

On the Effectiveness of Team Teaching in Promoting Learners' Grammatical Proficiency

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Abstract

Collaborative practice by two teachers in planning, teaching, and evaluating the educational program is known as co-teaching. The present study aimed to examine how co-teaching may affect the learning process. To do so, a group of 58 first-grade students was assigned to two classes. In one group, learners received grammar instruction from co-teachers, while in the other group grammar instruction was delivered by a single teacher. The findings revealed that the difference in method of grammar instruction did not lead to a significant difference in the participants' performance. This finding implies that the appropriateness of co-teaching in educational systems, at least for teaching

grammar in an EFL context, is doubtful, and that co-teaching classes should be used cautiously.

Keywords: co-teaching, co-teaching models, co-operative teaching, grammar proficiency, team teaching.

Précis

On définit le coenseignement comme la pratique collaborative de deux enseignants pour planifier, enseigner et évaluer le programme éducatif. La présente étude visait à déterminer comment le coenseignement peut influencer sur le processus d'apprentissage. Pour y arriver, on a réparti un groupe de 58 élèves anglophones de première année dans deux classes distinctes. Les apprenants du premier groupe ont reçu des leçons de grammaire anglaise enseignées par des coenseignants, tandis que dans l'autre groupe, les mêmes leçons de grammaire étaient dispensées par un seul enseignant. Les résultats ont révélé que la nuance quant au mode d'enseignement de la grammaire anglaise n'avait pas entraîné de différence significative dans les performances des participants. Ce résultat implique que le bien-fondé du coenseignement dans les systèmes d'éducation, du moins pour enseigner la grammaire anglaise aux anglophones, est douteux et que les classes de coenseignement doivent être organisées avec prudence.

Introduction

It is assumed that teaching is one of the complicated processes taking place in schools and educational institutions. Its complexity becomes even more highlighted as high-stake decisions are made on the basis of teaching procedure simply because a plethora of factors are interacting and cooperating in this procedure.

In the current and relatively traditional teaching model, one teacher is responsible for supervising all lessons over a specific time. The plan of the teaching process, its practice, and the expected evaluation are carried out by the same teacher. In other words, teaching is not critically reflected on by anyone except the lead teacher of the classroom. The arrival of new strategies of teaching, issues of motivation, the satisfaction of students and academics' needs and other factors contributing to successful teaching activities all look forward to the creative genius of a single teacher. The seeming difficulty of addressing all these elements simultaneously by a single pedagogue appeals for a new alternative in the method of teaching.

One of the recently suggested methods for accelerating and making the education process interactive is the co-teaching model. The concept of co-teaching emerged several years ago through the works of scholars such as Walther-Thomas (1997). However, it was initially introduced to raise issues in teaching handicapped students in an exclusive class (Cook & Friend, 1995; Dieker, 2001; Dieker & Murawski, 2003; Gately & Gately, 2001; Keefe & Moore, 2004; Stanovich, 1996; Tobin, 2005; Vaughn, Schumm, & Arguelles, 1997). It was thought that the difficulties of handling the education of students with disabilities required more workforces, from which co-teaching gradually emerged.

The term co-teaching has attracted some teachers to treat it in different ways. For example, Angelides (2006) defines co-teaching as follows: "Two teachers are jointly responsible for a class and plan teaching together, plan instruction together, share teaching duties and design collectively all teaching aids" (p. 1). Additionally, Reinhiller (1996) notes that co-teaching in the early 1970s was known as team teaching, and it was also known as collaborative teaching, or cooperative teaching. Although different terms referring to co-teaching are often used interchangeably, Jang (2006) rightly notes that such terms which refer to a context where two or three teachers share some responsibility in teaching the same group of students have different implications in terms of pedagogical concerns. Team teaching has the contributions of each participant in focus, whereas

collaborative and cooperative teaching are concerned with the process of contribution and the way each teacher contributes to the process of teaching. In fact, co-teaching, known also as collaborative and cooperative teaching, is a general term referring to the pedagogical setting where two teachers share their pedagogy, information, and assessment while team teaching is considered as a one of the distinct instructional models of the co-teaching framework. Team teaching is subject to “teaching styles, learning philosophies, interpersonal skills, shared experiences, and licensure status” (Bessette, 2008, p. 1377).

