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THE EFFECTS OF COOPERATIVE LEARNING ON STUDENTS' WRITING PERFORMANCE

THESIS BY

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We **certify** that this thesis under the title of **"THE EFFECTS OF COOPERATIVE LEARNING ON STUDENTS' WRITING PERFORMANCE"** is satisfactory for the award of the degree of **Master of Arts** in the Department of **English Language Teaching.**

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Language is used to communicate with other people. In other words, we use language to express our thoughts and emotions, to fulfill our needs and to maintain our culture. Thus, it is not enough to know grammar and vocabulary of a language or to read in that language and to understand what someone tells us. It is also needed to be good at speaking and writing. In order to use a language efficiently, the requirements of a language should be developed in a society, not in an isolated environment. Considering these facts related to language, the fact that writing which is a productive skill is not emphasized through English classes in schools and the fact that individual learning is not sufficient to learn English, this study was conducted to investigate the effectiveness of cooperative learning on students' writing performance. It was thought that this study would contribute to previous researches related to cooperative learning and writing performance in Turkey.

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2th of January, 2013

Sena TEKELİ

ÖZET

KUBAŞIK ÖĞRENMENİN

ÖĞRENCİLERİN YAZMA BECERİLERİ ÜZERİNDEKİ ETKİLERİ

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Bu araştırma, kubaşık öğrenmenin öğrencilerin yazma becerilerini ve dilbilgisi başarısını geliştirmedeki etkilerini araştırdı. Araştırmanın amacı kontrol grubunda ve deney grubunda uygulanan ön test ve son test arasındaki farkları bulmak ve ön testler ve son testler sonucunda elde edilen öğrenci başarı puanlarını dikkate alarak kontrol grubunu ve deney grubunu öğrencilerin yazma ve dilbilgisi başarısı açısından karşılaştırmaktı. Örneklem, Tarsus'ta bulunan bir meslek lisesinde eğitim gören 50 öğrencinin bulunduğu iki tane onuncu sınıftan oluşmaktadır.

Çalışma 12 hafta sürdü. Deney grubunda bir kubaşık öğrenme yöntemi olan STAD uygulanırken, kontrol grubunda geleneksel öğretim yöntemi uygulandı. Öğrencilerin yazma becerilerini ve dilbilgisi becerilerini değerlendirmek için, öğrenciler ön test ve son test olarak öyküleyici bir kompozisyon yazmakla görevlendirildi. Öğrencilerin ön testte yaptıkları yanlışlar dikkate alınarak ders planı hazırlandı. Bütün kompozisyonlar iki öğretmen tarafından değerlendirildi.

Ön test ve son test sonucundan elde edilen öğrenci başarı puanları SPSS 17 kullanılarak analiz edildi. Analizler sonucunda, yazma becerisi ve dilbilgisi gelişimi açısından deney grubunun ön test ve son test sonuçları arasında önemli farklar bulunurken, kontrol grubunun ön test ve son test sonuçları arasında önemli farklar bulunmadı. Araştırma sonuncunda kubaşık öğrenmenin öğrencilerinin genel yazma becerilerini ve yazmadaki dilbilgisi başarılarını geliştirmede etkili olduğu bulundu.

Anahtar Sözcükler: Genel Yazma Becerisi, Dilbilgisi Gelişimi, Kubaşık Öğrenme

ABSTRACT

THE EFFECTS OF COOPERATIVE LEARNING

ON STUDENTS' WRITING PERFORMANCE

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This research investigated the effects of cooperative learning in developing students' writing performance and grammar achievement in writing. The purposes of the research were to find the differences between pre-test and post-test results in terms of overall writing quality and grammar development in the control group and the experimental group and to compare the control group and the experimental group considering the scores obtained through pre-test and post-test in terms of overall writing quality and grammar. The sample included two tenth classes comprised of 50 EFL students at a vocational high school located in Tarsus.

The study lasted 12 weeks. STAD, a method of cooperative learning was implemented in the experimental group whereas traditional learning was implemented in the control group. In order to assess participants' writing performance and grammar development, they were assigned to write a narrative essay as pre-test and post-test. Considering the mistakes done by students in the pre-test, the syllabus was designed. All essays were analytically rated by two teachers.

Scores obtained through pre-test and post-test were statistically analyzed by means of SPSS 17. As a result of the analysis, it was found that there was a significant difference between pre-test and post-test results of the experimental group in terms of overall writing performance and grammar development in writing whereas there was not any significant difference between pre-test and post-test results of the control group in terms of overall writing performance and grammar development. It was found that cooperative learning was effective in developing students' writing performance and grammar achievement.

Key Words: Overall Writing Performance, Grammar Development, Cooperative Learning

LIST OF TABLES

LIST OF ABBREVATIONS

EFL : English as a Foreign Language

MEB : Ministry of Education

SPSS : Statistical Package for the Social Sciences

STAD : Student Teams Achievement Divisions

DG : Discussion Groups

TABLE OF CONTENTS

CHAPTER 3

CHAPTER 4

CHAPTER 5

CHAPTER 1

1. INTRODUCTION

This chapter provides information related to the problem on which the study depends and background information about cooperative learning, theories underlying cooperative learning and previous studies related to cooperative learning. Besides providing brief information about the problem and cooperative learning, this chapter states the purpose of the study and research questions depending on the problem. Significance of the study, limitations of the study and definitions of related terms are also explained.

1.1. Statement of the Problem

Writing is considered as the most difficult skill comparing with the other skills- reading, speaking and listening (Cadet, 2009). It is also indicated by Wetstanarak [1994 (cited in Cadet, 2009)] that a long period of practice is required to have a good writing performance. Writing requires a certain amount of second language background knowledge related to rhetorical and appropriate language use- lexical and syntactic knowledge (Tangerpoom, 2008, p.1). Besides, writing is considered as an activity which depends on social-rhetorical situations in which learners engage, conditions which enable learners to write and motives learners have for doing what they do (Cooper, 1986, p.367).

In Turkey, writing skill, which is one of the productive skills (Hirai, 2002) is not enhanced through English courses, although the curriculum provided by the Ministry of Education requires the development of four skills. The reasons of this situation are stated by Cadet (2009, p.1) as "the intrinsic difficulty of writing itself and the insufficient pedagogic attention paid to their writing at all levels". The causes of the pedagogic problem are crowded classrooms, lots of works which teachers engage in and their insufficient time to evaluate students' written products (Cadet, 2009). These facts lead students to have problems in writing at all levels and in all aspects of writing (Cadet, 2009).

There are lots of different methods used by teachers in language classrooms while developing students' writing skill (Cadet, 2009). One of these methods is cooperative learning (Kagan, 2002) which is one of the application ways of constructivism (Brown, 2000). Constructivism requires creation of knowledge by learners (Tynjälä, 1999) and social interaction (Brown, 2000).

However, in Turkey, students are expected to learn individually by receiving and assimilating knowledge transferred by teacher (DePriter, 2008). Considering these facts, the present study provides a lesson which requires students to work in a small group to develop their writing skills.

1.2. Background of the Study

Constructivism developed in the late twentieth century was associated with themes such as interactive discourse, socio-cultural variables, cooperative group learning, inter-language variability and interactionist hypothesis (Brown, 2000, p.12). Vygotsky's constructivism is based on social development. According to Vygotsky's constructivism, social interaction and social context are essential in learning. Development of a child first occurs on the social level and later on the individual level (Brown, 2000). This certain time span for children development is called the zone of proximal development. Vygotsky (1978, p.86) defines the zone of proximal development as follows:

> The distance between the actual development level as determined by Independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

In his view, by means of collaborative learning children can learn and understand more than they do as individuals because of the fact that they perform within the other children's proximal zones of development (Slavin, 1996, p.48).

Cooperative learning is one of the application ways of constructivism (Brown, 2000). A group of students who are responsible for the success of both themselves and their group mates work on tasks together in order to achieve common goals (Millis, 1996). Cooperative learning is one of the significant fields of education in the aspects of theory, research and practice (Johnson, Johnson and Stanne, 2000). Research on cooperative learning has been done since the early 1970s and the number and the quality of them have been increased (Slavin, 1996). Many studies involving comparison of cooperative learning with various control methods have been conducted (Slavin, 1996) and cooperative learning strategies are generally found to be effective in developing learners' achievement and social behaviours (Miller and Peterson, n.d). Studies related to effects of cooperative learning on learners' achievement have been conducted by different researchers in all types of schools and in many countries, in every subject and at all grade levels (Slavin, 1996).

The study conducted by Ahmad and Mahmood (2010) with thirty-two students teachers in master degree program investigated the effects of three experimental conditions which were traditional instruction, cooperative learning which wasn't structured properly and Students Achievement Division Model (STAD) which is a cooperative learning model, on their learning experience and achievement in Educational Psychology. The result obtained through the study was that cooperative learning had more positive effects in improving prospective teachers' achievement. Moreover, cooperative learning provided more enjoyable and interactive activities.

Similar results were obtained via the study conducted by Adeyemi (2008) to find out effects of three different teaching strategies as cooperative learning, problem-solving and conventional lecture strategy on secondary school students' achievement in social studies. The results showed that learners who were engaged in cooperative activities were more successful than students to whom problem solving strategy and conventional lecture method were provided. Moreover, the study investigated gender differences in terms of achievement in these strategies. Boys were more successful in cooperative learning and conventional method while girls were more successful in problem solving strategy.

Another study related to effectiveness of cooperative learning on achievement was the one belong to Bejarano (1987). The purpose of that study was to examine the effects of two cooperative learning methods- Discussion Groups (DG) and Student Teams Achievement Divisions (STAD) and traditional whole-class method on seventh grade EFL learners' general achievement and achievement in terms of skills. Results of the study showed that cooperative methods have more positive impact on students' language achievement than traditional method. Moreover, it was found that STAD was more effective technique in developing discrete points such as grammar and vocabulary than DG and whole-class methods.

1.3. Purpose of the Study

The purpose of the study is to find out if cooperative learning develops learners' writing skills. In other words, the main focus is to investigate if there is any significant difference between the pre-test and the post-test results in both experimental and control groups in terms of overall writing performance and grammar development in writing. Cooperative learning is provided for the experimental group while traditional learning is used in the control group as a way of teaching.

1.4. Research Questions

The study first attempted to answer the following main research question:

How does learners' writing performance differ between the cooperative learning group and the traditional learning group?

As a result of the analyses on this main research question, the following exploratory research questions were designed:

1. Are there any differences between the pre-test and the post-test results in terms of overall writing performance?

2. Are there any differences between the pre-test and the post-test results in terms of grammar development in writing?

1.5. Significance of the Study

Educational methods which aim at making improvement in students' achievement should consider elements of classroom organization and instruction (Slavin, Madden and Stevens, 1989, p.28). Cooperative learning can be used as primary instructional format (Slavin et al, 1989) by teachers to reach both traditional and innovative objectives (Slavin, 1996). Thus, it is expected that the results of this study will lead EFL teachers to use cooperative learning as classroom instruction in improving learners' writing performance. Cooperative learning also provides a lesson which combines different learning skills (Slavin et al, 1989). It is expected that the results of this study will be beneficial to EFL teachers to design an English course considering writing skill. Moreover, this study will contribute to previous conducted researches related to cooperative learning and writing performance in Turkey.

1.6. Limitations of the Study

The limitations of the present study could be stated in terms of two different aspects as the sampling method and the duration of the study. The main limitation could be that participants were not selected randomly, but chosen according to the convenience sampling method. The available students whose English teacher conducted the present study were chosen as the sample of the study. Thus, the results of the study could not be generalized.

The other limitation could be the length of the study. The study lasted 12 weeks. The duration of the study could have been more than 12 weeks considering the fact that, the longer the study is conducted, the more reliable results are obtained (Cadet, 2009, p.139).

1.7. Operational Definitions

Constructivisim: A theory of knowledge which requires generating knowledge and meaning through an interaction between people.

Cooperative Learning: A student-centered teaching strategy which requires working in groups.

Formal Cooperative Learning: Students come together and work on a specific assignment structured to achieve common goal for one period to several weeks. (Johnson, Johnson and Smith, 1998)

Interaction: The ability to work collaboratively with others as a member of a team, the ability to communicate effectively and relate to others in a professional manner (Hayes, 2007).

Cooperation: Working together in a group to achieve a common goal.

Cooperative Learning Activities: Tasks which require cooperation and interaction of students.

Traditional Learning: A teacher-centered teaching strategy which requires receiving information presented by teacher and working individually.

Overall Writing Performance/ Writing Performance. The accomplishment in writing in terms of content, organization and language.

Grammar Development. Being good at using tenses and other syntactic aspects of a language.

CHAPTER 2

2. REVIEW OF LITERATURE

This study investigated the effects of cooperative learning in developing students' writing performance and grammar development. A review of literature about cooperative learning is presented. This chapter first states the definitions related to cooperative learning and explains theories underlying cooperative learning. Besides these facts related to cooperative learning, the essential elements of cooperative learning, the implementation of the essential elements of cooperative learning, advantages of cooperative learning and pitfalls of cooperative learning, implementation of cooperative learning in classes, cooperative learning methods, comparison of cooperative learning and traditional teaching methods, researches related to cooperative learning and implications of researches are also explained in this chapter.

2.1. Definitions Related to Cooperative Learning

Cooperative learning can be considered as a vehicle to develop learners' social relations and academic achievement (Miller and Peterson, n.d). Cooperative learning which can be used as the primary instructional method (Slavin, Madden and Stevens, 1989) is also defined by Kagan (1989) as follows:

> The structural approach to cooperative learning is based on the creation, analysis and system application of structures or content-free ways of organizing social interaction in the classroom.

Through this definition related to cooperative learning, it can be concluded that general structures applied to any situation are considered and a framework for cooperative learning is provided (Adeyemi, 2008). It is important to make a distinction between structures all of which contribute to the academic, cognitive and social domains in different aspects and activities which have significant content-bound objectives (Kagan, 1989). Cooperative activities can't be applied to all types of academic content but on the other hand structures such as jigsaw, student-teams achievement-divisions, think-pair-share and group investigation can be applied to all types of academic content and used at different grade levels (Kagan, 1989).

While Kagan (1989) indicates the importance of application structures and organizing social interaction in cooperative learning, Panitz (n.d) indicates the significance of the product or goal achieved by learners through interaction by defining cooperation as "cooperation is a structure of interaction designed to facilitate the accomplishment of a specific end product or goal through people working together in groups". By asking questions and providing specific structures such as a jigsaw model, teacher guides and controls group interactions and cooperative activities in which students involve (Panitz, n.d).

Other definitions related to cooperative learning provided by different educators such as Slavin (1995) and Hessler (1992) emphasize group work and learners' achievement. Slavin (1995) indicates that through cooperative learning students work in groups and develop their academic skills by supporting each other. According to Hessler (1992), a group of learners at different levels of second language proficiency who involves in cooperative activities and work together benefit from this interaction.

