The Effect of Co-Teaching on Improving EFL Learner's Reading Comprehension

Fateme Moradian Fard*1 and Elahe AghaBabaie 2

1 FatemeMoradianFard, Islamic Azad University, Shahre-Kord Branch, Iran
2 ElaheAghaBabaie, Islamic Azad University, Shahre-Kord Branch, Iran

ABSTRACT

This study aimed at examining whether co-teaching strategy could maximize EFL students' reading comprehension more than the traditional single person teaching. To fulfill the study, 90 female students were selected from among 120 students of intermediate EFL learners already passed level five at two private language institutes in Shahr-e-Kord. They were all female, between seventeen to twenty in age. Three experienced female teachers took part in the study. After administering the Nelson Proficiency Test, 60 students whose score range fell one standard deviation above and below the mean were selected and divided into a control group and an experimental group. In the treatment part, reading comprehension section was implemented by one teacher for the control group while for the experimental group, teaching reading section was done by two teachers. Finally, a post-test on reading comprehension was conducted for both groups, and a t-test analysis was conducted to see whether the treatment was significant or not. The findings of the study revealed that there was a significant difference between the control and the experimental group in terms of their reading improvement and that experimental group outperformed the control group.

Key words: Teaching strategies, Co-Teaching, EFL Learner's, Reading comprehension

INTRODUCTION

The second language (L2) teaching profession has long been involved in search for methods that would not only be generable across widely varying audiences, but also could successfully be used to teach a foreign language to students in the classroom. To meet the demands of the diversity of language learners in multiple worldwide contexts, researchers and practitioners have gradually learned from the long search to realize that "there never was and probably never will be a method" (Nunan, 1991, p. 228) for all learners, and thus come up with a cautiously eclectic, integrated approach aiming to help teachers make enlightened choices of classroom tasks and activities that are solidly grounded in the valuable findings from research on L2 learning and teaching (Brown, 2001). On the other hand, all educators may, more or less, find that an increasing number of students are placed in an English class with any of variety of different knowledge and background that influences their learning a new subject differently. Students with poor performance and other special needs are generally expected to achieve the same level of success as other learners. Accordingly, Reith and Polsgrove (1998) aptly state that, “It is not enough to merely place students within general class settings without providing appropriate training, materials, and support to them and their teachers. "If done so, their failure is the outcome” (p. 257). Thus, due to overpopulation and misplacement of the learners in large classes, it seems that one single teacher would...
not be able to conduct all burden of teaching including planning, practice, and evaluation and above all implementing remedial programs to meet the needs of the learners with poor performance may not be possible within the allocated specific time. Therefore, there is some intuitive appeal for a new mode of service delivery because greater numbers of students who have instructional problems may be accommodated in general education classes. Drawing upon the above-mentioned views, among the many ideas and options for meeting these diverse yet somehow related, challenges, one that had received widespread attention and been used by many special and general educators to meet the needs of secondary students is co-teaching. Therefore, in the present study we attempt to investigate the possibility of its applicability in Iranian EFL teaching context.

