

## 五專生經由合作學習的學習成果\*

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### 摘 要

本研究旨在探討康寧護專五專一年級的學生經過二個月合作學習的英語學習成效和社交技巧的學習成果。課程設計採學生學習成就區分小組(STAD)為主架構，再配合 Within-Team Jigsaw, Round Robin 和 Number Heads Together 的合作學習技來加強個人和小組的練習。英語短劇的演出亦被採用以培養學生的溝通能力。

深度訪談為主要的研究工具，訪談資料來自高、中、低成就共 12 名學生。結果顯示大部分受訪者對合作學習的反應非常好尤其在語言學習，人際關係和自我成長三方受益匪淺。然而受訪者也提出班級秩序，小組認同和成員小考表現不佳之缺失。本研究亦對此缺失深入討論並提出解決之道。

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from the new learning method. Most participants indicated that they got bored with teachers typically teaching strictly from the text in a traditional, mechanical manner. Compared to their past learning experience, they found CL quite interesting. They became the masters of the interactive activities in a student-centered classroom. The key recommendation for EFL teachers wanting to implement the CL approach in their classrooms is to seriously consider the problems pinpointed by the participants mentioned previously. Besides, EFL teachers need to become as familiar as possible with the structures available for use, the purposes for which they are intended, and determine their goals. If possible, EFL teachers can work together as a group so that they can discuss and adjust as they go along. This will be more conducive to students' learning.

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used CL, but only for a short time because she felt she was losing control of the class. However, most participants thought that the Spotlight Cards (Kagan, 1994, pp. 7:1-7:3) served very well as quiet signals which reminded them to control themselves and follow classroom norms.

Second, at the initial stage, some participants were resistant to their team identity because they were not allowed to choose their teammates. Team-building was an essential element to forming team identities. In the present study, a team project which asked each group to sing an English song aloud at the last class appeared to be very successful in promoting team identity. S2 of the medium-level-proficiency participants reflected on that by saying:

I love the off-academic work very much. I can't believe that I can sing a complete English song in public. I can't believe I've learned so many new words from lyrics, either. What I can't believe most is that the complaints among us have been replaced by encouragement. How neat! A Big Smile!

Third, the possibility of "fossilization" as a drawback to CL was identified. Some participants doubted whether the dialogues they created were grammatically correct. They hoped that the teacher could make corrections and explain them right after they produced them orally. They felt that doing so would avoid the risk of fossilization.

Lastly, two participants mentioned their peers complaining about those who didn't do well in quizzes in Group Recognition. They indicated that the teacher's immediate intervention was very useful in helping their groups work together comfortably. The teacher talked to the poorly performing students in private to elicit their problems and then discussed the social behaviors involved, especially the need to see different views without being rude or showing impatience.

## CONCLUSIONS AND RECOMMENDATIONS

In this investigation a majority of the participants seemed to enjoy learning in a CL format. Most participants suggested that they had made great progress in language development as well as affective development. In addition, their interpersonal skills and relations among classmates improved. One possible explanation for these positive outcomes is that they result

S4 of the low-proficiency-level participants responded:

My motivation is fostered through working together because it keeps me from getting isolated and hopeless.

Some participants also identified liking the class as the crucial affective development they made. In general, they believed CL created a positive learning environment with more students attentive to assigned tasks. It entailed an interesting, active course in which students knew there was a reason to communicate and a positive interdependence among themselves. As described in Coelho (1992), each member of the group depended on every other member for some aspects of the task. S4 of the low-proficiency-level participants couldn't believe she wasn't getting bored but was rather staying alert in English class because she once gave up on English despite it being a required subject in entrance exams. She said:

The teacher really did a good and clear lecture before. However, I still felt drowsy. But now, I am a teacher, too. How can I fall asleep? My peers count on me to teach them certain words and explain some paragraphs. Isn't it wonderful to think I am able to teach? Actually, English is not hard, though. I am more and more interested in attending English class.

