Applying Slavin's Cooperative Learning Techniques to a College EFL Conversation Class

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ABSTRACT

Whenever cooperative learning is applied, oral skills and conversational skills come into play. In this study, the teacher as researcher introduced Slavin's teaching techniques of cooperative learning to focus on conversational skills. First the researcher applied the Slavin's principles of cooperative learning to second language learning in college, and indicated its roots in motivational, cognitive, and social independence theories. The researcher used STAD procedure (Slavin, 1995) adopted Jigsaw II (Slavin, 1995) and Think-Pair Share (Lynan, 1992) techniques to teach conversation. Next, the teacher played the CD of the unit presenting keywords, grammar notes, useful patterns and important ideas. The students should listen carefully for sequence, for gist, and for details to learn and practice imitating words and conversation, then creating dialogues from Soundwaves Book in model authentic situation. Three main exercises were done attentively and repeatedly to have Slavin's cooperative learning techniques applied in small groups to build the student's linguistic and conversational competence. It was found that the students had experienced learning motivation to listen and to speak, interpersonal relation, and collaborative work to go toward a common goal. However, the teacher needed to monitor and intervene in the groups.

INTRODUCTION

Traditionally, English classes in the technological college were rather teacher-centered and probably did not contribute to students' motivation and communication to obtain English language learning. In this way, the little communication and interaction between students and teachers in the classroom was difficult to enhance students' English proficiency, and also seldom satisfied Taiwan's workforce needs in the future. Recently, the Ministry of Education has much put emphasis on enhancing English conventional abilities in technological college students (GIO, 2002). To provide students' learning interest, proficiency training, practical training and workforce need for technological college students, the college system needs to change its academy- oriented approach into market-oriented way to their students focusing on practical, lively, and interesting curriculum in English classes. Cooperative Learning arose and seemed a good way as an achievement to facilitate students' interaction (Slavin, 1978). Cooperative learning has become one of the main stream instructions used in the language learning classroom to promote student motivation, and student-student interaction (McCafferty, 2006)

As reported by Slavin (1991a), cooperative learning has been viewed as the solution for educational problems: it can promote students' academic achievement and thinking skills, enhance positive learning attitudes and learning motivation, increase higher-order learning, serve as an alternative to grouping, remediation, or special education, improve interpersonal relations, and prepare students for collaborative work.

The teacher decided to use Student Teams Achievement Division (STAD) to teach conversation, and Jigsaw II to teach listening, speaking and reading in the teaching of English techniques. Slavin's STAD is more effective in cooperative learning methods for improving students' learning of clear objectives in language rules and skills. The English conversation curriculum in technological college emphasizes listening exercise and practical orals in small groups. Therefore, the purpose of study is to introduce Slavin's principles and techniques in cooperative learning to a college EFL conversation class to increase more opportunities, to acquire the skills of conversation and to develop their responsibility for their team then reach the common goal.

REVIEW OF LITERACTURE

What is Cooperative Learning?

Slavin (1986) emphasized the applicability of cooperative learning to planning instruction on school subjects and formation of heterogeneous groups. His definition on cooperative learning is that cooperative learning methods are structured, systematic, and instructional strategies which are used at any grade level and in most school subjects. All of the methods consist of having the teacher assign the students two-to six member learning composed of high, average, and low achievers; boys and girls; black, Anglo, and Hispanic students, and mainstreamed academically handicapped students as well as non handicapped classmates (Slavin, 1985). Slavin shed that that cooperative learning has three important features. First, cooperative learning is a kind of group work. Learners have to work together in small groups between two and six members. Second, learning is structured to ensure that everyone in the group is able to fulfill the learning task. Third, students have to be dependent on each other to achieve their learning goals.

Student Team Learning

Slavin (1995) indentified cooperative learning as "Students work together in four member teams to master material initially presented by the teacher." Slavin's Student Team Learning methods emphasized team goals and success and he suggested if all members of the team learn the goals being taught, the success of a team can be achieved.

According to Slavin, three elements are central to all Student Team Learning methods – team rewards, individual accountability, and equal opportunities (Slavin, 1991a).