In a non-technical terminology, co-teaching refers to an educational environment in which two or more teachers cooperatively teach a group of students. Yet a diversity of definitions exists. According to Wenzlaff et al. (2002), co-teaching is “two or more individuals who come together in a collaborative relationship for the purpose of shared work . . . for the outcome of achieving what none could have done alone” (p. 14). It was also characterized as cooperation between general and special education pedagogues with the same or different responsibility of teaching a group of students in a classroom (Gallo-Fox, Scantlebury, Wassell, Juck, & Gleason, 2005; Gately & Gately, 2001). In a different description, Cook and Friend (1995) argue that a co-teaching system has two or more teachers to mutually convey “substantive instruction” to a heterogeneous group of pupils in one class. In other words, a co-teaching system has been established on highly substantial approaches and features that distinguish it from such a traditional interpretation. The distinct features of such a system are described by Cook (2004):

- two (or more) educators or other certified staff
- a contract to share instructional responsibility
- a single group of students
- primarily a single classroom or workspace
- specific content (objectives)
- mutual ownership, pooled resources, and joint accountability
- each individual’s level of participation may vary (p. 5)

Although co-teaching was represented as a relatively new approach, its practicality has not been certified for a number of reasons. As far as its application is concerned, every co-teaching model may not be suitable in all educational settings because students and teachers do not possess similar features. Its adaptability is another concern. For example, in Japanese classrooms, not all models of co-teaching are employed, only team teaching (Macedo, 2002; Tajino & Larry, 1998; Tajino & Tajino, 2000). Sometimes it

seems difficult for co-teachers to accept their mistakes and respect a colleague's criticism, which is intended to improve cooperative activities. In such a case, the problems regarding the interaction between co-educators may accumulate and burst out in the form of emotional release, which may negatively affect the educational process (Shafer, 2000). Still, time limits seem to be a salient obstacle for co-teaching. Rushing through planning, implementing the schedule, and meeting the goals make time pass faster than expected. As Bullough and Birrell (1999) put it, "there was simply insufficient time and resources to accomplish all that is necessary to maintain a good program and positive relationships" (p. 387). In addition, although co-teaching can pave the way for changes, it is worth noticing that "how we changed is related to the problems and demands of our institutional contexts and our backgrounds and personalities" (Hohenbrink, Johnston, & Westhoven 1997, p. 297).

Having different personalities and cultural backgrounds, co-teachers might face conflicting processes in dealing with each others' interests. As Quarcoo (2005) puts it, there seems to be some factors influencing the relationship of the co-teachers. For the reasons cited above, the idea of co-teaching has not fully entered into the current education systems as a fixed method of teaching languages and other sciences. Yet, it seems that the assumed hurdles for implementing co-teaching do not mean that co-teachings should be quarantined from the experimental investigation. Taking these difficulties into account, the present study was an attempt to investigate the practicality of co-teaching in raising the grammatical accuracy of the learners in an Iranian EFL context. One of the motives for implementing this study in Iran is that the current classrooms in Iran are moderated by a single teacher, and all decisions are made by a single teacher in a classroom. Thus, there seems to be less option for innovation concerning students' achievement and progress in a single-teacher class. Furthermore, as Aliakbari and Bazayr (2012) documented, co-teaching seems to be a new phenomenon in the current education system for teaching English. Lack of enough experimental studies on co-teaching in Iran provide a promising chance to investigate the productivity of co-teaching to meet the unanswered needs of students.

