

THE EFFECTS OF COOPERATIVE LEARNING ACTIVITIES
ON THE RETENTION OF VOCABULARY

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THE EFFECTS OF COOPERATIVE LEARNING ACTIVITIES
ON THE RETENTION OF VOCABULARY

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ABSTRACT

THE EFFECTS OF COOPERATIVE LEARNING ACTIVITIES ON THE RETENTION OF VOCABULARY

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The purpose of this study was to investigate the effects of cooperative learning activities and the STAD technique on students' vocabulary retention. The relationship between students' course achievement and type of vocabulary learning activities they engage in with respect to their retention levels were also investigated.

The study was conducted with one elementary level group at Başkent University. 22 students took part in the study. The participants were taught a total of 40 words, through 4 reading lesson plans, two of which implemented cooperative learning activities while the other two implemented group work activities. A pre-test on the target words was administered before each lesson, and a post-test was given two weeks after each lesson to see if there was any difference in students' retention levels in favor of either technique.

The data gathered were analysed through the *t-test* procedure and the *regression analysis* test. According to the results of these tests, cooperative learning activities produced

better retention results than group work activities. The study also found that there is no relation between the students' course achievement grades and their vocabulary retention scores.

Keywords: Cooperative learning, group work, retention

ÖZ

İŞBİRLİKÇİ ÖĞRENME AKTİVİTELERİNİN ÖĞRENCİLERİN KELİME HATIRLAMA YETİLERİ ÜZERİNDEKİ ETKİSİ

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Bu çalışmanın amacı, işbirlikçi öğrenme aktivitelerinin ve STAD yönteminin öğrencilerin kelime hatırlama yetileri üzerindeki etkilerini araştırmaktır. Aynı zamanda, öğrencilerin genel ders başarı durumları ile kelime öğrenme aktiviteleri çeşitleri arasında kelimeleri hafızada tutma yetileri açısından bir ilişki olup olmadığı da araştırıldı.

Bu çalışma, Başkent Üniversitesi'nde başlangıç seviyesindeki bir sınıfta yapıldı. Çalışmaya 22 öğrenci katıldı. Katılımcılara ikisi işbirlikçi öğrenme aktivitelerini uygulayan ve diğer ikisi de grup çalışması yöntemini uygulayan 4 adet ders planı ile toplam 40 kelime öğretildi. Her dersten önce o derste öğretilen kelimeleri soran bir test ve her bir dersten 15 gün sonra öğretilen kelimeleri soran bir test daha uygulandı. Bu testlerin sonuçları karşılaştırılarak iki metod arasında kelimeyi hafızada tutma yetisi açısından bir fark olup olmadığına bakıldı.

Toplanan veriler *t-test* ve *regression analysis* testi kullanılarak analiz edildi. Bu testlerin sonuçlarına göre, işbirlikçi öğrenme aktiviteleri, kelimelerin hafızada tutulması yetisi bakımından grup çalışması aktivitelerine göre daha iyi sonuçlar çıkardı. Bu çalışma aynı zamanda öğrencilerin genel ders

başarıları ile kelimeleri hafızada tutma sonuçları arasında hiçbir ilişki olmadığını da göstermiştir.

Anahtar Kelimeler: İşbirlikçi öğrenme, grup çalışması, hatırlama

To my parents

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CHAPTER I

INTRODUCTION

Cooperative learning is a term used to describe a small group interactive instructional method in which students work together to accomplish shared learning goals. Vocabulary, which is one of the core components of language instruction, is quite a crucial aspect for students learning English as a second or foreign language. Competence in the vocabulary of the target language ensures successful communication skills. Therefore, the improvement of this skill should be supported with alternative methods of instruction. Cooperative learning tasks may serve as an alternative way of teaching vocabulary, which may help learners reach longer periods of recall. This study investigates the effects of cooperative learning activities on vocabulary retention.

1.1. Background of the Study

Almost every second language instructor would acknowledge that the single biggest component of any language course is vocabulary. No matter how well the students learn grammar, for any meaningful communication to occur there is a great need for words to express a wide range of meanings. This basically means lexical competence is at the heart of communicative competence. Despite this widely recognized fact, vocabulary often seems to be the least systematized and the least cared of all the aspects of learning a foreign language (McCarthy, 1998). Thus, incidental or

indirect teaching, which is limited to presenting new vocabulary items as they appear in reading or listening texts, has been dominant for some time. This strategy assumes that vocabulary expansion will happen through the practice of other language skills; however, it has been proved that relying merely on incidental learning won't be enough to ensure vocabulary expansion. It is extensively accepted that vocabulary teaching should be part of the syllabus, and taught in a well-planned way and on a regular basis. This idea is also supported by Lewis (1993), who argues that vocabulary should be at the centre of teaching because "language consists of grammaticalised lexis, not lexicalized grammar" (p. 95).

There are three basic ways students can interact with each other as they learn. They can compete to see who is best; they can work individualistically on their own towards a goal without paying attention to other students; or they can work cooperatively with an interest in each others' learning as well as their own (Johnson & Johnson, 1989). The basic characteristic of a competitive situation is negative goal interdependence where one person wins, the others lose. In an individualistic learning situation, students work toward preset criteria independent of one another and their success is determined by their performance in relation to the established criteria. The success or failure of other students does not affect their score. In a cooperative learning situation, on the other hand, interaction is shaped by positive goal interdependence with individual accountability. Positive goal interdependence requires the acceptance of "sink or swim together" philosophy by the group members.

There is a long history of research on cooperative, competitive and individualistic interaction patterns. Johnson & Johnson (1989) report some major outcomes of nearly 600 experimental studies and over 100 correlation studies. According to them, the first and the most significant outcome is that students achieve more in cooperative interaction than in competitive or individualistic interaction. Another outcome is that students are more positive about school, subject areas, and teachers as well as toward each other when they are structured to work together cooperatively, regardless of their differences in ability, ethnic background, and achievement levels. The third outcome reported is that students are more effective interpersonally as a result of working cooperatively than when they work alone, competitively or individualistically. These positive effects of cooperation on these important outcomes make cooperative learning valued by students.

Cooperative techniques dramatically increase the amount of time for oral interaction available to each student. Furthermore, the quality of that interaction is also improved to a great extent. Such interaction promotes critical thinking by giving students the opportunity to practice asking thought-provoking questions, hear other's perspectives, evaluate evidence, explain and justify their reasoning, and critique the reasoning of others. All students benefit from increased opportunities for peer-group interactions on learning tasks. Coelho (1992) claims that the more opportunities students have for talk, practice or experience the better is the retention of new information and ideas.

As caring language teachers, we all want our students to benefit from the instructional procedures they engage in. It seems worthwhile to give cooperative learning activities a chance in the teaching of vocabulary so as to see and experience all of its positive effects on our students.

1.2. Statement of the Problem

In the preparatory classes at Baškent University, English language instructors are supposed to follow a very compact curriculum with quite a fast pacing, which may sometimes lead to an undesired lack of enough attention to all aspects of the language. Of all these aspects, vocabulary teaching seems to come first in “the mostly neglected” list. Ironically, vocabulary instruction is to be given the utmost importance since it constitutes the foundations of the communicative competence our students should possess, while at the same time it is the skill which complements and forms the basis of all four skills. For instance, we cannot imagine a second language learner to become a successful reader or speaker with a very limited vocabulary knowledge base. Therefore, teachers should seek ways to promote better vocabulary learning, which will also help learners retain what they have learned for longer periods. Implementing cooperative learning activities in their classes to teach vocabulary may be a solution to this problem.

It is also crucial at this stage to determine if students of different achievement levels benefit in the same way from those cooperative learning activities. Various studies in the field worked on the effects of cooperative learning activities on low-achievers

as well as high-achievers (Armstrong et al., 1981; Martino and Johnson, 1979; Nevin et al., 1982; Dansereau, 1985; Webb, 1985), and they found inconsistent results regarding what type of students benefit best from those activities. Therefore, this study investigates the relationship between the students' course achievement levels and the type of vocabulary learning activities they engage in concerning the retention results they generate.

1.3. Research Questions

1. What are the effects of cooperative learning activities and STAD on students' vocabulary retention?
2. Is there a significant relationship between students' course achievement and type of vocabulary learning activities they engage in with respect to their retention levels?

1.4. Significance of the Study

Since there is a lack of research in the field on the effects of cooperative learning activities on vocabulary learning, and especially vocabulary retention, this study will contribute to the existing body of literature in these areas. Moreover, due to the learner-centered nature of the cooperative instruction, this study will create a chance for the researcher to compare the results of teacher-fronted vocabulary instruction and learner centered vocabulary instruction.

This study may also have a positive effect on the institution by providing a good alternative vocabulary teaching methodology for

the instructors. They may be tempted to give cooperative learning activities a try upon seeing the positive outcomes of them on the students, and create their own cooperative learning tasks.

1.5. Definition of Terms

Cooperative Learning Activities: The instructional use of small groups so that students work together to maximize their own and each other's learning (Johnson, Johnson, & Halubec, 1992).

Vocabulary Retention: The ability to recall, remember, or recognize words after an interval of time (Richards et al, 1992).

Course achievement: The results of the quiz and mid term examinations that the students have taken throughout the semester.

Vocabulary Retention Quiz Scores: Students' scores on the vocabulary retention quizzes given two weeks after the treatment.

1.6. Data Analysis

Several statistical tests were used to determine the influence of cooperative learning activities on vocabulary retention. First of all, data from each lesson plan were examined one by one by comparing the measures of central tendency values of the pre-test and the post-test results to determine if there was any statistically significant difference between the pre-test and the post-test scores of students. Then, each student's pre-test scores

were subtracted from their post-test scores for each lesson separately to find out how much of the vocabulary they retained for 15 days compared to what they previously knew. These subtracted scores were used to compare the *mean* values, *variance*, and *standard deviation* values as well as being used in the *t-test* and other data analysis procedures. In order to see whether there was any statistically significant difference between pre-test and post-test results of the group work and cooperative learning activities, *t-test* was used. Finally, *Regression analysis test* was applied to determine the relation between students' course achievement and their retention levels for each of the methods.

CHAPTER II

LITERATURE REVIEW

Johnson, Johnson, & Halubec (1992) define cooperative learning (CL) as the instructional use of small groups so that students work together to maximize their own and each other's learning. This definition makes clear that cooperative learning is definitely not the act of bringing a number of students together haphazardly to learn a subject matter through merely discussion. As Kessler (1992) points out CL is a method of teaching which organizes students into groups in order to provide opportunities for them to interact with others and to motivate students to be responsible for each other's learning. This means CL activities have some very basic principles and procedures that create a different aura in the classroom from that of traditional instructional settings.

2.1. Basic Principles of Cooperative Learning

The essential elements of cooperation must be internalized by the teachers if they are to implement cooperative learning successfully. According to Johnson & Johnson (1994), it is quite significant for the teachers to be an expert on the unique features of cooperative learning tasks so that they can rearrange the CL procedures in accordance with the instructional setting in which he or she teaches. Otherwise, the tasks which are supposed to create cooperation among students may turn into competition driven tasks. In order to create the true cooperation

spirit in the classroom teachers should follow the basic principles of CL tasks. These are as follows:

2.1.1. Positive Interdependence

Positive interdependence is the most basic principle in cooperative learning. Simply, positive interdependence happens when one student's gain creates the conditions for the other students to gain (Kagan & Kagan; 1994). It is the perception that you are connected with other students in such a way that your success does not mean much unless all the others in your group succeed as much as you. Positive interdependence is accepted to be the most crucial component of CL. Johnson & Johnson (1994) state that

positive interdependence promotes a situation in which students work together in small groups to maximize the learning of all members, sharing their resources, providing mutual support, and celebrating their joint success (p.56).

2.1.2. Individual Accountability

Jacobs, Power, & Inn (2002) comment on the fact that the basic reason teachers refrain from using group work activities is that some students will definitely try to do as little as they can leaving the task for the more able peers in the group. These kinds of students prevent the team from being more successful and they effect the morale of the group in a very negative way. The principle of individual accountability provides the teachers with some solutions for this very problem.

Individual accountability takes place when each member of the team is held accountable for his or her own learning or contribution (Kagan & Kagan; 1994). If the teacher can succeed in letting the students that they are held accountable, it will certainly increase the probability of more quality participation to the group's task. According to Johnson & Johnson (1994) there are common ways to ensure individual accountability, which are: (a) test each student individually after the completion of the group task, (b) select one student's work to represent the entire group, (c) tell the class that each student will make a presentation on what he or she learned after the group work is completed. One alternative for ensuring individual accountability could be assigning a role to each group member. If that role is not carried out properly, group effectiveness will suffer (Jacobs, Power, & Inn; 2002).

2.1.3. Simultaneous Interaction

Interaction among students is proven to have a positive effect on competence (Pica, Young, & Doughty; 1987). Simultaneous interaction occurs when there is more than one person speaking or participating at any given time. Kagan (1998) states that in order to understand if there is simultaneous interaction at any given time in the classroom the teacher should ask: "What percentage of the entire class is overtly active at the same time?" That is, what percentage of the class is either speaking, writing or busy with a hands on task? For instance, when students work in groups of four, and when one student talks one at a time, this means 25 percent of the class is overtly active at any time. However, when the students work in pairs, the ratio becomes 50

percent at any time. Rather than sequential interaction, Johnson & Johnson (1994) claims that through the application of the simultaneity principle "twice as much can be accomplished in less than half time" (p. 58).

2.1.4. Equal Participation

The teacher should make sure that no single student dominates the task by taking most of the turns. Jacobs, Power, & Inn (2002) suggest that specific roles and responsibilities to each group member be assigned as a means of equalizing participation. Students can have the chance to play many different roles depending on the CL activity and the instructional goals. Here are some of the more popular roles:

- Facilitator* (coach) keeps the group on task
 - Timekeeper* keeps track of the time limits
 - Checker* checks to see that all group members have understood
 - Encourager* (Cheerleader) encourages everyone to participate
 - Recorder* keeps notes on what the group has discussed
 - Reporter* reports the group's work to other groups.
 - Materials Manager* makes sure that the group has the materials it needs
 - Questioner* asks questions to prompt the group
 - Summarizer* highlights the main things the group has discussed
 - Paraphraser* restates what the previous speaker said
 - Praiser* compliments group mates for their ideas
 - Elaborator* connects the group's ideas to other things they have studied
 - Sound Hound* makes sure the noise level does not go too high
 - Observer* notes how the group is working together
- Jacobs, Power, & Inn; 2002, (p. 15)

2.1.5. Heterogeneous Grouping

The idea behind this kind of grouping is that students should be able to cooperate with different kinds of people in order to be well prepared for the requirements of the modern life. Jacobs, Power, & Inn (2002) put forward some reasons as to why teachers should choose heterogeneous groups. First of all, by working toward a common goal students have the opportunity to get to know people different from themselves. Another reason is that interacting with different perspectives has the potential to increase the quality of the work produced, which in turn provides the students with a variety of ideas. Still another reason is that there may be a great decrease in the discipline problems since students are working with total strangers whom they may not have chosen if it were not for the heterogeneous grouping. Finally, more helping and more interaction may occur as high achievers help low achievers.