2.2. Theories Underlying Cooperative Learning

Johnson, Johnson and Smith (1998, p.28) state that "The power of cooperative learning lies in the interrelationship among its theory, research and practice". First the theory must be appropriate and suitable conditions to implement the theory must be provided and designed (Johnson, Johnson and Smith, 1998, p.28). After providing suitable conditions, practical procedures are demonstrated and continuously improved (Johnson, Johnson and Smith, 1998, p.28). If the theory is not appropriate to be implemented in the classroom, practical procedures will be static and cannot be developed (Johnson, Johnson and Smith, 1998, p.28). Without making researches, theories cannot be developed and suitable conditions are never designed (Johnson, Johnson and Smith, 1998, p.30). As it was stated before, cooperative learning is one of the significant fields of education in the aspects of theory, research and practice (Johnson, Johnson and Stanne, 2000) and cooperative learning is one of the ways of implementing constructivism (Brown, 2000). Besides this fact, cooperative learning depends on social interdependence, behavioral learning and cognitive-developmental theories (Johnson, Johnson and Smith, 1998, p.28).

2.2.1. Constructivism and Pedagogical Implications of Constructivism

Tynjälä (1999, p.363) defines constructivism and states its origins as follows:

Constructivism is a theory of knowing whose origins may be traced back to

Kantian epistemology and the thinking of Giambattista Vico in the eighteenth century, American pragmatists such as William James and John Dewey at the beginning of this century, and the great names of cognitive and social psychology, F.C. Barlett, Jean Piaget and L.S. Vygotsky.

Besides defining constructivism and stating its origins, Tynjälä (1999, p.364) indicates that there are different branches of constructivist thought. Although these schools of thought have different principles, they have a characteristic in common (Tynjälä, 1999, p.364). They require constructing knowledge actively rather than receiving it passively (Tynjälä, 1999, p.364). The schools of thought; radical or cognitive constructivism, social constructivism, the sociocultural approach, symbolic interactionism and social constructionism are different from each other in terms of individual and the social aspects in learning (Tynjälä, 1999, p.364). The radical or cognitive constructivist focuses on how individuals construct knowledge and mental models (Tynjälä, 1999, p.364). On the other hand, social constructivists or construtionists emphasize collaborative, social and dialogical processes (Tynjälä, 1999, p.364).

Students construct new knowledge by using what they have already known. Thus, constructivism forms its pedagogical conceptions on the basis of students' previous beliefs and knowledge related to the topics which are going to be taught to students (Tynjälä, 1999, p.365). Besides these facts, Tynjälä (1999, p.365) indicates that "According to constructivism, learning is not passive reception of information but a learner's active continuous process of constructing and reconstructing his or her conceptions of phenomena". Understanding is emphasized instead of memorizing information in constructivist pedagogy and social interaction and collaboration are requirements of it (Tynjälä, 1999, p.365). Because of the fact that students have personal experiences, the same information means different to them (Tynjälä, 1999, p.365).

According to constructivist pedagogy, teaching is helping students to construct knowledge on the basis of their previous experiences to improve their skills via a variety of tasks (Tynjälä, 1999, p.365). In order to make students use what they have learned in the lectures, they should be engaged in tasks (Tynjälä, 1999, p.365).

2.2.2. Social Interdependence, Behavioral Learning and Cognitive-developmental Theories Underlying Cooperative Learning

According to social interdependence theory, cooperation occurs among individuals because of the positive interdependence (Johnson, Johnson and Smith, 1998, p.29). Kurt Koffka, Kurt Lewin and Morton Deutsch who is one of Kurt Lewin's students are the supporters of social interdependence theory (Johnson et al, 1998, p.29). Johnson et al (1998, p.29) also indicate that they made a formulation related to social interdependence theory. The structure of social interdependence determines the quality of interaction among students (Johnson et al, 1998, p.29). Positive interdependence encourages students to interact and help each other to learn and thus it results in cooperation (Johnson et al, 1998, p.29). On the other hand, negative interdependence results in competition (Johnson et al, 1998, p.29). Without functional interdependence, students work individually and never interact with each other (Johnson et al, 1998, p.29).

Whereas social interdependence theory focuses on interaction among students, behavioral learning theory focuses on rewards given students (Johnson et al, 1998, p.29). It is believed when students get a reward or punishment, they work on tasks (Johnson et al, 1998, p.29). Otherwise, they do not work and do not achieve their goals (Johnson et al, 1998, p.29).

Cognitive-developmental theory supports cooperation among students (Johnson et al, 1998, p.29). Individuals work together to achieve common goals (Johnson et al, 1998, p.29). Considering the studies conducted by Piaget and Vygotsky, Johnson et al (1998, p.29) indicate that according to Piaget and Vygotsky cooperation results in cognitive development. They also indicate their own view related to cognitive development. According to them, when students come together and share their opinions with each other, a conflict occurs and this conflict leads students to build knowledge and create a common idea.

All of these theories support the fact that cooperative learning results in higher achievement than competitive and individualistic learning (Johnson et al, 1998, p.29). There are differences among all of these theories (Johnson et al, 1998, p.29). Whereas social interdependence theory is on the basis of the intrinsic motivation which means interpersonal factors lead students to achieve a common goal, behavioral learning theory depends on extrinsic motivation which means students work to get rewards (Johnson et al, 1998, p.29). It is also stated that social interdependence theory considers relation between individuals

(Johnson et al, 1998, p.29). On the other hand, cognitive-developmental theory deals with cognitive process of a single person (Johnson et al, 1998, p.29).

2.3. Essential Elements of Cooperative Learning

Johnson and Johnson (1987) indicate that cooperative learning is comprised of four basic elements which are positive interdependence, face-to-face interaction, individual accountability and interpersonal and small-group skills. Cooperative learning requires positive interdependence which is structured by means of organizing different requirements of cooperative learning activities such as a common goal, a positive reward, divisions of labor and sources among group members (Johnson and Johnson, 1987). The term positive interdependence emphasizes two responsibilities of each member of a group one of which is learning the assignment and the other one is supporting other members of the group to learn the material (Johnson and Johnson, 1994). Moreover, through positive interdependence, it is also emphasized that performance of each member of the group is required for group success and each performance is unique because of the fact that all members have different responsibilities (Johnson and Johnson, 1994).

As it is stated before, to create positive interdependence, a common goal by means of which group is united should be stated and after achieving this common goal, the same reward should be provided for all of the group members (Johnson and Johnson, 1994). Johnson and Johnson (1994) also state the types of rewards in their study. The reward can be a group grade, an individual grade or bonus if all the members of the group have great success on tests. Moreover, they also indicate that resources are shared and used by students to achieve the common goal. Students have different responsibilities and roles such as reader, recorder and elaborator of knowledge to achieve the common goal and learn the assigned material (Johnson and Johnson, 1994).

Through positive interdependence, students interact with each other (Johnson and Johnson, 1987). As a result of face-to-face interaction, students share resources and information, help each other by providing feedback, improve both their skills and group members' skills and motivate their group to achieve the common goal (Johnson and Johnson, 1994).

Besides positive interdependence and face-to-face interaction, individual accountability is required in cooperative learning because of the fact that it is aimed through cooperative

learning to increase the achievement of each member of the group (Johnson and Johnson, 1987). In order to design individual accountability, different ways are suggested by Johnson and Johnson (1994) as follows: The group size should be small. Thus, it allows more individual accountability. Moreover, an individual test should be randomly required to present their group's work (Johnson and Johnson, 1994). A student should be given the role of checker and his/her responsibility is asking group members questions related to group work (Johnson and Johnson, 1994). Moreover, students are required to teach the assigned material to other members of the group (Johnson and Johnson, 1994). The three basic elements- positive interdependence, face-to-face interaction and individual accountability- are combined by Johnson and Johnson (1994) in a definition as "interaction is characterized by positive interdependence with individual accountability".

As it is stated before, the fourth basic element of cooperative learning is interpersonal and small-group skills. Social skills should be taught in order to make students involve in cooperative learning effectively (Johnson and Johnson, 1994).

Watson (1992) indicates that essential elements of cooperative learning are cooperative task structures, cooperative incentive structures, individual accountability and heterogeneous grouping whereas Johnson and Johnson (1987) state basic elements of cooperative learning are positive interdependence, face-to-face interaction, individual accountability and interpersonal and small-group skills. Watson (1992, p.84) defines cooperative task structures as situations which require involvement of two or more students in completing a task. In order to complete tasks, students should work collaboratively (Watson, 1992, p.84). Cooperative task structures are divided into two main structures as task specialization and group study (Watson, 1992). In task specialization structure, each member of the group is required to have a certain responsibility whereas in study group all of the group members are required to work on a task together and thus they learn the same information equally (Watson, 1992).

According to Watson (1992, p.84), the second essential element of cooperative learning is cooperative incentive structure. Watson (1992, p.85) emphasizes two ways of creating incentive as follows:

> The exact method of establishing the cooperative incentive varies, with the most popular variations: 1. Group scores based on the individual scores of group members (Student-Teams-Achievement-Divisions, Teams Games and

Tournaments, Jigsaw II) 2. Group scores based on a group project or other product (Learning Together, Coop-coop, Group Investigation).

Watson (1992) also considers individual accountability as one of the requirements of cooperative learning as Johnson and Johnson (1987) consider this fact as one of the basic elements of cooperative learning. Individual accountability allows assessing of students' performance via focusing on individual learning (Watson, 1992, p.85). Heterogeneous grouping of students is another essential element of cooperative learning (Watson, 1992). While grouping students, it is important to consider factors such as students' gender, ethnic background, age, attitudes and leadership ability besides achievement of students (Watson, 1992, p.85). Watson (1992) also indicates that there is not any evidence to prove whether heterogeneous grouping is effective or not.

According to Slavin (1991), three factors as team rewards, individual accountability and equal opportunities are essential elements of cooperative learning. Team rewards motivate students work together to achieve the common goal if they are given to students when they are more successful than they are in the past (Slavin, 1991). The other essential element, individual accountability is considered as the fact that all members of the group must learn the topics in order to get good team score (Slavin, 1991). Thus, students help each other to learn the material and to be ready to take individual quizzes (Slavin, 1991). All the members of teams, whether they have high or low skills, must participate in cooperative tasks equally (Slavin, 1991). This essential element is called equal opportunities (Slavin, 1991).

2.4. The Implementation of the Essential Elements of Cooperative Learning

Johnson, Johnson and Smith (1998, p.30) states that "Whenever two individuals interact, the potential for cooperation exists. But it is only under certain conditions that cooperation will actually exist". In cooperative learning, five elements as positive interdependence, individual accountability, promotive interaction, social skills and group processing are important (Johnson et al, 1998, p.30). First the instructor must be sure that students are aware of the fact that their success is depended on the other students' success in their team (Johnson et al, 1998, p.30). In order to create this positive interdependence among students, instructors can provide joint rewards such as giving bonus points if all the members of a group get a determined score (Johnson et al, 1998, p.30).

Besides providing rewards, divided resources which mean that materials are divided considering the number of the students in a group and all of them have equal responsibilities and work to complete the task equally (Johnson et al, 1998, p.30). Providing complementary roles such as checker, reader, elaborator and encourager is the other way of creating a positive interdependence (Johnson et al, 1998, p.30). Johnson et al (1998, p.30) also make a comparison between swimming and working together to emphasize cooperation by stating that in order to be successful, students must know that they will sink or swim together.

The second important issue to be focused in a cooperative learning classroom is to create individual accountability (Johnson et al, 1998, p.30). Cooperative learning aims to make individuals more successful by leading them to work in groups and perform better (Johnson et al, 1998, p.30). Students can be evaluated by three ways as providing individual test to each one, making students talk about what they learn from their teammates and observing the groups and reporting how each member of the groups contribute to the success of the groups (Johnson et al, 1998, p.30). Besides creating individual accountability, promoting interaction is essential to be implemented to form a cooperative learning environment (Johnson et al, 1998, p.30). Explaining how to solve problems, encouraging, supporting, assisting, modeling, praising one another's efforts to learn and facilitating efforts are the ways of promoting interaction among students (Johnson et al, 1998, p.30). It is also indicated that verbal and nonverbal responses of members in a group provide feedback to students (Johnson et al, 1998, p.30).

Interpersonal and small-group skills must be taught to students to be sure that they are successful in a cooperative environment (Johnson et al, 1998, p.30). If students do not know how to use social skills, they will fail in that environment (Johnson et al, 1998, p.30). These socials skills can be such as leadership, communication, decision-making, conflict-manager and trust-building (Johnson et al, 1998, p.30).

Group processing is improved through making students maximize their own learning and teammates' learning (Johnson et al, 1998, p.30). Students decide which kinds of behavior are effective to enhance performance of the group and to achieve their goals (Johnson et al, 1998, p.30). According to Johnson et al (1998, p.30), group processing reduces the complexity of learning process, eliminates unnecessary actions, improves students' social and individual skills and provides an opportunity for students to celebrate their success.

In order to implement these essential elements of cooperative learning and apply these suggestions to create a cooperative environment, teachers design the classes considering cooperative activities, adapt this method considering students' needs and circumstances in the classrooms and improve the effectiveness of the groups (Johnson et al, 1998, p.30).

2.5. Advantages of Cooperative Learning

After searching three different studies conducted by Kessler (1992), Wei (1997) and Johnson and Johnson (1987), Wang (2007, p.23) makes a conclusion by stating cooperative learning has an important role in solving teaching problems. Cooperative learning can be used as a primary instructional format (Slavin et al, 1989) by teachers to reach both traditional and innovative objectives (Slavin, 1996). Via this learning strategy, a structure which combines different requirements of a course and different learning skills is provided (Slavin et al, 1989). For instance, cooperative activities integrate reading and writing skills, provide direct instruction in reading comprehension and lead learners to predict and to summarize (Slavin et al, 1989). Because of the fact that students involve in group work encounter with new ideas with which they don't agree and cause conflict with their own ideas, they search for this new information to solve their dilemmas and to clarify their understanding which lead to learning (Williams, 2009, p.7). Hence, it can be concluded that peer communication leads learners involve in both social process and cognitive process (Damon, 1984, p.335).

Student Teams Achievement Divisions (STAD), a method of cooperative learning creates a positive and supportive atmosphere in which students interact with each other (Khan, 2008, p.119). Thus, it is helpful to teach English meaningfully (Khan, 2008, p.119). Cooperative learning creates mutual interaction which means students work together to improve both their own abilities and their teammates' abilities as well (Khan, 2008, p.119). It also provides a wide range of activities related to verbal expression and communicative functions (Khan, 2008, p.119). Besides STAD, it is found that other cooperative learning methods such as Learning Together model, Co-op Jigsaw II and the Kagan Structures are effective in improving students' performance (Rizan, Maasum and Ismail, n.d, p.426). By means of cooperative learning, activities are integrated and thinking and communication skills are improved (Mohamed, Nair, Kaur and Fletcher, 2008, p.10). Besides these advantages, the theory of multiple intelligences is applied in the classroom via cooperative learning methods (Mohamed et al, 2008, p.10).