Co-Teaching Models

The successful execution of co-teaching rests on the exploitation of a suitable model. Hence, no single approach is suggested for co-teaching. There are a number of influential factors such as district, situation of classroom, and the amount of cooperation in determining the right selection of co-teaching models (Muscelli, 2011; Wilson, 2006). According to Friend, Reising, and Cook (1993), there are five models for implementing co-teaching in educational systems. In fact, these models bear similarities in the sense that they use two teachers in the classroom. They can be considered distinct in that each model has its own peculiarity.

The first model is characterized as “One teaches, one observes.” Based on this approach, one instructor has important responsibility while the other one observes and assists students individually. This approach is compatible with increasing the experience of student teachers. The second model is known as the “parallel teaching” approach, wherein students are given more supervision time by teachers. In fact, students are divided into two groups, and each group receives teaching content from a particular teacher. Co-teachers give their own teaching information to their groups simultaneously and separately. In “station teaching,” the third possibility, students and the content of instruction are divided. Each teacher takes a small part of the instructional content, working with small number of students. “Alternative teaching” is another type of co-teaching wherein a small number of students require specialized attention. One instructor deals with the larger group and the other works with the smaller one. The last and the most complex approach is “team teaching,” which is known as one brain in two bodies. Based on this approach, both teachers give instruction mutually and simultaneously. The team-teaching approach to some extent depends on teachers’ styles.

Tobin (2005) considers the team-teaching model as a situation in which co-educators shoulder the burden of instruction at the same time. One of the features of the team-teaching model is that teachers can change their roles according to the procession set up in the textbook lessons. These roles can also be specified in advance when each teacher knows exactly what he or she is expected to do in the class. However, according to Angelides (2006), the flexibility of teaching roles becomes more clarified as each teacher concentrates on those topics in which he or she feels more knowledgeable, and receives viable feedback in the area in which they are weak. The present study was con-

ducted based on the team-teaching model, since, unlike other models, it does not necessitate the division of students and, furthermore, the autonomy, which is the very intricate issue in the EFL context, is shared by both teachers.

Review of the Literature

The efficiency of co-teaching models has come to the centre of attention in recent studies. One of the latest works was by Aliakbari and Bazayr (2012), who attempted to measure the influence of parallel teaching on the general language proficiency of EFL learners in Iran. Their study was implemented among 32 second-grade students. The results revealed no meaningful difference between the participants' performance in two groups. In the international conference "ICT for language learning," Aliakbari and Mansouri Nejad (2010) indicated that implementation of team teaching among EFL students might not be as promising as it has been presumed in other contexts. The model "One teaches, one observes" was applied in a study by Larson and Goebel (2008), who tried to investigate the influential role of co-teaching on the pre-service teacher's perception of effectiveness in classroom management and student management. This study was, in fact, a theory-to-practice research whereby a university professor gave consultation to a school teacher in a co-teaching context. Pre-service teachers' sentiment was assessed through the execution of the Teachers Sense of Efficacy Scale (TSES). The investigation demonstrated that pre-service teachers' sense of efficacy had enlarged during the course. Data gathered was used for enhancing the quality of education.

The contributive role of team teaching was also manifested in the recent studies. As an example, David-Wiley and Cozart (1998) conducted a survey to collect student's opinions about co-teaching. The study used 62 graduate students studying for masters of science degrees in education. The students were team-taught in their course. Results of the study indicated that the team-teaching as an approach in co-teaching was profitable to them. In addition, they believed that co-evaluation and co-planning could be highly contributive.

Liu (2008), in a comprehensive study, investigated the contribution of four models of co-teaching out of five models represented by Friend, Resing, and Cook (1993) in a context where native English teachers (NETs) and non-native English teachers (NNETs) co-taught in a classroom. These models included "one teaching-one assisting,"

“alternative teaching,” “station teaching,” and “team teaching.” Conducted in a Chinese classroom context, the results of the study suggested that the examined models had a noticeable influence on the improvement of the native English teachers’ (NETs) quality of teaching process. However, such improvement was bound to the models that were implemented in the classroom. The study revealed that to achieve a significant result, the models should be carried out sequentially—that is, “one teaching-one assisting” model should be used first, followed by the “alternative teaching.” After that “station teaching,” and finally “team teaching” are suggested to be conducted in the class.