Team rewards on cooperative learning research indicates that if students are rewarded for doing better than they have in the past, they will be more motivated to reach than if they are rewarded for doing better than others. Because students will work together towards a common goal and their learning efforts will help their teams succeed

Individual accountability means that the success of a team relies on the learning of every individual in all team members. Accountability focuses the team member's activity on helping others learn and making sure that team members are ready for a quiz without teammate's help.

Equal opportunities for success mean that students can contribute to their teams by improving over their past performance. This ensures that all the students, including high, average, and low students are equally to do their best to value individual contributions.

Why should students working in cooperative groups learn more than those in traditionally organized classes? Researchers investigating this question have suggested a wide range of theoretical models to explain the superiority of cooperative learning (Slavin, 1995). In so doing, the study is to acquaint the teachers with aspects of theory that may be helpful in understanding the historical development of

Slavin's cooperative learning approach and its significance to the teaching of a second language. The theories include three major categories: motivational, cognitive, and social independence theories.

The Theoretical Base of Cooperative Learning

Motivational Theories

Motivational perspectives on cooperative learning focus primarily on the reward or goal structures under which students operate (Slavin, 1992). Deutsch (1949) identified three goal structures: cooperative, in which each individual's goal-oriented efforts contribute to others goal attainment; competitive, in which each individual's goal-oriented efforts prevent others from reaching their goal; and individual, in which individuals' goal-oriented efforts have no connection with others goal attainment. From a motivational aspect (such as those of Johnson & Johnson 1998 and Slavin, 1993), cooperative goal structures create a situation in which the only way group members can reach their own personal goals if the group is successful.

A comparison among cooperative learning, competitive learning and individual learning:

Goal Structure	Cooperative Learning	Competitive learning	Individual Learning
Learning goals	To have an objective is essential	It's not important for students to have an objective. What they care more is to win or to lose.	An objective and an individual are both important. Everyone's last expectation is to reach his own objective.
Teaching activities	It applies to any subject of teaching task. The more complicated and the more abstract the task is, the more it needs cooperation.	It focuses on practice and drills of skills as well as memory and review of knowledge.	Acquisition of simple skills and knowledge.
Interaction between teachers and students.	Teachers supervise and participate in the groups so as to instruct cooperative skills.	Teachers are the main resources of reconciliation, feedback, reinforce and support. Teachers posit questions and clear up rules. They play a reconciliatory role in a disputed point and they are judges of correct answers.	Teachers are the main resources to assist feedback, reinforce and support.
Interaction among students	Encourage students to interact, help and share with each other as the relationship to positive interdependence.	The homogeneous group maintains fair competition, which is a type of negative interdependence.	There is no interaction among students.
Teaching materials	The arrangement of teaching materials is based on the goal of the courses.	It is to arrange teaching materials for group or individual.	The arrangement of teaching materials and teaching are simply for individual.

Source from Slavin (1995); Johnson and Johnson (1998)

Slavin (1986) found that students in cooperative learning classes felt that their classmates wanted them to learn. In cooperative groups, learning becomes an activity that gets students ahead in their peer

group. Harmer's study (1991) indicated that the language habit was formed by constant repetition and the reinforcement of the teacher.

Slavin (1995) and his colleagues have done a great deal of research and curriculum development in cooperative learning. In Student Teams-Achievement Divisions (STAD), the teacher first presents material, and then students work in teams that are heterogeneous to study together in preparation for a quiz. Each student contributes any rewards to the team. Students earn points for their team based on a comparison of their most recent work and their past average. These team points go toward certificates or other rewards. While individual performance affects group rewards, each individual's grade is based on his or her own work. Extra rewards acted as motivation for students utilize cooperative efforts.

Cognitive Theories

The cognitive developmental theory is mainly based on the theories of Piaget, Vygotasky and cognitive science (Johnson and Johnson, 1999). Piaget's ideas have been widely interpreted as supporting the creation of classroom environments where students play active roles as they engage in real or at least realistic tasks (Slavin, 1995).