Moreover, collaborative learning methods are more effective than traditional methods in improving and developing students' attitudes toward learning and motivation to learn (Williams, 2009, p.13). Motivation leads learners involve in cognitive process by means of which learning ocur (Slavin, 1996, p.52). In the motivational point of view, cohesiveness of the group supports the effects of cooperative learning on achievement (Slavin, 1996, p.46). While motivational theorists support the idea that students help each other because of the fact that they care learning of their group mates, social cohesion theorists support the idea that students help each other because of the fact that they care the group (Slavin, 1996, p.46). In either case, interdependence is created among learners, they encourage and help each other to be successful (Slavin, 1996, p.47).

Besides advantages of cooperative learning on motivation of students, cooperative learning provides more enjoyable and interactive activities which lead learners to be more successful and to involve in more positive learning experience (Ahmad and Mahmood, 2010, p.160). Wang (2009, p.119) supports the idea of Ahmad and Mahmood (2010) by stating that "The approach of cooperative learning promotes opportunities for interaction and communication among students and develops the listening strategies such as for gist sequence, main ideas and details". Rizan, Maasum and Ismail (n.d, p.419) also state that by means of cooperative learning, writing classes will be more enjoyable and effective. Students generate ideas and understand easily and get assistance from their peers (Rizan et al, n.d, p.419).

According to Felder and Brent (2007, p.1), there are several reasons why cooperative learning is more effective than traditional learning. The most important reason is that students learn more by participating in activities rather than only watching or listening (Felder and Brent, 2007, p.1). Cooperative learning helps weak students to keep working, because they are members of a team (Felder and Brent, 2007, p.1). If they work individually, they will give up when they do not understand the topics or they can not solve the problems (Felder and Brent, 2007, p.1). Strong students have the chance to find the gaps in their understanding and learn them by explaining topics to weak students (Felder and Brent, 2007, p.1). Besides, when students work together to complete a project, they do whatever they can to finish it (Felder and Brent, 2007, p.1). Because students know that the success of the teams depends on whether they complete the work or not (Felder and Brent, 2007, p.1).

2.6. Pitfalls of Cooperative Learning

Wang (2007) conducts a study to find out difficulties that teachers struggle with in implementing cooperative learning. He also compares cooperative learning techniques and traditional teaching methods in his study. As a result of his observations, Wang (2007, p.27) states pitfalls of cooperative learning related to classroom management, cooperative learning situations and students' performances. Some of the students finish their work and distract other students by making noises (Wang, 2007, p.27). In crowded classrooms, it is difficult for teachers to control the groups (Wang, 2007, p.27). It can be inferred that maintaining classroom management requires controlling these facts (Wang, 2007, p.27). Besides these facts, group performances are affected when some of the students are absent (Wang, 2007, p.27). Since students are unfamiliar with cooperative learning method, it is difficult to encourage them to participate in group activities (Wang, 2007, p.27). It is also important to design the groups considering potential dangers and to prevent naughty learners come together in the same group (Khan, 2008, p.120).

Slavin (1995, p.84) states two different types of problems which are called "free rider effect" and "diffusion of responsibility". Free rider effect is the situation when some of the group members work a lot and the others do not work (Slavin, 1995, p.84). The other problem, diffusion of responsibility occurs when students ignore less skillful members of the groups (Slavin, 1995, p.84). Khan (2008, p.120) supports the idea of Slavin (1995) by indicating that equal participation is important in cooperative learning activities. Thus, activities should be arranged properly (Khan, 2008, p.120). Otherwise, some of the group members work whereas the others do not (Khan, 2008, p.120).

2.7. Implementation of Cooperative Learning in Classes

Johnson, Johnson and Smith (1998, p.33) state that they form three ways as formal cooperative learning, informal cooperative learning and cooperative base groups to use cooperative learning in classrooms. Formal cooperative learning means students come together and work on a specific assignment structured on the basis of formal cooperative learning to achieve a common goal for one period to several weeks (Johnson, Johnson and Smith, 1998, p.33). Before formal cooperative learning treatment, teachers make a number of decisions such as forming groups and determining size of the groups, deciding on academic and social objectives, determining cooperative learning methods and the roles which will be

administered to students, arrangement of the classroom and materials which will be used in the course (Johnson et al, 1998, p.33).

Teachers have the responsibility to explain requirements of the course (Johnson et al, 1998, p.33). They provide the assignments, teach strategies and concepts and explain evaluation criteria (Johnson et al, 1998, p.33). Besides, they determine required social skills and define the essential elements of cooperative learning as positive interdependence and individual accountability (Johnson et al, 1998, p.33). Teachers also have the responsibility to monitor students' learning which means they observe students and gain information related to participation of students in groups (Johnson et al, 1998, p.33). Moreover, teachers assess students' performance considering the required criteria and evaluate teamwork and how members of groups work together (Johnson et al, 1998, p.33).

Informal cooperative learning is used for a short period of time such as two-to-four minute in a class period and it can be concluded that it is temporary (Johnson et al, 1998, p.34). Informal cooperative learning groups are used to make students discuss a question with peers near them or summarize a presentation (Johnson et al, 1998, p.34). It is useful to use this kind of cooperative learning during classes to make students focus on the materials taught in the classroom and engage in cognitive process (Johnson et al, 1998, p.34). The third way of using cooperative learning in classes is forming cooperative base groups (Johnson et al, 1998, p.34). These groups last for at least a semester and members of groups are stable and have the responsibility to support and encourage each other to achieve the objectives of the course (Johnson et al, 1998, p.34).

These three ways of using cooperative learning can be integrated in one class session (Johnson et al, 1998, p.34). Johnson et al (1998, p.34) explain how these ways are integrated by providing an example in their study. At the beginning of a class, base group meeting is formed for five to ten minutes and all the members of groups check each other's homework to be sure that all members do their work correctly (Johnson et al, 1998, p.34). Besides checking homework, quizzes on reading texts or peer editing can be included in base group meeting (Johnson et al, 1998, p.34). After that, the class can continue with informal cooperative learning group through direct teaching (Johnson et al, 1998, p.34). First, the teacher explains objectives of session and schedule and presents new subject (Johnson et al, 1998, p.34). Before teacher's lecture, pairs of students have a discussion about the topic and they share their opinions with each other again after teacher's lecture (Johnson et al, 1998, p.34).

Formal cooperative learning groups can be used in the class after cooperative base groups and informal cooperative learning by providing an assignment related to the subject taught through the lecture and discussions (Johnson et al, 1998, p.35). Positive interdependence is formed by expecting a set of possible solutions from all the members of the groups and role interdependence is established by giving roles such as recorder, and summarizer to students (Johnson et al, 1998, p.35). Besides, requirements and the criteria are determined by the teacher (Johnson et al, 1998, p.35). While students work on the assignment, teacher observes them and if they need help, teacher provides academic assistance to students (Johnson et al, 1998, p.35). At the end of the class, all of the groups give their work to the teacher (Johnson et al, 1998, p.35). If there is enough time to explain the process in which students work to complete the task, members of the groups tell about how they work (Johnson et al, 1998, p.35). The teacher also can determine and summarize the most interesting projects done by students (Johnson et al, 1998, p.35). The class ends with a base group meeting and students review what they have done in this session (Johnson et al, 1998, p.35).

2.8. Cooperative Learning Methods

Cooperative learning methods and structures create positive relationships between students and lead students to share information with their teammates (Nakagawa, n.d., p.1). Besides, they improve critical thinking and communication skills (Nakagawa, n.d., p.1). Different structures can be used simultaneously and they can be adapted considering the students (Nakagawa, n.d., p.1).

2.8.1. Student Teams Achievement Divisions

It is a method of implementing cooperative learning into the classroom. Student Teams Achievement Divisions (STAD) is composed of six main steps; preparation, presentation, teamwork, individual quizzes, individual improvement scores and team recognition (Khan, 2008, p.61). Students are divided into heterogeneous groups, each of which consists of four members (Wang, 2007, p.25). First teacher presents the essential elements and then students in groups work on the material together (Wang, 2007, p.25). Students take individual quizzes and the average of the four members' grades of each group is considered as the team score (Wang, 2007, p.25). That score is compared to the previous scores to find out whether members of the teams are more successful than previous ones or not (Wang, 2007, p.25). If they are successful, they have certificates of other rewards (Wang, 2007, p.25).

2.8.2. Jigsaw II

Students work in groups as in STAD (Wang, 2007, p.25). Different topics are assigned to members of groups and each member has the responsibility of studying his/her topic (Wang, 2007, p.25). After all members of the groups prepare for their sections, members with the same topic come together and form an expert group and they discuss their section (Wang, 2007, p.25). Then experts come together with their original group team and teach what they learn from the expert group (Wang, 2007, p.27). At the end of the teamwork, all students take quizzes covering all the topics and a team score based on individual scores is formed (Wang, 2007, p.25).

2.8.3. Peer-Led Team Learning

Weekly 2-hour workshops are organized and teams which consist of six to eight students are designed to solve problems by the help of trained peer leaders (Felder and Brent, 2007, p.4). The problems provided in workshops are structured and related to the course tests (Felder and Brent, 2007, p.4). The course teacher designs the materials and students work under the guidance of peer leaders who encourage students to participate in activities and state the goals (Felder and Brent, 2007, p.4).

2.8.4. Timed Pair Share

Students in the class are divided into pairs and numbered as 1 and 2 by the teacher (Joritz-Nakagawa, n.d., p.2). One of the students talks about a specific topic and the other one listens to him but cannot talk and answer (Joritz-Nakagawa, n.d., p.2). He waits until for his turn to speak (Joritz-Nakagawa, n.d., p.2). After the period of time given to that student is over, his partner begins to speak about the same topic or another one (Joritz-Nakagawa, n.d., p.2). Thus, both of the partners share their ideas with each other (Joritz-Nakagawa, n.d., p.2). Then the teacher randomly chooses one of the partners and he summarizes what his partner tells to him (Joritz-Nakagawa, n.d., p.2). This type of cooperative learning strategy encourages students to express themselves and share what they think about specific topics (Joritz-Nakagawa, n.d., p.2). It also makes students listen to their friends and encourages students to be ready in order to share what they learn from their partners when the teacher chooses students randomly (Joritz-Nakagawa, n.d., p.2).

2.8.5. Folded Value Line

Students who support the idea or issue stated in the classroom stand at one of the poles of the value line and students who are against to that issue stand at the other pole of the value line (Joritz-Nakagawa, n.d., p.2). Students who are at the same line are divided into pairs or group of three or four and they share their ideas with each other (Joritz-Nakagawa, n.d., p.2). This can also be done first in pairs. Then pairs come together and make a group of four in order to tell about their opinions (Joritz-Nakagawa, n.d., p.2). After that, the line is divided in half and the two halves stand as two parallel lines of students who face to each other and exchange what they think and what they learn from their friends (Joritz-Nakagawa, n.d., p.2). At the end of this practice, students are randomly chosen to summarize the issue or they write an essay about it (Joritz-Nakagawa, n.d., p.2).

2.8.6. Draw a Gambit

A gambit is a sentence which is used during oral practices (Joritz-Nakagawa, n.d., p.3). The strategy, "draw a gambit" can be used in a foreign language or second language course because it helps to improve students' social skills and to interact with each other (Joritz-Nakagawa, n.d., p.3). Students or teacher make expressions in order to show some specific skills such as being disagree with someone, praising a person or being interested in a subject (Joritz-Nakagawa, n.d., p.3). Students write these expressions on papers and put them in order (Joritz-Nakagawa, n.d., p.3). Pairs or groups of students make conversations by using these expressions (Joritz-Nakagawa, n.d., p.3). This strategy helps students to practice social skills and create a positive atmosphere in the classroom (Joritz-Nakagawa, n.d., p.3).

2.8.7. Corners

This strategy is used to improve students' social skills and critical thinking (Joritz-Nakagawa, n.d., p.1). Besides, it helps students to express their ideas about a specific topic (Joritz-Nakagawa, n.d., p.1). The corners of the classroom represent different opinions about a subject and students who has the same opinion come together at these corners (Joritz-Nakagawa, n.d., p.1). First the students at the same corners become pairs and discuss what they think with their partners (Joritz-Nakagawa, n.d., p.1). Then pairs gather together and make groups of four and discuss their ideas and tell about what they learn from their pairs (Joritz-Nakagawa, n.d., p.1). After they finish their discussion at their corners, students come together with the other students who have different opinions (Joritz-Nakagawa, n.d., p.1).

Besides, teacher can choose two students from each corner and make new groups and these groups tell their own ideas to each other (Joritz-Nakagawa, n.d., p.1). At the end, students chosen by the teacher randomly explain what they learn to the class (Joritz-Nakagawa, n.d., p.1).

2.8.8. Team Statements; Blackboard Share

Students think about different subjects and decide on one of the problems (Joritz-Nakagawa, n.d., p.3). Then they create a statement in order to express their ideas (Joritz-Nakagawa, n.d., p.3). During that time, they work alone (Joritz-Nakagawa, n.d., p.3). After working alone, students gather together and make teams (Joritz-Nakagawa, n.d., p.3). They share their opinions with their teammates and students in the team correct and clarify statements presented in the group (Joritz-Nakagawa, n.d., p.3). They work together and create another statement which is on the basis of all individual statements (Joritz-Nakagawa, n.d., p.3). At the end of the teamwork, students share their opinions orally or they write an essay about their views (Joritz-Nakagawa, n.d., p.3). There is another option which is called blackboard share (Joritz-Nakagawa, n.d., p.3). Groups write their ideas on the board and the whole class discusses them together (Joritz-Nakagawa, n.d., p.3). It helps students to practice, to express their opinions and to reach a conclusion depending on the other ideas (Joritz-Nakagawa, n.d., p.3).

2.8.9. Paraphrase Passport; Rally Robin

Paraphrase passport involves a group discussion done by means of paraphrasing teammates' statements (Joritz-Nakagawa, n.d., p.3). In the team, a student first should paraphrase what his friend tell and the owner of that statement should indicate if the statement true or not (Joritz-Nakagawa, n.d., p.3). Then, the student explains his own opinion and team continues to discuss (Joritz-Nakagawa, n.d., p.3). Via this strategy, it is easy to check students' comprehension in a language class (Joritz-Nakagawa, n.d., p.3). Paraphrase passport can be used with another structure called rally robin which means that students speak about a specific topic in a set order have equal participation (Joritz-Nakagawa, n.d., p.3).

2.8.10. Three-Step Interview

First, students interview in pairs and one of them has the role of interviewer and the other has the role of interviewee (Liang, 2002, p.36). Then they change their roles and continue to interview (Liang, 2002, p.36). Each pair of students come together with another

pair of students and form a group of four and introduce their partners to each other and talk about what they have spoken before (Liang, 2002, p.36).