If teachers want to have groups that represent the whole class profile, they should be well aware of the criteria for forming heterogeneous groups. According to Jacobs, Power, & Inn (2002), these criteria are "achievement level, aptitude level, work attitude, ethnicity, personality, social class, gender, special needs" (p. 24). Teachers should carefully organize students into groups by taking these criteria into consideration.

2.2. Types of Cooperative Learning

According to Johnson & Johnson (1994), there are three types of cooperative learning groups: Formal cooperative learning groups,

informal cooperative learning groups and cooperative base groups. Formal cooperative learning groups have a group of students complete specific tasks and assignments in order to accomplish the learning goals set by the instructional setting. These groups may last from one class period to several weeks. Some examples of these assignments provided by Johnson, Johnson & Halubec (1991) include decision making or problem solving, completing a curriculum unit, writing a report, conducting a survey or experiment, reading a chapter or reference book, learning vocabulary, or answering questions at the end of the chapter. Informal cooperative learning groups are the ones in which students come together temporarily to form randomly assigned groups for the purpose of achieving a shared learning goal. These informal groups may last from a few minutes to a class period (Johnson, Johnson, & Smith; 1991). These groups may be used to obtain several instructional objectives during a class period. For instance, they can be used to focus students' attention on the material to be learned, to set a mood that leads to learning, to help create a certain level of expectation as to what will come next in a class session, to make sure that students are mentally processing the subject being taught, and to provide a suitable way of closing an instructional session. Cooperative base groups, as Johnson, Johnson, & Smith (1991) put it, are long-term heterogeneous, cooperative learning groups with stable membership. The functions they serve are to provide support, encouragement, and assistance that each member of that group needs to make academic progress; thus, to take the group's success even further.

These groups provide opportunities for long-term caring peer relationships necessary to influence members consistently to work hard in school, which in turn help

develop them cognitively and socially in healthy ways (Johnson & Johnson, 1994, p.54).

They claim all of these three types of CL should be integrated in order to achieve best learning results.

2.3. Benefits of Cooperative Learning

It is quite clear from the research on cooperative learning that it offers many benefits for both teachers and students when it is carefully planned and structured.

2.3.1. Academic Achievement

Research on cooperative learning shows that when key principles are used together, the effects of CL on achievement are consistently positive (Slavin, 1995). In their analysis of 122 achievement related studies, Johnson et al., (1981) reported that cooperative learning resulted in higher achievement than competitive or individualistic learning across all age levels subject areas and tasks. Besides, Johnson & Johnson, (1989) point out the fact that "participants in cooperative learning, on average score at about 3/5 a standard deviation above students in competitive or individualistic situations" (p.83) as a result of their analysis of 349 studies.

Kessler (1992) notes that a number of studies show the greatest gains among minority students (Aronson et al., 1978; Klein and Essel, 1980; Slavin, 1977; Slavin and Oickle, 1981) and among medium and low-achieving students (Armstrong et al., 1981; Martino and Johnson, 1979; Nevin et al., 1982). However, it is

quite significant at this point to note that high-achieving students generally perform at least as well as they do in traditional classroom settings when they are learning through CL. High-achieving students spend much of their class time dealing with weaker students in his or her group. This provides them with more opportunities for elaborative explanations or cognitive elaboration work such as organizing thoughts and being certain about specific concepts, which in turn increases their own understanding (Dansereau, 1985; Webb, 1985).

2.3.2. Social and Personal Development

Various studies reported positive results of cooperative learning on different aspects of social skills such as, social development (Johnson & Johnson, 1986), prosocial behaviours (Kagan, 1977), increased liking for co-students (Slavin, 1979), reduced racial stereotyping and discrimination (Cohen, 1980), increased self-esteem (Slavin, 1983), increased self-direction (Johnson et al., 1976), increased sense of intellectual competence (Kagan, 1989), and and increased liking for class (Slavin, 1983). Another support for the social benefits of the CL comes from Cohen & Kulik (1981) who, in their analysis of sixty-five peer tutoring studies, found that in the process of tutoring 87 percent of the participants, both tutors and tutees, outperform control group students. Finally, according to Kagan & Kagan (1994), research reveals that even if there is no social skills instruction at all, students in cooperative learning classes turn out to be more caring, helpful, and understanding of each other.

2.3.3. Language Learning

Kessler (1992) points out the fact that there are close relations between CL and language development as the students who are thought through CL are exposed to increased amounts of active communication (both comprehension and production), complexity of communication, and use of language for academic and social functions.

Students in CL classrooms have more opportunities for active communication as opposed to those in traditional classrooms where teachers do most of the talking. Goodlad (1984) reports that in traditional classes less than 20 percent of class time is spared for student language production. Moreover, due to its sequential nature each student gets the chance to speak for only fractions of a minute during a fifty-minute class time in a class of thirty students. In contrast, CL classrooms devote 80 percent of their time to activities that include talking. The fact that this 80 percent student talk is simultaneous in nature "half of the students may be engaged in language production while the others are engaged in language comprehension" (Kessler, 1992, p.5). As a result, CL provides lots of opportunities for increased active communication and this in turn has the potential for more intake for the limited English proficient students.

CL classes create more chances for the production of complex communication patterns. Johnson et al. (1981) states that students frequently request and provide clarifications in the form of expansions, repetitions, explanations, and elaborations to ensure communication. Bajarano (1987) defines these

communication patterns as “obligatory multilateral communication” (p. 486) needed to perform the group task. The students in a CL setting are highly motivated to make their speech understood by the other students in the group because the learning of each student brings greater rewards for all. The benefit of increased quantity and complexity of communication is the gradual acquisition of higher-quality discourse.

2.3.4. Management

Kagan & Kagan (1994) report that many teachers have much less classroom management problems just after they alter their methods from traditional to CL. The basic reason for this is the mismatch between the needs of the students and the structure of the classroom in a traditional setting. Students’ nature leads them to be active and interactive in class, whereas the traditional classroom forces them to be passive and isolated. The cooperative classroom, in contrast, shows great concordance with these needs of students. CL is mainly based on the idea that learning takes place through doing and interacting. Thus, in CL classes, students are not “management problems” because they feel that their basic needs are met in the classroom. Some basic organizational skills on the side of the teachers would be sufficient in order to cope with the problems concerning the seating arrangement, noise level, giving directions, distribution and storage of team material, and methods of shaping the behaviors of groups. Cangelosi (2000) also states that cooperative learning activities help classroom management in that they foster student engagement in lessons, help students develop intrinsic motivation, equip students with better conflict

solution skills, and decreases the amount of discipline problems among students.

2.4. Theoretical Bases of Cooperative Learning

2.4.1. Motivational Theories

Deutsch (1949) explains that there are three goal structures: cooperative, competitive and individualistic. Motivational theorists, such as Coleman (1961), criticize traditional classroom organizations in that competitive grading and informal reward system in such kind of classes create peer norms that oppose academic efforts, which is quite a natural result since one student's success decreases the possibilities that others will succeed. On the other hand, when students work together to achieve a mutual goal, as in classes structured with cooperative reward system, their efforts to learn help their group mates succeed. This, in turn, leads to a group of students not only encouraging one another's learning and academic efforts, but also expressing norms favoring academic achievement (Slavin, 1995).

Thomas (1957) revealed in his research that when students are arranged to work together to achieve a common group goal, they express norms in favor of doing whatever is crucial for the group to succeed (Slavin, 1995). As opposed to the situation in traditional settings, a student who works hard, attends class regularly, and helps others to learn is sure to be praised in a cooperative learning environment. Another very significant finding is that whereas students who improved their academic

achievement levels gained social status in the classroom in a cooperative setting, such students in traditional classes lost their status (Slavin, DeVries, & Hulten, 1975). These changes in the social outcomes of academic success can be quite significant. Slavin (1995) concludes that "cooperative goals create proacademic norms among students and proacademic norms have important effects on student achievement" (p. 45) if and only if the group goals and rewards are based on the individual learning of all group members.

2.4.2. Cognitive Theories

2.4.2.1. Developmental Theories

The basic premise of the researchers who support developmental theories is that appropriate interaction among students through real CL tasks increases their mastery of the critical concepts (Damon, 1984; Murray, 1982). Vygotsky (1978) defines his view with his zone of proximal development theory, which supports the idea that cooperative activity among children has a great influence on students' growth because he claims, children of similar ages are supposed to be operating within one another's proximal zones of development. Vygotsky (1978) defines the effect of collaborative tasks on learning as:

Functions are first formed in the collective in the form of relations among children and then become mental functions for the individual. Research shows that reflection is spawned from argument (p. 114).

In the same way, Piaget (1926) held the belief that interaction in itself has the potential to serve as the only source of learning social arbitrary knowledge such as language, values, and

morality. He explains his view with the concept of conservation, which is depicted as "the ability to recognize that certain characteristics of objects remain the same when others change" (Slavin, 1995, p.17). Research supports the view that non-conservers can become conservers through interaction with their peers of about the same age (Bell, Grossen, & Perret-Clermont, 1985; Murray, 1982; Perret-Clermont, 1980). This theory was also supported by Kuhn (1972), who found that "a small difference in cognitive level between a child and a social model was more conducive to cognitive growth than a larger difference" (p.836). Based on these findings, many researchers (such as Damon, 1984; Murray, 1982; Wadsworth, 1984) claim that student achievement will be improved just through the use of interaction among students on learning tasks.

2.4.2.2. Cognitive Elaboration Theories

Research findings in cognitive psychology assert that some sort of cognitive restructuring or elaboration of the material on the side of the learner is quite crucial in order for the information to be retained in memory and to be related to information that already exists in memory (Wittrock, 1978). Explaining the learning material to someone else is considered to be the most effective means of elaboration. Devin-Sheehan, Feldman, and Allen (1976) point out the fact that peer tutoring has a positive influence on the achievement of both the tutee and the tutor. This view is further supported by Webb (1985) and Dansereau (1988) who claim that students receiving elaborated explanations, that is, students in the position of a tutee, learn

more than those who work individually; however, not as much as those whose task is to explain or tutor.

2.5. Cooperative Learning and the Teacher

Sharan (1994) states that there are significant differences in the teachers' modes of operation between the cooperative classroom and the traditional classroom. This merely means that in CL classes teachers' role is not minimized to the transmission of information to students in accordance with the criteria, quantity, and pace of instruction determined well in advance. On the contrary, teachers function as a facilitator, who makes sure that teams of students engage in constructive and productive academic work as well as taking part in the planning of the content and the procedures of the course.

McDonnell (1992) believes that the teacher as a facilitator should make the learners feel that their teacher believes in their ability to solve problems. Plus, the teacher should let the students take over the control of the task from the teacher. According to Cohen (1986) the tasks of the teachers as facilitators are to give feedback, to get the group back on task with leading questions, to motivate the group to solve the problems that arise during the activities, to encourage critical thinking, to solve conflicts, to observe students, and to provide them with the resources they need. These supportive behaviors are utilized in a CL class as opposed to the teacher behaviors in traditional classes which focus on the successful implementation of the lesson plan.

The amount and the quality of the teacher talk shows significant differences between the CL classes and the traditional teacher-fronted classes (Harel, 1992). Whereas teacher speaks during most of the class time in a teacher fronted class, in a cooperative learning classroom teachers provide the students with broad questions to challenge thinking. Instead of constantly correcting errors, a CL teacher gives assistance with the learning task when the request for assistance comes at the student's initiative. Also, the pattern of control in cooperative classes is informal and nonauthoritative, which means there is less disciplinary control (Harel, 1992).

Research findings reveal the fact that cooperative learning practices prevent the appearance of negative feelings and behaviors among teachers and also that teachers who implement CL methods have positive beliefs and attitudes towards it (Schmuck & Schmuck, 1992). Teachers feel much more efficacious when they utilize cooperative learning methods because it provides them with the means by which they can reach many more students and get them to learn (Sharan, 1994). In a research done by Horwitz, Bresslau, Dryden, McLendon, and Yu (1997) the teachers reported that they would make more use of CL activities in their classes. Their research also supported the idea that CL activities helped teachers better understand the needs and abilities of the learners.

2.6. Cooperative Learning and the Second Language Learner

The roles of the students in a cooperative learning setting are distinctly different from those of the students who are

educated in traditional classroom settings. Enright & McCloskey (1988) state that students in cooperative classes focus their attention on their group mates' learning as well as their own learning. Their main aim is not to create a good impression on the teacher (Bejarano, 1987). The cooperative classroom helps create a communicative classroom in which students have a saying in what they are learning and how they are learning it. Therefore, students become autonomous learners who organize their own learning (Jacobs, Power, & Inn; 2002).

Due to the changed roles of the students in CL classes McDonell (1992) recounts some positive changes in their proficiency levels in language, which cannot be observed in students of traditional teacher-fronted classes. According to her, students:

- have more comprehensible input through peer interactions.
- have better listening skills as a result of responding and acting on what has been said.
- build on the talk of others through elaboration and restatement.
- have longer conversational turns.
- become aware of audience, purpose and social context.
- have access to more varied and complex use of language.
- focus on appropriacy rather than accuracy.
- have continual comprehension checks and clarification requests (p.57).

Furthermore, when interviewed about their preferences for receiving help, many English language learners noted that they preferred to be assisted by a peer than by an adult, saying that "students explain it better" (Vaughn, Schumm, Klingner, & Saumell, 1995, p.240). The students taking part in the interview also reported that the feeling of support from their group mates helped them feel more relaxed and confident. Research proves

that students generally develop positive attitudes towards the use of CL activities in classes as CL practices reduce their anxiety and increase their self-confidence, motivation, and thus achievement (Shachar, 2003; Ghaith, 2001; Putnam 1998).

2.7. Some Popular Cooperative Learning Activities

2.7.1. Student Teams Achievement Division (STAD)

This CL technique, developed by Slavin (1994), is designed to raise students' motivation to learn by focusing on cooperation among group members within each team, which is followed by competition among the teams in the class (Bejarano, 1987). Jacobs, Power, & Inn (2002) describe this technique in four steps. First, the teacher instructs or presents the topic to the students who are arranged in heterogeneous groups of four. Second, students are asked to study the subject in their groups and make sure that each group member learns the material and is ready for the quiz. Then, students take a quiz individually. In the final stage, the teacher scores the quizzes. Each student's score is compared to their past averages and points are added to the group according to the level of improvement each student shows. Thus, students compete with themselves (with their previous averages) instead of competing with their peers. According to Bejarano (1987) this provides each student with an equal opportunity to contribute to the team score.

2.7.2. Teams-Games-Tournaments (TGT)

This method, developed by Slavin (1994), involves the same use of heterogeneous teams, instructional format as the STAD technique. For the tournament, students from different teams are placed in groups of three students of comparable ability. In TGT, quizzes are replaced by academic games. Although study teams stay together for six weeks, tournament table composition changes weekly. Slavin (1994) suggests that TGT can be used two to three days a week in science to learn basic concepts, with laboratory activities taking place on the other two days. It is also possible to alternate TGT with STAD on a weekly basis.

