

## The Effects of Cooperative Learning versus Traditional Teaching on Students' Achievement: A Case Study

**Sami Al-Mubireek**

*Department of English Language, Deanship of the Preparatory Year and Supporting Studies,  
Imam Abdulrahman bin Faisal University, Dammam, Kingdom of Saudi Arabia  
smubireek@iau.edu.sa*

### **Bio-profile:**

**Dr. Sami Al-Mubireek** has an MA in English as Second/Foreign Language and a Ph.D. in Teaching English to Speakers of Other Languages (TESOL) from the Ohio State University, Columbus, Ohio, USA. He was the former Head of the English Language Department for more than five years at the University of Dammam. Currently, he is an assistant professor and the head of Studies and Research Unit, Prep Year Deanship at Imam Abdulrahman Bin Faisal University, Saudi Arabia.

### **Abstract**

The research aims at measuring the effectiveness of the use of cooperative learning compared to the traditional method in teaching English courses for students of the Deanship of Preparatory Year and Supporting Studies, Imam Abdulrahman Bin Faisal University, Saudi Arabia. It is hypothesized that cooperative learning is more effective than traditional teaching in learning English and developing better academic achievement. The study involved 60 advanced students apportioned into two groups: 30 in the experimental group studying the English language course through cooperative learning and 30 in the control group studying the same course through the traditional method. After the teaching period, which lasted seven lectures at a rate of a lecture per week, the research instrument is applied to both groups. The data extracted from the pre- and post-tests are processed statistically using the independent data student  $t$  test to verify the validity of the research hypotheses. The data are also subjected to the equation of improvement ratios in order to find the differences between the average test scores of the two groups' pre- and post-tests. The results demonstrate the validity of the research hypothesis.

**Keywords:** cooperative learning, Saudi EFL students, tertiary level

## 1. Introduction

Methods of teaching that are based on communicating information; reception and repetition seem to be old-fashioned. The regurgitated information makes the teacher assume that his students have absorbed the information conveyed to them. Having a closer look at the Saudi university education system will confirm the fact the direct method is widely used and preferred, especially in delivering English courses in which the teacher becomes the main source of information. Depending on the direct method is no longer effective nor accepted in the shade of the revolutionary plethora of modern technology and inventions which made it nearly impossible and completely futile to depend on the same traditional approaches. However, this paper is not intended to enumerate the negative and positive sides of the direct method, but to alert teachers against using it as a teaching habit. They would rather diversify their teaching methods depending on the situation/topic. It is therefore necessary to give up some of the traditional methods of teaching, especially those which focus on lecturing and memorizing in favor of new methods that focus on students' activity and participation under the guidance of the teacher.

Since automaticity is targeted, it becomes an elusive objective if the direct method is used. Unfortunately, most English teachers continue to focus on imparting knowledge and skills using traditional teaching methods that require students to memorize information without understanding. Traditional teaching methods also encourage unhealthy competitiveness and sometimes illegal rivalry among students who struggle to obtain the best scores over their peers. So, it is high time to call for an up-to-date method that suits the modern age of technology and results in the best outcome learner that can use English effectively, communicatively and appropriately. There is an urgent need to call for the search of modern methods in teaching English courses that focus on learners' activity, engagement, creativity, participation and cooperation.

Cooperative learning method (CLM), as a prototype of the communicative approach, is one of the most important contemporary trends in the field of education. Students can work in groups, where each student feels that he is an active partner in the educational situation and has responsibilities and specific roles that must be exercised in order for the work, undertaken by the group, to be fully assimilated. It also provides students with life-like situations in which they

practice the skills of scientific thinking, promote discovery and investigation, and develop skills of gaining knowledge along with other social skills:

“Collaborative learning is one of the most important strategies that have proven instructional excellence and importance as it provides participants with the opportunity to learn and share sources of diverse information, as well as the possibility of exchanging experiences among themselves, where the main goal of collaborative learning is not only the acquisition and participation of knowledge, but also exceeds it to enhance the individual with the ability of building knowledge in innovative ways” (Paavola et. al. 2004, p. 567).

## **2. Literature Review**

The original idea of cooperative learning dated back to a hundred years ago. Although the principle of communicative learning is deeply rooted in human history, the term "cooperative learning" began to be used in the 1960s. Since then, the topic has already become an important part of any successful education system. In the mid 1960s, Johnson and Johnson contributed to the development of cooperative learning in the training of teachers at the University of Minnesota. Then, it progressed till the early 1970s where researchers like DeVries and Edwards (1972) at Johns Hopkins University built up Teams-Games-Tournaments, and other researchers like Sholmo and Sharan (1980) developed the group investigation procedure for cooperative learning groups.

In the late 1970s, Slavin, DeVries and Edwards (1978) extended work at Johns Hopkins into Student Teams-Achievement Divisions and modified computer-assisted instruction into Team-assisted Instruction. At the same time, Kagan (1993) created the Co-op co-op procedure. In the 1980s, Dansereau (1985) widened several cooperative scripts, and many other individuals worked out further cooperative procedures (Johnson, Johnson & Smith, 1991). Cooperative learning has been found as an effective epitome of communicative language teaching. Cooperative learning has become so common that it is no longer considered a new idea in education. This can be viewed in the mid of 20th century where applications of cooperative learning drew its development to sociology and social psychology specifically to Gordon Allport's (1954) Social Contact Theory and Morton Deutsch's (1949) studies of group dynamics. This continues as Cooperative Learning is believed to make educational magic in a uniquely 21st century way.