2.8.11. Inside-Outside Circle

Two concentric circles are formed by students (Liang, 2002, p.36). Students who form inside circle stand by facing out and students who form outside circle stand by facing in (Liang, 2002, p.36). After talking to each other, students rotate and change their peers (Liang, 2002, p.36). During this process, students use flash cards or answers teacher's questions (Liang, 2002, p.36). This cooperative learning method is appropriate to develop new vocabulary and improve sentence patterns (Liang, 2002, p.36). It is also useful to practice dialogues in textbooks, to check understanding of students and to meet classmates (Liang, 2002, p.36).

2.9. Comparison of Cooperative Learning and Traditional Teaching Methods

Johnson, Johnson and Smith (1998, p.27) indicate that the myth of the genius individual and achievement has existed for many years. They explain this idea by providing an example about sports. The success of a team is always referred to an individual superstar rather than teamwork (Johnson et al, 1998, p.27). According to this myth, individual achievement is gained through studying and practicing separately (Johnson et. all, 1998, p.27). But expecting students study individually and isolating them from their classmates during educational practice is not a convenient teaching method to nurture students (Johnson et al, 1998, p.27). Johnson et al (1998, p.27) state "Creative genius is the product of and best develops within, cooperative efforts". Cooperative learning requires students work together to achieve a common goal. It can be inferred that each student can be successful if and only if all the members of the group gain required skills (Johnson et al, 1998, p.28). Since the culture and reward systems support competitive and individualistic work, lots of students do not involve in cooperative work (Johnson et al, 1998, p.28). Students who work individually to gain required skills compete with each other for grades (Johnson et al, 1998, p.29).

Teacher-centered instruction is still used as an instructional technique in EFL classrooms (Wang, 2007, p.23). Traditional teaching methods are preferred to be used in big classes (Wang, 2007, p.23). Thus, teachers and students do not interact with each other and teachers are supposed to be the only source of information explaining the curriculum whereas students listen to them passively (Wang, 2007, p.23). In such kind of teaching technique,

teachers have the most important responsibility controlling the activities of students (Wang, 2007, p.24), using the materials which present facts and information (p.25) and directing students' learning (p.27). Moreover, traditional learning focuses on teaching, explaining and drill activities rather than language production and interaction (Wang, 2007, p.26). On the other hand, cooperative learning brings a social constructivist approach to teaching and becomes an alternative teaching technique to traditional learning (Ali, 2011, p.51). Students' participation in group work results in interaction (Ali, 2011, p.51). Ali (2011, p.51) explains how cooperative learning is effective in classroom by stating "Cooperative learning creates an interactive classroom for all students. This interactivity may alleviate the challenges faced by lectures and may assist in achieving other organizational objectives". Implementing cooperative learning in classroom provides an opportunity for students to express their life experiences and to apply a principle immediately (Ali, 2011, p.51).

Working in groups does not always result in cooperative efforts, but in competition or individualistic efforts (Johnson, Johnson and Smith, 1998). This is why competitive and individualistic learning is used much more than cooperative learning (Johnson et al, 1998). Competitive learning emphasizes winning of losing and individual learning emphasizes individual goals (Slavin, 1995, Johnson and Johnson, 1998). On the other hand, cooperative learning requires an aim to complete tasks in which cooperation and interaction are focused (Slavin, 1995, Johnson and Johnson, 1998). Practice, drills of skills and review of knowledge are teaching activities of competitive learning and gaining simple skills and receiving knowledge are the ones of individual learning whereas cooperation tasks are teaching activities of cooperative learning (Slavin, 1995, Johnson and Johnson, 1998). In competitive and individual learning, teachers are supposed to be the only source of information whereas in cooperative learning teachers help students to construct knowledge (Slavin, 1995, Johnson and Johnson, 1998).

In cooperative learning, interaction between teachers and students and interaction among students are important (Slavin, 1995, Johnson and Johnson, 1998). It means that positive interdependence is essential element of cooperative learning whereas a type of negative interdependence -competition- is emphasized in competitive learning (Slavin, 1995, Johnson and Johnson, 1998). Teaching materials are arranged on the basis of the objective of the course in cooperative learning whereas individuals are considered while preparing teaching materials in competitive and individual learning (Slavin, 1995, Johnson and Johnson, 1998).

2.10. Researches Related to Cooperative Learning

Slavin (1987, p. 1161) indicates that studies on cooperative learning have been conducted considering two major theoretical perspectives one of which is developmental Piagetian and Vygotskian theories and supports the idea that interaction among students improves their learning skills because of the fact that students perform within the other students' proximal zone of development (Slavin, 1987). On the other hand, studies based on motivational perspective support the idea that rewards provided for all group members are effective in improving students' achievement and developing peer norms (Slavin, 1987). Slavin (1987, p.1163) indicates that studies confirm that both developmental and motivational perspectives are effective on cooperative learning, but the present study is based on developmental perspective.

The study conducted by Wichadee (n.d) with 40 first-year students of the School of Communication Arts at Bangkok University investigated the effects of cooperative learning on English reading skills and attitudes of students. Eight weeks treatment was applied and five types of instruments as pre-test and post-test, questionnaire, the cooperative learning behavioral assessment form, the individual quiz and the interview were used in the study (Wichadee, n.d). The result obtained through the study showed that significant difference occurred between pre-test and post-test (Wichadee, n.d). The result obtained through the study showed that significant difference occurred between pre-test and post-test (Wichadee, n.d). It was also stated that cooperative learning was an effective strategy in improving reading comprehension (Wichadee, n.d). Besides students' achievement, students' attitudes towards cooperative learning were investigated through the questionnaire and interview (Wichadee, n.d). As a result of the study, it was also found that students had positive attitudes toward this approach (Wichadee, n.d). The study also focused on the contribution of students to the group. With this aspect, the study was different from other studies reviewed in the present study. By means of behavioral assessment form, students evaluated each other and the results showed that all of the students in groups had moderate contribution (Wichadee, n.d).

Similar results were obtained through the study conducted by Slavin and Oickle (1981). The purpose of the study was to investigate the effects of cooperative learning on students' achievement and race relations and the participants were 230 secondary school students 78 of whom were black and 152 of whom were white (Slavin and Oickle, 1981). In this study, besides achievement of the students, race relation of them which was a different depended

variable from the study conducted by Wichadee (n.d) was considered. The result obtained through the study was that cooperative learning had more positive effects in improving students' achievement (Slavin and Oickle, 1981). Moreover, it was found through the study that black students were better than white students in cooperative learning (Slavin and Oickle, 1981). The other result of the study was based on the effects of cross-racial friendship and it was found that through cooperative learning students gained friends (Slavin and Oickle, 1981).

Another study related to effectiveness of cooperative learning on achievements was the one belong to Shachar and Sharan (1994). The purpose of the study was to examine the effects of cooperative learning with the Group Investigation method on eight grade students' achievement in geography and history in ethnically heterogeneous classrooms (Shachar and Sharan, 1994, p.313). By means of the study, students' achievement in geography and history was assessed, their verbal behavior was investigated through the discussion groups and their social interaction was also investigated (Shachar and Sharan, 1994). The results of the study showed that the students taught with the Group Investigation method were more successful in geography and history than the students taught with the traditional whole-class method (Shachar and Sharan, 1994, p.336-337).

Moreover, through discussion groups it was found that students engaged in the group investigation method expressed themselves more effectively than students engaged in the traditional whole-class method (Shachar and Sharan, 1994). Besides verbal behavior and achievement of students, the study focused on ethnic backgrounds of students. Both ethnic groups which were based on Western and Middle Eastern background were more successful in group investigation classroom (Shachar and Sharan, 1994). Similar results obtained through the study conducted by Shachar and Sharan (1994) with the studies done by Wichadee (n.d) and Slavin and Oickle (1981) considering the achievement, but the study conducted by Shachar and Sharan (1994) considered the ethnic backgrounds and also focused on the one certain cooperative learning method.

The study conducted by Mulryan (1995) examined gender differences and duration in which students engaged in learning the assigned material attending behavior of students in mathematics. Through the study, participation of 1 fifth-grade and 5 sixth-grade classes was observed in small-groups and whole-class (Mulryan, 1995, p.300). As a result of the study, it was found that students worked on tasks effectively by spending more time in group-class

than in whole-class (Mulryan, 1995, p.304). By considering gender differences, it was concluded that boys were more active participants in small-groups than girls (Mulryan, 1995, p.304). More successful students were more active in small-groups (Mulryan, 1995, p.300).

A case study conducted by Mohamed, Nair, Kaur and Hetcher (2008) through quasi-experimental approach aimed to investigate whether STAD which is a way of implementing cooperative learning is effective on writing performance of pre-university students and self-concept of them towards writing (Mohamed et al, 2008, p.10). Pre-test and post-test and questionnaire on self-concept were used as the instruments of the study to find out the overall writing performance, performance of task fulfillment, language of proficiency and score of self-concept (Mohamed et al, 2008, p.10). Besides, for data analysis, statistical package for the social sciences (SPSS) windows version 11.0 was used (Mohamed et al, 2008, p.11). It was found out that student teams achievement divisions (STAD) method developed students' writing skills and enhanced the self-concept of them towards writing (Mohamed et al, 2008, p.16). It was also indicated that teachers should not prepare the classes on the basis of only one type of method and they should adopt different kinds of methods to create more student-centered classrooms (Mohamed et al, 2008, p.16).

Another study related to implementing cooperative learning and methods of cooperative learning was the study conducted in a college EFL conversation class by Wang (2009). The purpose of the study was to provide opportunities for students to interact with peers and to develop skills of conversation via cooperative learning techniques (Wang, 2009, p.113). Slavin's principles of cooperative learning were applied into the class and besides these principles, STAD procedure, Jigsaw II and Think-pair-share were used in the study as methods of cooperative learning (Wang, 2009, p.117). During the study, language learning games, students' oral presentation, self study, role playing and listening exercises were provided to create activity-based lessons (Wang, 2009, p.119). It was found that a positive atmosphere was created through cooperative learning (Wang, 2009, p.119). Thus, students were motivated to study and interact with each other and they have a lot of experiences (Wang, 2009, p.119). It was also stated that individual accountability and team encouragement which were essential elements of cooperative learning (Slavin, 1991) help students to be successful (Wang, 2009, p.119).

Similar results were obtained through the study conducted by Bölükbaş, Keskin and Polat (2011). The purpose of the study was to investigate effectiveness of cooperative

learning on the reading comprehension skills in Turkish as a foreign language (Bölükbaş, Keskin and Polat, 2011, p.330). The participants of the study were 40 students who studied Turkish as a foreign language at Istanbul University center (Bölükbaş et al, 2011, p.333). Experimental research design was used in the study and the students were divided into two groups as experimental group and control group (Bölükbaş et al, 2011, p.333). Students in cooperative learning class expressed that they were more motivated and more active during the lesson and had chances to know their classmates by means of cooperative tasks (Bölükbaş et al, 2011, p.334). It was indicated that reading comprehension skills of learners were improved via cooperative learning better than traditional learning (Bölükbaş et al, 2011, p.334).

Khan (2008) conducted a study to investigate the effectiveness of cooperative learning on reading comprehension and writing ability of learners. Experimental research design was used in the study and the participants were the 8th grade students educated in Government Comprehensive Boys High School (Khan, 2008, p.52). The sample was comprised of 128 students, 64 of whom were in the experimental group in which cooperative learning was implemented (Khan, 2008, p.52). The other 64 students were in the control group in which traditional learning was implemented as an instructional technique (Khan, 2008, p.52). As data collection tools, a teacher made pre-test and post-test were administered to students (Khan, 2008, p.54).

A variety of conclusions were drawn considering the findings and the statistical analysis of the study (Khan, 2008, p.118). Students in the experimental group were more successful than students in the control group in both literal level and evaluative level of reading comprehension (Khan, 2008, p.118). Besides being successful in reading comprehension, students in the experimental group improved their writing ability much more than students in the control group (Khan, 2008, p.118). Particularly, students who engaged in cooperative writing were good at parts of speech and tenses (Khan, 2008, p.118). In sum, cooperative learning is effective in improving both writing ability and reading comprehension of learners (Khan, 2008, p.118). Besides, Khan (2008, p.118) stated that "Cooperative learning method is more effective as a teaching technique for overcrowded class of English at elementary level".

A quasi-experimental research was designed by Liao (2005) in order to find out the effectiveness of cooperative learning on both cognitive and motivational measures.

Cooperative learning and whole-class instruction were compared in terms of grammar achievement in an EFL college class and motivation of learners (Liao, 2005, p.4). Student Teams Achievement Divisions (STAD) was used as the cooperative learning method in the study (Liao, 2005, p.4). The sample of the study consisted of 84 students educated at a private university in central Taiwan (Liao, 2005, p.90). 42 of the students were in the experimental group and the rest of the students were in the control group (Liao, 2005, p.90). A questionnaire, a proficiency test and an achievement test were used as data collection tools in the study (Liao, 2005, p.92).

Similar results to the other studies were obtained through this study. Cooperative learning was effective in developing English grammar and motivating students to learn grammar (Liao, 2005, p.209). Learners in the cooperative class had higher English grammar achievement than learners in the whole-class instruction group in higher levels of cognitive activities such as creating and evaluating (Liao, 2005, p.210). On the other hand, in medium and low levels of cognitive activities, learners in both cooperative class and whole-class instruction group had similar English grammar achievement (Liao, 2005, p.210). It was also found by Liao (2005, p.210) that "There are significant positive relationships among grammar achievement, motivation (including self-efficacy and task value), use of learning strategies (including elaboration and peer collaboration), and prior English ability level".

Another quasi-experimental study in 12th grade physics classes was conducted by Hänze and Berger (2007) to investigate the effectiveness of jigsaw, a method of cooperative learning and to compare it with traditional learning. Experimental research design was used in the study and pre-test and post-test in physics, personality questionnaire and learning experience questionnaire were the data collection instruments (Hänze and Berger, 2007, p.34). It was found that although jigsaw provided basic needs of students, motivated them to learn and activated deeper level of processing, it was not effective on students' academic performance (Hänze and Berger, 2007, p.39). Cooperative learning method, jigsaw provided more learning experience than traditional teaching techniques, but there was not any significant difference between these instructional techniques in terms of academic achievement of students (Hänze and Berger, 2007, p.38).

Students become experts at different topics in jigsaw (Hänze and Berger, 2007, p.38; Wang, 2007, p.25). In the study, students had higher test scores in the areas in which they became experts (Hänze and Berger, 2007, p.38). Students who were in jigsaw group felt more

competent, involved in cognitive activities and interested in topics dealt in the course (Hänze and Berger, 2007, p.38). Through the study, it was also investigated whether there was a relationship between students' personalities and instructional methods (Hänze and Berger, 2007, p.38). As a result of this investigation, it was found that "A corresponding interaction effect between personal characteristics and method of instruction was found only for academic self-concept and gender with respect to experience of competence" (Hänze and Berger, 2007, p.38). In terms of having a feeling of competence, there was not any significant difference between boys in the jigsaw classroom and boys in traditional classroom (Hänze and Berger, 2007, p.39). On the other hand, girls in the jigsaw classroom had more feeling of competence than girls in the traditional classroom (Hänze and Berger, 2007, p.39).