Many Piagetians (Damon, 1984; Murray, 1982; Wadsworth, 1984) have called for an increased use of cooperative activities in schools. They argue that interaction among students on learning tasks will lead in itself to improve student achievement. Students will learn from one another because in their discussions of the content, cognitive conflicts will arise. (Slavin, 1978). Piaget believed that conflicts occur when individuals cooperate. Cognitive disequilibrium is created by such conflicts and in turn stimulates cognitive development (Eisner, 2002).

Cognitive-Developmental Theories

Vygotsky (1978, cited in Slavin, 1995) and related theorists claim that knowledge is social, constructed from cooperative efforts to learn, to understand, and the process of solving problems. Vygotasky viewed learning and development as dynamic processes that are situated in social and cultural contexts. He believed that "learners are interactive agents in communicative, socially situated relationships and that the true direction of the development of thinking is not from the individual to the socialized but from the social to the individual" (Vygotsky, 1962, p.20). He stated that students must interact with a person who is more expert than themselves to go beyond their current development. From this statement, teachers should give students guidance and provide opportunities to work with more capable peers. Without cooperative activities to provide such learning environment, students will not grow intellectually.

From the perspective of cognitive science, cognitive psychology research has found that if information is to be retained in memory, the learner must engage in elaboration of the material. The learner must cognitively rehearse and restructure information for it to be retained in memory and incorporated into existing cognitive structures (Webb, 1985). Therefore, an effective way of restoring information is to explain the learning materials to the other students. Students receiving elaborated explanations learn more than those who worked alone. And mentally rehearsing and then presenting information to others enhances one's own retention of the content (Putnam, 1997). Thus, that cooperative learning incorporates cognitive science can increase students' interaction and develop their thinking skills (Johnson and Johnson, 1998). So dialogues among students help them explore and clarify difficult concepts. And learning is often achieved most in conversation.

Social Independence Theories

The central notion of Social Interdependence Theory is that "social interdependence exists when individuals share common goals and each individual's outcomes are affected by the actions of others" (Johnson & Johnson, 1998). Social interdependence can be differentiated from social dependence and social independence. Social interdependence occurs when each person's gains and losses influence the gains or losses of other individuals. From this viewpoint, learning takes place through social interaction and communication. Group members who have positive interactions will bring about good results. When both social interdependence and social dependence are absent, there are only individual efforts (Chien, 2004). Without integration, learning can't increase.

In the 1970s, Aronson and his colleagues (Aronson, Blaney, Stephan, Sikes & Snapp 1978) applied Jigsaw, the well-known cooperative learning technique. Each member of the group has unique information that they must share with their teammates in order to achieve its common goal. Jigsaw II, has been used in second language teaching using print, (Geddes 1981; Johnson & Johnson 1998) , and spoken texts (Harmer, 1998). Moreover, the concept of offering each group with particular information that must be elaborated has been popular in second language teaching. Jigsaw II emphasizes interdependence among group members.　McGroarty, (1993) indicated that during the process of exchanging information, there are more communicative functions and oral practice opportunities. From these points, choosing Jigsaw II enables students to experience active listening, and speaking, and to share what they have learned with their group members.

METHODOLOGY

Techniques of Cooperative Learning

Students-Teams-Achievement Division (STAD)

STAD is a prevailing and simple technique in cooperative learning. It consists of five major components (Slavin, 1986): class presentations, teams, quizzes, individual improvement scores, and team recognition. (a) Class Presentations. In STAD material is introduced in direct instruction or discussion way, but involves audio – visual presentations. Students must pay attention carefully during the class presentation, and then students can do the quizzes well afterward to gain good scores for their teams. (b) Teams. Teams consist of four or five students working in heterogeneous teams according to academic performance. The team meets to study worksheets, discuss problems together, compare answers, and correct misconceptions. The major function of the team is to promote its members to do best on their work. (c) Quizzes. Students take individual quizzes during the quizzes that are not allowed to help each other. This makes sure that every student is responsible for knowing the material. (d) Individual improvement scores. Students quiz scores are compared to their past average. The students earn points for their teams based on how much their scores could exceed their previous quizzes. When students make progress on their quizzes, the whole group's performance will be improved. (e) Team Recognition. If students' average scores exceed a certain criterion, teams can learn certificates or other rewards.