2.7.3. Jigsaw

This CL technique was developed by Aronson et al. (1978). In this technique, each student is given a different piece of information to learn by heart in their home teams. Then, students leave their home teams to form expert teams, the members of which will share the same piece of information. In these expert teams students master that piece of information so as to teach it to their home group members when they go back. Finally, the students, who return to their home teams, present the information they have become experts to their team mates and they discuss every aspect of the topic to make sure that each member understands the whole topic. Groups receive a nongrade reward based on their members' score on the quiz or the quality of the task performance (Clarke, 1994).

2.7.4. Jigsaw II

This modification of the original jigsaw technique was developed by Slavin, 1994. In the jigsaw II, each group member has all the pieces of the text or the learning material but becomes expert on one designated piece, as opposed to the original jigsaw, which provides each member only with what they are supposed to be expert on. Jigsaw II can be advantageous over jigsaw, in that, individual pieces are sometimes easier to understand after reading the entire text. Another advantage would be if a member does not do a good job explaining his/her part to the group, the team is not affected as much. Plus, teachers like it better since this version saves the teacher from having to prepare different sets of reading materials (Knight & Bohlmeyer in Sharan, 1990).

2.7.5. Group Investigation

Group Investigation, which is more student-directed in its approach, was developed by Sharan & Shaulov (1990). Cooperative groups are formed on the basis of common interest in a particular aspect of a general topic. All group members come together to plan how they will research the topic and divide the work among themselves. Then, each student carries out his/her part of the investigation. The group synthesizes and summarizes the work and presents their findings to the class (Sharan & Shaulov, 1990).

2.7.6. Numbered Heads Together

Numbered Heads Together technique, developed by Stone & Kagan (1995), is an effective way of reviewing information that

has been previously presented through direct instruction or text. The students are divided into groups of four, and each member has a number from one to four. The teacher asks an unambiguous question, which the students come to a consensus easily through discussion. Students make sure that each member is able to present the result of their discussion well enough. Then, the teacher calls a number and the student in each group having the designated number explains their group's response or work to the whole class in turn. After each brief explanation the teacher can have the rest of the students agree or disagree by thumbs up or down (Andrini, 1991).

2.7.7. Think-Pair-Share

Developed by Olsen & Kagan (1992), Think-Pair-Share is one of the most well-known CL activities. The teacher asks a question. Each student spends some time thinking about the answer individually. Then, pairs of students share what they think and discuss what they have learned from each other. The teacher calls students randomly. The students who are called share their pair's discussion with their class mates. In this procedure, the think phase recognizes more reflective students and the share phase encourages students to listen carefully and to be sure they have understood their partners (Jacobs, Power, & Inn; 2002).

2.8. Cooperative Learning versus Small Group Activities

There is a great deal of difference between small group activities and cooperative learning tasks, in that, cooperative learning activities make sure that there is true cooperation among

students which is secured by some serious principles. In typical group work activities; on the other hand, the tasks students are to complete are not as clearly designed as their cooperative counterparts. According to Ellis and Whalen (1990) one very significant difference is that in cooperative learning tasks students sink or swim together, that is, there is positive interdependence. In small group tasks, on the other hand, students, who sit in groups and work on their own, occasionally check their answers with their group mates. Another difference is that in cooperative learning tasks, the principle of individual accountability ensures the fact that all the students in a group master the material; whereas, in small group tasks hitchhiking is a very frequent strategy. Some students let other students do most or all of the work and then they just copy it. This happens because individuals are not accountable for their own learning; there is only group product on which their assessment will be based. One other difference is that, while social skills are actively taught in cooperative learning classes, there is no systematic teaching of social skills in small group settings with the assumption that students working in groups will automatically gain necessary social skills. Finally, Putnam (1998) asserts that heterogeneous nature of cooperative learning tasks is one very distinctive feature. Cooperative learning groups are intentionally formed in accordance with such criteria as ability and achievement level of students, gender, culture, race, and language characteristics, as opposed to small group activities, which assigns students to groups randomly.

2.9. Memory and Recall

Jensen (1998) defines the concepts of memory and recall as two very critical elements in the learning process since he believes that the only way to know if our students have learned something is to get them demonstrate recall of it, which is usually done through tests of different types. Contrary to the misguided belief that brain records or videotapes life, Jensen (1998) believes in the definition of the memory process as “the creation of a persistent change in the brain by a transient stimulus” (p. 100). Today, most scientists favor the idea of memory as process rather than a specific location in the brain. In addition, they usually support the idea that multiple memory locations and systems create best results with respect to learning and recall (Schacter, 1992).

2.9.1. Memory Formation and Retrieval Processes

The specific process for formation of explicit memories is long-term potentiation, which is mediated by genes that trigger a series of complex cascading steps (Saltus, 1997). At the same time, a critical protein molecule, which is identified by neurobiologist Eric Kandel’s team from Columbia University and is known as CREB, has a very significant function as a “logic switch, signaling nerve cells to store the memory as short-term or permanently engrave it in long-term memory” (Wickelgren, 1996). Plus, Calvin (1996) and Gazzaniga (1997) argue that memory and retrieval cannot be thought separately due to the fact that memory is determined by the type of retrieval process

activated and that the best way to elicit or trigger recall is through association.

Jensen (1998) explains that the retrieval process is not like "taking chapter notes from a file cabinet. Most of them are created on the spot" (p. 102). He mentions two theories about how this process happens. The first theory talks about mental indexes that help us find the word we search, for most of our word-based recalling (Damasio, 1994). For instance, a word like "classroom" is closely linked to such other indexes as school, work, teacher, meeting place. When we need that word, we simply pull hundreds of words off the shelves within seconds, to form even the most simple and common sentences. The second theory, which is put forward by Calvin (1996), claims that memories are "frozen patterns" waiting for a signal to awaken them. According to him, the content may be embedded in "spatiotemporal themes", which will resonate and create a critical mass needed for retrieval.

2.9.2. Memory Pathways

Our brain utilizes separate memory pathways for different types of memories, that is why, retrieval is quite specific (Jensen, 1998). These pathways can be separated into two as explicit memory and implicit memory. Explicit memory can be further divided into two as semantic pathways and episodic pathways. Implicit memory also has two sub-pathways, which are procedural and reflexive.

Explicit memory is basically the one we can explain, write about and describe (Schacter, 1992). This type of memory is the mostly needed one in the school context usually when the students are asked for an exam-type recall or when they are asked to write an essay. It can be in different forms including the more word-based semantic memory and the event-type episodic memory.

2.9.2.1. Semantic Pathways

Semantic memory is a part of our declarative system, and it comprises names, facts, figures and textbook information, all of which can be named as linguistic memory. Jensen (1998) states that only this type of memory possesses a short-term or a working memory. He explains short-term as the length of time we can hold something in our mind, which is generally between 5 to 20 seconds; and the working memory as the number of units of information we are holding, which is 7, plus or minus two, for adults.

Capaldi and Neath (1995) claim that semantic pathways are the weakest of all our retrieval systems. For them, we do not have access to much of our semantic learning because the original learning was trivial, lacked relevance or sufficient sensory stimulation, or was too "contaminated" with other learning. We tend to remember things which are new or first on a list in a unique way, different from others (Hobson, 1994). So, the stronger the novelty, the more likely is the recall of the material. On the whole, Jensen (1998) sums up the concept of semantic memory by stating that "our semantic memory lives in the world

of words; it is activated by association, similarities and contrasts” (p. 106).

2.9.2.2. Episodic Pathways

Known also as the spatial or contextual recall process, episodic memory is a thematic map of our experiences. It is enhanced by intensified sensory input, such as sights, sounds, smells, taste, and touch Jensen (1998). Our episodic memory has an unlimited capacity, it forms very quickly, it is easily updated, it requires no practice, it is effortless, and it is automatically used by everyone (Kosslyn, 1992). Kosslyn (1992) also asserts that our visual system includes both the content and the location pathways; therefore, he claims all learning is linked with the corresponding sights, sounds, smells, locations, touch and emotions. All learning provides contextual clues to go with it, and to be used in the retrieval process.

2.9.2.3. Procedural Memory Pathways

This is often referred with the terms motor memory, body learning, or habit memory. It is mainly triggered by such activities as physical movements, sports, dance, games, theatre, and role plays. This type of memory is unlimited; it necessitates minimal review, and needs little intrinsic motivation Jensen (1998). Squire (1992) explains that body and brain are part of the same contiguous organism, and what happens to one of them happens to the other as well. This dual stimulus creates a more detailed map for the brain to use for storage and retrieval. That is most probably why most of your students will tell you the most

memorable classroom experiences are the ones which were based on hands-on learning.

This physical process is most likely to be recalled. However, Jensen (1998) argues that this type of learning gets less and less each year in the curriculum, except for majors like physical education, theater arts, and drama curriculum despite the fact that research tells us that this type of learning is much easier to master, is fairly well-remembered, and creates lasting positive memories.

2.9.2.4. Reflexive Memory Pathways

This type of recall is automatic. Often referred to as the "hot stove effect", our reflexive retrieval system is full of on the spot associations. Reflexive memory pathways are closely related to emotions. Cahill et al. (1994) say that emotions get a privileged treatment in our brain's memory system. Their studies found that if events are associated with emotional arousal, their recall is more likely to be enhanced. Emotions serve as memory fixatives and they strengthen the memory pathways. The negative emotions tend to be more easily recalled, but it can be stated that all emotionally laden experiences are better recalled than neutral experiences (LeDoux, 1996). This is why, students who get a standing ovation after their performance, or a harsh rebuke from a teacher are likely to recall that moment for years.

2.10. Vocabulary Retention

“Without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Thornbury, 2002). This is a great statement to summarize the significance of vocabulary knowledge in language learning. But what exactly does it mean to know a word? Thornbury (2002) states that knowing the meaning of a word is not just knowing its dictionary meaning (or meanings), the learner has to know the words commonly associated with it; namely, its collocations as well as its connotations, its register, and its cultural accretions.

Another description for what it means to know a word is the type of word knowledge; that is, the distinction between receptive and productive word knowledge. According to Nation (2002) receptive vocabulary use involves perceiving the form of a word while listening or reading and retrieving its meaning. Productive vocabulary use involves wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form. Some other researchers, such as, Meara (1990) and Corson (1995), use the terms active and passive to refer to productive and receptive vocabulary knowledge types. According to Corson,

passive vocabulary includes the active vocabulary and three other kinds of vocabulary, which are words that are only partly known, low-frequency words not readily available for use, and words that are avoided in active use (p.44).

What Thornbury (2002) claims in the light of this information is that receptive knowledge exceeds productive knowledge and generally – but not always – precedes it. That is, we understand

more words than we utter, and we usually understand them before we are capable of uttering them.

Vocabulary teaching and learning research has long focused on the most difficult question to answer; namely, what are the best ways of committing new words to memory? (McCarthy, 1998) If what McCarthy means short term memory, which is used to hold information over brief periods, then constant repetition of the new information would be the best action to take. However, if this new input is to be retained for minutes, weeks or even years, it is generally acknowledged that we need to work much harder and try different strategies, since mere repetition will not be adequate to commit information to long term memory (Gairns & Redman, 1986). Cooperative learning settings are ideal for creating longer retention periods due to the fact that students constantly engage in the elaboration of new concepts and interaction with their group mates.

Vocabulary retention, described as the ability to recall, remember, or recognize words after an interval of time, can be achieved through the employment of various strategies (Richards et al, 1992). Research findings support the idea that retention of new information depends on the amount and quality of attention that individuals pay to various aspects of words (Craik & Tulving, 1975). When students read a text together and explain the concepts to each other while at the same time evaluating each others' explanations, they engage in a high level of critical thinking. They form the new concepts by using their own vocabulary and by basing their comments on their existing knowledge. Lockhart & Craik (1990) claim that this kind of rich and numerous associations with previous knowledge increases

the chances that the new information will be retained. Therefore, processing new lexical information more elaborately will lead to better retention than if it is processed less elaborately (Lockhart & Craik, 1990). In his research, Frank Boers (2000) found that

employing cognitive effort to identify source domains and to make categorization judgments promote deep-level cognitive processing, which in turn promotes memory storage and retention (p. 563).

His research finding also supports the significance of cognitive elaboration for better retention.

One of the main goals of cooperative learning is to provide learners with opportunities to use language to do things, and in particular, to engage in meaningful interactive oral language production. The typical goals of such activities that foster interaction are to improve learners' fluency (Nation & Thomas, 1988), to develop competence in social communicative skills (Ladousse, 1983), and to improve grammatical accuracy (Rinvoluceri, 1984). Recent research; however, indicates that interaction has a significant influence on the retention of vocabulary. In a study of the acquisition of the mathematical vocabulary, Hall (1992) found that the vocabulary learning of students working on interactive activities was greater than that of students working in a teacher-fronted setting. In another study, Newton (1993) reported that learners negotiated unknown vocabulary successfully, hence helping each other with the learning and use of this new vocabulary. Thus, the recent research provides evidence for improved vocabulary recognition and use both as a result of exposure to new vocabulary in a meaningful communicative context and as a result of communicative work on targeted vocabulary.

CHAPTER III

METHODOLOGY

This chapter gives information about the overall design of the study, the setting and the subjects, the data collection tools and procedures, and the analysis of the obtained data. In other words, chapter three is about the way the present study was conducted.

3.1. Design of the Study

The design of the study is "One-group pretest-posttest design", which is a quasi-experimental research design. In this kind of a design, a single case is observed at two time points, one before the treatment and one after the treatment. Changes in the outcome of interest are presumed to be the result of the intervention or treatment. No control or comparison group is employed. In this particular research, the subjects in a readily available group were given a pre-test before each treatment and the same test was given as a post-test two weeks after each treatment, and their scores were compared to see the effects of the treatment. A two-week retention period was determined for this study due to the fact that similar studies by prominent researchers in this field had used the same period of time in their studies (Carter, Hardy & Hardy, 2001; Narciss et al. 2004; Grace,1998).

3.2. Participants

An already formed participant group was made use of in this study, which helped the researcher maintain the natural educational context as it was. There were 43 beginner level classes at the institution at the time of the research, and their levels had been determined by a proficiency test administered at the beginning of the school year. The research was carried out in C-43, which was the last one of all the C level classes. However, the classes were not arranged according to their proficiency levels, except for the first ten sections, which included the students who had got slightly higher scores on the proficiency test administered at the beginning of the school year. From class C-11 to class C-43, there was no such arrangement; namely, the students in these classes were distributed randomly.

Students in the group were all elementary level students at the time of the research, who had received 27 hours of instruction on English language a week through the course books *New Headway Beginner* and *Enterprise beginner*. They were in their tenth week of the preparatory year at the time when the data was gathered. There were 22 students in the class, 8 of whom were females, and 14 of whom were males. Their ages ranged between 18 and 20. Since they all came from different backgrounds their proficiency levels in English and their attitudes to learning the language differed slightly.