Another study related to implementing cooperative learning was conducted by Rizan, Maasum and Ismail (n.d). They aimed to find out whether cooperative learning was effective in enhancing writing performance of students in an urban school in Malaysia or not. Participants of the study were fifty-three students of intermediate proficiency level (Rizan et al, n.d, p.412). Different types of writing genres such as narrative, descriptive and expository were taught considering the syllabus provided by the Ministry of Education in the Malaysian Secondary Schools (Rizan et al, n.d, p.410). In the study, narrative writing was chosen as the genre of writing to be dealt with (Rizan et al, n.d, p.400). As pre-test and post-test, students were administered to write a narrative essay and their essays were evaluated through analytical scoring criteria in terms of context, grammar, organization, vocabulary and mechanics (Rizan et al, n.d, p.413).

The results of this study showed that there was a significant difference between pre-test and post-test scores in terms of vocabulary, grammar, mechanics, content and organization (Rizan et al, n.d, p.425). It was found through the study that cooperative learning and methods such as the Kagan structures, Learning Together method and co-op Jigsaw II improved writing performance of students (Rizan et al, n.d, p.426). It was believed that the results of this study would help teachers to design their classes considering this teaching method and cooperative learning would be an alternative method while developing and improving students' writing performance (Rizan et al, n.d, p.427). According to Rizan, Maasum and Ismail (n.d, p.427), writing lessons would be effective and enjoyable by means of cooperative learning. Besides these facts, it was indicated that via cooperative learning, students shared their opinions about the issue with their team and they learned what their peers thought about the issue and also what kind of ideas their peers had related to their own opinions (Rizan et al,

n.d, p.419). Students had the opportunity to learn the subjects by generating ideas and getting assistance (Rizan et al, n.d, p.419). On the basis of these implications and results obtained by the study, it was concluded that cooperative learning was effective in developing students' writing performance (Rizan et al, n.d, p.419).

Liang (2002) conducted a study to investigate effects of cooperative learning on EFL students' language development and motivation towards language learning. Besides, how effective cooperative learning was on low and high achievers was investigated (Liang, 2002, p.55). The participants of the study were two classes of first year students at Sunny Junior High school (Liang, 2002, p.58). One of the classes was used as the experimental group and the other class was used as the control group (Liang, 2002, p.58). Considering the grades of students in the first semester, it could be concluded that in the experimental group, there were 12 high-achievers and 13 high-achievers in the control group (Liang, 2002, p.59). On the other hand, nine low-achievers were in the experimental group and nine low-achievers were in the control group (Liang, 2002, p.59).

Both the experimental group and the control group used junior high school textbook and teaching procedures were designed considering regular English curriculum (Liang, 2002, p.59). Cooperative learning was used as the instructional technique in the experimental group whereas traditional learning method, mainly grammar translation method and audio-lingual method were used as the instructional technique in the control group (Liang, 2002, p.59). Before the treatment, a questionnaire was administered to students in the experimental group to find their learning style (Liang, 2002, p.62). Results of this questionnaire showed that four students were visual, five students were auditory, six students were tactile, 10 students were kinesthetic and four students were individual learners and six students were group learners (Laing, 2002, p.62). Heterogeneous groups in the experimental group were designed considering students' learning style, gender and academic achievement (Liang, 2002, p.62). The fact that groups were designed considering learning style was different from the other studies dealt in the present study.

Six different data were collected to analyze the effects of cooperative learning (Liang, 2002, p.83). These were the grades of three monthly examinations, the scores of two oral tasks, the transcription of videotape of the oral tasks, the teacher interview and the student interview and the results of motivational questionnaire (Liang, 2002, p.83). Considering the oral tasks provided as pre-test and pos-test, it could be concluded that there was a significant

difference between the results of pre-test and post-test in the experimental group (Liang, 2002, p.87). On the other hand, in the control group there was not any progress and oral performance of students were dropped (Liang, 2002, p.87). Besides, students in the experimental group improved five items of the grading criteria which were grammar, vocabulary, fluency, appropriateness and intelligibility (Liang, 2002, p.88). On the other hand, the control group improved grammar and fluency significantly (Liang, 2002, p.88). In terms of motivation, there was not a significant difference in the control group (Liang, 2002, p.105). In the experimental group, motivation was compared between intra and inter-group and it was found that intra-group's motivation towards English changed positively whereas there was not an improvement in inter-group's motivation (Liang, 2002, p.105).

This study also investigated the effects of cooperative learning on high and low achievers (Liang, 2002, p.55). It was found that both high and low achievers in the experimental group were better than those in the control group at oral tasks (Liang, 2002, p.122). But high achievers and low achievers in both control and experimental groups had similar academic achievements in monthly examinations (Liang, 2002, p.122). The experimental group had opportunities to practice English via student-centered activities provided through the instructional technique-cooperative learning method (Liang, 2002, p.125). It could be concluded that cooperative learning was effective in improving students' oral proficiency and motivation towards English (Liang, 2002, p.124).

The study conducted by Sachs, Candlin, Rose and Shum (2003) was different from the other studies in terms of duration of the study, results of the study and participants of the study. The aim of this study was to compare oral proficiency of students in traditional learning environment with oral proficiency of students in cooperative learning environment (Sachs et al, 2003, p.347). The participants were 520 students from three different secondary schools (Sachs et al, 2003, p.342). Students' ages were from 14 to 17 (Sachs et al, 2003, p.342). English level of students in one of the schools was low and they had low motivation and discipline problems (Sachs et al, 2003, p.342). On the other hand, students in the other two schools had average level of English and practiced English in their classes (Sachs et al, 2003, p.342). Seven female teachers and one male teacher who were native Hong Kong Chinese speakers participated into the study (Sachs et al, 2003, p.343). Five of the teachers had five to ten years teaching experience and three of them had three to five years teaching experience (Sachs et al, 2003, p.343).

Assignments used in the study were designed by the project team and provided for the teachers who implemented tasks in the classrooms (Sachs et al, 2003, p.343). Besides using tasks designed by the project team, teachers had the opportunity to design and use their own cooperative learning tasks in one of the schools (Sachs et al, 2003, p.343). After the implementation of every task, both students' and teachers' comments on that task were obtained in order to evaluate the appropriateness and relevance of tasks (Sachs et al, 2003, p.344). Oral proficiency of students were assessed through two oral examinations, one of which was role-play task and the other one was a small-group interaction task provided as both pre-test and post-test (Sachs et al, 2003, p.347).

As the sample of assessment, 120 students from 15 classes in the three schools were selected randomly (Sachs et al, 2003, p.348). Eight classes were the experimental groups and seven classes were the control groups (Sachs et al, 2003, p.348). Groups of four which included two girls and two boys from the same classes were formed (Sachs et al, 2003, p.348). During the assessment, all of the students had the similar instruction and time (Sachs et al, 2003, p.348). Each student played a role both as pre-test and post-test and also in groups of four students discussed a topic administered to them (Sachs et al, 2003, p.348). It was found out through these oral examinations, there was not any significant difference between oral proficiency of students in control groups and experimental groups (Sachs et al, 2003, p.357). This study provided an alternative approach to teaching English in Hong Kong secondary classes (Sachs et al, 2003, p.357).

By means of the cooperative studies reviewed in the present study, as Slavin (1996) states, it can be concluded that studies related to effects of cooperative learning on learners' achievement have been conducted by different researchers in all types of school and in many countries, in every subject and at all grade levels. Moreover, it can also be concluded that studies consider different variables such as gender differences, race relations, social relations and participating behavior of the students while examining students' achievement.

2.11. Implications of Researches

Slavin (1980) conducted a study which was review of the studies related to cooperative learning methods used in elementary or secondary classroom. By evaluating those studies, Slavin (1980, p.337) provided implications related to the positive influences of the cooperative learning.

Cooperative learning techniques are more effective than traditional techniques on academic achievement and in learning low level of outcomes such as application of principles and calculation because of the fact that a structured framework of instruction, individual accountability and reward system are used (Slavin, 1980, p.337). Slavin (1980, p.337) mentions about learning high level outcomes as follows:

> For high level cognitive outcomes, such as identifying concepts, analysis of problems, judgments and evaluation, less structured cooperative techniques that involve high student autonomy and participation in decision-making may be more effective than traditional individualistic techniques.

He also states that "cooperative learning techniques can improve students' self-esteem". Students involved in cooperative learning activities like school more than students engaged in traditional activities (Slavin, 1980, p.338). Moreover, cooperative learning techniques have positive impact on developing social relations between different ethnic groups (Slavin, 1980).

Liang (2002, p.125) states that students engaged in cooperative activities which are student-centered activities have the opportunity to practice English more than the other students engaged in traditional learning activities. She also finds out through her research on cooperative learning that the Inside-Outside circle method is useful to practice dialogues. Besides improving oral proficiency of students, cooperative learning makes students use their body language, facial expressions and hand gestures (Liang, 2002, p.127). Students interact with both their peers and teachers via cooperative learning instructional technique (Liang, 2002, p.127). Because of the fact that students learn a subject with their peers, they feel more supportive (Liang, 2002, p.127). She also focuses on how teacher development in cooperative learning is important to implement cooperative learning in the classes. In order to apply cooperative learning a teacher must be professional in three facts as the theories underlying the cooperative learning, cooperative learning methods and monitoring at the classroom level (Liang, 2002, p.157).

CHAPTER 3

3. METHODOLOGY

The participants of the study and background of them are first explained in this chapter. The information related to the research design and the data collection tools is also provided. The procedures related to how the study is conducted are explained step by step by considering both the experimental group and the control group. Since the pre-test and the post-test are evaluated by two raters, this chapter provides information in order to tell about the background of raters and explain how the raw scores of students are obtained. Finally, the chapter is concluded by explaining the data analysis procedures.

3.1. Participants

The sample includes two tenth grade classes comprised of 50 students at a vocational high school located in Tarsus. 12 of the students are female students constituting 24 % of the student group whereas 38 of them are male students which constitute 76 % of the student group. The experimental group included 10 female and 15 male students is chosen as the experimental group. The control group included 2 female and 23 male students is chosen as the control group. The department of the class A is Information and Communication Technologies whereas the department of the class B is Electrical and Electronical Technologies.

English is taught 4 hours per week in the school and the curriculum provided by the Ministry of Education (MEB) is applied in the course and the textbook provided by MEB is used. English course is based on grammar, reading and listening. Speaking and writing which are productive skills are not emphasized in the course efficiently.

3.2. Research Design

The experimental research design was used in the study. Cooperative learning, a student-centered teaching strategy which requires working in groups, was used as an instructional technique during the treatment in the experimental group. The traditional learning method, a teacher-centered teaching strategy which requires receiving information presented by teacher and working individually, was applied as an instructional technique in the control group. The pre-test was provided before the treatment which lasted ten weeks. The students in both experimental and control groups engaged in different tasks to improve their

writing skills in one forty-minute period per a week. At the end of the treatment, the post-test was administered to the students.

3.3. Data Collection

In order to assess students' writing skills, the instrument used in the study was a narrative writing, a type of writing an essay including specific details which answer the 5 W's- who?, what?, where?, why?, when?- about the event (Sebranek, Kemper and Meyer, 2001), provided as both pre-test before the treatment and post-test after the treatment. It was aimed to investigate the effects of cooperative learning on students' achievement in writing via differences between the pre-test and the post-test. The pre-test and the post-test are presented at the appendix B.

3.3.1. Overall Writing Performance

In order to investigate whether cooperative learning was effective on students' overall writing performance or not, students' writings -pre-tests and post-tests- were assessed in terms of content, organization and language through analytical rubric developed by Lo and Hyland (2007, p.236). This rubric is presented at the appendix C.

3.3.2. Grammar Development

In order to investigate whether cooperative learning was effective on students' grammar development in writing, students' writings -pre-tests and post-tests- were assessed in terms of tenses and other aspects of language such as articles, pronouns and prepositions. The analytical rubric developed by Lo and Hyland (2007, 236) was adapted by modifying the part called language. The first item related to vocabulary 'There is a good choice of vocabulary' was removed from the rubric because of the fact that the first item investigates vocabulary development rather than grammar development. Another item, "Sentences sound smooth and rhythmic when read aloud", related to grammar was added to the rubric considering the syllabus presented at appendix A. This analytical rubric is presented at appendix D.

3.4. Raters

100 written products were rated by two English teachers, one of whom conducted the study and taught English and writing skill to students in both experimental and control groups. Whereas she had one-year-experience in teaching, the other rater was a retired teacher who had twenty-year-experience in teaching English. They used the analytical scoring criteria

to grade writing assignments administered as the pre-test and the post-test. The scores derived from the pre-test and the post-test by the first rater were consistent with those of the other rater. Inter-rater reliability among these raters found out through the pearson correlation coefficient was .987 considering overall writing performance. The average of the scores obtained by the two raters was used as raw scores in the study.

3.5. Teaching Procedures

The treatment lasted ten weeks. The students in both experimental and control groups participated in different activities to improve their writing skills in one forty-minute-period per week. The syllabus presented at appendix A and used in that period were organized considering the mistakes done by students in the writing assignment administered as the pre-test and subjects dealt in the course book provided by the Ministry of Education (MEB). The same teaching materials were used in both groups. In the other three periods, the curriculum provided by MEB was applied in the course.

3.5.1. Procedure for the experimental group

Cooperative learning was implemented for the experimental group. Student Teams Achievement Divisions (STAD) which is one of the methods of implementing cooperative learning was used in the study. STAD is composed of six main steps; preparation, presentation, teamwork, individual quizzes, individual improvement scores and team recognition (Khan, 2008, p.61). The first step was to prepare the students and the learning environment for cooperative learning method. Thus, considering the writings of students, the syllabus of the course, presented at appendix A, was decided and materials were developed. Students were informed about the syllabus in the first lesson. Students chose their group members with whom they worked well. Seven groups, each of which had four members were designed. Moreover, as Johnson, Johnson and Smith (1998, p.30) stated, complementary roles such as checker, reader, elaborator and encourager were provided for members of each group. Thus, positive interdependence which is one of the essential elements of cooperative learning (Johnson and Johnson, 1987) was created as Johnson, Johnson and Smith (1998, p.30) indicate.

The second step was presentation as it was mentioned before. In each lesson, the teacher first presented the subject considering the order of the syllabus presented at the appendix A. Then students worked in groups, engaged in the tasks provided by the teacher. In

each class students applied what they learned by writing a paragraph to complete a writing project entitled *Where Would You Like to Live*. Students decided where they would like to live and then each lesson they worked on writing this topic considering the subjects they learned in the class. To complete this project they searched about the place. Division of sources was designed by the members of each group rather than the teacher. These were done in the third step of STAD, teamwork. After teamwork, individual quizzes were provided for students to find out whether students were successful or not at the end of the cooperative learning process. At the end of the cooperative learning activities and quizzes, students both got an individual grade and team grade.