S3 of the high-proficiency-level students contended that the variety of interactive activities in CL revealed to her the inadequacy of her attitude toward learning English for academic purposes. She soon started to study English outside of her textbooks. She developed a strong desire to learn English in her living environment such as the ads on buses or the commercial logos of products and to train herself to think in English in her daily life.

### **Problems and Possible Solutions**

During the interviews, participants identified some problems that are worthy of serious consideration. First, how to control the noise level in a large classroom appeared to be the essential classroom management issue. Two high-proficiency-level participants complained about having a hard time concentrating on learning with all the noise around them. One medium-proficiency-level interviewee reported that her junior high school teacher had once

arguments resulted from every member's desire to make the group's performance better. So, there was a need to show respect to each individual's idea. S2 of the medium-proficiency-level participants mentioned that she acquired new conflict solving skills. When encountering different opinions, she would encourage her peers to handle the situation in a logical and mature manner. She often told her group members:

There is no use in complaining or arguing. We can either vote to make a decision or consult with the teacher.

### **Affective Development**

A consistent phenomenon found in the interview was that the effects of CL on participants' social development and affective development were intertwined in certain respects. First, tutoring or willingness to help contributed to the gaining of self-esteem of most high-proficiency-level participants, while most participants with medium or low levels of proficiency built self-esteem through several other measures. For example, S1 of the medium-proficiency-level participants claimed that, even though her group members challenged each other's reasoning all the time, they were all sure that they were known, accepted and liked by their peers. S1 of the low-proficiency-level participants described how, when allowed to express her own ideas, and having the security of the group when mistakes were made, she was more likely to have an increased sense of self-esteem. She said:

I am no longer afraid of speaking English in class because I can practice in the group in advance. Even though I make some mistakes, I don't feel I am losing face since the mistakes are made by all my peers, not only me.

Second, getting involved in, or holding oneself accountable for one's own language study had a great impact on participants' increased motivation. Participants with all levels of proficiency linked peer involvement and peer motivation to greater confidence in their ability to learn. S4 of the medium-proficiency-level subjects said:

I feel very comfortable working together. I follow the syllabus to study and to cooperate with others. I am glad my learning initiative has been shaped.

believed that she had changed her behavior to communicate and work more effectively with others.

The interview data repeatedly showed willingness to help, being accountable for one's own learning and showing respect for fellow students to be the attributes of better social relations among peers. S4 of the high-proficiency-level participants recalled that the competitive learning environment in her junior high school days had made her inhibited from tutoring peers because she was always worrying about peers getting better grades than her. However, STAD made her willing to help for the purpose of pursuing better team performance. She was confused with some topics once in a while, but tutoring helped her get a more in-depth understanding. She had come to realize that human beings were highly social animals. So, helping each other was very essential. She liked to help peers in need. She said:

I am happy whenever I find my peers relieved of learning problems with my tutoring. And when our group gets a smiling face on a quiz, every team member is excited about seeing the movies.

Surprisingly, S3 of the low-proficiency-level participants insisted that peer tutoring was much more helpful to her compared to teachers' lecturing. She mentioned she didn't have any idea about the basic grammar covered in former textbooks, such as the use of auxiliary verbs, not to mention the new grammar concepts. She reported:

Yu-lin and Fang-may are very nice to me. They always explain to me why we use "do" and not "does." Some day, I hope my English will be as good as theirs. Then, I will be eager to help people with learning problems like me.

The interaction made this low-proficiency-level participant rid herself of her bias against certain people. In addition, because she was so touched by her peers' help and support, she tried her best to do her own work. Her personal philosophy in cooperating with others was to be responsible for her own learning so that the group could work as functionally as possible.

Showing respect for fellow students was also important appropriate social behavior recognized by some participants. S1 of the medium-proficiency-level students wondered if other groups often had differences of opinion just as her group did. But she knew that all the



use of the dictionary, I not only enlarged my vocabulary but also acquired a better feel for sound-spelling relationships. I began to practice reading the words and story aloud so that I can make myself understood during Roundrobin session. I think I am making my pronunciation skills better little by little.