Despite the studies on productivity of co-teaching models, the quality of co-teaching in general and its implication in different situations in particular have been intensified by several studies during recent years (Benjamin, 2000; Bergren, 1997; Cramer, Nevin, Thousand, & Liston, 2006; Johnson, Johnson, & Smith, 2000; Letterman & Dugan, 2004; Rice & Zigmond, 1999). A study conducted by Hadley, Simmerman, Long, and Luna (2000) illustrated that students who were co-taught made significantly greater gains than those who received more traditional classroom instruction. A meta-analysis of co-teaching research conducted by Murawski and Swanson (2001) underlined the fact that co-teaching had a beneficial effect on students’ outcomes. In this study, the efficiency of co-teaching was also demonstrated in the area of reading comprehension and language art.

Another domain wherein the worth of co-teaching became more transparent was its benefit for instructors and learners. Gillespie and Israetel (2008) designed a study to substantiate the effectiveness of co-teaching as a pedagogical model. A group of twenty-three college students were enrolled in a class co-taught by psychology and mathematics professors. In this class, the basics of data collection and statistical analysis were mutually taught. Survey questions demonstrated the students’ attitudes toward co-teaching.

Regarding beneficiaries of the implementation of co-teaching, there are some interesting viewpoints. For Cullen, Gaskell, Garson, and McGowan (2009), the benefits of co-teaching is two-fold. On the one hand, teachers would take advantage of “division of labor, flexibility, opportunity to learn from each other, and partnership” (p. 3). On the other hand, it benefits students in terms of “broader level of experience, complementary styles, and enhanced classroom teaching dynamic,” which was illustrated in a specific study of efficacy of co-teaching in science and technology (p. 4). Murphy, Beggs, and Carlisle (2003) appointed undergraduate science-specialist student teachers to co-teach technology lessons with primary teachers. After six months, a survey of students’ atti-

tudes to science showed that students enjoyed the lessons more. In addition, educational organizations were also promoted by the co-teaching model.

Although the valuable points of co-teaching were to some extent supported by some studies, there are voices who throw doubt on the usefulness of co-teaching. For instance, to Magiera and Zigmond (2005), the efficiency of co-teaching for enhancing students' proficiency is vague. In addition, hardly ever can a co-teaching model become viable without a judicious examination of co-teachers and students' needs. Therefore, it is argued that co-teaching models should be selected with due deliberation and unhurried examination for a particular condition. As an example, Cook and Friend (1995) point out that "clearly, approaches to co-teaching should be selected on the basis of student characteristics and needs, teacher preferences, curricular demands, and pragmatics such as the amount of teaching space available" (p. 8).

Focus of the Study

As noted, there are a number of studies probing different perspectives of co-teaching. While much has been said about the issue of efficiency of co-teaching, relatively little attention has been paid to its application in different situations. In fact, few studies have investigated the effect of co-teaching on diversity of pedagogical realms such as teaching styles, strategies, approaches, methods, techniques, or skills. What is obvious from the recent studies is that in the advent of the co-teaching model, its relation to or influence on different domains like those mentioned above has not been closely investigated yet. Grammar is one of those seldom-touched pedagogical areas that has not been examined in co-educational classrooms. Thus, the present study aimed at clarifying whether the co-teaching model could intensify the EFL students' grammar accuracy more than single-teacher instruction. To do so, team teaching as the most intricate model proposed by Friend, Resing, and Cook (1993) was adopted. The result of the study was expected to shed light on the suitability of co-teaching in the EFL context. The significance of the study becomes more apparent as it can also contribute to a new way through which grammar can be instructed to EFL students. Specifically, the study sought an answer to the following question: Does a co-teaching model have an influential effect on improving EFL learners' grammatical proficiency in the Iranian educational system?