In the new century, many studies have been conducted to ascertain the effectiveness of collaborative learning in developing achievement and various skills either kinesthetic or mental, including the studies of: (Aa'ati 2015; Ismail 2013; Mahdi, Algazar, Alostaz.2012; Alsayed 2013; Alnamy 2012; Ahour, Mukundan & Rafik-Galea, 2012; Gonzales & Torres, 2016 Tesfamichael, 2016 Nuraida, Muliastuti & Rasyid, 2019).

### *2.1 Definition of cooperative learning*

There are many definitions of cooperative learning in early recent literature. An early definition was given by Slavin who stated that cooperative learning comprised of "a set of instructional methods in which students work in small, mixed-ability groups ... to achieve some sort of group goal" (Slavin, 1987, p 8).

For instance, Lewis defines cooperative learning as "an instructional strategy that enables small groups of students to work together on a common assignment. The parameters often vary, as students can work collaboratively on a variety of problems, ranging from simple math problems to large assignments such as proposing environmental solutions on a national level" (2019, p.1). Another definition provided by Teed, McDaris and Roseth defines cooperative learning as "cooperation is not having students sit side-by-side at the same table to talk with each other as they do their individual assignments. Cooperation is not assigning a report to a group of students where one student does all the work and the others put their names on the product as well. Cooperation involves much more than being physically near other students, discussing material, helping, or sharing material with other students. There is a crucial difference between simply putting students into groups to learn and in structuring cooperative interdependence among students" (2018, p.2).

The current research aims to examine the impact of cooperative learning versus traditional teaching on students' achievements and to provide some pedagogical suggestions. Using cooperative learning may yield many benefits. First, it helps learners acquire social skills and values such as cooperation, audacity, self-confidence, and responsibility taking. The great benefit of communicative learning lies in the fact that it is a learner-centered approach that targets the learner and consolidates the teacher's role as a facilitator and a coordinator. Second, it transforms the role of students from passive recipients to active participants and enhances their spirit of self-learning, reflective critical thinking, participation and cooperation. Besides, it tries to abolish the traditional notion that the teacher is the unique source of information. In addition, this study may benefit decision makers, curriculum developers, syllabus designers and teachers in all subjects at

different stages. Eventually, this research addresses the problem of students' repugnance to learn English and their low level of achievement.

### *2.2 Research hypothesis*

Cooperative learning is more effective than traditional teaching in learning English and developing academic achievement. In the recent time, several methods of learning have emerged. The most important ones are those that focus on learners (Learner-centered approaches: LCA). Cooperative work is not a new concept in educational thought; it has long historical roots that extend back hundreds of years. Its historical beginning was a philosophical belief practiced by many educational philosophers including Plato, Russo and Dewey.

### *2.3 The impact of cooperative learning*

Cooperative learning has a positive impact on the educational process. It eliminates the isolation and seclusion of some introvert learners and increases motivation to learn. Furthermore, cooperative learning programs can help solve some of the learners' low academic achievement and performance. The effectiveness of cooperative learning is due mainly to its dependence on two main pivotal principles: automaticity and the exploit of first language acquisition. After the teacher gives the learners the target language, he monitors their performance in real life-like situations. Learners acquire English typically as they acquired their first language. Cooperative learning helps them learn and use English in an untraditional atmosphere. The most important aspect is that cooperative learning increases the learners' motivation and, if the session is well-planned, encourages them to teach and learn from each other. From the researcher's own experience, learners are more likely to receive and learn from each other. It is also noted that the pieces and chunks of language they learn from each other are more likely to remain in their memory for longer times. Each learner works very hard to understand the minutes of his assigned topic or area. S/he must delve into the depths of his topic in order to help his peers understand it very well. It has a mutual benefit for both the learner and his peers.

A very important benefit of cooperative learning is that it increases student talking time and reduces teacher talking time. Cooperative learning gives the chance to the learners to practice English appropriately, communicatively and freely. This is the main core of the learning process. In cooperative learning, the teacher is only a guide, a facilitator and a coordinator who monitors and interferes when necessary. The importance of cooperative learning lies in developing the

learners' ability to develop positive attitudes towards the teaching materials and to think critically. Cooperative learning also advances the learner's aptitude to use cooperation in different aspects of life. The impact of this cooperation trains the learner to work cooperatively within the family, society and workplace. It also addresses the problem of increasing the number of students in the classroom providing the learner with a greater opportunity to learn.

Cooperative learning benefits the learner both academically and morally. Adopting cooperative learning improves the learner's performance and teaches him/her the value of teamwork, cooperation, self-denial and initiative taking. Shoeib (2016) mentioned: "It is clear that collaborative learning encourages design proficiency on research, inquiry, and enthusiasm, which is reflected on the students' scientific activity and enhances their ability to self-learning"(Shoeib, p.173). On the importance of cooperative learning, (Gillies, 2007) stated that "cooperative learning is now an accepted and often the preferred instructional procedure at all levels of education. Cooperative learning is presently used in schools and universities in every part of the world, in every subject area, and with every age student"(Gillies, 2007, p. 10).

Johnson and Johnson also emphasized the importance of cooperative learning stating that "teachers spend most of their day structuring learning situations cooperatively and carefully creating positive interdependence, 10 face-to-face promotive interaction, individual accountability, social skills, and group processing, they will in turn approach their colleagues with cooperative attitudes" (Johnson et.al 2017, p. 9-10).