As for the backgrounds of the students, they were mainly graduates of three types of high schools; namely, the Anatolian High Schools, State High Schools and Science High Schools in

different parts of Turkey but mainly in Ankara. When asked about their previous experiences in learning English, most of them stated that they received English language instruction in secondary school as well as in high school. This showed that they were not real beginners but false beginners who had received some amount of instruction previously. They were not proficient enough to get the required grade in the proficiency exam to be in B level classes or to go directly to their departments. Some of them did not even take the proficiency examination at the beginning of the school year so they had to attend the prep school due to the regulations of the university.

3.3. Setting

The researcher is an instructor at the English Language Department of Başkent University in Ankara. That is why, for the purposes of accessibility, and better control over the research conditions and processes, the group of subjects was chosen from the classes he was teaching through the 2005-2006 academic year fall term at the institution.

As it is stated in its web site, "the university aims to educate dynamic and successful researchers and business people who have access to science and business resources worldwide. In line with this mission, the English Language Department of Başkent University aims to ensure that graduates of all academic and vocational programs of Başkent University are equipped with English language skills which will enable them to follow the literature in their fields of study and communicate effectively both in written and spoken English." The Department offers both

Intensive English Programs and English for Specific Purposes (ESP) courses applicable to each academic or vocational program.

3.4. Instruments

In this research design, the researcher made use of four beginning level texts taken from the book *Far From Home: Reading and Word Study*, written by William Pickett. The research was based on the teaching of vocabulary items through the use of cooperative learning activities. Each text was used as a meaningful context to teach ten vocabulary items through cooperative and small group work activities.

Four lesson plans were used based on these short texts in order to teach a total of forty words. Cooperative learning activities were implemented with two of these texts, and small group tasks were implemented with the other two. In order to be able to get the students to practice and produce the ten words they had just learned in each lesson, the researcher was supposed to think of a production activity to be used in all four lessons. Out of the two alternative skills; that is, speaking and writing, writing seemed more appropriate due to the fact that the students were not ready to engage in a free speaking activity and through writing the teacher would make sure that each group member would contribute to the final group product to be collected and graded by him. So after each reading lesson, the students were given 10 words chosen from the text to write a reaction essay to the story. At this stage the students were told to use their creativity to use the given words in a different context than that of the original

text. This way, the students were led into an activity which fosters mechanical, limited creativity since the focus of the lessons were not creativity, but having the students to practice the newly learned words through group work and cooperation.

The cooperative lessons utilized a standard structure called Student Teams Achievement Divisions (STAD). In this cooperative learning technique, the teacher presents the teaching unit in any suitable way. After that, worksheets are distributed on the same topic for the group members to study together. The students make sure that all the team members learn the topic by heart and are ready for the individual quiz that will follow right after. Each student contributes to the group score on the basis of his/her quiz score compared to his/her previous average on the formative assessment procedures. If the student gets a higher score on the quiz than his/her average, called as the "base score", S/he contributes 10 points to the group score. If the student gets a lower or an equal score with his base score, s/he won't be able to contribute to the group score. No points are taken for lower achievement. Therefore, students compete with themselves, that is, with their base scores, as opposed to their peers. This gives equal opportunity for the students to contribute to the group score, which means students with lower base scores have the chance to contribute to the group score. After each individual quiz, team scores are computed again on the basis of the contributions of the team members, and the winning teams are rewarded. This reward structure has very strong motivational power.

In the cooperative activity, the students in their heterogeneous groups were asked to use the 10 newly learned words to create a reaction essay to the story they had just read. In this procedure, the group members thought of a plot together using the 10 new words. After that, each student in each group was assigned a part of the story and the words to use in that part, and s/he wrote his/her part individually in line with the plot they had created together. Then, they came together again and formed their essays. While doing that they each took turn to explain his/her part and the vocabulary items with it. They made sure that everybody in the group mastered the use of the words in focus. The teacher collected the essays to grade them according to such criteria as cohesion, coherence, grammatical accuracy, and the correct use of the words in focus. The grades they got from the essays were added up to their total group scores. Then, they took a vocabulary quiz individually. The scores they got from this quiz were compared with their base scores and 10 points were added to the group score for each member to exceed his/her base score. In addition to this, if all members of a group got a grade of 90 or above they got 10 more points added to their total group scores. With this kind of a structure, the teacher made sure that all the principles of the cooperative learning were there; namely, the activity fostered heterogeneous grouping, individual accountability, positive interdependence, equal participation, and simultaneous interaction. With these principles directly applied to the cooperative lessons, the teacher assumes that the students develop their cooperative skills by engaging in cooperative tasks as opposed to lecturing them on what cooperative learning is.

Three tests were used for each cooperative lesson plan. First of all, a pre-test was given each time to see whether the students already knew the words we intended to teach. Then, a quiz, which was a part of the STAD technique, was given right after instruction in order to determine the effectiveness of cooperative group work by seeing the contribution of each individual to the group score. Finally, a post-test was given for each text after a two-week interval so as to find out the effect of cooperative tasks on vocabulary retention. The pre-test and the post-test of each lesson were the same and they aimed to test recognition of the definitions of focus words. The students were supposed to match the focus words arranged in threes with the correct definitions right opposite, which were arranged in sixes. An example of it would be:

1. the need to do things quickly
2. someone who drives a vehicle _____ passenger
3. a person travelling in a vehicle but not driving it _____ hurry
4. the central part of a city _____ bill
5. the amount of vehicles moving along roads
6. a piece of paper used as a request for payment; check

3.5. Data Collection Procedure

The researcher asked for the permission of the Academic Board of English Language School of Başkent University. After the academic board granted their permission, the dates for the implementation of the four lesson plans were determined. The researcher prepared the lesson plans in cooperation with his advisor.

It took 30 days for the data to be gathered. Four lesson plans on four reading texts were applied in a week's time, and 15 days after the implementation of the lesson plans the subjects were given post-tests to measure their retention of the words they had learned through cooperative means and through small group tasks. The results of these tests were compared to see if there were any positive effects of cooperative learning tasks on students' retention spans.

3.6. Data Analysis

Data from the pre-test and post-test scores were analyzed through the *t-test* procedures to determine if there were any statistically significant differences in the vocabulary retention results of cooperative learning activities and small group tasks. Then, *Regression analysis test* was applied to determine the relation between students' course achievement and their retention levels for each of the methods.

CHAPTER IV

DATA ANALYSIS

4.1. Introduction

The aim of this study was to investigate the effects of cooperative learning activities and the STAD technique on students' vocabulary retention. Besides, the study also explored if there was a significant relationship between students' course achievement and the type of vocabulary learning activities they engage in with respect to their retention levels. To be able to answer these two questions, four reading lessons, two of which implemented regular group work and the other two of which implemented cooperative activities, were utilized to teach a total of 40 words. A pre-test was given at the start of each lesson to determine how much of the target words was already known by the students. Fifteen days after the implementation of each lesson, the same pre-tests were given again as post-test in order to see how much of the newly taught vocabulary was recognized by the students.

For the sake of providing consistency among the reading texts and among the difficulty levels of the target words, the texts were taken from the book *Far From Home: Reading and Word Study*, written by William Pickett. This book was chosen because it is tailored in accordance with the proficiency level of the sample group and the topics of its reading texts are appealing to the students in that they deal with the controversial issues of

today's world, which attracted their attention almost equally. Utmost care was taken not to cause any increase or decrease in students' motivation levels due to the topics of the texts.

The lesson plans for group work and for cooperative activities were designed to reflect a standard procedure, up to the post reading part where the students still engage in a writing process in all four lessons. However, at this point, in the first two lessons the students were asked to write their reactions to the text through a group work activity, and in the following two the students wrote their reaction essays through a cooperative activity. By organizing every aspect of the lessons in a parallel manner, the researcher aimed at creating consistency and through which, controlling external variables. Some examples for these controlled external variables would be text difficulty, text appeal, pre-reading activities, vocabulary teaching strategy. These and other external variables were controlled as much as possible by the researcher.

4.2. Data Analysis Procedure

Several statistical tests and data gathered from those were used to determine the influence of cooperative learning activities on vocabulary retention. First of all, data from each lesson plan were examined one by one by comparing the measures of central tendency values of the pre-test and the post-test results to determine if there was any statistically significant difference between the pre-test and the post-test scores of students. Then, each student's pre-test scores were subtracted from their post-test scores for each lesson separately to find out how much of

the vocabulary they retained for 15 days compared to what they previously knew. These subtracted scores were used to compare the *mean values*, *variance*, and *standard deviation* values as well as being used in the *t-test* and other data analysis procedures. In order to see whether there was any statistically significant difference between pre-test and post-test results of the group work and cooperative learning activities, *t-test* was used. Finally, *Regression analysis test* was applied to determine the relation between students' course achievement and their retention levels for each of the methods.

4.3. Analysis of the Findings for Research Question 1

The first research question of this study investigated the effects of cooperative learning activities and the STAD technique as opposed to group work activities on students' vocabulary retention. In this part of the study, the data gathered from each lesson were examined separately so as to find out the effects of each lesson implementing group work and cooperative learning activities on retention, by means of comparing the pre-test and the post-test scores independently. Afterwards, results from group work and cooperative methods were compared to find out if there was any statistically significant difference between the vocabulary retention scores of the students, or not.

4.3.1. Group work 1: "*Sharing the Housework*"

As it is seen from table 1, there is an increase in the *mean* values of students. Despite the fact that it is not such a big increase, the *mean* value of the pre-test is 3, whereas the *mean* value of the

post-test is 4,8. What we observe, however, in this group work data is that the *standard deviation* values of both pre-test scores and post-test scores are small. While the *standard deviation* value for the pre-test is 1,3, the standard deviation value for the post-test is 1,7. This tells us that the scores of the individual students are pretty close to each other.

Table 1. Scores for "Sharing the Housework"

Scores	Participants	Mean	Variance	Standard Deviation
Pre-test	22	3	1,9	1,3
Post-test	22	4,8	3,1	1,7

This distribution of individual scores can also be observed in figure 1 below. It clearly shows that the post-test score of almost every student increased to some extent. While student number 9 and student number 12 show the biggest increase in their pre-test and post-test scores with 4 points each, student number 17 shows the least with no increase, at all. In addition, the gap between individual students' scores is relatively not a big one. The biggest gap in the pre-test scores is 5, which is between student number 15 and student number 4. The biggest gap in the post-test scores, on the other hand, is 7, which is between student number 17 and student number 9.

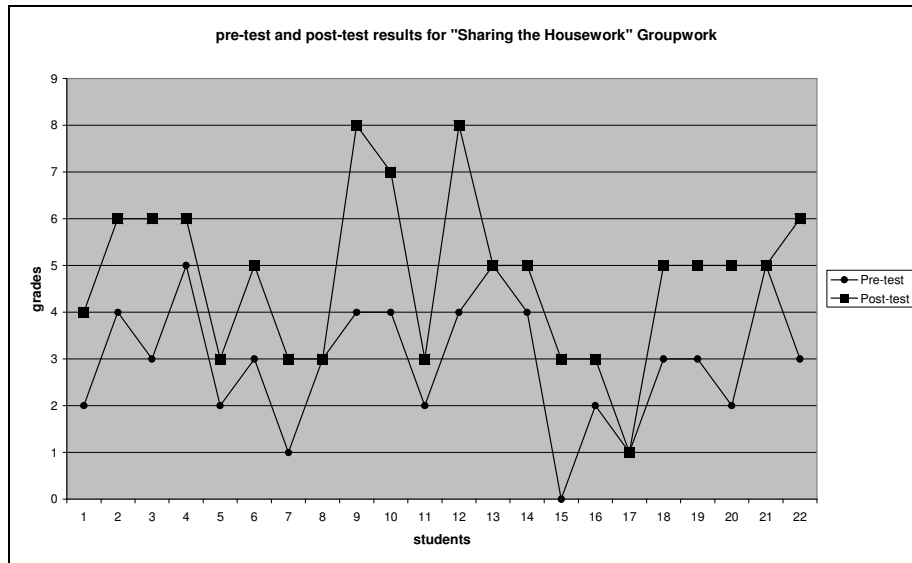


Figure 1. Pre-test and post-test results for "Sharing the Housework"

Although it can clearly be seen from the comparison of the mean values that there is some amount of increase in the post-test scores, to be able to determine whether this increase is statistically significant, *paired samples t-test* procedure was applied to the data. The *t-test* results also show that there is a statistically significant difference between these pre-test and post-test scores. The results of this *t-test* can be seen in table 2 below. When the *t-value* (6,775) in table 2 is compared to the *t-chart value* for 99% (1,645), it is seen that *t-value* is bigger than the *t-chart value*, which is interpreted as the difference between the pre and post-test scores is statistically significant. This finding can also be confirmed with the fact that the *significance* value of .000, which is seen in table 2, is smaller than the pre-set *t-test* value of 0,05.

Table 2. Comparison of pre-test and post-test results

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRETEST - POS	-1,8182	1,2587	,2684	-2,3763	-1,2601	-6,775	21	,000

4.3.2. Group Work 2: "A Bitter Argument"

The results of this second implementation of the group work based lesson plan through the use of the text "A Bitter Argument" show almost similar results to the first one depicted above. As presented in Table 3, the students' *mean* values increase from 1,8 in the pre-test to 4,5 in the post-test, which shows us that some amount of learning took place with the target words and they were retained and retrieved in the post-test 15 days after from the pre-test. The fact that the *variance* and the *standard deviation* values are not large for the pre-test demonstrates that the scores of individual students are not spread too much, but they, in a way, cluster around the average grade. The standard deviation value for the pre-test is 1,2. Unlike the pre-test, the standard deviation value for the post-test is rather high, with a value of 2,4. This shows that there are big gaps in the scores of the individual students' post-test scores.

Table 3. Scores for "A Bitter Argument"

Scores	Participants	Mean	Variance	Standard Deviation
Pre-test	22	1,8	1,2	1,2
Post-test	22	4,5	5,8	2,4

Figure 2 below also illustrates the distribution of individual students' scores. It shows more visually that the score of almost all participants increased in the post-test when compared to the pre-test. For instance, student number 12 increased her score from 3 in the pre-test to 8 in the post-test. However, contrary to this 5 points increase, students number 5 and 9 did not show any increase, at all. It also pinpoints the closeness of the pre-test scores to each other as demonstrated by the *variance* and the *standard deviation* values. The farthest scores among the pre-test scores belong to student number 1 and student number 14, whose scores were 1 and 4 respectively. On the other hand, there are much bigger gaps among the post-test scores. The most visible gap is between the scores of students number 1, 5, and 17, who received the score of 1, and students number 4, 12, 15, who got the score of 8. This seven-point gap among the scores of six students seems to stand as a significant gap, and also shows how diverse students' scores are from the class average, which is the *mean* value.