Review of the Related Literature

Co-teaching or having more than one teacher in the classroom has become a popular teaching structure to provide an inclusive setting for special education students while insuring that they are in the least restrictive environment. In the co-teaching classroom there is typically a general education teacher and a special education teacher in the classroom. Co-teaching may also be considered as a strategy including mixed-visions of two teachers. It is defined as “a restructuring of teaching procedures in which two or more educators possessing distinct sets of skills work in a coordinated fashion to jointly teach academically and behaviorally heterogeneous groups of students in an integrated educational setting” (Bauwens & Hourcade, 1995, p. 46). Elsewhere, Villa, Thousand, and Nevin (2008) reiterate the responsibility shared by the co-teachers. They define it as ‘‘two or more people sharing responsibility for educating some or all of the students in a classroom.’ In contrast, single teaching as Aliakbari and Mansoori Nejad (2009) note, is defined in a way that one teacher is responsible for supervising all tasks of lessons, in the current and relatively traditional teaching model over a specific time. Co-teaching offers several advantages over traditional single-teacher teaching method, including the provision of multiple learning perspectives (Smith, Hornsby, & Kite, 2000), reduction of teaching redundancy (Hartenian, Schellenger, & Frederickson, 2001), and the promotion of teamwork and communication between teachers (Andrews & Wooten, 2005). Sharon (1997) identified several alternative models of co-teaching: A: One Group: one lead teacher, one teacher “teaching on purpose”; B: Two Groups: Two teachers teach same contents; C: Two groups: One teacher re-teaches, one teacher teaches alternative information; D: Multiple Groups: Two teachers monitor/teach; content may vary; E: One group: two teachers teach the same content. Watkins and Caffarella (1999) identified four types of teams based on variations in working style: parallel teaching, serial teaching, co-teaching, and co-facilitation. Friend and Cook (2004) described the more common approaches as One-Teach-One Support, One-Teach-One Drift, Alternative Teaching, Parallel Teaching, Station Teaching, and Team Teaching. 1. One Teach, One Observe. One of the advantages in co-teaching is that more detailed observation of students engaged in the learning process can occur. With this approach, for example, co-teachers can decide in advance what types of specific observational information to gather during instruction and can agree on a system for gathering the data. Afterward, the teachers should analyze the information together. 2. One Teach, One Drift. In this second approach to co-teaching, one teacher keeps the primary responsibility for teaching while the other professional circulates through the room, providing unobtrusive assistance to students, it needed. 3. Parallel Teaching. In parallel teaching, the teachers are both teaching the same information, but they divide the class group and do so simultaneously. 4. Station Teaching. In this co-teaching approach, teachers divide the content and the students. Each teacher then teaches the content to one group and subsequently repeats the instruction for the other group. If appropriate, a third “station” could require that students work independently. 5. Alternative Teaching: In most class groups, occasions arise in which several students need specialized attention. In alternative teaching, one teacher takes responsibility for the large group while the other works with a smaller group. 6. Team Teaching: In team teaching, both teachers are delivering the same instruction at the same time. Some teachers refer to this as having “one brain in two bodies.” Others call it “tag team teaching” (Cook & Friend, 2004). Most co-teachers consider this approach the most complex but satisfying way to co-teach. However, to achieve the desired outcome,
this approach is most dependent on the co-teachers’ styles (Cook & Friend, 2004). Among the models specified here, alternative teaching has received special attention. To Murawski & Swanson (2001) alternative teaching is a strategy in which one teacher teaches the large group, while the other teaches or re-teaches the content or the skills to the small group. One major features of this model is that teachers may regroup students and may alternate roles in teaching the large and the small groups. Alternative teaching as Friend & Cook (2004) suggest alternative teachers to be used in the following situations: In situations where students’ mastery of the concepts taught or about to be taught varies tremendously

- When extremely high levels of mastery are expected for all students
- When enrichment is desired
- When some students are working in a parallel curriculum

Inspired by these ideas and recommendation, the present study intended to put it under scrutiny. Research on co-teaching has recently started to study the effect of co-teaching structures on students’ academic learning (Bauwens, Hourcade, & Friend, 1989; Cook and Friend, 1995; Dieker, 2001; Fennick, 2001; Fennick and Liddy, 2001; Rice and Zigmond, 2000; Vaughn, Schumm, and Arguelles, 1997; Zigmond and Magiera, 2001). In a comprehensive study of inclusion in 18 Elementary and 7 middle schools, Walther-Thomas (1997) found that the lower student–teacher ratio that resulted from the presence of co-teachers in normal-sized classrooms led to strong academic progress and enhanced student self-confidence. The role of co-teaching has also been manifested along technology to do so, Jang (2006a) incorporated web-assisted learning with team-teaching in seventh-grade science classes, and used a quasi-experimental method, assigning the four sampled science classes into experimental and control groups. The results showed that the average final exam scores of students experiencing the experimental teaching method were higher than the scores of those receiving traditional teaching. Therefore, this study aimed to integrate two simultaneous interventions into courses of science teacher education method in order to explore the effects of such integration on learning technology. Dahlberg and Hoover (2003) investigated the effects of co-teaching on K6 Student Discipline and Attendance. He found that the results support the positive impacts and the students feel more connected to school when they are in a co-taught classroom. Further, students in co-taught settings have fewer behavioral issues in school, and overall have fewer referrals per student. Maultsby and Barbara (2009) examined the impact of collaborative teaching (co-teaching) on the reading, language Arts and Math achievement of Middle Tennessee students in grades 5-8, as measured by the Tennessee Comprehensive Assessment Program (TCAP) Achievement test. Within the context of this study, the co-teaching model of instruction is defined as the special and general educator, referred to as co-teachers, sharing equitably the tasks of the lesson planning, implementation, and assessment. Six schools participated in this study. Three of the schools implemented co-teaching practices at the beginning of the 2008-2009 school years. The remaining three schools did not implement co-teaching practices at the beginning of the 2008-2009 school year. The dependent variables were students’ reading, language Arts and Math TCAP Achievement test scores over a two year period. The independent variables were gender, ethnicity, disability categories, type of classroom (one with co-teaching practices and one without co-teaching practices), and type of student (student with a disability or student without a disability). The statistical test used in this study was a paired samples t-test. Results from this study indicated for an increase in Math achievement for students with disabilities instructed in classrooms with co-teaching practices and a decrease in Reading/Language Arts achievement for students without disabilities instructed in classrooms with co-teaching practices. No other conditions produced significant increases in this study. Aliakbari and Mansoori Nejad (2010) studied the effect of co-teaching on learning process in general and the grammar proficiency in particular. To do so, they selected a group of 58 first grade students studying English in junior high school assigned to two classes receiving two different treatments in grammar instruction. In one group, learners received grammar instruction from co-teachers while in other group grammar instruction was delivered by a single teacher. They found that the difference in method of grammar instruction did not lead to significant difference in participants’
performance in the grammar test. However, they conducted the study on the basis of team teaching model as an approach in co-teaching.