#### *2.4 Elements of cooperative learning*

Slavin (1987, p.9) identified two elements for learning to be cooperative:

1. Students must work toward a group goal, such as earning certificates, or some other recognition.
2. Success at achieving this goal must depend on the individual learning of all group members.

Further Johnson et.al provided five elements as basics of cooperative learning:

1. Positive interdependence: Students must feel that they need each other to complete the task of the group.
2. Face-to-face promotive interaction: Students promote each other's learning by sharing educational efforts, explaining, discussing, and teaching what they know for their classmates.
3. Individual accountability: Each student's performance is frequently assessed, and the results are given to the group and the individual.

4. “Social skills: Groups cannot function effectively if students do not have and use the needed” social skills. Cooperative social skills include leadership, decision-making, trust-building, communication, and conflict-management skills. Group processing: Groups need specific time to discuss how well they are achieving their goals and maintaining effective working relationships among members. (Johnson et.al, 2017, p. 3-4)

### *2.5 Difference between cooperative learning groups and traditional education groups*

Kelly (2019, p.1-6) summarizes the differences between cooperative learning groups and traditional education groups in the following points:

#### *2.5.1 Interdependence*

“In a traditional classroom group setting, students are not interdependent upon one another. There is no feeling of a positive interaction where the students need to work as a group to produce a quality piece of work. On the other hand, true cooperative learning provides students with incentives to work as a team to succeed together.”

#### *2.5.2 Accountability*

“A traditional learning group does not provide the structure for individual accountability. This is often a huge downfall and upsetting to those students who work the hardest in the group. Since all students are graded the same, less motivated students will allow the motivated ones to do the majority of the work. On the other hand, a cooperative learning group provides for individual accountability through rubrics, teacher observation, and peer evaluations.”

#### *2.5.3 Leadership*

“Typically, one student will be appointed the group leader in a traditional group setting. On the other hand, in cooperative learning, students share leadership roles so that all have ownership of the project.”

#### *2.5.4 Responsibility*

“Because traditional groups are treated homogeneously, students will typically look out for and be responsible for only themselves. There is no real shared responsibility. On the other hand, cooperative learning groups require students to share responsibility for the overall project that is created.”

#### *2.5.5 Social Skills*

“In a traditional group, social skills are typically assumed and ignored. There is no direct instruction on group dynamics and teamwork. On the other hand, cooperative learning is all about

teamwork and this is often directly taught, emphasized, and in the end assessed through the project rubric.”

### *2.5.6 Teacher Involvement*

In a traditional group, a teacher will give an assignment like a shared worksheet, and give students time to finish the activity. “The teacher does not really observe and intervene in group dynamics because this is not the purpose of this type of activity. On the other hand, cooperative learning is all about teamwork and group dynamics. Because of this and the project rubric that is used to assess the students' work, teachers are more directly involved in observing and if necessary, intervening to help ensure effective teamwork within each group.”

### *2.5.7 Group Evaluation*

“In a traditional classroom group setting, the students themselves have no reason to assess how well they worked as a group. Typically, the only time the teacher hears about group dynamics and teamwork is when one student feels that they "did all the work." On the other hand, in a cooperative learning group setting, students are expected and typically required to assess their effectiveness in the group setting. Teachers will hand out evaluations for the students to complete where they answer questions about and rate each team member including themselves and discuss any teamwork issues that arose.”

## *2.6 Cooperative learning patterns*

Johnson and Johnson (2017) suggest three patterns of cooperative learning as follows:

### *2.6.1 Formal Cooperative Learnings Groups*

Slavin (1987) explains that "the groups usually have four members- one high achiever, two average achievers, and one low achiever. “The students in each group are responsible not only for learning the material being taught in class, but also for helping their group mates learn" (Slavin, 1987, p. 8). They work together to finish their assignment and submit a unified report to the teacher. The teacher indirectly administers the classroom. Cooperation in this pattern is not among members of a single group but includes also groups. The teacher intervenes when necessary, observes the performance of the groups, and assesses the work of each group through their paperwork. In the end, students are individually tested, and the group that reaches the benchmark is rewarded. Johnson and Johnson (2017, p. 5) describes the role of the teacher as follows:

1. Specifies the objectives for the lesson (one academic and one social skill)

2. Makes a series of decisions about structuring the learning groups, considering the group size, how students are assigned to groups, assigning roles to students, organizing materials, and physical arrangement of classroom.
3. Teaches the academic concepts, principles, and strategies that the students are to master and apply and explains the task to be completed and the criteria for success, the positive interdependence, the individual accountability, the expected student behaviors, and the criteria for success.
4. Monitors the functioning of the learning groups and intervenes to teach collaborative skills and provide assistance in academic learning when it is needed.
5. Evaluates student performance against the preset criteria for excellence and ensures that groups process how effectively members worked together.

This pattern can be used in all subject areas which was also followed for the purpose of the present study. The researcher views it as a real embodiment of cooperation and a demonstration of the team spirit without transgressing over the individuals. Compared to other types, it is also easier to apply. It is very effective in improving the cognitive, emotional skills. Most importantly, it includes the main elements of cooperative learning:

“Formal cooperative learning should be used whenever the learning goals are highly important, the task is complex or conceptual, problem solving is required, divergent thinking or creativity is desired, quality of performance is expected, higher level reasoning strategies and critical thinking are needed, long-term retention is desired, or when the social development of students is one of the major instructional goals” (Johnson & Johnson, 2017, p. 5).