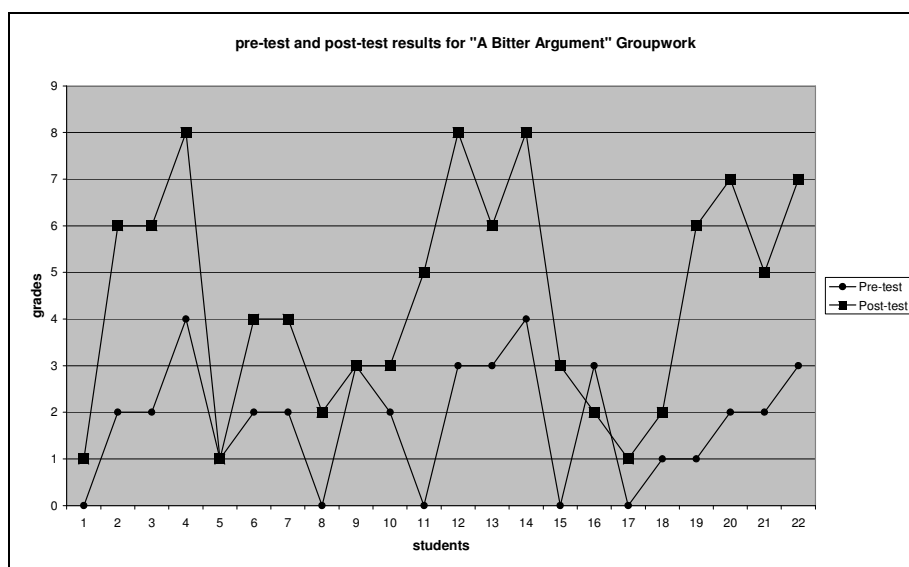


Figure 2. Pre-test and post-test results for "A Bitter Argument"

The comparison of the *mean* values tells us that there is some increase in the post-test scores when compared to the pre-test scores. Nevertheless, *paired samples t-test* procedure was applied to the data in order to see if this increase is statistically significant, or not. The *t-test* results also confirm that there is a statistically significant difference between the pre-test and the post-test scores. The results of this *t-test* can be seen in table 4 below. When the *t-value* (6,721) in table 4 is compared to the *t-chart value* for 99% (1,645), it is seen that *t-value* is bigger than the *t-chart value*, which is interpreted as the difference between the pre-test and post-test scores is statistically significant. This finding can also be verified with the fact that the *significance* value of .000, which is seen in table 4, is smaller than the preset *t-test* value of 0,05.

Table 4. Comparison of pre-test and post-test results

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRE - POS	-2,6364	1,8399	,3923	-3,4521	-1,8206	-6,721	21	,000

4.3.3. Cooperative Learning 1: "Hunting"

The examination of the *mean* values of the first cooperative lesson reveals that there is a noticeably high difference between the *mean* value of the pre-test and that of the post-test. As it is seen in table 5, The *mean* value of the pre-test is 2,4 while the *mean* value of the post-test is 5,7. This increase in the scores of the post-test compared to the pre-test is the biggest increase

observed so far. The *standard deviation* values on the other hand illustrate the fact that there is an evident difference in the distribution of scores. The pre-test scores, which have a *standard deviation* value of 1.8, seem to group around the *mean* value whereas the post-test scores, which have a *standard deviation* value of 2.4, seem to have a scattered distribution with big gaps among individual students.

Table 5. Scores for "Hunting"

Scores	Participants	Mean	Variance	Standard Deviation
Pre-test	22	2,4	3,3	1,8
Post-test	22	5,7	5,8	2,4

Individual students' scores can be studied more visually in figure 3 below. It is quite clearly seen that, this cooperative lesson yields individual scores, which show a tendency to increase in the post-test. This increase appears to be quite higher than the increase observed in the lessons adopting group work. For example, student number 2 increased her score 10 points from 0 in the pre-test to 10 in the post-test. However, there are also students who increased their scores just 1 point like student number 16, or students with no increase in their scores like students number 5 and 17. Figure 3 also proves quite clearly what the *standard deviation* values of the pre-test and the post-test show. It is easily observed that there is very little deviation from the *mean* value in the pre-test as pointed out by the standard deviation value of 1,8. The biggest span is between student number 2 and student number 4, which is a six-point span. Other than that, the scores show a tendency to cluster around the mean score of 2,4. However, with the post-test results, the gap between the highest score and the lowest score

is quite big. There is an eight-point difference between students number 2, 3, and 4, who got 10, and student number 17, who got 2. In addition to this, the students' scores are not gathered around the *mean* value, but they seem rather dispersed.

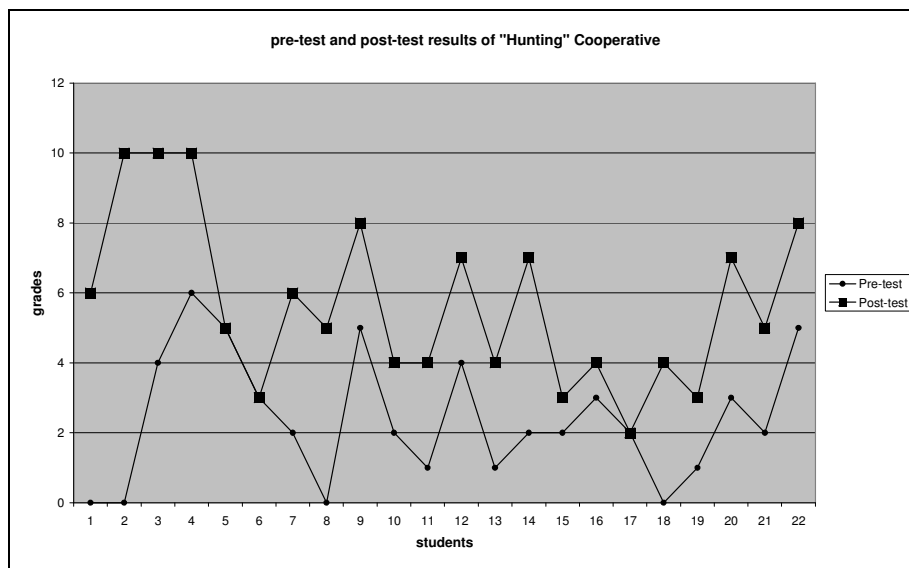


Figure 3. Pre-test and post-test results of "Hunting"

As was the procedure with the first two sets of pre and post-tests, *paired samples t-test* was applied to the data in order to see if the increase, which is observed through the mean values, is statistically significant, or not. The result of this *t-test* in table 6 tells us that there is a statistically significant difference between the pre-test and the post-test scores. When the *t-value* (6,578) in table 6 is compared to the *t-chart value* for 99% (1,645), it is seen that *t-value* is bigger than the *t-chart value*, which is interpreted as the difference between the pre-test and post-test scores is statistically significant. This same finding can also be inferred from the fact that the *significance* value of .000, which is seen in table 6, is smaller than the preset *t-test* value of 0,05.

Table 6. Comparison of pre-test and post-test results

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRE - POS	-3,2727	2,3336	,4975	-4,3074	-2,2380	-6,578	21	,000

4.3.4. Cooperative Learning 2: "Rushing the Baby"

Table 7 below shows measures of central tendency data for the last lesson of the study. The *mean* value of 3,2 for the pre-test raises to 6,8 in the post-test, which is the biggest change between the pre-test and post-test averages, which is followed by the first cooperative lesson, "Hunting". Nevertheless, the *standard deviation* values observed in table 7 are also the highest of all lessons for both the pre-test and the post-test scores. These high rates of the *variance* and the *standard deviation* values illustrate the fact that there are very big gaps among students' scores and their scores are not grouped around the mean scores for either of the tests.

Table 7. Scores for "Rushing the Baby"

Scores	Participants	Mean	Variance	Standard Deviation
Pre-test	22	3,2	6,5	2,5
Post-test	22	6,8	7,1	2,6

These values are further supported by figure 4, which visibly illustrates that almost all the participants raised their post-test scores to some extent except for student number 17 and student number 22, who received the same scores in the post-test as they had received in the pre-test. Other than that, student

number 19 shows the most improvement by outnumbering his pre-test score of 1 with a post-test score of 9. The figure also points up the diverse distribution of both the pre-test scores and the post-test scores. The biggest gap in the pre-test is 7 points, which is between student number 16, who got a 0, and student number 12, who got an 8. Moreover, the scores are not grouped around the average score of 3,2. Likewise, the biggest gap in the post-test is 10 points, which is between the students number 2,3,4,12, and 14 and student number 17. In addition to this, there does not seem to be a cluster of scores around the average score of 6,8.

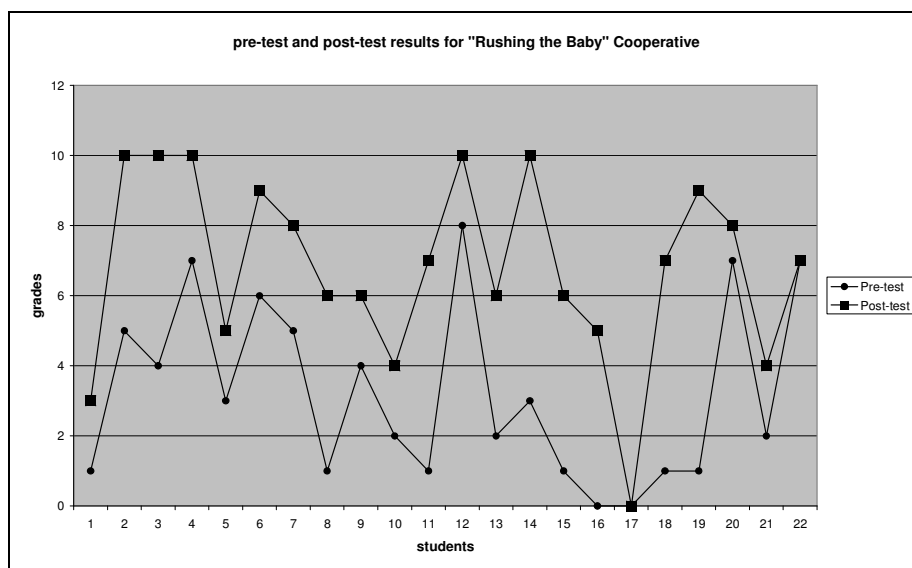


Figure 4. Pre-test and post-test results of "Rushing the Baby"

In order to test the obviously observed increase in the mean value of the post-test when compared to the pre-test, *Paired samples t-test* was applied to the data. The result of this *t-test* in table 6 also tells us that there is a statistically significant difference between the pre-test and the post-test scores. When the *t-value* (7,521) in table 8 is compared to the *t-chart value* for 99% (1,645), it is seen that *t-value* is bigger than the *t-chart*

value, which tells us that the difference between the pre-test and post-test scores is statistically significant. This same finding can also be inferred from the fact that the *significance* value of .000, which is seen in table 8, is smaller than the preset *t-test* value of 0,05.

Table 8. Comparison of pre-test and post-test results

Paired Samples Test									
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	PRE - POST	-3,5909	2,2395	,4775	-4,5838	-2,5980	-7,521	21	,000

4.3.5. The Comparison of Group Work and Cooperative Learning

To be able to compare the group work scores and the cooperative learning scores, each participant's pre-test score was subtracted from his/her post-test score. This subtraction provided the researcher with the data that defined how much each individual developed from his/her pre-treatment state of knowledge of the target words, and at the same time how many of them s/he retained 15 days after the treatment. Afterwards, these subtracted scores were used to find out the measures of central tendency values, which are presented in table 9.

Table 9.

Measures of central tendency values for cooperative learning and group work

Texts	Participants	Mean	Variance	Standard Deviation
Group work 1	22	1,8	1,6	1,2
Group work 2	22	2,6	3,4	1,7
Cooperative 1	22	3,3	5,4	2,3
Cooperative 2	22	3,6	5,0	2,1

As seen in table 9, the *mean* values of the cooperative learning lessons are relatively higher than the *mean* values of the lessons which adopted the group work technique. This means that the lessons using cooperative activities generated results which are slightly better than the lessons using the group work technique. However, the *variance* and the *standard deviation* values of the group work lessons are slightly lower than those of the cooperative learning lessons. This finding can be interpreted as more equal distribution of scores around the average score, and less gaps between the learning and retention levels of the words among individual participants for the group work lessons. On the contrary, cooperative learning lessons, which yielded bigger *variance* and *standard deviation* values, created individual retention scores which are a little more deviated from the average score. This means that there are bigger gaps among the scores of participants, which is not a very favorable result for a cooperative learning lesson even though it created better retention results than the group work technique.

Figure 5 below provides a better visual representation of one group work lesson, *Sharing the Housework*, compared with one of the cooperative learning lessons, *Hunting*.

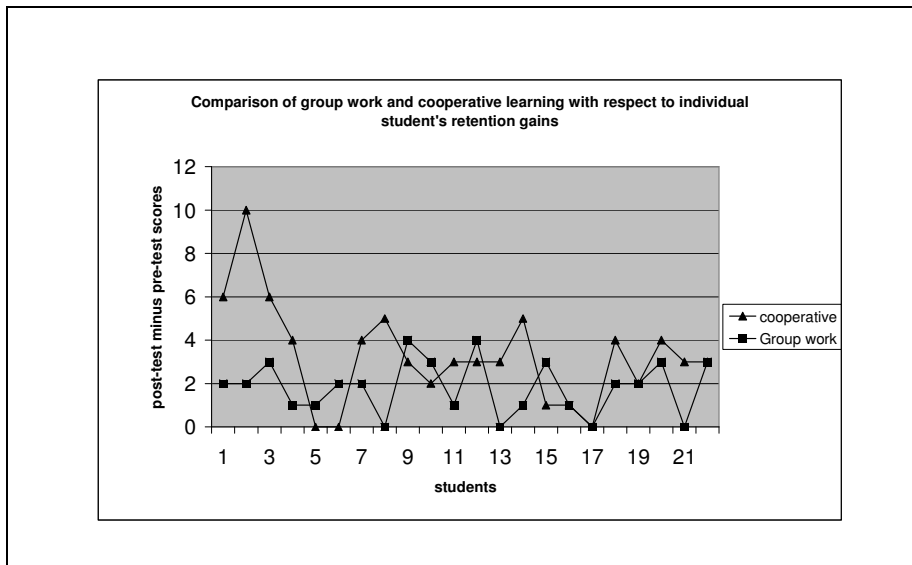


Figure 5. Comparison of group work and cooperative learning

This figure shows that most of the students did better in the cooperative lesson than they did in the group work lesson. This means that participants retained what they had learned slightly more if they had learned it through cooperative learning as opposed to learning it through group work technique.

To be able to determine if this positive difference in the retention levels of the participants in favor of cooperative learning activities rather than the group work technique is statistically significant, a *t-test* was applied to the data. Table 10 presents the results of this *t-test*.