Method

Participants

The research was conducted at a junior high school in Ilam city, Iran. There was a group of 58 first-level students studying English in the second term, which encompasses 10 sessions, each session taking one hour and fifteen minutes. They were all male, eleven to thirteen years old. The study also took advantage of three male English teachers aged twenty-three to twenty-seven years old. These teachers had master's degrees and were graduates with a major in Teaching English as a Foreign Language (TEFL). They have gained a good experience in teaching English in EFL contexts for seven years. They were English teachers at schools, universities, and private language centres.

Materials and Instruments

The main material used in the present study was an English textbook published in Iran and used in all EFL classrooms at junior schools across the country. It was developed by Beerjandi and Soheily (2009) and published by the Company of Press and Publishing Iranian Educational Books. The textbook contained ten lessons, and in each lesson, five grammatical focuses were embedded. English teachers usually allocate five lessons to each semester. The same process occurred at the school where this study was implemented. Thus, five lessons of the second part of the book were taught to two groups of the students.

In addition, two proficiency and grammar tests were used as the instruments. Since both pre-test and post-test were textbook-based, it was vital to support the content validity of the tests. Therefore, for both tests the ability domain was scrupulously specified. Accordingly, a table of specifications of the relevant content areas was conducted. The test tasks and items were drawn out of the table of specifications. In order to demonstrate the compatibility between content areas and test items, the tests items were handed to two experts whose judgments about content validity were satisfying. That is, each expert received a set of table of specifications and a copy of test items. They separately examined the level of unanimity between the table of specifications and test items. Finally, they reported that items were relevant enough to cover the domain of ability specified in the table of specifications.

The pretest was designed based on the half of the book taught in the first term. It was used to determine the homogeneity of the students regarding English language achievement in the first term. An achievement test played the role of post-test to point out the would-be impact of co-teaching on the experimental group.

Design and Procedure

A quasi-experimental design was used for the present study. Two EFL classes were used. The first class comprised twenty-eight students and was held on Tuesdays. It was the experimental class co-taught by a pair of teachers. The other class, considered as a control group, included thirty students who came to the class on Wednesdays. The language proficiency of the control and experimental groups was assessed by a proficiency test. In the control group the grammar points of the lessons were instructed by just one teacher, whereas in the experimental, the grammar focuses were taught by two instructors. In order to avoid any possible disturbance in the process of co-teaching the grammar points, and to prepare the teachers toward co-teaching, co-teachers went through an assimilated classroom with a group of students teaching grammar for at least one week. This preparation would be likely to familiarize the co-teachers with the actual implementation of the method and enhance their trust in each other.

These two teachers cooperatively co-taught the grammar points based on a team-teaching model, which made the study distinguishable from the traditional view of teaching. In the control group class, both teachers embarked on delivering grammatical points at the same time. For example, the structure of “to be” was taught by one of the co-teachers by means of writing the grammar on the whiteboard; simultaneously, the other co-teacher taught the same structure orally through examples.

Co-teachers had cautiously planned the way these grammar parts in the book were taught in advance. They even mutually shared their opinions about when and how each of them should fulfill the role. Meanwhile, some factors were taken into account in order to establish an effective co-teaching process. These factors have been elaborated by Olsen, Chamers, and Hoover (1997), who maintained that effective co-teachers

- are tolerant, reflective, and flexible
- accept responsibility for all students

- maintain positive relationships with each other
- adjust expectations for students with disabilities in the general education classroom

The evaluation of the students' grammar proficiency also took advantage of co-teachers collegiality. Therefore, collaboration and consensus between co-teachers determined every issue of the teaching process. These groups were worked with for ten sessions, each session taking almost one hour and a quarter. After the treatment implementation, students in both groups took similar tests of grammar. Their scores were collected in order to analyze descriptively and inferentially.