#### 2.6. 2. *Informal Cooperative Learning Groups*

In this pattern, the teacher can use a film or a demonstration in order to enhance the learners' expectations and attract their attention. The length of time allotted in this pattern ranges from a few minutes to a whole class period (Johnson & Johnson, 2017, p. 5):

“Informal cooperative learning groups are often organized so that students engaged in three-to-five minute focused discussions before and after a lecture and three-to-five minute turn-to-your-partner discussions interspersed throughout a lecture.”

Gilles stated two important aspects of using informal cooperative learning groups: “(a) make the task and the instructions explicit and precise, and; (b) require the groups to produce a specific product (such as a written answer)” (2007, p. 30).

### *2.6.3. Cooperative Base Groups*

This pattern is completely different from the last two ones. In this pattern, the group lasts for longer time and the members are stable and fixed. The main aim of this pattern is to consolidate, support and assist all the members in order to reach the highest academic performance. Base groups often have regular meetings in order to deal with several issues including offering help and support to an absent member:

“They formally meet to discuss the academic progress of each member, provide help and assistance to each other, and verify that each member is completing assignments and progressing satisfactory through the academic program. Base groups may also be responsible for letting absent group members know what went on in class when they miss a session. Informally, members interact every day within and between classes, discussing assignments, and helping each other with homework” (Johnson & Johnson, 2017, p. 5).

Gillies explained that “the teacher’s role in using cooperative base groups is to: (a) form heterogeneous groups of four (or three), (b) schedule a time when they will regularly meet (such as beginning and end of each class session or the beginning and end of each week), (c) create specific agendas with concrete tasks that provide a routine for base groups to follow when they meet, (d) ensure the five basic elements of effective cooperative groups are implemented, and (e) have students periodically process the effectiveness of their base groups” (2007, p. 31).

The competition between groups increases the motivation to learn three times higher than among individuals. In this pattern, students are divided in heterogeneous groups, consisting of 4 - 5 members. The lesson begins with a simple lecture the teacher in which the teacher gives clear brief instructions, and then students work within groups with each other on a working paper. At the end of the week, students are divided into homogeneous groups of three members as per achievement (based on the previous achievement). They are provided with educational games on what they have studied. Group members compete, and the degree acquired will be added to their basic group’s degree. The winning group will be the one that won the highest degree. Collective and individual rewards should be also offered.

### *2.7.1 Students are divided into teams according to achievement*

It is like games and tournaments pattern. Students are divided into heterogeneous groups of 5-6 members. The lesson begins with the teacher lecturing, and then the students of each group work together on a worksheet. A short 15-20 minute-test is taken at the end of the week.

After that, the teacher marks the test and estimates the grade for each learner. He assigns students to homogeneous groups according to the previous achievement, using a system called collection achievement sections considering the past performance. Each group consists of six learners. He places the top six learners, in terms of grades, in section (1) and the following six, in section (2) etc. The teacher then compares the scores of each student in the weekly test with members of his group, which varies from one week to the next, according to previous test results. The highest score of achievement in the team adds 8 points to the student's team, the second 6 points, and the third 4 points. In the end, the teacher collects points and grades the team. The team that scores higher or reaches the mark set by the teacher is announced in the weekly bulletin board. This method increases students' motivation to move to higher grades every week as each member contributes to a higher score for his team.

### *2.7.2 Cooperative integration of divided information, Jigsaw 1:*

Aronson's Jigsaw model is exploited in cooperative learning to create high interdependence among learners by distributing learning tasks among them. The teacher assigns students to a heterogeneous core group of 5-6 members. The subject to be studied is divided into sub-sections based on the number of members of the team. Each member of the team will study a specific part assigned to him by his group. After that, he will receive his peers in the other teams in the group of experts to study their part. Each learner will join his counterpart in other groups, those who studied the same part as his, and then he returns to his group to teach the part that he has mastered and to learn from them the parts that they have learnt themselves. Next, individuals, not groups, undertake an individual test. The test grade is awarded to the individual and not to his group. For example, the teacher can use cooperative learning to help the learners use the passive voice. The topic can be divided into subsections of the verb tenses. For instance, a specific tense can be assigned to a certain member. S/he meets the other members who study the same part. Then, s/he joins back his own group to present the part that has already mastered. Individual members take an individual test and the test results are graded individually.

### *2.7.3 Cooperative integration of divided information*

Students are divided into heterogeneous groups of 4 to 5 members. Students of each group read the entire subject (a chapter of a book, for example). Each member focuses on a specific part of the subject. Then members of different groups meet to discuss the same part they have studied. After that, they come back, each to his original group, to discuss and explain what he has learned. He then takes an individual test that turns his degree to a collective degree, as to "divide students into teams according to achievement" as per the method mentioned above. This pattern is very helpful in teaching novels for example. This is mainly because students deal with different areas which require thinking, discussing and explaining. Tasks can be distributed easily when assigning characters, themes, plot, settings etc.

#### *2.7.4 Individual assistance to the team:*

The students are divided into heterogeneous groups. Each group consists of four members. The groups are reshuffled every eight weeks. This pattern is characterized by individualized learning. Based on the individual learner's degree, every learner will learn up to his own ability. However, he can seek help from his group as needed. Individual tests are given each week and collective rewards are offered.