Table 10. Comparison of cooperative learning and group work

Paired T-Test and CI: Cooperative; Group work

Paired T for Cooperative - Group Work

	N	Mean	StDev	SE Mean
Cooperative	44	3.432	2.266	0.342
Group Work	44	2.227	1.612	0.243
Difference	44	1.205	2.520	0.380

95% CI for mean difference: (0.438; 1.971)

T-Test of mean difference = 0 (vs not = 0): T-Value = 3.17 P-Value = 0.003

Since *p-value* is smaller than 0.05, we can say that the difference between the *mean values* of cooperative learning and group work techniques is statistically significant. As represented in figure 6, this can be further supported by the fact that the lower value of *95% confidence interval* is greater than 0, which means that the average value of difference is greater than 0 with a 95% probability.

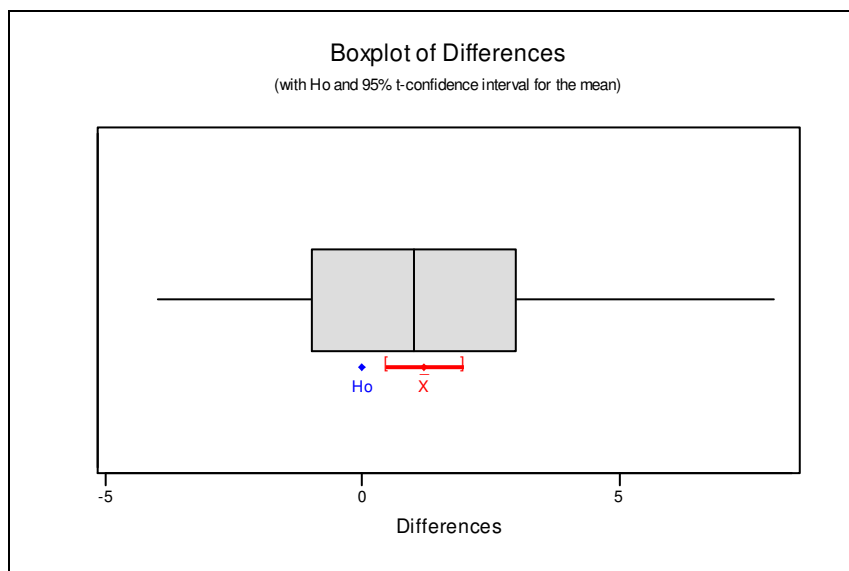


Figure 6. Confidence interval for mean difference

That is why, it can be stated that cooperative learning lessons produced better vocabulary retention results than those lessons which implemented the group work technique.

4.4. Analysis of the Findings for Research Question 2

The second research question of this study explored if there was a significant relationship between students' course achievement and the type of vocabulary learning activities they engage in with respect to their retention levels. To be able to find out the answer

for this question, the participants' progress test results throughout the semester were collected and their means were taken for each participant to represent their course achievement. Then, participants' progress test averages, which were to be used as a numerical representation of their general course achievement, were compared with their mean scores in each of the two methods; namely, cooperative learning and group work, through the procedure called *regression analysis*. Table 12 presents the relation between the participants' course averages and their retention scores in the cooperative lessons.

Table 12. Comparison of participants' course achievement and their retention scores for the cooperative learning lessons

Regression Analysis: Course achievement versus retention for Cooperative lesson

The regression equation is Average = 63.2 + 1.85 Cooperative

Predictor	Coef	SE Coef	T	P
Constant	63.237	4.697	13.46	0.000
Coop	1.851	1.146	1.62	0.114

S = 17.03 **R-Sq = 5.8%** R-Sq(adj) = 3.6%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	756.8	756.8	2.61	0.114
Residual Error	42	12181.8	290.0		
Total	43	12938.6			

Unusual Observations

Obs	Coop	Average	Fit	SE Fit	Residual	St Resid
2	10.0	88.00	81.75	7.95	6.25	0.41
X 37	5.0	37.00	72.49	3.13	-35.49	-2.12R

R denotes an observation with a large standardized residual

X denotes an observation whose X value gives it large influence.

The fact that the *R-sq* value in the above table is 5.8% is interpreted as there is no statistically significant relation between the participants' course achievement and their retention levels in the cooperative learning lessons. If there were any kind of

positive relation between these two factors, the *R-sq* value would be much closer to 100%. The further it digresses from 100%, the less the relation between the two factors examined are. This finding is better represented with figure 7, which illustrates students' averages and their retention scores in the cooperative lesson.

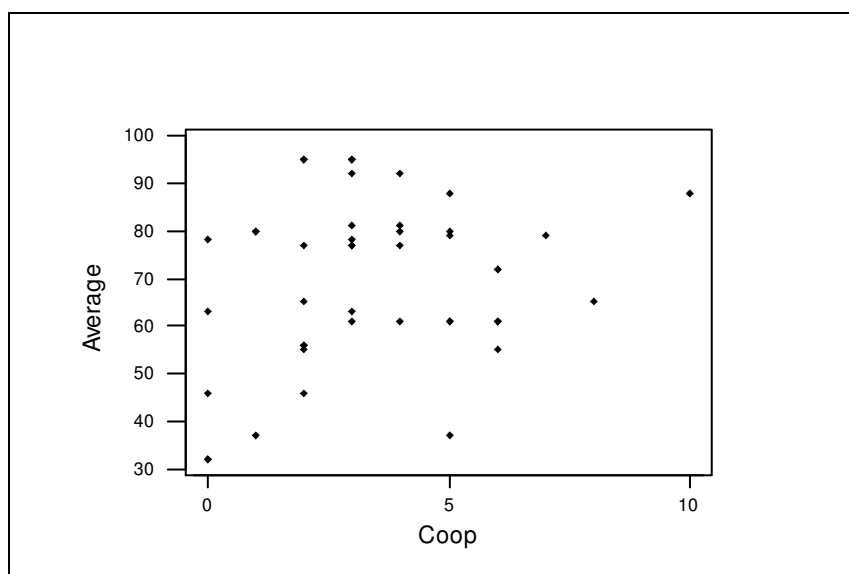


Figure 7. The relation between participants' course averages and their retention in cooperative lessons

The figure represents each student with a dot. Each dot corresponds to both an average grade and a score in the cooperative retention tests. The fact that there is no relation between these two values can be exemplified with a few samples. For instance, a student, whose course average is 81, has a vocabulary retention score of 1 out of 10. Another student, whose course average is 60, has a vocabulary retention score of 8 out of 10. According to this figure, there is no relation between the participants' averages and their retention scores in the cooperative lesson whatsoever. Besides, low value of *R-sq* can be easily justified by observing this figure. Regression analysis

tries to fit a line to this data set and R-sq stands for the capability of this line in explaining the data points. Since there seems to be no relation between these data points, R-sq value gets a value of 5.8%

The same *regression analysis* test was done to determine if there was any statistically significant relation between participants' course achievement and their vocabulary retention scores in the group work lessons. Table 13 below represents the results of that second regression analysis test.

Table 13. Comparison of participants' course achievement and their retention scores for the group work lessons

Regression Analysis: Course achievement versus retention for group work lesson

The regression equation is Average = 62.9 + 3.02 Group work

Predictor	Coef	SE Coef	T	P
Constant	62.871	4.365	14.40	0.000
Normal	3.017	1.594	1.89	0.065

S = 16.85 **R-Sq = 7.9%** R-Sq(adj) = 5.7%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	1017.0	1017.0	3.58	0.065
Residual Error	42	11921.6	283.8		
Total	43	12938.6			

Unusual Observations

Obs	Normal	Average	Fit	SE Fit	Residual	St Resid
15	3.00	37.00	71.92	2.82	-34.92	-2.10R
37	3.00	37.00	71.92	2.82	-34.92	-2.10R
39	1.00	32.00	65.89	3.21	-33.89	-2.05R

R denotes an observation with a large standardized residual

Due to the fact that the *R-sq* value for this test is 7,9%, which is a lot smaller than 100%, the same results arrived for the cooperative lessons can be repeated for the group work lessons. It can clearly be stated that there is no statistically significant

relation between the participants' course averages and their vocabulary retention scores in the group work lessons.

4.5. Conclusion

In the analysis of the data, it was found that there was a statistically significant difference in the participants' vocabulary retention scores between the words learned through cooperative learning activities and the ones learned through group work technique in favor of cooperative learning activities. That is why; it can be asserted that cooperative learning lessons created better vocabulary retention results than those lessons which implemented the group work technique. Moreover, the data revealed that there was no statistically significant relation between the students' course achievement and type of vocabulary learning activities they engage in with respect to their retention levels.

CHAPTER V

CONCLUSION

5.1. Overview of the Study

This study investigated the effects of cooperative learning activities and STAD on students' vocabulary retention. It also examined whether there was a statistically significant relationship between students' course achievement and the type of vocabulary learning activities they engage in regarding their retention levels. The study was carried out with one of the C-level classes, that is, beginner level classes, at the English Language Department of Baškent University because at the time of the research the researcher worked at Baškent University, and taught that specific group of students.

The study was based on 4 lessons, two of which implemented the group work technique, and the other two adopted cooperative learning activities. A pre-test was given before each lesson, and a post test was given two weeks after each lesson to determine how much of the newly taught words was retained in that period of time. Afterwards, the results of the pre-tests and the post-tests were used to compare the two techniques with respect to the retention levels they yielded. Finally, the students' course achievement grades were compared with their vocabulary retention scores to find out if there were benefit trends for either of the techniques; that is, to determine if either of the techniques served the needs of the students, who had higher course

averages or the ones with lower course averages, in a better and positive way.

The data from these pre-test and post-test scores were analyzed by running several *t-tests* to see which technique created better retention results. In addition, two *regression analysis tests* were applied to find out the relation between students' course achievement and both the retention results of their cooperative learning activities and the retention results of their group work activities.

5.2. Discussion of the Results

5.2.1. The Effects of Cooperative Learning Activities and STAD on Students' Vocabulary Retention

The first question of the study explored the effects of cooperative learning activities and STAD on students' vocabulary retention. The results showed that the words which were learned through the use of cooperative learning activities were retained better than the words which were learned through the use of group work technique. This meant that cooperative learning activities, that is, the STAD technique, had a more positive effect on the students' vocabulary retention than the group work activities.

The findings of this study were in consistence with the literature highlighting the fact that cooperative learning settings are ideal for creating longer retention periods since students constantly engage in the elaboration of new concepts and interaction with their group mates (Gairns & Redman, 1986). Research findings

support the fact that retention of new information depends on the amount and quality of attention that individuals pay to various aspects of words (Craik & Tulving, 1975). This study also reinforced the idea that cooperative learning activities increased the amount and the quality of attention that the participants paid to various aspects of words; therefore, it created longer retention periods.

As opposed to the findings of Slavin (1995), who assert that when students work together to achieve a mutual goal - as in classes structured with a cooperative reward system - their efforts to learn help their group mates succeed, this study demonstrated that cooperative learning lessons yielded individual retention scores which were diverse from each other to a great extent. This unexpected finding showed that although participants, who internalized the basic principles of cooperative learning, helped their group mates succeed, this effort was not enough to prevent them from getting such diverse retention scores. It could be concluded that cooperative learning activities revealed much better retention results than those of group work activities; nonetheless, individual scores were not as close to each other as they would be expected to be. Despite the fact that there was a superiority of results in favor of the cooperative learning lessons, the students' retention scores were not gathered around the mean, but scattered largely. This basically means that each student could not equally benefit from the cooperative learning lessons with respect to their retention levels.

5.2.2. The Relationship between Students' Course Achievement and Type of Vocabulary Learning They Engage in

The study examined whether there was a statistically significant relationship between students' course achievement and the type of vocabulary learning activities they engage in regarding their retention levels. Did the participants whose course grade averages were high get higher retention scores while the students whose course grade averages were low got lower retention scores? This study found that there was no relation whatsoever between the students' course achievement and their vocabulary retention scores. All of the participants, regardless of their course achievement, gained from the cooperative learning activities to some extent. There is no such trend as high achieving students getting better retention results or low achieving students getting worse retention results. This could be explained with the fact that there may have been factors other than students' course achievement levels that had an effect on this result. For instance, some students may have taken these activities seriously enough, while some others did not since they were announced that these activities were extra-curricular and would not be graded. So, the students, who are basically exam-oriented, may have thought that these were unnecessary words to keep in mind and immediately forgot them. Some other students expect specific instructions about what to do with the words they learned as they always think they learn something for a purpose. For example, if they were told that they would be given a quiz two weeks later, most of them would try to retain them for at least two weeks. However, they were told nothing about the study with the idea that it could interfere with the

results. They just learned the words and practiced them through cooperative learning activities, so how much they retain depends on how effectively they worked in their cooperative groups not how successful they are in the course in general.

This finding seems to be congruent with the findings of Dansereau (1985), Webb (1985), and Kessler (1992), who suggest that minority students, medium and low-achieving students as well as high-achieving students perform equally when they learn through cooperative learning. High achieving students help low achieving students learn because their learning will also benefit them by increasing their group's total score. This teaching activity provides high achieving students with more opportunities for sophisticated explanations or cognitive elaboration work such as organizing thoughts and being certain about specific concepts, which in turn increases their own understanding while at the same time benefiting the low achieving students to a great extent.

5.3. Limitations of the Study

There are several limitations of this study to be considered while interpreting its results. These limitations are related to participants, the amount of the treatment and the instructional materials used.

The participants of the study were chosen from two of the preparatory classes that the researcher taught at the time of the research. Since the classes were pre-arranged, it was impossible to assemble students of the same or close proficiency levels

together. So, students had a very diverse background with respect to their English learning experiences. There were real beginners, false beginners and even intermediate level students in the group. Besides, the study was conducted with a group of 22 students. The sample size could have been larger. The results gained from 22 participants might not be generalizable.

Another limitation of the study was the amount of treatment. Due to time restraints, the study was based on a total of four lessons, two cooperative and two group work. More lessons might have produced different results.

The instructional materials, that is, the reading texts were chosen from the same book *Far From Home: Reading and Word Study*, written by William Pickett. The aim of this was to create consistency in their difficulty levels. However, these texts may have had slightly different difficulty levels, target word difficulty, and motivational appeal. Moreover, some of the target words may have been taught again in the fifteen-day retention period if they had appeared in the textbook or the students may have learned them during their outside class studies. This may have affected the retention results of the participants.

5.4. Pedagogical Implications

This study showed that the more principled cooperative learning technique created better achievement and retention results than the classic group work technique. This may encourage the teachers to use cooperative activities in their teaching as well as helping the teachers who already plan to use cooperative learning

in their instruction by showing them how to plan and organize their instruction.

The results of this study may help the teachers realize the fact that classes implementing cooperative learning principles are more student-centered in that the students are not passive listeners or note-takers any more, but they engage in various activities which help them learn and retain better. Among those activities are asking questions, making predictions, analyzing, discussing, assessing the strengths and weaknesses, teaching each other and elaborating on certain topics, all of which come together to make them independent learners.

The findings of this study may also encourage teachers to reconsider their roles in the instructional process. They may quit implementing teacher-fronted lessons and start to question their roles as the sole decision maker in the classroom. The teachers may realize that they have other such alternative roles as a monitor or a facilitator, who makes sure that teams of students engage in constructive and productive academic work as well as taking part in the planning of the content and the procedures of the course.