Results

The study involved two kinds of statistical analysis. First, the raw scores obtained in the pre-test and post-test exams were analyzed descriptively. They were also analyzed according to inferential statistics. The results obtained from the pre-test demonstrated that with respect to raw scores, both groups had the same range of distribution ($20 - 7 = 13$). This range, as an index of variability according to Hatch and Farhady (1981), showed a logically normal distribution of scores which, to some extent, confirmed the homogeneous English competence of two classes.

In addition, in order to see whether or not the difference between the groups was statistically significant, the *t* test procedure was run. The result of *t* test procedure was given in Table 1.

Table 1: The Result of Independent Samples Test on Learners' Language Proficiency

<i>T</i>	<i>DF</i>	Sig (2-tailed)	Mean	Standard Error Difference
0.727	57	0.470	-.878	1.208

* $p < .05$

As can be seen, the homogeneity in English proficiency between two classrooms was confirmed through *t* test operation. Since the *t* observed ($f = .727$) is not significant at $p < .05$, it can be safely claimed that there was no significant difference between the control and experimental groups with regard to the general knowledge of English. In other

words, supported by two indexes of range and *t*-test, English competency of the experimental group was to a large extent congruent to that of the control group.

As noted earlier, the research question was to investigate the role of co-teaching in the grammar proficiency of the EFL students. In order to view a possible difference between control and experimental group after implementing the treatment, an achievement test of grammar was designed and administered to both groups. To test the research question, another *t* test was run to check if there was a significant difference in the mean scores of two groups of learners.

Table 2: The Result of Independent Samples Test on Learners' Grammatical Accuracy

<i>T</i>	<i>DF</i>	Sig (2-tailed)	Mean	Standard Error Difference
.864	56	0.391	-1.242	1.4371

**p* < .05

Data presented in Table 2 indicated that there was no meaningful difference between the two groups of students with respect to the *t*-observed ($f = 0.864$). Thus, it can be argued that the difference in instruction method has not influenced the learners' grammatical proficiency. In other words, the results of the empirical study described here illustrated that no significant difference was found between the experimental and control groups.

Discussion and Conclusion

Although good numbers of previous studies have confirmed the usefulness of co-teaching in the educational situation, the findings of the present study did not seem to come in line with those studies. More specifically, the result of the study showed that co-taught students did not outperform the students who received traditional methods of teaching in the ELT context. In other words, the co-teaching model in this particular environment did not contribute to better results in the grammatical proficiency than did the single instruction approach. Therefore, it might be argued that the model is not suitable to be implemented in every educational system in teaching grammar points.

The insignificant result of the study can be attributed to a number of issues. The presence of two teachers in the classroom might have baffled the students. As they were

used to having a single teacher in the class, coping with two teachers might have been a challenging issue for them. In addition, as it was observed, co-teaching appeared not to work in some cultures or countries, such as Japan. Thus, it is not out of place to argue that students and teachers' cultural backgrounds might pin down such a result. Meanwhile, as a strict rule in the Iranian educational system, the single-teacher domination over the class has been emphasized for a long time, and perhaps it suffered from the presence of two teachers in one class.

In case this model of co-teaching needs to be used in a classroom, the results of the present study suggest that the successful implementation of the model requires the meticulous consideration of cultural background, which might vary across different contexts. In the meantime, as far as this study is concerned, co-teaching procedure, no matter what model is implemented, requires collaboration and consensus of co-teachers in the planning, teaching, and evaluation of students' performances. That is, co-teaching does not take place haphazardly in the classroom. It is helpful to note that focusing on a single gender—male—and conducting the study in a particular setting could be considered limitations of the study. Nevertheless, such limitations call for more in-depth studies to include other variables that might affect co-teaching methods, including the cultural aspect of education, genders, and level of education. It is suggested that by contrasting cross-cultural studies in relation to different genders could shed more light on the effectiveness of co-teaching modals.

It should be kept in mind that team teaching as one of the proposed models of co-teaching has brought out such results. Therefore, whether other models of co-teaching lead to the similar outcomes is a new avenue for further research and investigation.

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