S3 of the medium-proficiency-level participants reported that in Roundrobin, her peers negotiated for meaning almost continuously as they met with their teams. They helped each other, corrected each other, expanded on a teammate's meaning, disagreed and came to consensus. S4 of the medium-proficiency-level participants expressed that Roundrobin involved her in many more instances of receiving comprehensible input and producing output than the previous classroom situation did. She declared that she made some progress in speaking and listening. She said:

As our speaking ability is not good enough for academic discussion, we generally use Chinese to explain a concept to a teammate and then go on in English. However, we practice producing single words and short sentences orally a lot and pay full attention to listen to others to practice listening skills.

S4 of the low-proficiency-level participants also responded that she benefited from Roundrobin greatly as a result of learning good reading strategies from teammates such as using the context of the story and personal experience to attack unknown words in reading.

Two low-proficiency-level participants pointed out that Number Heads Together had totally changed their attitudes toward English learning. S2 of the low-proficiency-level participants expressed that she was constantly attentive because she knew that her number might be called. S4 of the low-proficiency-level participants claimed it was an effective review technique, helping her to comprehend lessons better.

### **Social Relations**

The interview data clearly showed the consistency between participants' improved social peer relations and their improved affective development when considering the question: "What beliefs do students have about the accepted social behaviors in group discussion?" Taking all participants' responses as a whole, the results were quite exciting. Almost every participant

preliminary analysis of these conversations, some participants were interviewed again to supplement missing information. The teacher-as-researcher conducted the interviews personally.

## RESULTS AND DISCUSSION

The interview data showed that most participants' reactions to CL were positive and they seemed to have achieved some accomplishments in three areas: language development, social relations and affective development. This section describes students' accomplishments in these three areas. In addition, some problems pinpointed by a few participants, and possible solutions to those problems are discussed.

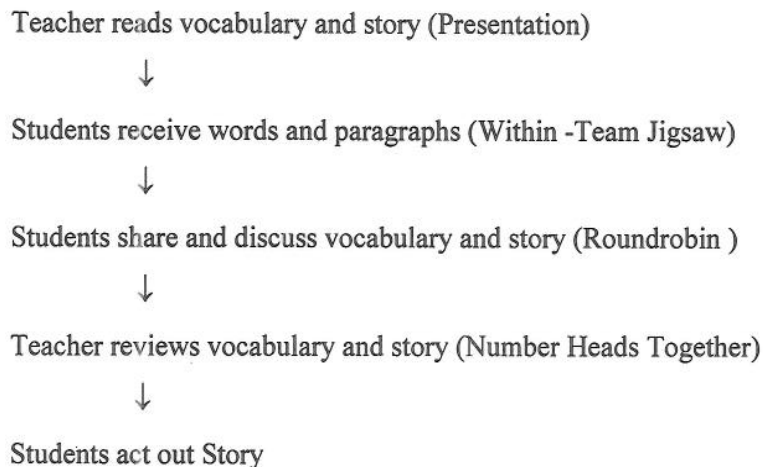
### Language Development

A majority of participants perceived some improvements in their language learning in exploring the question: "What CL structures are the most beneficial to students?" All participants made a clear description of how they benefited from their favorite structure. S1 of the high-proficiency-level participants contended that the purpose of learning a foreign language was communication. None of the four language skills could be neglected in the curriculum, she felt. Previously, because her English courses prior to junior-college were strictly based on the grammar-translation method, the listening and speaking skills were completely omitted. Therefore, she strongly believed that Acting out Story was effective in acquiring language skills in all areas. It required her to comprehend stories, write scripts, practice speaking lines and rehearse. S2 of the high-proficiency-level participants responded that writing and speaking were the skills she used the most in acting, since she wrote her own dialogues and she also wrote down new vocabulary or new expressions, while she had a chance to talk.

Three participants with medium level of proficiency mentioned that two structures, Within-Team Jigsaw and Roundrobin, had an immediate impact on their learning method. S2 of the medium-proficiency-level participants reported:

I love Within-Team Jigsaw best, as it forces me to look up certain words in the dictionary and preview the story before each class meeting. With the frequent

down dialogues based on the story they read and then acted them out. The lesson procedures were as follows:



**Individual Testing.** Students took a written quiz consisting of four parts: vocabulary in context, grammar including sentence combining and cloze test, guided translation and reading comprehension.