5.5. Suggestions for Further Research

Several suggestions for further research emerge from the findings of this study. First of all, for more generalizable results, the study should extend over a longer period of time and the number of treatments should be increased. By doing that, the study would make sure that the participants internalize the

principles of cooperative learning better, and in return they learn and retain better.

Instead of one group, two groups may be used, one control group and one experiment group. This would prevent the use of different texts and different target words, which may affect the results. If there were two groups, the same texts and the same target words would be taught through two different techniques, group work and cooperative learning activities.

This study sought the effect of cooperative learning on vocabulary retention. Further research may be conducted on the effect of cooperative learning on other skills, such as speaking and writing.

5.6. Conclusion

The aim of this study was to investigate the effects of cooperative learning activities and STAD on students' vocabulary retention. It was found that cooperative learning activities produced better retention results than group work activities. Although it did not benefit all the group members equally in each heterogeneous group contrary to the research in the field, this inequality did not show a tendency to favor students with high course achievement averages. The study found that there is no relation between the students' course achievement grades and their vocabulary retention scores.

This study may be considered as an initial step to encourage instructors to revise their roles in the classroom and to provide

more opportunities for the students to interact with each other and to learn from each other. The findings partially support the previous studies on the same field that found positive effects of this technique on the students. Language teachers who look for ways to implement innovations in their teaching may examine the findings of this research to encourage them in their efforts.

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APPENDICES

APPENDIX A

FIRST COOPERATIVE LEARNING LESSON PLAN

LESSON PLAN

Class size:	20
Level:	Beginner
Main aim:	By the end of the lesson, the students will have improved their general comprehension skills and they will have expanded their vocabulary knowledge with the help of a reading text.
Subsidiary Aims:	Students will improve their listening, speaking, and writing skills as well.
Objectives:	After attending the class, the students will identify the meaning of the new words in a matching quiz. After attending the class, the students will generate a reaction essay using the new words presented by the teacher.
Assumptions:	Since texts of this length are quite new to students at this level, they may have some difficulty concentrating on the text. However, they probably won't have any problems to grasp the text as it is well-

tailored in accordance with their proficiency level.

Materials:

The text (*Rushing the Baby to the Hospital*), a medicine pack, comprehension questions handout.

PROCEDURE

Pre-reading: (10 minutes)

Step 1. (T↔S) The teacher shows a medicine package to the students and reads the warning on it: "Keep away from children!" He leads the students to tell their ideas about what the things that need to be kept away from the reach of children are, and he writes the ideas on the board.

Step 2. (S↔S) After having the students generate some ideas, the teacher writes the title of the text on the board and asks the students to work in their groups and come up with a story that they would expect when they see the title.

Step 3. (S↔S) Each group takes turns to talk about what they have come up with in their groups. Then, they go on with the reading of the text to see if their guesses were right or not. The teacher tells them to skim the text just for the gist of it and compare it with their guesses.

While Reading: (15 minutes)

Step 1. At this stage, students read the text in a more detailed fashion and answer the true/false comprehension questions individually.

Step 2. (S↔S) They check their answers in their cooperative groups, which have previously been formed. The students are arranged in heterogeneous groups of four. The group members have been determined according to their proficiency levels, genders and attitudes towards learning English so as to provide equality among groups.

Step 3. (T↔S) Having elicited the answers for the comprehension questions, the teacher goes on with the teaching of vocabulary. In order to provide consistency among the words he teaches and among the lessons he teaches through cooperative means, the teacher chooses a technique that could be applicable to all of the unknown words in the text; that is, the non-visual, verbal means of clarifying the meanings. Those include giving a full definition of the words, providing an example situation, giving several example sentences, and giving synonyms, antonyms, or superordinate terms.

Post reading: (25 minutes)

Step 1. (S↔S) Each group is given ten words that the teacher has just taught. Those words are: "proud, explore, bleach, mistake, swallow, poison, waste, rush, bit, hug." The teacher tells them that each group is supposed to come up with a reaction essay outline that would include all of these ten words.

Step 2. (S↔S) Having thought of the general outline of the reaction essay, the groups are asked to divide it into four main parts as: Introduction, first developmental paragraph, second developmental paragraph, and the conclusion. Then, they assign the new words to be used in each paragraph. They choose two words for their introduction and their conclusion each, and three words for each of the developmental paragraphs.

Step 3. (S↔S) Now that everybody in each group knows what the plot of their reaction essay is and which words are going to be used in each paragraph, it is time to determine who will write which part. For that purpose, the teacher assigns a number from 1 to 4 to each student in each group. Then, he writes on the board which number will write which part, like "If you are number 1, you will write the introduction part." When he makes sure that every student in each group knows which part to write, the teacher reminds them one more time that they are supposed

to use the words they have previously assigned for that part in their groups.

At this stage, the individual accountability principle plays a very important role as the students know for sure that what they create individually at this stage will be valued in their groups. Besides, their success or failure will have a significant influence on their group's success, which also fosters the principle of positive interdependence.

Step 4. (S↔S) Group members come together in their heterogeneous cooperative groups, and bring the parts of the essay together. They discuss how to combine them, generate ideas about how to make it better. At this stage, each student takes turn to talk about his/her part of the essay and teaches the new words (the ten focus words) to his/her group mates once again to make sure they all know each word. The teacher assigns a role for each student at this stage to ensure equal participation and effective group processing. Each group member will be given one of these roles: facilitator, checker, timekeeper, and sound hound. Students are to function according to their roles while doing the task. The teacher ensures the principles of equal participation and simultaneous interaction since every member in each group has to take his/her turn to talk about his/her part, and this procedure is done in all of the groups at the same time. In addition, there is positive interdependence among students because no

meaningful essay will be created unless each member contributes with his/her part.

Step 5. (T↔S) The teacher collects the essays to be graded for the next day. The essays will be graded based on their coherence, cohesion, grammatical accuracy, and the correct use of the focus words. Each group's grade will be added to their total group scores.

The fact that the group product affects the individual students fosters positive interdependence among the group members.

Step 6. Finally, individual accountability is ensured when each student takes an individual quiz on the focus words at the end of the lesson. Each student's score will be compared to their previous grade average, and each individual will contribute to the group score in accordance with his/her improvement on the quiz. If a student gets a higher score than his previous average s/he will contribute 10 points to his/her total group score.

In order to add one more motive for positive interdependence, the students will be told that their group will receive extra 10 points if all the group members score 90 or above in the quiz. This will strengthen positive interdependence among group members who will want their group mates to succeed better.

Rushing the Baby to the Hospital

Frank and Sue have a son and a daughter, and they are very proud of them. Their son's name is Frank, and they call him Frankie. He is six years old and he is in the first grade. He's a good student and he enjoys school. He is learning to read and add.

After school, Frankie plays with his friends. "Baseball is my favorite sport," he says "and I love to play catch with my dad. In the summer he takes me to some Yankee games. I want to play for the Yankees when I am big."

Their daughter is two years old, and her name is Sarah. She's beginning to talk. She's a very active baby, and she likes to explore and touch everything. Now that's great because that is the way a baby learns, but it's also a problem. You need to watch Sarah all the time. Fortunately, Sue's mom lives near Sue and Frank, and she takes care of the baby when Sue is working. Grandma loves this; she thinks Sarah is the cutest baby in the world.

Frank and Sue are careful not to put medicine or cleaning materials to the places Sarah can get. They keep their medicine in the bathroom cabinet. They are afraid Sarah might think it is candy and take some. And they keep cleaning materials in a cabinet over the kitchen sink.

However, last Saturday Sue left a bottle of bleach under the kitchen sink. That was a big mistake. Sarah was playing in the kitchen, and she swallowed some bleach. Bleach is a poison and it can kill a baby. Fortunately, Sue saw what happened.

Frank and Sue didn't waste a second. They rushed Sarah to the hospital. It's about a mile from their house. They got there in two minutes. The doctor talked to Sue and asked what the baby swallowed.

The doctor examined Sarah and gave her some medicine. They kept her in the hospital for five hours and watched her. Fortunately, she swallowed only a little bit of bleach and was okay. When she arrived home, she got a lot of hugs and kisses from her grandmother and Frankie.

Comprehension Questions

If the sentence is true, write T. If it's false, write F, and change it to a true statement.

- _____ 1. Frankie doesn't like school.
- _____ 2. Baseball is his favourite sport.
- _____ 3. It is easy to take care of Sarah.
- _____ 4. Frank and Sue keep their medicine in the bathroom cabinet.
- _____ 5. Sue left some bleach where Sarah could get it.
- _____ 6. Frank and Sue got to the hospital quickly.
- _____ 7. Sarah spent two days in the hospital.
- _____ 8. She swallowed a lot of bleach.

Rushing the Baby to the Hospital

STAD test

Fill in the gaps with the correct form of the words from the box.
Use one of the words twice.

proud	explore	mistake(s)	swallow(ed)
poison	waste	rush(ed)	bit hug(s)

1. Would you like a _____ of chocolate?
2. The suspect made a big _____, so the police caught him at that moment.
3. When she received her prize, her parents were very _____ of her.
4. They killed the King by putting _____ in his meal.
5. We always exchange _____ and kisses when we meet.
6. I was in a hurry. I _____ up the stairs to get my glasses.
7. When he saw the teacher, the student _____ his chewing gum.
8. The children usually _____ everything by touching and tasting them.
9. Don't _____ your time here. Go catch your plane!
10. I found some _____ in your homework assignments.

APPENDIX B

PRE AND POST-TEST FOR THE FIRST COOPERATIVE LEARNING LESSON

Put the number of the definition in the left column beside the correct word.

- | | |
|---|---------------|
| 1. worried, unhappy, or angry | |
| 2. to look at things carefully | _____ proud |
| 3. a sweet drink | _____ explore |
| 4. a strong chemical used for cleaning | _____ bleach |
| 5. to get pleasure from something | |
| 6. very happy with what one has or does | |

- | | |
|---|---------------|
| 1. to crush food with the teeth | |
| 2. a substance for treatment for an illness | _____ mistake |
| 3. to move food and drink down the throat | _____ swallow |
| 4. error; wrong action | _____ poison |
| 5. good performance | |
| 6. a substance that can kill | |

- | | |
|--|-------------|
| 1. to move fast; to go with speed | |
| 2. holding someone close to you with your arms | |
| 3. to reduce the speed of something | _____ waste |
| 4. extremely large in size or amount | _____ rush |
| 5. to use something too much and badly | _____ bit |
| 6. to say bad words to someone | _____ hug |
| 7. a strong hit with the hand | |
| 8. a small piece or amount | |

APPENDIX C

SECOND COOPERATIVE LEARNING LESSON PLAN

LESSON PLAN

Class size:	20
Level:	Beginner
Main aim:	By the end of the lesson, the students will have improved their general comprehension skills and they will have expanded their vocabulary knowledge with the help of a reading text.
Subsidiary Aims:	Students will improve their listening, speaking, and writing skills as well.
Objectives:	After attending the class, the students will identify the meaning of the new words in a matching quiz. After attending the class, the students will generate a reaction essay using the new words presented by the teacher.
Assumptions:	Since texts of this length are quite new to students at this level, they may have some difficulty concentrating on the text. However, they probably won't have any problems to grasp the text as it is well-tailored in accordance with their proficiency level.

Materials: The text (*Hunting*), comprehension questions handout.

PROCEDURE

Pre-reading: (10 minutes)

Step 1. (T↔S) The teacher brings some pictures to the class. The pictures depict hunters holding their preys in their hands or posing by their preys. He asks what activity that is, trying to elicit the word "hunting".

Step 2. (S↔S) Having determined the topic of the lesson, the teacher asks two controversial questions: "Is hunting a sports event?" and "Is it cruel to shoot animals for their meat and their skin?" Since the teacher believes that there will be a clash of ideas in the class, these questions will create a discussion among the students. The teacher will lead the debate for some time while each party tries to persuade the other. This spontaneous debate will activate students existing schemata about this topic; therefore, it will help them better grasp the text.

While Reading: (15 minutes)

Step 1. Students read the text and answer the true/false comprehension questions individually.

Step 2. (S↔S) They check their answers in their cooperative groups, which have previously been formed. The students are arranged in heterogeneous groups of four. The group members have been determined according to their proficiency levels, genders and attitudes towards learning English so as to provide equality among groups.

Step 3. (T↔S) Having elicited the answers for the comprehension questions, the teacher goes on with the teaching of vocabulary. In order to provide consistency among the words he teaches and among the lessons he teaches through cooperative means, the teacher chooses a technique that could be applicable to all of the unknown words in the text; that is, the non-visual, verbal means of clarifying the meanings. Those include giving a full definition of the words, providing an example situation, giving several example sentences, and giving synonyms, antonyms, or superordinate terms.

Post reading: (25 minutes)

Step 1. (S↔S) Each group is given ten words that the teacher has just taught. Those words are: "hurt, truck, woods, rifle, hesitate, stream, drag, aim, huge, lift." The teacher tells them that each group is supposed to come up with a reaction essay outline that would include all of these ten words.

Step 2. (S↔S) Having thought of the general outline of the reaction essay, the groups are asked to divide it into four main parts as: Introduction, first developmental paragraph, second developmental paragraph, and the conclusion. Then, they assign the new words to be used in each paragraph. They choose two words for their introduction and their conclusion each, and three words for each of the developmental paragraphs.

Step 3. (T↔S) Now that everybody in each group knows what the outline of their essay is and which words are going to be used in each paragraph, it is time to determine who will write which part. For that purpose, the teacher assigns a number from 1 to 4 to each student in each group. Then, he writes on the board which number will write which part, like "If you are number 1, you will write the introduction part." When he makes sure that every student in each group knows which part to write, the teacher reminds them one more time that they are supposed to use the words they have previously assigned for that part in their groups.

At this stage, the individual accountability principle plays a very important role as the students know for sure that what they create individually at this stage will be valued in their groups. Besides, their success or failure will have a significant influence on their group's success, which also fosters the principle of positive interdependence.

Step 4. (S↔S) Group members come together in their heterogeneous cooperative groups, and bring the parts of the essay together. They discuss how to combine them, generate ideas about how to make it better. At this stage, each student takes turn to talk about his/her part of the essay and teaches the new words (the ten focus words) to his/her group mates once again to make sure they all know each word. The teacher assigns a role for each student at this stage to ensure equal participation and effective group processing. Each group member will be given one of these roles: facilitator, checker, timekeeper, and sound hound. Students are to function according to their roles while doing the task. The teacher ensures the principles of equal participation and simultaneous interaction since every member in each group has to take his/her turn to talk about his/her part, and this procedure is done in all of the groups at the same time. In addition, there is positive interdependence among students because no meaningful essay will be created unless each member contributes with his/her part.

Step 5. (T↔S) The teacher collects the essays to be graded for the next day. The essays will be graded based on their coherence, cohesion, grammatical accuracy, and the correct use of the focus words. Each group's grade will be added to their total group scores.

The fact that the group product affects the individual students fosters positive interdependence among the group members.

Step 6. Finally, individual accountability is ensured when each student takes an individual quiz on the focus words at the end of the lesson. Each student's score will be compared to their previous grade average, and each individual will contribute to the group score in accordance with his/her improvement on the quiz. If a student gets a higher score than his previous average s/he will contribute 10 points to his/her total group score.

In order to add one more motive for positive interdependence, the students will be told that their group will receive extra 10 points if all the group members score 90 or above in the quiz. This will strengthen positive interdependence among group members who will want their group mates to succeed better.

Hunting

Pete and Tom hate to see the summer end. The day after Labor Day, the pool closes and they go back to school. That's no fun. It's especially hard on Tom, but Pete also misses the pool and his work at the gas station.

There is one thing that Pete and Tom like about the fall. They love to hunt. When Tom was in eighth grade and Pete was in high school, their father taught them how to hunt, but their mother didn't like the idea one bit. "I don't think anyone should shoot animals," she said. "Killing is never right." And of course she was also afraid that her sons may get hurt. She still tells them to be careful when they go hunting.

On Saturdays in the fall, Pete and Tom get up at 6:00 and spend the day hunting. Their father owns a small Ford truck, and he lets them borrow it to drive to the woods around 20 miles from their house. The woods are a great place to hunt, and they are especially beautiful when the leaves change colors in the fall.

Last Saturday Pete and Tom were walking in the woods with their rifles when they saw a deer drinking from a stream. They were hunting for rabbits and were surprised and happy to see the deer. It was almost too beautiful to shoot. They moved closer. They hesitated for a minute. Then Tom aimed his rifle at the deer and shot. Tom's aim is usually very good; he didn't miss.

This was the first time they ever shot a deer. They were happy and sad at the same time. They remembered their mother's words about killing. They went over to the deer. It was a huge animal. They tried to lift it, but it was too heavy. They dragged it on the ground to their truck, it wasn't far.

Some hunters helped them put the deer into the truck. They put their rifles next to the deer and started home. "I can't wait to show the deer to dad," Tom said. "He'll think we are great hunters."

Comprehension Questions

If the sentence is true, write T. If it's false, write F, and change it to a true statement.

- _____ 1. Tom and Pete go back to school on Labor Day.
- _____ 2. It's especially hard for Tom to return to school.
- _____ 3. Pete and Tom's mother was happy that they learned to hunt.
- _____ 4. On Saturdays in the fall, Pete and Tom get up early to go hunting.
- _____ 5. Their father drives them to the woods.
- _____ 6. Pete and Tom were surprised and happy to see the deer.
- _____ 7. Tom shot the deer immediately.
- _____ 8. Some hunters helped lift the deer into the truck.

Hunting

STAD test

Fill in the gaps with the correct form of the words from the box.
Use one of the words twice.

<u>hurt</u>	<u>truck(s)</u>	<u>woods</u>	<u>rifle(s)</u>
<u>stream(s)</u>	<u>drag(ged)</u>	<u>aim(ed)</u>	<u>hesitate</u> <u>lift</u>

1. The United States _____ hundreds of missiles at the main cities of Iraq during the Gulf War in 1990.
2. "Can you please help me? I can't _____ this suitcase."
3. There was a horrible accident in the highway, two overturned _____ blocked the road completely.
4. We went for a walk in the _____ after lunch, and the trees looked beautiful.
5. She _____ for a second before answering the police officer's question.
6. There's a lovely _____ that flows through their garden. They sometimes use it to water the plants in the garden.
7. The police officers shot the running murderer with an automatic _____. They felt sorry that he tried to escape.
8. When she _____ the chair, everybody in the restaurant turned to look at her because there were a lot of noise.
9. Emma's shoulder was _____ when she fell off her horse.
10. The hunter _____ his rifle at the poor rabbit and killed it instantly.

APPENDIX D

PRE AND POST-TEST FOR THE SECOND COOPERATIVE LEARNING LESSON

Put the number of the definition in the left column beside the correct word.

- | | |
|---|-------------|
| 1. to kill an animal for food | |
| 2. a big group of trees | _____ hurt |
| 3. a small area of water | _____ truck |
| 4. injured, or in pain | _____ woods |
| 5. a large road vehicle | |
| 6. a building where buses and trains stop | |

- | | |
|--|----------------|
| 1. to stop briefly before or during an action | |
| 2. a small body of water that flows | _____ rifle |
| 3. a small animal with long ears and large front teeth | _____ hesitate |
| 4. to cause someone or something to die | _____ stream |
| 5. shotgun, a long type of gun | |
| 6. the season after summer and before winter | |

- | | |
|--|------------|
| 1. very large and big | |
| 2. to fire a bullet to injure or kill a person or animal | |
| 3. to pull along on a surface | _____ drag |
| 4. to fail to hit something | _____ aim |
| 5. to raise something to a higher position | _____ huge |
| 6. to point a gun or a rifle at a person | _____ lift |
| 7. not far away in position | |
| 8. to explain something to someone | |

APPENDIX E

FIRST GROUP WORK LESSON PLAN

LESSON PLAN

Class size:	20
Level:	Beginner
Main aim:	By the end of the lesson, the students will have improved their general comprehension skills and they will have expanded their vocabulary knowledge with the help of a reading text.
Subsidiary Aims:	Students will improve their listening, speaking, and writing skills as well.
Objectives:	After attending the class, the students will identify the meaning of the new words in a matching quiz. After attending the class, the students will generate a reaction essay using the new words presented by the teacher.
Assumptions:	Since texts of this length are quite new to students at this level, they may have some difficulty concentrating on the text. However, they probably won't have any problems to grasp the text as it is well-tailored in accordance with their proficiency level.

Materials: The text (Sharing the Housework),
comprehension questions handout.

PROCEDURE

Pre-reading: (10 minutes)

Step 1. (T↔S) The teacher writes "housework" in the middle of the board, and asks students to come up with the words they can think of when they see that word. The teacher draws a mind map on the board with the contributions of the students.

Step 2. (T↔S) Now that their previous knowledge is activated, the teacher asks "Who does all the housework in your houses?" and then he asks "Should the husband help his wife with the housework?" in order to get the debate started. Then, he leads the students into a debate about the roles of the husband and wife in the modern world.

Step 3. (S↔S) Finally, the teacher gets the students to talk about the title of the text. He wants them to tell their ideas as to what the text will be about.

While Reading: (20 minutes)

Step 1. Students read the text and answer the comprehension questions individually.

Step 2. (S↔S) They check their answers in groups of four.

Step 3. (T→S) Having elicited the answers for the comprehension questions, the teacher goes on with the teaching of vocabulary. He utilizes non-visual, verbal means of clarifying the meanings. Those include giving a full definition of the words, providing an example situation, giving several example sentences, and giving synonyms, antonyms, or superordinate terms.

Post reading: (20 minutes)

Step 1. (S↔S) In order to get the students to learn the meanings of these words by heart, the teacher engages them in a meaningful activity in which they write a reaction essay by using the same set of words in groups of four.

Step 2. (S↔S) Then, the students share their essays with their classmates.

Sharing the Housework

Frank and Sue are married and have two young children. Frank is a taxi driver in New York City, one of the best cities in the world to be a taxi driver in, and also one of the worst. It's one of the best because you never wait long for the passengers, and taxis cost a lot, so you can make good money. It's one of the worst because traffic is heavy, and everyone is in a hurry.

When Frank and Sue got married, they thought she would stay home and take care of the children, and he would make the money to pay the bills. But that's not the way it is. Food, clothing, and their new house cost more than he makes. She needs to work, too. She works as a teacher's aide at public school 63 in Manhattan.

Because both of them work, Frank and Sue share the housework. "That's the way it should be," Sue says, "but some of my friends work full time and their husbands don't do any housework. Frank does all of the cooking, and I keep the house clean and wash the clothes."

Frank never cooked in his life before. The first night he tried, he burned the rice, and the chicken didn't taste right. Frank and Sue still laugh about his first dinner. He is not a great cook, but he is improving fast. He likes cooking spaghetti and meatballs, and they taste very good. Learning to cook was difficult for Frank, but now he thinks it is fun.

When Frank cooks, Sue washes the dishes and he wipes them. Although he likes cooking, he hates doing the dishes. That's why he wants to buy a dishwasher. Sue also thinks it is a good idea, but they don't have any extra money now.

When they finish the dishes and the children are in bed, Frank and Sue read, watch TV, or talk. It is the only time during the day when they have the chance to enjoy a little peace and quiet. Their work and their children don't leave them much time for themselves.

Comprehension Questions

Answer these questions about the story.

1. Why is New York City one of the best places to be a taxi driver?

.....

2. Why does Sue have to work?

.....

3. What happens to some of Sue's friends?

.....

4. What happened the first night Frank cooked?

.....

5. What does he like cooking?

.....

6. What does he hate doing?

.....

7. What do Frank and Sue want to buy? Why can't they?

.....

8. When do they enjoy a little peace and quiet?

.....

APPENDIX F

PRE AND POST-TEST FOR THE FIRST GROUP WORK LESSON

Put the number of the definition in the left column beside the correct word.

- | | |
|--|-----------------|
| 1. the need to do things quickly | |
| 2. someone who drives a vehicle | _____ passenger |
| 3. a person traveling in a vehicle but not driving it | _____ hurry |
| 4. the central part of a city | _____ bill |
| 5. the amount of vehicles moving along roads | |
| 6. a piece of paper used as a request for payment; check | |

- | | |
|---|-------------|
| 1. the work of keeping a house clean and tidy | |
| 2. someone whose job is to teach in a school | _____ burn |
| 3. to be on fire; to destroy by heat | _____ aide |
| 4. to prepare food to eat | _____ right |
| 5. a person whose job is to help someone | |
| 6. suitable or desirable, or as it should be | |

- | | |
|---|----------------|
| 1. small pieces of chopped meat | |
| 2. needing skill or effort; not easy | |
| 3. to dislike something very much | _____ improve |
| 4. an object you eat and serve food from | _____ meatball |
| 5. to move a cloth over something to clean it | _____ wipe |
| 6. the flavor of something | _____ peace |
| 7. to do or get better | |
| 8. calm and quiet | |

APPENDIX G

SECOND GROUP WORK LESSON PLAN

LESSON PLAN

Class size:	20
Level:	Beginner
Main aim:	By the end of the lesson, the students will have improved their general comprehension skills and they will have expanded their vocabulary knowledge with the help of a reading text.
Subsidiary Aims:	Students will improve their listening, speaking, and writing skills as well.
Objectives:	After attending the class, the students will identify the meaning of the new words in a matching quiz. After attending the class, the students will generate a reaction essay using the new words presented by the teacher.
Assumptions:	Since texts of this length are quite new to students at this level, they may have some difficulty concentrating on the text. However, they probably won't have any problems to grasp the text as it is well-tailored in accordance with their proficiency level.

Materials: The text (*A Bitter Argument*),
comprehension questions handout.

PROCEDURE

Pre-reading: (10 minutes)

Step 1. (T↔S) The teacher gets the students attention with some pictures showing some students either listening to lectures or graduating from high schools or universities. Then he asks such questions as: "What level of education is the compulsory in Turkey?"; "Is it enough to get a high school diploma to find a good job in Turkey?"; "What is the age that you are considered to be an adult?" With these questions the teacher creates a discussion in the class and everyone is asked their opinions about the topic.

Step 2. (T↔S) Then, the teacher gets the students to talk about the title of the text. He wants them to tell their ideas as to what the text will be about.

While Reading: (20 minutes)

Step 1. Students read the text and answer the comprehension questions individually.

Step 2. (S↔S) They check their answers in groups of four.

Step 3. (T→S) Having elicited the answers for the comprehension questions, the teacher goes on with the teaching of vocabulary. He utilizes non-visual, verbal means of clarifying the meanings. Those include giving a full definition of the words, providing an example situation, giving several example sentences, and giving synonyms, antonyms, or superordinate terms.

Post reading: (20 minutes)

Step 1. (S↔S) In order to get the students to learn the meanings of these words by heart, the teacher engages them in a meaningful activity in which they write a reaction essay by using the same set of words in groups of four.

Step 2. (S↔S) Then, the students share their essays with their classmates, and the class chooses the best story.

A Bitter Argument

Tom and Pete live in New York State, where you have to go to school until you are 16. Then you are free to quit or to continue. Tom is just 16 and he wants to quit and go to work. However, his teachers and counselor know that to get a good job, he should at least finish high school. They want him to stay in school and to graduate.

Tom likes his science class, but he thinks that all of his other classes are a waste of time. He feels they're dull and he's not learning anything in them. His teachers say that he is a nice boy, but he is lazy and he doesn't study. He says he doesn't want to study. He wants to get a job and earn some money. "Why does everyone have to go to school and study?" he asks. "Thomas Edison never finished the first grade and he did all right for himself."

Tom's parents also want him to stay in school. They think it is foolish for him to quit. "All of the other boys and girls in the neighborhood plan to finish high school," his mother said to him. "And no one is going to give you a good job if you don't have a high school diploma. You are not Tom Edison. Why don't you finish high school and then look for a job?"

Tom doesn't care what the other kids are doing. "I want to be myself, and I want to go to work now" he said to his mother. "Look, I am 16 and I'm not a baby any more. You have to let me grow up. You know I hate school."

"I know," she replied, "that there are a lot of things in life that we hate and that we have to do. You are running away from your problem and that is no way to grow up!"

Last night, Tom and his mother had another argument about his plan to quit school. She shouted at him and he shouted back at her. They argued for more than an hour. She said he would be a fool to quit school. He said he didn't want to hear any more about school. It was a bitter argument. Will Tom listen to his mother, or will he quit school?

Comprehension Questions

Answer these questions about the story.

1. At what age can you quit school in New York?

..... .

2. Why do Tom's teachers and counselor want him to stay in school?

..... .

3. Why does he think that most of his classes are a waste of time?

..... .

4. What do Tom's teachers say about him?

..... .

5. What do his parents think of his quitting school?

..... .

6. What does Tom want?

..... .

7. How does his mother react?

..... .

8. What did Tom and his mother argue about last night?

..... .

APPENDIX H

PRE AND POST-TEST FOR THE SECOND GROUP WORK LESSON

1. a person whose job is to design or build machines
2. to complete school, college or university _____ quit
3. to control and keep someone _____ counselor
4. to stop doing something, or leave a job _____ graduate
5. to start doing a particular job or activity
6. a person trained to listen to people and give advice

1. to keep doing or happening
2. to stop feeling something _____ continue
3. to receive money as payment for work _____ dull
4. not interesting or exciting; boring _____ earn
5. to learn about a subject,
6. entertaining and funny

1. a fight with words; a disagreement
2. to have the same ideas and opinion
3. filled with strong, unpleasant feelings _____ foolish
4. showing the ability understand things quickly and easily _____ argument
5. stupid; not wise _____ shout
6. enjoyable, friendly, or easy to like _____ bitter
7. to give a formal talk to a group of people
8. to speak in a very loud noise