It may be inferred from the procedure for the experimental group that formal cooperative learning group was used in the present study. As it was mentioned in the first chapter, introduction and in the second chapter, review of literature, by means of formal cooperative learning students come together and work on a specific assignment structured to achieve a common goal for one period to several weeks (Johnson, Johnson and Smith, 1998).

3.5.2. Procedure for the control group

Traditional learning method was implemented for the control group. Although the instructional technique was different from the one used for the experimental group, the subjects and teaching materials were same. In each lesson, the teacher presented the subjects and students worked individually. The only interactive activity students participated in was answering the questions asked by the teacher. The interaction was only between teacher and students and there was not any interaction between students. Writing project entitled *Where Would You Like to Live* was given as homework. Students wrote an essay and teacher corrected the mistakes.

3.6. Data Analysis

The study included quantitative data gathered by means of pre-test and post-test. The pre-test and the post-test of the experimental group and the control group were evaluated in order to find students' overall writing performance by using the analytical rubric presented at the appendix C. By means of this rubric, students' achievement was assessed out of 60 points. Then the results were converted into the results out of 100 points. The reason for this fact is the grade system stated by the Ministry of Education is out of 100 points. In order to find students' grammar development in writing, the pre-test and the post-test of the experimental

group and the control group were evaluated through the analytical rubric presented at the appendix D. By means of this rubric, students' grammar achievement was assessed out of 25 points. Then the results were converted into the results out of 100 points. The reason of this fact is the grade system stated by the Ministry of Education is out of 100 points. Thus, the raw scores were obtained.

The raw scores achieved through the pre-test and the post-test for both cooperative learning class and traditional class were statistically analyzed by using SPSS 17. The means of scores were calculated and Paired-Samples T-test was used to determine whether there is a significant change between two tests.

CHAPTER 4

4. RESULTS

This chapter presents the results of the study regarding the research questions mentioned in the first chapter and data collected as a result of students' pre-test and post-test. Inter-rater reliability among two raters found out through the pearson correlation coefficient is showed by means of a table and described by stating correlation between these two raters. Results of the study are explained by means of tables. Findings are explained in detail in chapter 5.

4.1. Inter-rater Reliability

As it was stated in chapter three, students' writing assignments administered as pre-test and post-test were rated by two English teachers. Since there were two raters, inter-rater reliability among these raters found out through the pearson correlation coefficient. The result of the coefficient between the raters, in terms of overall writing performance, was illustrated in Table 1.

Table 1: Pearson Correlation Coefficient of Inter-rater Reliability in Terms of Overall Writing Performance

Rater	Rater 1	Rater 2
Rater 1	.000	.987
Rater 2	.987	.000

As shown in Table 1, in terms of overall writing performance, the reliability was .987 among two raters. Besides finding pearson correlation of inter-rater reliability in terms of overall writing performance, reliability among raters were also found in terms of content, organization, language and grammar development. In terms of content, the result of pearson correlation coefficient of inter-rater reliability was .985, illustrated in Table 2.

Table 2: Pearson Correlation Coefficient of Inter-rater Reliability in Terms of Content

Rater	Rater 1	Rater 2
Rater 1	.000	.985
Rater 2	.985	.000

In terms of organization, the result of pearson correlation coefficient of inter-rater reliability was .987, illustrated in Table 3.

Table 3: Pearson Correlation Coefficient of Inter-rater Reliability in Terms of Organization

Rater	Rater 1	Rater 2
Rater 1	.000	.987
Rater 2	.987	.000

In terms of language, the result of pearson correlation coefficient of inter-rater reliability was .983, illustrated in Table 4.

Table 4: Pearson Correlation Coefficient of Inter-rater Reliability in Terms of Language

Rater	Rater 1	Rater 2
Rater 1	.000	.983
Rater 2	.983	.000

In terms of grammar development, the result of pearson correlation coefficient of inter-rater reliability was .986, illustrated in Table 5.

Table 5: Pearson Correlation Coefficient of Inter-rater Reliability in Terms of Grammar Development

Rater	Rater 1	Rater 2
Rater 1	.000	.986
Rater 2	.986	.000

4.2. Overall Writing Performance

As it was stated in chapter three, two writing assignments were administered to students in order to investigate the effectiveness of cooperative learning on students' writing achievement. One of the assignments was pre-test and the other one was the post-test. The result of the pre-test showed that students in the experimental group and students in the control group had similar scores in terms of overall writing quality. The mean score of the control group was 41.69 whereas the mean score of the experimental group was 40.77. Since the p-value was .828, it could be concluded that there was not any statistical significance between the scores of the control group and the experimental group. These results were illustrated in Table 6.

Table 6: Inter-group Statistics of Pre-test on Overall Writing Performance

Test	Group	M	Sd	t	p
Pre-test	Control	41.69	15.58	.218	.828
	Experimental	40.77	14.22		

On the other hand, the results of the post-test showed that there was a statistical significance between the scores of the control group and the experimental group because the p-value was .000, as the last column of Table 3 showed. The mean score of the control group was 42.51 whereas the mean score of the experimental group was 71.2, as shown in Table 7. The experimental group gained 29.69 more than the control group on the post-test in terms of overall writing quality.

Table 7: Inter-group Statistics of Post-test on Overall Writing Performance

Test	Group	M	Sd	t	p
Post-test	Control	42.51	14.98	8.168	.000*
	Experimental	71.2	9.17		

* p< .05

Besides analysis of inter-group statistics, paired samples test of overall writing quality in both groups was also made. The results of the intra-group analysis indicated that in the experimental group, the mean score of pre-test was 40.77 whereas the mean score of the post-test was 71.2, as shown in Table 8. Since the p-value was as low as .001, it could be concluded that development in terms of overall writing quality between pre-test and post-test in the experimental group was statistically significant.

On the other hand, there was not any statistical significance in terms of overall writing quality between the scores of the pre-test and the post-test in the control group. The p-value was .150, as shown in Table 8 and the mean score of the pre-test was 41.69 whereas the mean score of the post-test was 42.51. The findings presented in Table 8 were consistent with results of the studies conducted by Mohamed, Nair, Kaur and Hetcher (2008), Khan (2008) and Rizan, Maasum and Ismail (n.d), whose participants' overall writing quality in the experimental group improved significantly whereas overall writing quality of the participants in the control group was not improved.

Table 8: Paired Samples Test of Overall Writing Performance in Both Groups

Group	Test	M	Sd	t	p
Experimental	Pre-test	40.77	14.22	13.720	.000*
	Post-test	71.2	9.17		
Control	Pre-test	41.69	15.53	1.486	.150
	Post-test	42.51	14.98		

*p< .05

4.3. Grammar Development

Besides investigating the effectiveness of cooperative learning on students' writing achievement in terms of overall writing quality, this study examined the effectiveness of cooperative learning on students' writing in terms of grammar development. The results of the pre-test indicated that students in the control group and students in the experimental group had similar scores. The mean score of the control group was 44.24 whereas the mean score of the experimental group was 43.36. Since the p-value was .837, it could be concluded that there was not any statistical significance between the scores of the control group and the experimental group, as illustrated in Table 9.

Table 9: Inter-group Statistics of Pre-test on Grammar Development

Test	Group	M	Sd	t	p
Pre-test	Control	44.32	17.08	.207	.837
	Experimental	43.36	13.09		

On the other hand, with regard to post-test, the mean score of the control group was 45.12 whereas the mean score of the experimental group was 65.36. Since the p-value was as low as .001, it could be concluded that there was a statistical significance between the post-test scores of the control group and the experimental group. These results were illustrated in Table 10.

Table 10: Inter-group Statistics of Post-test on Grammar Development

Test	Group	M	Sd	t	p
Post-test	Control	45.12	17.18	5.201	.001*
	Experimental	65.36	9.12		

*P< .05

Besides analysis of inter-group statistics, paired samples test of grammar development in both groups was made. The results of the intra-group analysis showed that in the experimental group, the mean score of the pre-test was 43.36 whereas the mean score of the

post-test was 65.26, as displayed in Table 11. Since the p-value was as low as .004, it could be concluded that grammar development between pre-test and post-test provided in the experimental group was statistically significant.

On the other hand, grammar development between pre-test and post-test administered in the control group was not statistically significant because the p-value was .317, shown in Table 11. The mean score of pre-test was 44.32 and 45.12 was the mean score of post-test. These results indicated that there was not any significant gain between pre-test and post-test, as illustrated in Table 11. The findings presented in Table 7 were consistent with the results of the study conducted by Liao (2005), whose participants' grammar in the experimental group improved significantly whereas grammar of the participants in the control group was not improved.

Table 11: Paired Samples Test of Grammar Development in Both Groups

Group	**Test**	**M**	**Sd**	**t**	**p**
Experimental	Pre-test	43.36	13.09	9.918	.004*
	Post-test	65.36	9.12		
Control	Pre-test	44.32	17.08	1.022	.317
	Post-test	45.12	17.18		

*p< .05

CHAPTER 5

5. DISCUSSION AND CONCLUSION

In this chapter, the study is summarized and the results mentioned in the fourth chapter are discussed by stating the reasons and considering the research questions stated in the first chapter, the studies related to cooperative learning, theories underlying cooperative learning and essential elements of cooperative learning. Besides summary and discussion, conclusions are drawn considering the problem statement mentioned in the first chapter and the results of the study. Finally, this chapter is ended by stating suggestions for further researches.

5.1. Summary of the Study

This experimental research investigated the effectiveness of cooperative learning on students' writing performance. In other words, it aimed to find out the differences between pre-test and post-test results of the participants in both experimental group and control group in terms of overall writing quality and grammar development. In order to investigate the effectiveness of cooperative learning on students' overall writing performance, their pre-tests and post-tests were assessed in terms of content, organization and language through analytical scoring. In order to find out if the students progressed in grammar, their pre-tests and post-tests were assessed in terms of tenses and other aspects of language such as articles, pronouns and prepositions through analytical scoring.

The study was conducted at a vocational high school located in Tarsus. The participants of the study were 50 tenth grade students who were selected purposively. 25 of the students were in the control group and the other 25 students were in the experimental group. They were assigned to write an essay entitled where would you like to go for your summer holiday as pre-test and post-test. The syllabus used during the ten-week-treatment was organized considering the mistakes done by students in the writing assignment applied as pre-test and subjects dealt in the coursebook provided by MEB. STAD, a cooperative learning method, was implemented in the experimental group whereas traditional learning was used in the control group.

Two raters assessed students' pre-tests and post-tests. The inter-rater reliability performed by two raters was found out analyzing the scores obtained from the written products through the pearson correlation coefficient. Raw scores achieved through pre-test

and post-test in both groups were statistically analyzed by using SPSS 17. In terms of overall writing quality, paired-sample t-test was used to analyze scores obtained from pre-test and post-test in the experimental group and in the control group and the differences calculated from the scores of the pre-test and the post-test to compare the overall writing quality between two groups. In terms of grammar development in writing, paired-sample t-test was used to analyze scores obtained from pre-test and post-test in the experimental group and in the control group and the differences calculated from the scores of the pre-test and the post-test to compare the overall writing quality between two groups.

The findings showed that in terms of overall writing quality there were significant differences at the level 0.05 in the experimental group, but there was not any significant difference in the control group. In terms of grammar development, there were significant differences at the level 0.05 in the experimental group, but there was not any significant difference in the control group.

5.2. Discussion

The results presented in chapter 4 indicate that the writing performances of students who engaged in cooperative learning tasks were improved more than students who engaged in traditional learning activities. The results were discussed according to the research questions:

1. Are there any differences between the pre-test and the post-test results in terms of overall writing performance?

2. Are there any differences between the pre-test and the post-test results in terms of grammar development in writing?

Suggestions for further research and conclusions were also dealt on the basis of results discussed in this chapter.

5.2.1. Overall Writing Performance

Regarding the research question one, overall writing quality of students in the experimental group was improved significantly. In other words, the mean score of the post-test of the experimental group was higher than the mean score of the pre-test of the group. On the other hand, there was not any significant difference between the mean score of the pre-test and the mean score of the post-test of the control group. In other words, overall writing performance of the students in the control group was not improved significantly. These results

are consistent with the results of the previous studies conducted by Mohamed, Nair, Kaur and Hetcher (2008), Khan (2008) and Rizan, Maasum and Ismail (n.d), whose participants' overall writing quality in the experimental group improved significantly whereas overall writing quality of the participants in the control group was not improved.

As it was stated in chapter 3, overall writing performance of students was evaluated in terms of content, organization and language. The syllabus provided at appendix A, was organized considering the mistakes done by students in the pre-test as mentioned in chapter 3. This fact supports one of the requirements of constructivism which is the basis of cooperative learning. It requires designing classes considering students' interests (Tynjälä, 1999, p.365). In the present study, students focused on their own mistakes and worked on them to improve their skills since the syllabus considered students' background knowledge. Thus, it could be one of the reasons for the students to improve their writing performance. However, designing the syllabus on the basis of students' background knowledge cannot be the only reason to improve students' overall writing quality in the experimental group because the same syllabus organized considering the students' mistakes in the pre-test was also implemented in the control group.

Vygotsky's constructivism requires social interaction and social context to learn and improve different skills (Brown, 2000). Vygotsky defines the structure existed in children's mind to assimilate the new information as the zone of the proximal development (Liao, 2005, p.190). In the present study, students in the experimental group came together and formed group of four students and worked on the subjects provided by the teacher as stated in chapter 3. In other words, they did not study in only their own zone of proximal development but they also worked in their teammates' zone of proximal development as Slavin (1999, p.48) stated in his study. This could be the main reason for students in the experimental group to improve their overall writing performance. While students were working together, a conflict became since all the students had different background of knowledge and they learned different perspectives from each other. By this way, they did not only focus on their own ideas, they also worked on their teammates' thoughts. It can be concluded that students who worked within one another's zone of proximal development help each other to improve their skills (Liao, 2005, p.190) and perform better (Slavin, 1996, p.48).

On the other hand, the students in the control group worked individually and assimilated what the teacher who was the only source of information taught them. In other

words, they worked in their own zone of proximal development. They considered only their own interests and ignored other students' ideas (Liang, 2002, p.131). Thus, the students in the control group in which traditional learning method was implemented did not improve their overall writing performance during treatment. Besides, since the students believe that their success depends on individual work, they do not learn to contribute and help each other (Liang, 2002, p.131). As Tynjälä (1999, p.365) stated, this result showed that learning is not a passive process of assimilating knowledge but the active process of constructing knowledge.

Students in the experimental group in which cooperative learning was implemented as a way of teaching interacted with their peers more than the students in the control group in which traditional learning was implemented. Besides, students in the experimental group had chance to interact with their teacher more than the students in the control group. Thus, the experimental group practiced English more than the control group. It can be concluded that active communication is increased by means of cooperative learning (Liang, 2002, p.125). Social interdependence theory underlying cooperative learning requires positive interdependence which is one of the essential elements of cooperative learning (Johnson and Johnson, 1987) to form cooperation between students (Johnson, Johnson and Smith, 1998, p.29). Positive interdependence helps students to interact with each other (Johnson et al, 1998, p.29).