**Group Recognition.** Students were told that teams that averaged higher than group baseline scores were awarded a smiling face symbol which meant "success" and that teams that won three out of five (five quizzes) would go to Lab to watch a movie at the last class of the semester.

In order to explore the effects of CL on students, 12 students with different levels of proficiency were selected as the participants in the interview. The criterion to select the consistently high-achieving students was that their baseline scores and cooperative scores fell in the upper ten percent of the class. The consistently low-achieving students were chosen from the bottom ten percent; whereas, the consistently medium-achieving students were the medium 15 percent for the limited students. Four consistently medium-achieving students were selected as participants. By random sampling, 4 out of 12 high-achieving students and 4 out of 8 low-achieving students were selected as well.

As the interview is considered to be a friendly conversation in which the respondents can express their opinions freely, an open-ended interview was used as data collection in the study. At the beginning of the 1998 spring semester, pairs of participants with the same level of proficiency were interviewed in person and the conversations were tape-recorded. After a

STAD (Student Teams Achievement Division), one of the CL approaches originally developed by Slavin (1978), was chosen as the framework. STAD is based on fostering students' motivation by focusing on cooperation between the members of different teams. It calls for the creation of long-term learning teams who help each other master material. Team members are tested individually and then scores are compared to a baseline score. Student team scores are computed based on individual scores and improvement points are given. The STAD approach always has the following steps: (1) Organization of small heterogeneous groups, (2) Presentation, (3) Group practice, (4) Individual testing, and (5) Group recognition.

**Organization of Small Heterogeneous Groups.** A list of students' baseline scores was made for each class, ranked from highest to lowest student. Baseline scores were the averages of five different quiz scores before the midterm exam. The first team was composed of the top two and bottom two students. The second team was formed with the top and bottom 3rd and 4th students, and so on. The heterogeneity of these teams, each with four or five students of mixed levels, was meant to offer the greatest chances for peer tutoring and support. There were 12, 12 and 11 heterogeneous teams in three different classes respectively. Students were asked to choose their team names and then were given their group base scores. Group base scores were the averages of the baseline scores for each member in a given group.

**Presentation.** The teacher read vocabulary and story to present the teaching lesson. Afterwards, students proceeded to study together in Group Practice.

**Group Practice.** In the within-group practice portion of the lesson, three of the Kagan Cooperative structures—Within-Team Jigsaw, Roundrobin and Number Heads Together—were utilized in sequence to ensure individual accountability, equal participation and increased social skills. Within-Team Jigsaw was used as a preview technique. Each student was responsible for looking up certain words in a dictionary at home and becoming an expert in those words for their group. Next, students did a Roundrobin in which students took turns sharing around the team orally. To ensure that students followed these two structures, students were told that group leaders would report to the teacher if they failed to preview the assigned material before class meeting. Then, Number Heads Together was used to review words once the definitions had been determined. Number Heads Together follows four steps: (1) Students number off, (2) Teacher asks questions, (3) Students put their heads together, and (4) Teacher calls a number. Prior to the Individual Testing portion of the lesson, the activity of Acting out the Story was applied to enhance students' speaking and listening abilities. Students were asked to write

needs as a result of too much emphasis on academic performance. The application of CL offers one possible solution to the problem.

Most learners have acquired better affective development in addition to social skills development. They report having learned a lot from their peers and being satisfied with their peers' performance (Prapphal, 1993). Some of them changed their learning attitudes and study habits. For example, some became more active and productive in language learning (Hsieh, 1996) and others became aware of the need to take responsibility for their own learning (Lin, 1997). They no longer waited for teachers to deliver knowledge to them. Instead, they read or learned English by themselves actively and spontaneously.