The teacher modified Slavin's (1995) model. The following were the general criteria for computing improvement points:

The rules of improvement points in STAD

If a quiz score is ...	a student earns scores…
1. perfect paper	30
2. more than 10 points above base score	30

3.	1-9 points above base score	20
4.	the same as base score or	10
	1-9 points below base score	
5.	more than 10 points below base score	5

Jigsaw II

Group members share information with each other in this technique. (a) Six or seven students begin in their original team. Each original team member is given dialogues or an article to work on. (b) Students form expert team, each of which is made of one person from each of the original team to study their part of topic. (c) The students with the same topic from different groups study and discuss attentively. (d) Students return to their original to teach and share what they have learned to their teammates. (e) Students take a quiz or work together on a task, including all the parts of the topic (Slavin 1995). The methods of individual improvement scores and team recognition are the same those of STAD.

Think-Pair-Share

These can be viewed as a family of three-step techniques. (a) Students work individually. (b) Students take turns to tell or describe with their partner. (c) Students discuss and report to the class. They share what they have learned with group members (Lyman, 1992).

Number Heads Together

Students work together and check whether they can explain what their group has done. (a) Students work alone to do a task assigned by the teacher. (b) students share their answers and put their heads to try to give an answer. (d) Students with the number chosen report their answers. If a student does not complete the answer, the teacher will call on a teammate to complete the answer (Kagan, 1992).

The Rearrangement for the Heterogeneous Classroom

The teacher designed cooperative learning lesson plans. Students in the class were divided into heterogeneous groups. The teacher used average scores based on their previous three scores and picked two top achievers, two middle achievers, and two lower achievers to form one group. The other groups followed the same grouping procedure. Group members rearranged their chairs and desks to face each other. Such a seating arrangement would help team members work to strengthen group positive interdependence. Positive interdependence is encouraged by creating opportunities for resource, identity, environmental, and role interdependence in the team to have students complete the task (Ghaith and Shaaban, 1995b).

Different roles in the team promote role interdependence (e.g., REC, EL, COF, EN, PR, REP, TI). During the discussion each member took on their roles. The recorder (REC) wrote down what members discussed. The elaborator (EL) explained and elaborated important viewpoints. Checkers of understanding (COF) made sure each member understood what was discussed. The encourager (EN) encouraged group member's participation and contribution to the group. The praiser (PR) cheered members feel better about their contributions to the group. The reporter (REP) summarized the discussion and reported to the class. The timer (TI) took charge of group process and reminded member to complete the discussion within the time limit.

Teaching Materials and Adaptation

The class used Soundwaves, a listening and speaking series designed book, to improve students conversational English. The book with audio CD features authentic conversations and contains high

interest topics, such as Jobs, News, Entertainment, Shopping, Travel and the Environment. Each unit of the Soundwaves Student Book contains Warm up, Listening Exercise, Vocabulary Note, Grammar Note, and Useful Language Expressions to build listening and speaking skills in English based on realistic situation. Besides, a self-study section provides extra listening practice outside the classroom for homework.

Teaching conversation

The teacher applied STAD procedures and adopted Jigsaw II (Slavin, 1995), Number Heads Together (Kagan, 1992), Think –Pair-Share (Lyman, 1992) techniques and Role Play activities to teach conversation. Three main exercises were done to practice listening and speaking skills for students. There were three-level practices as follows:

The first stage, the teacher introduced the article "People" for example, and encouraged students to brainstorm words to describe a person's appearance. Student looked at pictures and described people's physical appearance by using Grammar Note.

The students looked at the pictures again and did the task in pairs to describe the people in more detail by using Vocabulary Note. Then the teacher chose the role of the group answer the question and had students write a short sentence individually to describe each person and share descriptions to see which contained the most information. From this stage, each member in all teams should listen carefully then they could share descriptions and report before the class to gain the goal.