As it was stated in chapter 3, STAD was used as a way of cooperative learning method in the experimental group. In each lesson, the teacher first presented the subject and then students worked in groups. After teamwork, students took an individual quiz and they got an individual grade and a team grade. In order to achieve the common goal, and to get a good team grade which can be considered as the reward, students worked together and helped one another to be successful. These kinds of team rewards motivate students work cooperatively if they are provided for students when they are more successful than they were in the past (Slavin, 1991). On the other hand, the students in the control group did not take any quizzes and did not get any reward for their improvement. Thus, they were not motivated. They worked individually and perceived what the teacher taught them. It could be another reason for the students in the experimental group to improve their overall writing performance whereas the students in the control group did not improve their overall writing quality. Behavioral learning theory underlying cooperative learning supports this result by stating that students who do not get any rewards or punishment do not work (Johnson, Johnson and Smith, 1998, p.29).

Learning is constructing knowledge on the basis previous interests (Tynjälä, 1999, p.365). Students in the experimental group worked in groups cooperatively and shared their ideas with their teammates. They learned different ideas related to subjects dealt in the class from each other and constructed a new idea comprised of all different opinions. On the other hand, students in the control group did not share their ideas with their peers. They learned from the teacher who was the only source of information in the classroom. They did not construct new knowledge. They only perceived information transmitted to them. It could be a reason to improve overall writing performance. Cognitive development theory supports the idea that when students come together and share their ideas, a conflict occurs and students construct new knowledge depending on that conflict (Johnson, Johnson and Smith, 1998, p.29).

In the present study, the essential elements of cooperative learning were implemented in the experimental group. These basic elements are positive interdependence, face-to-face interaction, individual accountability and interpersonal and small group skills (Johnson and Johnson, 1987). As it was mentioned before, students interacted with each other and teacher by means of positive interdependence. In the study, positive interdependence was created by stating the common goal for students and providing a team grade as a reward for students when they became successful. Students in the experimental group first listened what the teacher presented to them and worked on the tasks related to subjects presented by the teacher. Besides, students applied what they learned in each class into a writing project entitled where would you like to live. Since they had a common goal as writing an essay together, positive interdependence occurred as Johnson and Johnson (1987) stated that positive interdependence is structured by means of organizing different requirements of cooperative learning activities such as a common goal, a positive reward, divisions of labor and sources among group members. The facts mentioned above also create interaction between students in the experimental group as Johnson and Johnson (1987) stated.

On the other hand, in the control group in which traditional learning method was implemented negative interdependence occurred since the students worked individually and did not interact with each other. As social interdependence theory indicates, negative interdependence results in competition (Johnson, Johnson and Smith, 1998, p.29). Thus, students work individually and never come together and interact with each other (Johnson et al, 1998, p.29).

Besides creating positive interdependence and interaction between students, creating individual accountability could be another reason for students to be successful in overall writing quality. According to Johnson and Johnson (1994), the group size should be small. In the present study, groups were comprised of four students. An individual quiz should be randomly applied (Johnson and Johnson, 1994). In the present study, this requirement was considered and after students worked together and learned the subjects, they had individual quizzes. As Johnson and Johnson (1994) defined as "interaction is characterized by individual accountability" in the presented study.

As Tynjälä (1999, p.365) states, students should be engaged in tasks in order to make them use what they have learned in the lectures. In the present study, in the experimental group after the teacher presented the subject, students first worked on exercises related to presented subject and then they applied what they learned by writing a small paragraph to complete an essay entitled where would you like to live. In each lesson, after teacher's lecture, students in groups worked on different exercises related to the lecture and write a paragraph in order to complete their essay. Besides, students checked their own mistakes and rewrote the paragraphs together in each class every week. Moreover, they took individual quizzes. By means of cooperative learning, activities are integrated and thinking and communication skills are improved (Mohamed, Nair, Kaur and Fletcher, 2008, p.10).

On the other hand, in the control group teacher presented the subject and asked questions to students. Students did some exercises related to the subject individually. After five weeks, an essay entitled where would you like to live was given as homework. Students wrote an essay about this subject and teacher corrected the mistakes and gave them to students. Students in the control group did not interact with each other whereas students in the experimental group communicated with each other.

Engaging in different types of activities is one of the reasons for students in the experimental group to improve their overall writing performance, because students in groups communicated and shared their opinions with each other. They used their thinking abilities while working on the activities. Khan (2008) supports this fact by stating cooperative learning provides different kinds of activities related to communicative functions. Ahmad and Mahmood (2010, p.160) also indicates that cooperative learning provides more enjoyable and interactive activities. Thus, students involve in more positive learning experience and improve their skills (Ahmad and Mahmood, 2010, p.160).

In the present study, there was a difference from the other studies conducted before. Students in the experimental group chose their group members with whom they worked well. Seven groups, each of which had four students were formed. This was not consistent with the requirement related to heterogeneous grouping of cooperative learning. Watson (1992, p.85) states that heterogeneous grouping is one of the essential elements of cooperative learning and factors such as students' gender, ethnic background, age, attitudes and leadership ability should be considered. Although groups were not designed by considering these factors in the present study, students improved their writing skill.

As it was stated before, regarding the first research question, results of the present study were consistent with the studies conducted by Mohamed, Nair, Kaur and Hetcher (2008), Khan (2008) and Rizan, Maasum and Ismail (n.d). By means of experimental study conducted by Mohamed, Nair, Kaur and Hetcher (2008, p.16), it was found out that STAD, a method of cooperative learning, developed students' writing performance and enhanced self-concept of students towards writing. In the present study, STAD was also used and similar results were obtained. Mohamed et al (2008, p.16) also indicated that the classes should not be designed on the basis of one type of method and a wide range of methods should be used to create more student-centered classrooms.

Khan (2008) found similar result to Mohamed et al (2008). Khan (2008) stated that cooperative learning method is an effective teaching technique since students improved their writing skill. It was also indicated that students were good at parts of speech and tenses (Khan, 2008, p.118). In the present study, as stated before, it was also investigated if students' grammar developed or not and it is going be dealt in the following section. Rizan, Maasum and Ismail (n.d, p.419) indicated that students learned the subjects by generating ideas by means of cooperative learning. Cooperative learning methods such as the Kagan structures, Learning together method and co-op Jigsaw II improved students' writing performance of students by making students engage in enjoyable activities and share their opinions related to the issue with their peers (Rizan et all, n.d, p.427). In sum, in the present study, students in the experimental group engaged in cooperative activities and learned the subjects by sharing their opinions with each other. They improved their overall writing performance after the implementation of STAD, a cooperative learning method.

5.2.2. Grammar Development

Regarding the second research question, grammar development in writing in the experimental group was improved significantly. In other words, the mean score of the post-test of the experimental group was higher than the mean score of the pre-test of the group. On the other hand, there was not any significant difference between the mean score of the pre-test and the mean score of the post-test of the control group. In other words, overall writing performance of the students in the control group was not improved significantly. These results are consistent with the results of the previous study conducted by Liao (2005), whose participants' grammar in the experimental group improved significantly whereas grammar of the participants in the control group was not improved.

As it was stated in chapter 3, grammar development of students was evaluated in terms of tenses and other aspects of language such as articles, pronouns and prepositions. The syllabus provided at appendix A, was organized considering the mistakes done by students in the pre-test as mentioned in chapter 3 and discussion section related to the first research question. As it was indicated in discussion section related to the first research question, this fact supports one of the requirements of constructivism which is the basis of cooperative learning. It requires designing classes considering students' previous beliefs and knowledge (Tynjälä, 1999, p.365). In the present study, students worked on conjuctions, tenses, subject-verb agreement, articles and nouns, pronouns and verbs in order to develop their grammar. It could be one of the reasons for the students in the experimental group to improve their grammar as it was a reason to improve overall writing quality. However, designing the syllabus on the basis of students' background knowledge can not be the only reason to improve students' grammar in the experimental group because the same syllabus organized considering the students' mistakes in the pre-test was also implemented in the control group.

As it was stated before, the zone of proximal development can also be the main reason to improve grammar. Students in the experimental group came together and worked in groups to improve their grammar after teacher presented the grammar item. They did not only do the exercises related to the topic but they also wrote sentences and paragraphs by applying what they learned during the teacher's lecture and group study. Students helped each other and corrected their teammates' mistakes. It means that they did not study in only their own zone of proximal development but they also worked in their teammates' zone of proximal development as Slavin (1999, p.48) stated in his study and students in the experimental group

improved grammar skills as Liao (2005, p.190) states that students who worked within one another's zone of proximal development help each other to improve their skills. Conversely, students in the control group did not perform better and develop their grammar skills since they did not work with their peers by sharing their ideas and checking one another's mistakes.

In the present study, students in the experimental group communicated actively by means of cooperative learning activities as Liang (2002, p.125) stated. Thus, students had the opportunity to share their experiences with each other. They gave feedback to their peers during group study and encouraged each other in order to engage in the activities and achieve the common goal. Because of the fact that students had a common goal, positive interdependence occurred as Johnson and Johnson (1987) stated that positive interdependence is structured by means of organizing different requirements of cooperative learning activities such as a common goal, a positive reward, divisions of labor and sources among group members. Liang (2002, p.188) indicates that group goals encourage students to work together and to give feedback to their teammates. All these requirements were provided in the present study. Thus, interaction was increased, positive interdependence occurred and communicative and supportive learning environment was formed. As Liang (2002, p.187) indicates that all of these factors could be the reasons to develop grammar skill of students.

On the other hand, students in the control group did not have any opportunity for peer correction. Besides, they only worked on the exercises provided for them but they did not write any sentences or paragraphs until an essay entitled where would you like to live was given as homework. Since the teacher corrected the mistakes and gave essays to students, they did not work on their mistakes. The students worked individually and did not interact with each other (Johnson, Johnson and Smith, 1998, p.29). Thus, negative interdependence occurred (Johnson, Johnson and Smith, 1998, p.29).

As it was stated before, in the experimental group in which cooperative learning was implemented students worked on different types of exercises and then they applied grammar items they learned in each class by writing a paragraph to complete their essay entitled where would you like to live. Peer assessment and feedback took important role during group work. Thus, students participated in group work (Liao, 2005, p.191).

Besides, since groups were small students in the experimental group had a safer setting to express their opinions as Liao (205, p.191) stated. Conversely, students in the control group did not participate in a whole-class conversation because their level of anxiety prevented them

to talk in the class (Liao, 2005, p.191). Thus, students in the control group became passive learners as Liao (2005, p.191) stated. As it was indicated by Liao (2005, p.191), since the students in the experimental group worked in small groups, all the students had opportunity and enough time to deal with the subjects and exercises related to those subjects whereas some of the students in the control group had the opportunity to answer questions asked by teacher since time was not enough for all the students to do exercises. As a result of this fact related to time at which students studied, students in the experimental group improved their grammar because they had more time to focus on the subjects.

Students in the present study had different backgrounds and learning experiences. Thus, when they came together and worked in groups, they interacted with each other and shared their different ideas with their teammates. In other words, interaction between students led students to think and process information actively (Liao, 2005, p.192). Besides, Liao (2005, p.189) stated that "Through verbal modeling of thought process and social persuasion, learners' thoughts can be shaped, directed and modified; stimulation can be enhanced and learning can be facilitated". Thus, students in the experimental group developed their grammar.

As it was stated before, results of the present study are consistent with the results of the previous study conducted by Liao (2005) whose participants' grammar in the experimental group improved significantly whereas grammar of the participants in the control group was not improved. Liao (2005, p.4) compared cooperative learning and whole-class instruction in terms of grammar achievement. It was found out that cooperative learning was effective in improving students' grammar and motivating students to study (Liao, 2005, p.209). Besides, Liao (2005, p.210) found that students in the experimental group were more successful than students in the control group in terms of cognitive levels such as creating and evaluating whereas students in both groups had similar achievement in terms of low level of cognitive activities.

5.3. Conclusion

In Turkey, writing is not developed through English courses in spite of the fact that the curriculum provided by the ministry of Education requires the development of four skills; writing, speaking listening and reading, as it was indicated in the first chapter. According to Cadet (2009, p.1), the reasons of this situation are writing itself is difficult since it requires using rhetorical and appropriate language use (Tangerpoom, 2008, p.1) and pedagogic

problems such as teachers do not have enough time to evaluate students' essays and classrooms are crowded.

The idea of Cadet (2009, p.1) related to difficulty of writing is supported by Mohamed, Nair, Kaur and Fletcher (2008, p.9) by stating writing is a productive skill and requires different abilities such as writing correct sentences and using the aspect of mechanics. Writing correct sentences involves using the correct tense, word form, article, tense agreement, preposition and other aspects of grammar (Mohamed et al, 2008, p.9). On the other hand, using the aspects of mechanics means considering punctuation, correct spelling and capitalization (Mohamed et al, 2008, p.9). Besides these requirements, social-rhetorical situations are important to improve students' writing skill and to motivate them to write (Cooper, 1986, p.367). Considering these facts related to writing, cooperative learning was used in the previous study although there are a lot of different methods used by teachers in classrooms to develop students' writing skills (Cadet, 2009). In Turkey, students are expected to learn individually by receiving knowledge presented by teacher (DePriter, 2008). Thus, cooperative learning was a new way of learning and developing writing skill for students in the present study.

As Johnson, Johnson and Stanne (2000) states cooperative learning is one of the significant fields of education in the respects of theory, research and practice. It depends on constructivism which requires constructing knowledge on the basis of students' previous beliefs (Tynälä, 1999, p.365) and social interdependence, behavioral learning and cognitive-developmental theories (Johnson, Johnson and Smith, 1998, p.28). All of these theories state that cooperative learning is effective in developing learners' performance although there are differences between them (Johnson et al, 1998, p.29). As it was indicated in the second chapter, social interdependence theory supports intrinsic motivation whereas behavioral learning theory supports extrinsic motivation (Johnson et al, 1998, p.29). Cognitive-developmental theory deals with cognitive process of a person (Johnson et al, 1998, p.29). Considering these theories underlying cooperative learning, it can be concluded that cooperative learning which can be used as the primary instructional method (Slavin, Madden and Stevens, 1989) develops learners' social relations and academic achievement (Miller and Peterson, n.d) through working in groups and interaction (Panitz, n.d).

Considering the essential elements indicated by Johnson and Johnson (1987), Watson (1992) and Slavin (1991), a lesson which required students work in small groups to develop

writing skills was provided in the present study. Through this experimental research the effectiveness of cooperative learning on students' writing performance was investigated by comparing it with traditional learning method implemented in the control group. As a result of the present study, it was found that cooperative learning developed students' overall writing performance by enhancing content, organization and language. By means of cooperative learning, students came together and interacted with each other. Thus, they worked in one another' zone of proximal development (Slavin, 1999, p.48; Liao, 2005, p.190). This fact led the students be successful in writing and grammar.