As mentioned previously, in a CL classroom setting teachers are no longer the only sources of knowledge. Therefore, the role of the teacher is changed from "an external operator of the learning system into a facilitator of the learning process" (Tseng, 1996, p1). McDonell (1992) defines an effective facilitator as a teacher who is prepared to intervene and assist in the problem-solving process (p. 169). At the same time, the teacher serves as an observer. Teachers have opportunities to assess group interaction and monitor how students are developing their language skills. Regular observation allows teachers to make adjustments in their procedures to enhance students' learning.

As Kessler (1992) argues, CL is a "humanistic, pro-social form of education that offers second language learners an opportunity to realize new dimensions of achievement." For this paper, students learning English in the "humanistic and pro-social" environment of CL were studied to see whether this teaching approach influenced their language learning and social relations among classmates.

## METHODOLOGY

A total of 143 freshman students majoring in nursing at Kang Ning Junior College of Nursing were instructed to learn English through CL for two months, from mid-November 1997 to mid-January 1998 (i.e., from the midterm exam of the fall semester of 1997 to the end of the semester). Freshman English was a four-credit-hour, required course that met for two hours, twice weekly.

## LITERATURE REVIEW

Olsen & Kagan (1992) define Cooperative Learning as "a group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others" (p. 8). Specialists in language learning and teaching insist that cooperation and collaboration is an effective means of promoting learning due to the greater social and linguistic interaction (Brown, 1994; Nunan, 1992; Vygotsky, 1978). Through mutual interaction, students improve their language competence, increase basic achievement outcomes and develop their social skills. Interaction also fosters better affective development by, for example, arousing students' willingness to learn actively.

Students tend to show greater academic achievement and develop language competence when they are in cooperative learning situations. Compared with students in competitive and individualistic settings, students in small cooperative groups display significantly higher achievement and retention. (Johnson, et al., 1993; Jackson & Williams, 1985; Slavin, 1983). According to Bejarano (1987), students of EFL in CL groups outscored those in the whole-class group on the overall achievement test and on the listening comprehension scale in particular. Chen & Wei (1993) claim that the majority of the college-level respondents believe they have made their overall English proficiency better. Similarly, over 50 percent of respondents perceive that their listening comprehension, pronunciation and reading comprehension improve in drama-based CL activities (Tseng, 1996). McGroarty (1989) indicates that students benefit from CL through increased opportunities for second language practice. Besides that, she points out that CL provides teachers and students experience with new roles that enhance social as well as linguistic skills.

Some studies show that CL is effective in shaping students' positive interpersonal social skills. With students acting as resources for each other, they learn how to make group interaction smoother through negotiation. They learn to cooperate with fellow students with whom they are not familiar to work toward a common goal. At the end of a discussion the teacher can complete CL activities by introducing key social skills used during the activity such as the importance of listening without interrupting or making eye contact when communicating. Chen & Wei (1993) argue that English education in Taiwan falls far short of satisfying social



## INTRODUCTION

In order to lead their students to learn English efficiently, educators try their utmost to make their teaching as comprehensible and well-organized as possible. Unfortunately, some students still fall behind no matter how hard teachers try. In ordinary classroom settings, the performance of these students goes from bad to worse as the semester goes by. Simply put, the traditional classroom environment does not promote the learning of all students.

In traditional teacher-centered classrooms, teachers spend almost the entire class time lecturing. Cohen (1984) reported that only 25-50 percent of the class may actually listen to the teacher (Oslen & Kagan, 1992). The one-way teaching model doesn't involve all students with their learning since some students are likely to be indifferent to what is being taught. In Taiwan, more and more studies indicate that the traditional, teacher-centered English classroom needs to be transformed into a communicative, student-centered classroom (Hung, 1996).

A communicative curriculum is the heart of a communicative and student-centered classroom, and Cooperative Learning (CL) provides the foundation for the design of communicative curricula. CL requires students to interact in small groups for the purpose of achieving a specific goal. As each group's success depends on everyone's individual contribution, students will have a lower anxiety level. Students will then be more motivated to practice using the target language to communicate with their peers and to express their ideas. Another key reason for using CL to teach English is for the development of social skills. Included in CL is the explicit teaching of social behaviors such as taking turns. