts and each part assigned to one group.

Each group had to study the part cooperatively and one person from the group served as the spokesperson presented the material in front of the class. The role of students circulated so that each group member had the opportunity to serve as the group's spokesperson. The teacher explained extra materials if needed. This was run for two sessions.

The next two sessions were the same except that instead of presentation, each member of the group wrote one paraphrased writing from the part with the help of his or her group-mates. In addition, exercises were performed cooperatively by each group and were questioned by the teacher. One other technique which was performed for three lessons was 'Jigsaw'. In this technique, group mates shared information with each other. Students began in their home group. Each home team member was given one part of the overall lesson. Students formed expert teams with a small number of classmates to study their part of the lesson and prepare to teach it to their home teammates. Students returned to their home groups and taught their group mates. This activity was very demanding in the class. During one term (Spring-term 2013), the treatment was implemented. The post-test was administered thereafter at the end of the term.

3.4 Data Analysis

Data were analyzed through statistical procedures to answer the research question. To find out participants' English language achievement, final exam scores were collected. The post-test scores obtained from each of the experimental and control groups were compared through t-test within groups and between groups to see if the groups were significantly distinct from one another. There was one dependent variable which was students' achievement, and two independent variables, namely, students' gender and the method of teaching.

4. Results

According to Table 1, pretest mean differences among control (M=26.29) and experimental group (M=25.85) were not remarkable. Thus, two groups were similar to each other. Treatment was conducted during the semester for experimental group. Mean differences between final exam as achievement test and posttest revealed bigger differences between control (M=30.40) and experimental group (M=38.11).

Table 1. Pretest and Post Test Differences between Experimental and Control Groups

Exam	Group	N	Mean	Standard Deviation
Pretest	Experimental	27	25.85	1.91
	Control	27	26.29	1.84
Post Test	Experimental	27	38.11	2.16
	Control	27	30.40	2.05

To ensure if difference between mean score of control and experimental group in pretest and posttest are statistically significant, independent sample t-test was run. The following table shows the results.

Table 2. T-test for mean differences between achievement test scores of control and experimental groups

Exams	F	Sig.	T	Df	Mean difference
Pretest	0.068	0.868	-0.167	52	-0.44
Posttest	0.689	0.013	2.580	52	7.70

As depicted in Table 2, mean differences among control and experimental group is 0.44 and this difference is not statistically significant since P= 0.868 which is bigger than 0.05. It confirmed that these two groups are equal and can be used as control and experimental groups in this study. However, posttest (achievement test) showed different results. Mean difference between achievement tests of control and experimental groups was 7.70 and this difference was found statistically significant since P value (0.013) was smaller than 0.05. And, magnitude of difference was upper than moderate since F is equal to 0.6 and this value shows moderate effect. This confirms that cooperative learning led to better achievement and was effective in better learning.

5. Discussion

The findings in the present study have provided evidence that is consistent with more general claims about cooperative learning. Momtaz and Garner (2010) asserted that "Using these methods (cooperative learning methods), certain process of collaborative reading were identified, including brainstorming, paraphrasing, and summarizing". Also, in their research Rahimi and Tahmasebi (2010) concluded: "they (students) were no longer afraid of making mistakes; their peers had already observed their mistakes and helped them to overcome the problems. Moreover, their peers were within their reach to help them when they ran out of some words".

The results of this research suggest that students working cooperatively consistently outperform students attending in a lecture-based class. These findings support the evidence of Chang (1995) that the average scores of students in cooperative learning were about two points higher than those of students in a traditional teacher- based English class.

This study has examined the main components of formal cooperative learning characteristics and cooperative structures in foreign language learning. However, cooperative learning can be relevant for teachers in the sense that it is an excellent way of conducting communicative language teaching. Cooperative learning groups can enhance students' learning experience not only academically, but also outside university in the workplace. With this in mind, Kagan (1992) supports cooperative learning through his structural approach where he improves communicative competence which is in many ways another word for social competence.

Lecturers must consider the possibilities cooperative structures have to offer to enhance cooperative learning in foreign language learning by preparing students to become lifelong learner. Besides, Loang-Tsailing (2002) noted that a possible strategy to address the problems of low English proficiency and low motivation in EFL teaching would be the achievement of cooperative learning because cooperative methods hold great promise for speeding up

students' attainment of academic learning, motivation to learn, and the development of knowledge and abilities for flourishing in an ever-changing world. Based upon the results yielded in the study, cooperative learning shows its practicality that puts communicative competence and communicative approach into action. Loang-Tsailing (2002) also added that cooperative groups increase chances for learner to produce and understand the target language and to obtain modeling and feedback from their peers as well as their instructor. Much of the value of cooperative learning lies in the way the teamwork encourages learners to engage in such high-level thinking skills as analyzing, explaining, and elaborating. Interactive tasks also naturally stimulate and develop the students' cognitive, linguistic, and social abilities.

6. Conclusion

It should be noted that cooperative learning does not replace direct instruction completely in an EFL classroom (Cheng, 2006). The findings of the significant gains in the grading item of achievement in the experimental group echoed the researchers' claim that communicative instruction should involve some timely systematic treatments to draw the EFL learners' attention to cooperative forms to develop well-balanced communicative competence. The outcomes of this study suggest to this researcher that cooperative learning techniques have worth and benefit for the students in the undergraduate classrooms.

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.

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