**Significance and Aim of the Study**

A number of studies have been done on investigating the influence of various teaching methods on different domains of language skills. However, few studies have been conducted to investigate the effect of co-teaching on diversity of pedagogical are as particularly language skills such as speaking, writing, listening and more specifically reading improvement. The study reported here aims to fill some of the gaps in the area of co-teaching by comparing two groups of Iranian EFL learners studying English as a second language in level six so as to examine whether alternative teaching strategy could maximize EFL students' reading comprehension more than the traditional single teaching. For this purpose, the current study used alternative teaching proposed by Cook and Friend (2004). The results are expected to be generalized to EFL classes where the aim is to increase students' reading comprehension. Accordingly, the present study attempts to find answer to the following question: Does alternative teaching model have a significant impact on improving Iranian EFL learners’ reading proficiency?

**Research Question**

This study seeks answers to the following question:
1. What is the effect of co-teaching on the performance of Iranian intermediate level students in reading comprehension tests?

**Research Hypothesis**

Accordingly, the following null hypothesis is formulated:
H01: Co-teaching has no significant effect on the performance of Iranian intermediate level students in reading comprehension tests.

**MATERIAL AND METHODS**

**Participants**

For the purpose of this study 90 female students -aged between seventeen to twenty-were selected randomly from among 120 students of intermediate EFL learners already passed level five at two private language institutes in Shahre-Kord. Also three experienced female teachers aged above thirty took part in the study. All teachers were holding MA in TEFL.

**Materials**

The following materials were applied in this study.
1- Nelson Proficiency Test
2- A pre-test on reading comprehension
3- Reading comprehension passages for the treatment of the experimental group
4- A post-tests on reading comprehension
5- T-test for the analysis of variances
6- One-way ANOVA
7- Flesch Readability Formula
Procedure

The Nelson Proficiency Test (1997) was selected (level III, 150A) in order to determine the general English proficiency level of the participants of the study. This test consisted of 50 multiple-choice items which took 45 minutes and was administered on the whole population to choose the control and the experimental group. To collect the data, first, a multiple-choice proficiency test (i.e., Nelson test, 1997) was administered on 90 intermediate EFL learners already passed level five at two private language institutes in Shahre-Kord city. Based on the proficiency test scores, 60 students whose score range was one standard deviation above and below the mean were selected as to participate in the study. Participants were divided into two groups: a control group and an experimental group. In order to find out the performance of the participants on reading comprehension, before the treatment, a pretest on reading comprehension was conducted for both groups. This test included four sections (A-D) namely, sentence comprehension (3 scores), cloze passage (3 scores), paragraphs with headings (4 scores), and reading passage (5 scores), totally 15 scores. A posttest on reading comprehension was administered among the participants after the treatment, the readability of which was calculated through Flesch Readability Formula. The result showed that the pre-test and the post-test were parallel to each other in terms of the level of difficulty, (both agree with each other at sections of the test. Since both tests were developed by the researcher of this study, they were piloted on another group similar in English proficiency level to the main participants of the study. The reliability of these tests was investigated by using KR-21 formula and they were 0.70 and 0.75, which was satisfactory for the purpose of the study. Also, the validity of these tests was investigated by the expert judgments, including one university instructor and two EFL teachers. By investigating the test specifications like test method, scoring matrix, choice distribution, and selection of items, they confirmed the content validity of the reading comprehension tests.