This study was an effort to contribute to previous conducted researches related to cooperative learning and writing performance in Turkey. The findings of study are summarized as follows; cooperative learning is effective in developing students' overall writing quality and grammar achievement in writing. Besides, by creating a safer setting for students and providing a common goal cooperative learning motivates students work together. As Ahmad and Mahmood (2010) states, cooperative learning provides more enjoyable and interactive activities. Thus, students learn and develop different skills in a social environment.

5.4. Suggestions for Further Researches

As stated in the first chapter, cooperative learning is one of the significant fields of education in the aspects of theory, research and practice (Johnson, Johnson and Stanne, 2000). Researches on cooperative learning have been done since the early 1970s (Slavin, 1996). Most of those researches compared cooperative learning with different types of methods (Slavin, 1996). According to those researches, cooperative learning strategies are effective in developing learners' achievement and social behaviours (Miller and Peterson, n.d). Studies related to effects of cooperative learning on learners' achievement have been conducted by different researches in all types of school and in many countries, in every subject and at all grade levels (Slavin, 1996). Considering the present study, various recommendations were suggested for further researches.

50 students were used as participants in the present study. Since the sample was small, the results could not be generalized. Thus, further researches should be conducted by using more participants in order to generalize the results. Although STAD was used as a cooperative learning method and individual quizzes were applied during the treatment in the present study, pre-test and post-test were used as data collection tools in the study. Individual quizzes can also be used as instruments in the further researches. The present study lasted only 12

weeks. The length of time of further researches can be more than 12 weeks. Thus, the results can be generalized because of the fact that the longer the study is conducted, the more reliable results are obtained (Cadet, 2009, p.139).

The level of the students was elementary in the present study. Further researches can be conducted by students at different levels such as pre-intermediate, intermediate and advanced. Besides, the present study was conducted at a vocational high school in Tarsus. Further researches can be conducted at primary schools or universities and public or private schools and in different areas of country. Further researches also can be conducted in order to investigate effects of cooperative learning by comparing different stages of schools.

The present study examined the effectiveness of cooperative learning on students' writing performance. In other words, the effects of cooperative learning on only a skill were found. Future researches can investigate the effectiveness of cooperative learning by using integrated skills such as reading and writing or speaking and listening. Besides, this study only investigated the effectiveness of cooperative learning on students' writing achievement. Students' attitudes towards cooperative learning by providing questionnaire or interviewing with students can be investigated in the future studies. Social skills used during the cooperative activities, learning strategies, self-esteem and factors that motivate students work together can also be investigated through further researches.

Considering the theories underlying cooperative learning, motivation can be examined from different perspectives. As stated in the second chapter, social interdependence theory is on the basis of the intrinsic motivation which means intrapersonal factors lead students to achieve a common goal whereas behavioral theory depends on extrinsic motivation which means students work to get rewards (Johnson, Johnson and Smith, 1998, p.29). Besides investigating students' motivation, the effects of rewards on students' achievement in different subjects in a cooperative learning environment can be observed by means of single-subject research design. In the present study, experimental research design was used. Other research designs such as case study or survey research depending on what the researchers investigate can be used.

6. REFERENCES

Adeyemi, B.A. (2008). Effects of Cooperative Learning and Problem-Solving Strategies on Junior Secondary School Students' Achievement in Social Studies. http://www.investigacion-psicopedagogica.org/revista/articulos/16/english /Art_16_181.pdf

Ahmad, Z. & Mahmood, N. (2010). Effects of Cooperative Learning vs. Traditional Instruction on Prospective Teachers' Learning Experience and Achievement. http://dergiler.ankara.edu.tr/dergiler/40/1342/15555.pdf

Ali, H. (2011). A Comparison of Cooperative Learning and Traditional Lecture Methods in the Project Management Department of a Tertiary Level Institution in Trinibad and Tobago. http://journals.sta.uwi.edu/cts/articles/CTS_Vol1_No1.pdf#page=50

Bejarano, Y. (1987). A Cooperative Small-Group Methodology in the Language Classroom. http://scholar.google.com.tr

Brown, H. B. (2000). Principles of Language Learning and Teaching (4th Edition). Addison Wesley Longman. http://www.scribd.com/doc/29480563/Principles-of-Language-Learning-and-Teaching

Bölükbaş, F., Keskin, F. & Polat, M. (2011). The Effectiveness of Cooperative Learning on the Reading Comprehension Skills in Turkish as a Foreign Language. http://tojet.net/articles/v10i4/10433.pdf

Cadet, K. (2009). The Use of Personal Writing as the Initiative in Academic Writing. A Dissertation Presented in Partial Fulfillment of the Requirements for the Doctor of Philosophy Degree in English at Srinakharinwirot University. http://thesis. swu. ac.th/swudis/Eng(Ph.D.)/Kanokwan_C.pdf

Cooper, M. M. (1986). The Ecology of Writing. http://www.jstor.org/discover/10.2307/377264?uid=3739192&uid=2&uid=4&sid=21101568776947

Damon, W. (1984). Peer Education: The Untapped Potential. http://www.elsevier.com

DePriter, T. N. (2008). Individual or Collaborative Learning: An Investigation of Teaching Strategy in the Distance Learning Mathematics Classroom. A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of the Doctor of Education. http://books.google.com.tr

Felder, R. M. & Brent, R. (2007). Cooperative Learning. http://cgiss.boisestate.edu/~billc/teaching/Tips/Cooperative_learning_felder_1994.pdf

Hayes, M. (2007). A Sample Quantitative Research Proposal. http://www.sagepub.com/creswellstudy/ Sample%20Student%20Proposals/Proposal-QUAN-Hayes.pdf

Hänze, M. & Berger, R. (2007). Cooperative Learning, Motivational Effects, and Student Characteristics: An Experimental Study Comparing Cooperative Learning and Direct Instruction in 12th Grade Physics Classes. http://www.sciencedirect.com/science/article/pii/S0959475206001174

Hessler, C. (1992). Cooperative Language Learning: A Teacher Resource Book. http://scholar.google.com.tr

Hirai, M. (2002). Correlations Between Active Skill and Passive Skill Test Scores. http://www.jalt.org/test/PDF/Hirail.pdf

Johnson, D. W. & Johnson, R. T. (1987). Learning Together and Alone: Cooperation, Competition and Individualization. Second Edition. Englewood Cliffs, Nj: Prentice Hall. http://books.google.com.tr/

Johnson, D. W. & Johnson, R. T. (1994). An Overview of Cooperative Learning. Originally Published in: Thousand, J., Villa, A. & Nevin, A. (1994). Creativity and Collaborative Learning. Brookes Press, Baltimore. http://clearspecs.com/joomla15 /downloads/ClearSpecs69V01_Overview%20of%20Cooperative%20Learning.pdf

Johnson, D. W. & Johnson, R. T. (1998). Cooperative Learning and Social Interdependence Theory. Social Psychology Applications to Social Issues. http://www.cooperation. org./pages/SIT.html

Johnson, D. W., Johnson, R. T. & Smith, K. A. (1998). Cooperative Learning Returns to College. What Evidence Is There That It Works? http://scholar.google.com.tr

Johnson, D. W., Johnson, R. T. & Stanne, M. B. (2000). Cooperative Learning Methods: A Meta Analysis. http://www.tablelearning.com/uploads/File/EXHIBIT-B.pdf

Joritz-Nakagawa, J. (n.d.). Spencer Kagan's Cooperative Learning Structures. http://scholar.google.com.tr

Kagan, S. (1989). The Structural Approach to Cooperative Learning. http://faculty. brenau. edu/rchristian/Courses/Articles/CoopStruct.pdf

Khan, S. A. (2008). An Experimental Study to Evaluate the Effectiveness of Cooperative Learning Versus Traditional Learning Method. http://scholar.google.com.tr

Liang, T. (2002). Implementing Cooperative Learning in EFL Teaching: Process and Effects. A Thesis in Partial Fullfillment of the Requirements for the Degree of Doctor of Philosophy. http://scholar.google.com.tr

Liao, H. (2005). Effects of Cooperative Learning on Motivation, Learning Strategy Utilization and Grammar Achievement of English Language Learners in Taiwan. Submitted to the Graduate Faculty of the University of New Orleans in Partial Fulfillment of the

Requirements for the Degree of Doctor of Philosophy in the Department of Curriculum and Instruction. http://scholarworks.uno.edu/td/329/

Lo, J. & Hyland, F. (2007). Enhancing Students' Engagement and Motivation in Writing: The Case of Primary Students in Hong Kong. http://www.sciencedirect.com

Miller, C. K. & Peterson, R. L. (n.d.). Cooperative Learning. http://scholar.google.com.tr

Millis, B. J. (1996). Using 5R's to Enhance Cooperative Learning at a Distance. http://scholar.google.com.tr

Mohamed, A. R., Nair, S., Kaur, T. & Fletcher, L. A. (2008). Using Cooperative Learning Approach to Enhance Writing Skills of Pre-University Students. http://scholar.google.com.tr

Mulryan, C. M. (1995). Fifth and Sixth Graders' Involvement and Participation in Cooperative Small Groups in Mathematics. http://www.jstor.org/stable/1002083

Panitz, T. (n.d.). Collaborative Versus Cooperative Learning- A Comparison of the Two Concepts Which Will Help Us Understand the Underlying Nature of Interactive Learning. http://scholar.google.com.tr

Rizan, T. N., Maasum, T. M. & Ismail, S. B. (n.d.). The Effects of Cooperative Learning in Enhancing Writing Performance. http://scholar.google.com.tr

Sachs, G. T., Candlin, C. N., Rose, K. R. & Shum, S. (2003). Developing Cooperative Learning in the EFL/ESL Secondary Classroom. http://rel.sagepub.com

Sebranek, P., Kemper, D. & Meyer, V. (2001). Writers Inc : A Student Handbook for Writing and Learning. White Source. Great Source Education Group, a Houghton Mifflin Company. Wilmington, Massachusetts.

Shachar, H. & Sharan, S. (1994). Talking, Relating and Achieving: Effects of Cooperative Learning and Whole-Class Instruction. http://www.jstor.org/stable/3233683

Slavin, R. E. (1980). Cooperative Learning. http://www.jstor.org/stable/1170149

Slavin, R. E & Oickle, E. (1981). Effects of Cooperative Learning Teams on Student Achievement and Race Relations: Treatment by Race Relations. http://www.jstor.org/stable/2112329

Slavin, R. E. (1987). Developmental and Motivational Perspectives on Cooperative Learning: A Reconcialization. John Hopkins University. http://www.jstor.org/stable/1130612

Slavin, R. E., Madden, N.A. & Stevens, R. J. (1989). Cooperative Learning Models for the 3 R's. http://www.staff.uni-mainz.de/kesslet/arbeit/kriss/cooperativeLearning /slavin3.pdf

Slavin, R. E. (1991). Synthesis of Research on Cooperative Learning. http://www.eric.ed.gov

Slavin, R. E. (1995). Cooperative Learning: Theory, Research, and Practice. http://scholar. google.com.tr

Slavin, R. E. (1996). Research on Cooperative Learning and Achievement: What We Know, What We Need to Know. http://www.konferenslund.se/pp/TAPPS_Slavin.pdf

Tangerpoom, T. (2008). Integrated Approaches to Improve Students Writing Skills for English Major Students. http://www.journal.au.edu/abac_journal/2008/may08/ 01(1-9)_article01.pdf

Tynjälä, P. (1999). Towards Expert Knowledge? A Comparison Between a Constructivist and a Traditional Learning Environment in the University. http://www.elsevier.com

Vygotsky, L.S. (1978). Mind in Society. Cambridge, MA: Harward University Press. http://books.google.com.tr/books?id=RxjjUefze_oC&printsec=frontcover&hl

=tr&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Wang, T. (2007). The Comparison of the Difficulties Between Cooperative Learning and Traditional Teaching Methods in College English Teachers. http://www.scholar.google.com.tr

Wang, T. (2009). Applying Slavin's Cooperative Learning Techniques to a College EFL Conversation Class. http://www.scholar.google.com.tr

Watson, S. B. (1992). The Essential Elements of Cooperative Learning. http://www.jstor.org/stable/4449413

Wichadee, S. (n.d). The Effects of Cooperative Learning on English Reading skills and Attitudes of the First-Year Students at Bangkok University. http://www.bu.ac.th/knowledgecenter/epaper/july_dec2005/saovapa.pdf

Williams, S. M. (2009). The Impact of Collaborative, Scaffolded Learning in K-12 Schools: A Meta- Analysis. The Metiri Group. http://www.cisco.com/web/ about/citizenship/socio-economic/docs/Metiri_Classroom_Collaboration_Research.pdf

7. APPENDIXES

7.1. Appendix A: Syllabus

Week	Subject
1	Pre-test
2	Conjuctions From….to One….another But And Because
3	Pronouns, verbs, nouns
4	Review of tenses (Subject-verb agreement)
5	Writing main idea
6	Writing and organizing a paragraph
7	Nouns, adjectives, adverbs
8	Review of tenses (Subject-verb agreement)
9	Articles
10	Conjuctions After Before Thus Although Finally First/second Then
11	Writing and organizing a paragraph
12	Post-test

7.2. Appendix B: Pre-test and Post-test

Name:

Surname:

Class: Score:

Topic: Where would you like to go for your summer holiday?

Instruction: Write a paper of 100-120 words explaining your summer holiday to your classmates. Be sure to use specific details such as sights you visit, people who come with you, the place where you stay and the food you eat to support your ideas.

7.3. Appendix C: Analytical Rubric Used to Evaluate Overall Writing Performance

(taken from Lo, J. & Hyland, F. 2007, p.236)

Compostion Topic: _____ Student

Code: _____

Please X the most suitable box for each item.

A. Content	**Excellent 5**	**Good 4**	**Average 3**	**Below Ave. 2**	**Poor 1**
1. Ideas are interesting.					
2. Ideas are well developed.					
3. Ideas are original and creative.					
4. Audience and purpose(s) are considered.					
B. Organization					
1. Appropriate paragraphing is used.					
2. Ideas are logically presented.					
3. Connections are appropriately used.					
C. Language					
1. There is a good choice of vocabulary.					
2. There is a variety of phrase and sentence patterns.					
3. Different tenses are correctly used.					
4. Spelling and punctuation are correct.					
5. Other aspects of language are appropriately used. (articles, pronouns, prepositions, agreement, etc.)					

D. Other Comment

7.4. Appendix D: Analytical Rubric Used to Evaluate Grammar Development

(adapted from Lo, J. & Hyland, F. 2007, p.236)

Composition Topic: _____ Student

Code: _____

Please X the most suitable box for each item.

Grammar	**Excellent 5**	**Good 4**	**Average 3**	**Below Ave. 2**	**Poor 1**
1. Sentences sound smooth and rhythmic when read aloud.					
2. There is a variety of sentence patterns.					
3. Different tenses are correctly used.					
4. Spelling and punctuation are correct.					
5. Other aspects of language are appropriately used. (articles, pronouns, prepositions, agreement, etc.)					