#### *2.8 Role of the teacher in cooperative learning:*

In cooperative learning, the learners are the leaders and the active participants. The teacher is only a coordinator and a facilitator who interferes to correct a fatal error or to offer help when necessary. One of the main objectives of cooperative learning is that learners gain and appreciate group-work skills. Since it can not be assumed that learners will learn from each other the way to work together nor how to plan and organize the lesson, the active role of the teacher in collaborative learning is highlighted through the various planning and implementation of work/plans. That will organize the appropriate learning environment and collaborative activities to help learners transform and move smoothly from classroom learning, as one group, to learning in specific groups to achieve the lesson or unit objectives - at the same time.

#### *2.9 Phases of Group Work*

El-Aly explains the role of the teacher in cooperative learning as follows (2014, p.18-22):

##### *2.9.1 First Phase ( Before the lesson)*

1. The first phase begins with setting the educational objectives of the lesson

It is essential for the teacher to clearly define the objectives of the lesson procedurally and gradually and determine the behaviour that everyone in the group should be able to perform at the

end of the lesson. For the strategy of cooperative learning to be successful the objectives should be clear, authentic and attainable. The objectives can be academic, cognitive, psychological and psychomotor.

## 2. Determining the size of groups

The basic rule for group members is that the lower the number of members, the better the groups; i.e. Groups of 2-4 members are more positive and active than groups that exceed this number. There is no standard size for cooperative learning groups. The teacher changes the number of group members according to the objectives of the lesson, the nature of desired tasks, the possibilities and resources available, the time allotted for cooperative learning, and the age and experience of the students. However, the researcher thinks that the ideal number can never exceed four or five people maximum.

## 3. Assigning students to groups

The results of some studies have confirmed that learning in non-heterogeneous groups is better than learning in homogeneous groups. A high-achieving student helps his less-achieving classmate when they have common goals. Therefore, it is better to assign students to non-heterogeneous groups in terms of cultural capacities. There are several ways in which students can be assigned to groups, where they can be randomized or deliberately chosen by the teacher noting that students may choose their own groups.

## 4. Classroom arrangement

The teacher arranges the classroom so that the students of each group are close to each other to exchange material, maintain visual contact with all members, and speak quietly inside the group without disturbing other groups provided that the educational material is not visually reversed for some members of the same group. The groups are sufficiently spaced, so as not to clutter one group over another as the teacher can easily find his way to each group. In this regard, the arrangement of seats, in cooperative learning classroom, takes many forms including:

- a. Cluster arrangement: Students' 4-5 seats and drawers are collected separately.
- b. Rotating or moving arrangement: Students' drawers and seats are arranged in the form of wings.
- c. Circular arrangement: It is the best way to arrange groups, where the seats are arranged facing each other in a circular way leading to the greatest interaction between group members.

## 5. Assigning roles to group members

For the success of cooperative learning, the teacher assigns a role for each individual in each group. There are conditions that the teacher must take into consideration when assigning roles. These can be summarized as follows:

- a. Describe the tasks of each role.
- b. Explain to students how to carry out their roles.
- c. Follow-up students' performance for all roles to know the level of mastery of each role.  
"The teacher's correct use of roles that are thoroughly defined and followed-up will enhance the students' performance and develop their social skills".
- d. Exchange roles of group members from one lesson to another or even during one lesson, so that each student can learn how to carry out each role and acquire the social skills associated with such roles.

## 6. Preparation of aid materials and tools for the lesson

It is the teacher's task to prepare the materials, tools and means necessary for the lesson such as working papers, tools for conducting scientific competitions, and display devices, illustrations, cue cards and others. "The teacher prepares materials according to the task that students will be required to accomplish and distributes them in a way that allows collaborative work and positive interdependence in achieving educational goals".

## 7. Defining and explaining the criteria for success

One of the most important roles of the teacher in cooperative learning is to determine the criteria for success on the individual and collective levels. The success criteria must be authentic, flexible and realistic for each individual within the group. At the individual level, 90% is considered excellent, 89% is very good, and 70% - 79% is good so on and so forth. At the group level, the group is deemed to have completed its work if its members together receive at least 85%.

## 8. Preparation of individual written and oral tests:

It is the role of the teacher to prepare short written tests and questions for oral tests conducted randomly on group students. The aim of these tests is to promote individual accountability among students within a group.

### *2.9.2 Second Phase (During the lesson)*

Eldeeb explains that teacher's tasks during the lesson are to (2006, p. 42-43 Translation Mine):

1. Explain and clarify the academic tasks

The teacher explains to the students the educational tasks that they have to do, including the objectives of the lesson and the procedures asking them some questions. He may do this in a worksheet consisting of direct and indirect questions, theoretical and practical. He presents it at the beginning of the lesson after explaining the objectives of the content of the paper, or at the end of the lesson as non-descriptive activities. The worksheet must be related to the topic of discussion to be implemented by students as extracurricular work to be discussed in the next lesson.

2. Explain the success benchmarks for the student

Build interdependence and cooperation to achieve the goal: The teacher helps the students believe that they are in an educational position that requires them to work together and urge them to support each other's learning.

3. Monitor groups to ensure that each individual is doing his work to build individual accountability and ensure that the objectives are met.

4. Intervene and offer help when needed: The following are steps to control the intervention of the teacher in the work of the group:

- a. Inspect the behavior of students
- b. Assist in the performance of the task
- c. Intervene to teach collaborative skill

5. Collect the necessary data on student performance in groups

6. Request a quick report from students about their course of and progress in work and the difficulties encountered in their roles

7. Build and encourage inter-group collaboration by encouraging the group that has completed its work to assist other groups that have not completed their work in applying the correct procedures without giving answers.