Alternative Teaching Treatment

The textbook selected for the study during the treatment phase was Interchange (Jack, C. R., Jonathan, H., & Susan, P., 2010). The textbook includes sixteen lessons, five lessons for each semester and every one of these lessons includes a reading passage. This study was conducted in two Language Institutes in Shahre-Kord city situated on the south-west part of Iran. The experimental group was taught by two teachers using alternative teaching model during five weeks on even days. In this group, one teacher taught the large group supposed to be more talented and the other (co-teacher) worked with the small group who needed more explanation, and remedial activities. (The classification was done according to the scores of the pre-test, i.e., the participants with a score 1 SD below the mean were considered the lower group and those with 1SD above the mean were considered the higher group). The control group was taught by one single teacher during the same period. The same content was taught by the teacher which included the reading passages in the textbook. As mentioned, two teachers, one as the lead teacher and the other as the support teacher (based on Cook & Friend's mode, 2004) were involved in the procedure. The lead teacher and the support teacher made decisions about the content and organization of the lesson cooperatively. They also determined the appropriate structures for alternative remedial or enrichment lessons that would promote student learning. The lead teacher conducted formal teaching, including the entire stages of reading instruction such as pre-reading, reading and post-reading. All the learners were encouraged to participate actively in the learning process. Then the support teacher implemented supplementary activities for the whole group, small groups or individuals before or after the formal lesson. The support teacher attempted to find out the learners' weaknesses and help them with activities by which they were able to guess unknown vocabularies by known words and grammatical structures which have not previously been learnt and internalized.
RESULTS

As mentioned in the procedure, three tests were employed in this study. Firstly, a proficiency test based on Nelson proficiency test was administered to homogenize the groups in their language proficiency. Table 1 displays the descriptive statistics of the proficiency test.

Table 1- descriptive statistics of the proficiency test

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group, proficiency test</td>
<td>30</td>
<td>25.4000</td>
<td>8.9002</td>
<td>1.6249</td>
</tr>
<tr>
<td>Experimental Group, proficiency test</td>
<td>30</td>
<td>26.6333</td>
<td>4.9722</td>
<td>.9078</td>
</tr>
</tbody>
</table>

In order to find out whether the participants consisted homogeneous groups at the onset of the study, a two-tailed t-test (p<.05) was conducted between the means of the proficiency tests in two groups which is displayed in table 2.

Table 2. T-test between scores of proficiency test between two groups (p<*.05)

<table>
<thead>
<tr>
<th>t-test for Equality of Means</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores of proficiency tests</td>
<td>t</td>
<td>df</td>
<td>Sig. (2-tailed)</td>
<td>Mean Difference</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-.663</td>
<td>38</td>
<td>.510</td>
<td>-1.233</td>
</tr>
</tbody>
</table>

Regarding the results represented in table 2., one can conclude that since the p-value is above .05, the null hypothesis (HO) considered in this t-test is retained and the difference between the means of the proficiency tests in two groups is found not to be significant at .05 level of significance, that is, the two groups were probably homogeneous in their proficiency level in English at the onset of the study. To investigate reading comprehension ability, a pretest was conducted before the treatment for both the control and the experimental groups. Table 3 displays the descriptive statistics of pre-tests' scores in the control group and the experimental group.

Table 3. Descriptive statistics of the pre-test

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group, pre-test</td>
<td>30</td>
<td>6.3667</td>
<td>2.8826</td>
<td>.5263</td>
</tr>
<tr>
<td>Experimental Group, pre-test</td>
<td>30</td>
<td>6.4333</td>
<td>2.5688</td>
<td>.4690</td>
</tr>
</tbody>
</table>
The investigation of the results in tables 3 and 4 reveals that the p-value, being above .05, the difference between the means of the pre-tests in two groups is not significant at .05 level of significance. In other words, the two groups can be considered as having almost the same level of knowledge in reading comprehension, too. Then, the treatment, i.e., co-teaching (alternative teaching strategy) was implemented for the experimental group teaching the same material. After the treatment, a post-test achievement test related to the same content taught during the course was administered to examine whether the treatment had any influence on the experimental group. The descriptive statistics of the post-tests is displayed in table 5.