The second stage, the teacher played CD Rom, reminded the students to listen for gist and sequence, and guessed what was happening. Students listened to dinner conversation and did the exercise in the textbook individually. Playing the recording again, the teacher had students try to add more details to write one sentence of physical description. After each student checked and shared the answer, the teacher had students describe the people at the dinner in the group by adopting Useful Language:

Does he have brown hair? What color are her eyes? What's she wearing? Does he wear glasses? Is he wearing a blue shirt?

Students needed to read and repeat the useful examples in order to be familiar with doing Number Heads Together technique. The teacher asked the students questions and picked out a role who served that role to answer the question. Roles should rotate so that each student had opportunities to develop in a well-rounded way to help the group achieve their goal. In so doing, the students can benefit from the effects of mutual learning of equal opportunities (Slavin, 1986).

With the class, the teacher brainstorms other questions for students to guess people by means of Think-Pair-Share technique. Students could work individually, and then took turns in the group to talk with a partner. Finally they reported to the class. In this activity, combining Think-Pair-Share and Number Heads Together techniques, individual accountability and positive interdependence were encouraged effectively. Individual students needed to concentrate in the small group so that they could earn points for their group.

The third stage, in order to increase the opportunities of practice, the teacher played the CD again---the dialog of the people at the party and had students listen carefully. The teacher had students write the sentences that students had heard. Meanwhile, students worked in groups to share what they had heard in the dialogue. After discussion, group members cooperated and were ready to answer the teacher's questions and earned points for the team.

Students in the group worked together and made up a dialogue by using useful patterns or creating sentences to describe at the party. The teacher drew up the team to present its dialog as a role-play to the

class. Before the presentation, each group should try their best to praise, cheer and encourage their members and used their imagination and creativity in conversation. Occasionally, the teacher employed "Jigsaw II" to present the dialogue passages or an article. The procedure of Jigsaw II promoted reading and a lot of active listening and speaking because the experts reported that they had learned to their original teammates and solved the problems. However, the management of the classroom might lead to noise and a little confusing.

During each stage, the teacher administered individual quizzes to encourage individual accountability and make sure that students understand what they had learned. After the quiz the teacher requested students to check their own work using answer keys prepared. This provided them one more reinforcement opportunity. The recorder of each group had to fill in the "Quiz score sheet," Finally, the students determined the team improvement points by computing the average improvement points of team members. At the end of quizzes, the members of high-scoring teams were given certificates.

CONCLUSION

In using Slavin's cooperative learning techniques in the language classroom, the teacher's experience was rewarding. Slavin's Student Team Learning methods give three important futures in cooperative learning: team rewards, individual accountability and equal opportunities, which is essential to conversational language learning.

In team study, students were given more reinforcement opportunity, and reduced their stress through resource, environmental identity and role interdependence. Thus, they had a feeling that they sink or swim together (Slave 1991a; Johnson & Johnson 1998). When applying the STAD and Jigsaw II techniques, all the students were given to contribute important points to their teams. Group members had to tutor and encourage each other to master the learning tasks. By encouraging teams to help each member improve over his or her previous average, the scoring system in STAD and Jigsaw II offers students clear goals that they must work together to achieve. Thus individual accountability and team encouragement are the factors of success in the group.

In keeping with the spirit of cooperative learning, in this study conversation English classes were activity-based lessons, including language learning games, listening exercises, role-playing, students' oral presentations and outside self study. Therefore, students had more opportunities to develop automaticity in language processing in addition to building conversational competence.

To sum up, from Slavin's theory and practice, in cooperative learning classroom, students got a lot of experiences; students were more motivated to work harder, created a positive atmosphere, in which learning was shared gained and discussed interactively. 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. However, Slavin's technique to conversation class is an instructional, systematic and structured strategy. This is a planned and time-consuming process; the teacher needs to monitor and interview in the group for fear that groups do not get along, and members can't participate in. As Jacobs, Power and Inn (2002) stated completing a task depends on peers, teachers, and school administrators' support. It is hoped that the study will be helpful to English teachers to better understand how Slavin's principles of cooperative learning can be used successfully in foreign language learning and to further acquire comment and advice from experienced experts and college professors to modify the English conversation teaching strategies for the future.

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