8. Reward all students in the classroom when performing their tasks well. In the end, all members of the class from different groups will be given points of encouragement and rewards, as all students have achieved the pre-determined benchmark of excellence." This encourages cooperation among students.

*2.9.3 Third phase (After the lesson)*

Eldeeb explains teacher's role in closing the lesson (2006, p. 57-59, Translation Mine)

1. The teacher asks groups to exchange papers and worksheets then summarize key points in the lesson. The role of the teacher is to comment on the group discussion when it begins and publicize the answers to the questions to the whole class.
2. Evaluate the groups and learners in the shade of cognitive, psychological and psychomotor objectives (Eldeeb, 2006, p. 59 Translation Mine).
3. The teacher raises questions about the main ideas of the lesson, along with a brief summary of the basic concepts the learners have learned. The learners are asked to provide examples of the concepts, principles or the skills they have learned (Eldeeb, 2006, p. 59 Translation Mine).

#### *2.4 Learner's role in cooperative learning*

The role of the learner in cooperative learning is radically different from his role in traditional education. The course in cooperative education is characterized by efficiency, activity, positivity and participation. During the group tasks, each student has several common tasks to fulfil such as:

1. Organize, identify and formulate experience
2. Correct information collection from its sources
3. Select appropriate information after organizing it
4. Link previous experiences with new situations
5. Inter-group interaction
6. Practice individual and collective mental investigation
7. Assist other groups after finishing one's task

### **3.Methodology**

#### *3.1 Research sample*

The sample consists of 60 students from Deanship of the Preparatory Year at Imam Abdulrahman Bin Faisal University (IAU), 30 students representing the experimental group, and 30 students of the control group. Table 1 provides a description of the research sample. As shown in Table 1, the size of the research sample comprises of 60 students; 30 students in the control group, and 30 students in the experimental group.

**Table 1.** *Participants of control and experimental groups*

Group	Number
Control	30
Experimental	30
Total	60

Preparation of the students' worksheets of the experimental group conducted as explained in the next section:

The researcher reworks the contents of the two units into an educational task, consisting of activities or applied questions in worksheets that require students from each group of collaborative learning groups to collaborate and accomplish them in the shortest time and best performance in order to reach the results that achieve the lesson objectives.

### *3.2 Individual assessment sheets*

They are designed to ascertain the extent to which the student achieved the objectives of each lesson of the two units and to achieve the individual accountability of the student. Drafting the assessment sheets, the researcher was keen to determine the time needed to answer and enough space for the answer. Time should be carefully planned, and enough space should be provided in the assessment sheet.

After the preparation of the experimental group's worksheets according to the standards of cooperative learning, the researcher presents them to a group of consultants, specialized in curricula of teaching methods and teaching English language in order to have their views and observations about them. The amendments and recommendations have been made in accordance with their comments and suggestions.

### *3.3 Preparation of an achievement pre- and post- test*

The achievement test was prepared according to the following steps:

- a. Determine the purpose of the test:

The achievement test is designed to measure the achievement of the students of the experimental and control groups, for the content of the scientific material in order to know the effectiveness of cooperative learning in the teaching of the English language course for the students of the Deanship of the Preparatory Year.

- b. Formulation of the test:

The achievement test has been formulated as a diverse thematic test, including different question types such as, Yes/No, multiple-choice selection, and an essay.

### *3.4 Credibility of the test*

The researcher presents the preliminary copy of the test to a group of consultants specialized in English teaching methodology. He wants to ensure the validity of the content of the test, and the integrity of its content, in terms of scientific and linguistic reach. He also aims at knowing its suitability to the level of students and to what extent its content of vocabulary is relevant to the level of the test. When measuring the validity indicator of all the test vocabulary content, the percentage of agreement, in terms of questions representing the target levels, was not less than 93%. In light of this, some of the terms, suggested by some consultants, are reworded, and the test becomes final.

### *3.5 Calculation of test stability factor*

The consistency of the test directly is reflected on the consistency of the results, given by the assessment instrument, if applied to a questionnaire sample of test-takers more than once in similar conditions. The test stability factor was calculated by means of re-application of the test on the sample twice, divided between 12 days, and then calculating the coefficient correlation between the grades of the students at both times using the following Pearson equation:

$T = \frac{N(FS) - F \times F \times S}{\sqrt{[N(S^2 - (S)^2)] - (NF^2) - (F)^2}}$

$$T = \frac{N(FS) - F \times F \times S}{\sqrt{[N(S^2 - (S)^2)] - (NF^2) - (F)^2}}$$

T = Factor of correlation as per the grades of students at both times, and it is the coefficient of stability

N = number of sample members

F = student's first grade

S = student's second degree

It was found that the stability factor of the test is 0.95 and it has a statistical significance at level of 0.01 indicating that the test has a high degree of stability and in these previous procedures, the experiment is possible.

### *3.6 Implementation of the research experience*

The experiment goes through several steps:

- Adjust non-experimental variables: In order to ensure that these variables do not affect the achievement (dependent variable). The researcher thus ensures that the changes in the dependent variable are due to the experimental variable (cooperative learning) as he controls the following variables:

### *3.6.1 Timeline*

T- test is used to calculate the statistical significance of the difference between the average ages of the experimental and control group members. The result is that the value of  $T = 0.43$  which is statistically insignificant (at 0.05). This indicates the parity of the experimental and control groups about the temporal age.

### *3.6.2 Achievement in English*

T-test is also used to calculate the statistical significance of the difference between the average scores of the two sets of research regarding achievement of English. The result is that the value of  $T = 0.70$  is also statistically insignificant at 0.05.