**Table 4. T-test between scores of pre-tests between two groups (p<*.05)**

<table>
<thead>
<tr>
<th>Scores of pre-tests</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances</td>
<td>-0.095</td>
<td>58</td>
<td>0.925</td>
<td>-0.0667</td>
</tr>
</tbody>
</table>

In order to see whether there would be a difference between the means of the post-test between the two groups, that is, to see whether the treatment for the experimental group was beneficial, a t-test was also run to determine the difference between the two groups of learners in their achievement scores. Table 6 reveals the statistics.

**Table 5. Descriptive statistics of the post-test**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group, post-test</td>
<td>30</td>
<td>13000</td>
<td>5.3379</td>
<td>0.9746</td>
</tr>
<tr>
<td>Experimental Group, post-test</td>
<td>30</td>
<td>24.2333</td>
<td>6.6834</td>
<td>1.2202</td>
</tr>
</tbody>
</table>

The results of comparing the means through the t-test (table 6.), the p-value is shown to be lower than .05. Thus, the difference between the post-test means in the two groups represent a significant difference at .05 in favor of the experimental group. It seems that the alternative teaching strategy have been fruitful in the experimental group rather than single teaching in the control group. The result of descriptive statistics of the pre-tests and post-tests in the two groups are displayed in table 7.
Table 7. Descriptive statistics of two groups.

<table>
<thead>
<tr>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores of post-tests</td>
</tr>
<tr>
<td>Equal variances assumed</td>
</tr>
</tbody>
</table>

In order to compare the mean scores of both groups simultaneously and to see whether the observed variability between group means in their pre-test and post-test is significant, a one-way ANOVA was also applied. (table 8.)

Table 8. One-way ANOVA between the pre-tests and post-test of two groups (p<*.05)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test post-test, groups</td>
<td>120.000</td>
<td>1</td>
<td>120.000</td>
<td>5.450</td>
<td>.021</td>
</tr>
<tr>
<td>Pretest posttest, variables</td>
<td>7552.533</td>
<td>1</td>
<td>7552.533</td>
<td>343.028</td>
<td>.000</td>
</tr>
<tr>
<td>P_P, group * P_P, variables</td>
<td>112.133</td>
<td>1</td>
<td>112.133</td>
<td>5.093</td>
<td>.026</td>
</tr>
<tr>
<td>Error</td>
<td>2554.300</td>
<td>116</td>
<td>22.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34992.300</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>10338.667</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the results of table 8 reveals that the difference between the means of the pre-test and post-test in two groups was significant. That is, the statistics supports that of the experimental group outperformed the control group in terms of reading comprehension achievement, which rejects the null hypothesis.

DISCUSSION AND CONCLUSION

The current study attempted to investigate the impact of alternative teaching on the learners’ reading comprehension. To do so, data was gathered and analyzed to ascertain if alternative language teaching had an influence on the learners’ reading improvement. The data collected and analyzed, indicated for greater reading improvement among experimental group. Therefore, with regard to the research question, it is concluded that the alternative teaching can contribute to the learners’ reading comprehension improvement. In other words, the learners in the experimental reading class whose course was taught by co-teachers, performed remarkably better than learners who experienced the reading class course in the control class with single teacher. One important aspect of the result was that the whole individuals in the experimental group benefited from the alternative teaching strategy. It can thus be concluded that the learners’ engagement and the use of multiple teachers and various opportunities can enhance classroom performance and encourage greater student participation to a great extent. These findings are in line with Murawski and Swanson (2001) who underlined the fact that co-teaching had a beneficial effect on students’ outcome. Therefore, it can safely be concluded that alternative language teaching can be more contributive to the improvement of the learners who take part in co-taught classes. Although the result of this study indicates for the positive impact of the alternative teaching strategy, it might produce different results in various contexts. Despite its significance, this model requires the co-teachers to work cooperatively and collaboratively to plan appropriate instructional programs and materials so as not to baffle the students in the process of learning. Moreover, this study suggests that more studies are
necessary to investigate other variables that might affect co-teaching methods including the culture, genders, and level of learners.

REFERENCES


7- Dieker, L. A. (2001). What are the characteristics of “effective” middle and high school co-taught teams for students with disabilities? Preventing School Failure, 46(1), 14–23.


21-Sharon, V., Jeanne, S., & Maria, A., (1997). The ABCDEs of Co-Teaching, Teaching Exceptional Children, 30 (2), 4-1