### *3.6.3 Course content*

The experimental and control group students studied the same previously mentioned course content.

Teaching time: Teaching continued (7) lectures per group

### *3.6.4 Pre-application research tools*

After preparing the research tools, selecting the sample, and before starting the experiment, the researcher applies the achievement test on the selected subjects to all members of the research sample in both the experimental and control groups at the same time in order to determine the total pre- score of each student on those tests. The researcher then calculates the students' grades and fills in the data in order to process it statistically using the computer to measure the differences between the experimental and control groups. The statistical program (SPSS) is used for this purpose.

### *3.6.5 Teaching the two groups*

After the researcher identifies the size and structure of the groups, the experimental sample is divided into five homogeneous groups. The number of students in each group was six. After distributing the roles to the students, explaining the necessary information about cooperative learning and how to implement it, the cooperative learning social skills that should be used, and

setting the classroom appropriately, the researcher teaches the experimental group taking into account all the disciplines as well as the steps and tasks of the cooperative learning.

### *3.6.6 Teaching the control group*

The researcher teaches the control group in the usual way followed by most faculty members in teaching. He delivers and discusses the lesson and incorporated some activities with the participation of a few students. He presents some models or teaching aids, reads the lesson from the book and then answers the questions. He clarifies the practical aspect of the lessons and keenly provides the same content and activities to the experimental group.

### *3.6.7 Post-implementation of the achievement test*

After the completion of teaching the selected subjects, the researcher applies the achievement test on both groups at the same time to determine the total post- grade of each student, in the two groups. He then adds up the students 'grades and recorded data in order to address it statistically.

### *3.6.7 Identification of statistical processing methods*

To evaluate the validity of research and determine the effectiveness of cooperative learning in achievement, the following statistical methods are used:

Test (T) for independent data to determine the significance of the differences between the average scores of the experimental and control groups in the post-application of the achievement test.

Data processing, using the improvement ratio equation, to find the differences between the average scores of the pre-test and the post-test for the two groups. The data is processed statistically using the statistical program SPSS.

## **4. Results and discussion**

The first hypothesis states that cooperative learning is more effective than the traditional method in learning English language for students at the Deanship of Preparatory Year and Supporting Studies. In order to verify the validity of this hypothesis, the data were processed using the improvement ratio equation to find the differences between the average test scores of the pre- and post-test and the experimental group .

Table 2 shows that the improvement rate of the experimental group is (88.22%) which is a high indication value, noting that there are significant differences in favor of the post-test.

This indicates the effectiveness of CLM in the teaching of the English language course. In order to check the effectiveness of the CLM in the teaching of English language a T test was applied to measure the differences between the averages of the pre- & post- test scores.

**Table 2.** *Improvement rate of the experimental group between the pre- and post-measurement*

Test	Average	Standard deviation	Test score out of	Improvement percentage %	Indicative/ Significance
Pre	9.7665	1.9945	20 points	88.22%	Yes
Post	18.383	0.9523			Yes

Table 3 shows the significance of the *differences* between the average scores of students in the experimental group in the pre/post application. The results of the T test which include the average between the application scores (pre and post) is the same as the standard deviation of the average of the difference between the two applications and the value of the T test (equal to 30.680) with a freedom degree of (29) and a level of significance of the two sides which equals (0.000). Hence, we can conclude that there are statistically significant differences at the level of significance (0.001); i.e., the level of uncertainty is low, indicating that there are significant differences in favor of the post-test. This indicates the existence of real differences between the pre- and post- test, in favor of the post-test. Thus, the first result denotes the effectiveness of the method of collaborative learning in the teaching of self-development course for prep year students. Another important result states that there are statistically significant differences between the average scores of students in the control and experimental group in the pre-and post-achievement tests in favor of the post-test. The T-test is applied to calculate the significance of the differences between the averages of the test scores of the pre- and post- achievement test, and the experimental and control groups.

**Table 3.** *Effectiveness of CLM in teaching English courses to students before and after cooperative learning*

Test	Average	Standard deviation	Sample (N)	Freedom degree	Value (T)	Indication level and direction
Pre	9.7665	1.9945	30	29	30.680	0.01 in favor of Post-
Post	18.383	0.9523				

Table 4 shows that all T values for the control and experimental groups are at the 0.01 level of the test. This indicates that there are real differences between the pre- and post-test for the control group, in favor of the post- test, which proves the second hypothesis.

The third result states that there are statistically significant differences between the average scores of the control and experimental groups in favor of the post achievement test for the experimental group. This finding is compatible with Tesfamichael's study in which she concluded that implementing CLM in EFL class helped that participants "compose better paragraphs" (2016, p.1).

**Table 4.** *Differences between the pre-test and post-test for the experimental and control groups*

Groups	Test	Average	Non-deviated standard	Sample (N)	Value (T)	Indication
Control	Pre	5.3000	1.5120	30	23.967	0.01 in favor of Post
	Post	14.1333	2.1613			
Experimental	Pre	5.5667	1.9945	30	30.680	0.01 in favor of Post
	Post	18.200	0.9523			

Table 5 shows that all T values for both control and experimental groups are at 0.01 for the post achievement test noting that there are real differences between the control and experimental groups in the post- test in favor of the experimental group. The results of the experimental group outperformed the control group in the post- test, which indicates the effectiveness of the CLM in teaching the English language course. As such, CLM is an appropriate approach for EFL context which confirms the finding of Nuraida's et al's study. In their study, they affirmed the suitability of (CLM) for Indonesian context which is characterized by diverse students.

## 5. Conclusion

As seen above, the results of this study are in favour of implementing CLM since it affected language learning positively. Therefore, language institution, preparatory year programs may profoundly assist their students' performance. One reason contributing to this approach effectiveness is that it gives learners a chance to review their ideas from peers, avoiding fear of being afraid to answer in class before cross-checking their answers. Hence, they may be become

more confident about verbalizing or producing language. Another reason found in the interest of CLM is that the way groups are divided increases level of responsibility when tasks are distributed, and learners are aware of their roles. Finally, learners get the chance to evaluate their work before the teacher does. Overall, all these factors support implementing CLM approach for language learning classes.

**Table 5.** *Differences between the control and experimental groups in the post- test*

Groups	Average	Non-deviation standard	Sample(N)	Value(T)	Indication
Control	14.1333	2.5120	30	9.056	0.01 in favor of the experimental

## 6. Research recommendations

Based on the current research results, the following recommendations can be made:

1. The implementation of cooperative learning in English language teaching in general and the field of studies of the Deanship of the Preparatory Year in particular.
2. Encouraging as well as training faculty members and assistant teachers of English at the Deanship to teach the educational units using various teaching strategies and choosing what suits the nature of the specialized courses to ensure the effectiveness of teaching/learning process.
3. Working to develop traditional methods of teaching/learning/replacing them with more positive ways of teaching to ensure students' interaction throughout the educational process.

## 7. Study limitations

This study is subject to two limitations. First, it explores the effectiveness of the use of cooperative learning in the teaching of the English language course for students of the Deanship of the Preparatory Year students compared to the traditional teaching method. Second, it covers two teaching units for teaching the English language course for the Deanship of the Preparatory Year students. Future research would be conducted at a large scale including other departments and incorporating more units for teaching English.

## 8. References

- Ahour, T., Mukundan, J., & Rafik-Galea, S. (2012). Cooperative and individual reading: The effect on writing fluency and accuracy. *Asian Efl Journal*. 14(1), 74-99
- Aronson, E. (1978). *The Jigsaw Classroom*. Beverly Hills, CA: Sage.
- Deutsch, Morton. (1962). *Cooperation and trust: Some theoretical notes*. Nebraska symposium on motivation. Lincoln, NE: University of Nebraska Press, Englewood Cliffs, NJ: Prentice-Hall.
- El-Aly, Aisha. (2014). *The Renewed Teacher*. Kuwait, Ministry of Education.
- Eldeeb, Mustafa. (2006). *Contemporary Strategies in Cooperative Learning*. Cairo, Book World.
- Gonzales, W. D. W., & Torres, P. L. O. (2016). Filipino ESL learners' attitudes toward cooperative learning and their relationship to reading comprehension. *TESOL International Journal*, 11(2), 70-90.
- Johnson, David and Roger Johnson. (2017). *Cooperative Learning*. University of Minnesota.
- Johnson, David, Roger Johnson and Edythe Holubec. (2013). *Cooperation in the Classroom* (9th ed.). Edina, MN: Interaction Book Company,
- Johnson, et al., 2006. *Active Learning: Cooperation in the College Classroom*. Interaction Book Company, Edina, MN.
- Journals. Lend University libraries, Sweden,
- Kagan, Spencer. (1993). *Cooperative Learning*. San Juan Capistrano, CA.
- Kelly, Melissa. "Cooperative Learning versus Traditional Learning for Group Activities." ThoughtCo, Feb. 1, 2019, [thoughtco.com/cooperative-learning-for-group-activities-7749](https://www.thoughtco.com/cooperative-learning-for-group-activities-7749).
- Khan, Athar. (2019). Cooperative Learning – Meaning, Definition, and Types. Leadership. Virginia: ASCD.
- Lewis, Beth. (2019). *Cooperative Learning—Definition and Example*. Thought Co, Mar. 10,
- Nuraida, I., Muliastuti, L., & Rasyid, Y . (2019). The influence of cooperative learning model and self-evidence on students' speaking ability. *Asian EFL Journal* 23(3.2), 190-202.
- Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). *Models of innovative Knowledge Communities and three Metaphors of Learning*. *Review of Educational Research*, 74 (4).
- Shoeib, Eman. (2016). *Collaborative Learning Based on Tools of Web 2.0 and Its Effect on Developing Hypermedia Design and Production Skills among Faculty of Education*

- Students According to Their Learning Styles*. Journal of Research in Curriculum, Instruction and Educational Technology, 2, (3), 171-232.
- Slavin, R. E. (1990). *Cooperative learning: Theory and research and practice*. Taylor & Francis.
- Slavin, R. E. (1987). Cooperative learning and the cooperative school. *Educational leadership*, 45(3), 7-13.
- Slavin, R. E. (1991). *Student team learning: A practical guide to cooperative learning*. National Education Association Professional Library.
- Teed, Rebecca, John McDaris, and Cary Roseth. (2018). *What is Cooperative Learning?*. <https://serc.carleton.edu/introgeo/cooperative/index.html>.  
[thoughtco.com/what-is-cooperative-learning-2081641](https://thoughtco.com/what-is-cooperative-learning-2081641).
- Webb, Noreen. (1985). *Student Interactive and Learning in Small groups: A Research Summary*. NY: Plenum.
- Tesfamichael, W. (2016). Effects of implementing CLM (CLM) on eleventh graders' paragraph writing. *TESOL International Journal*, 11(1), 81-95.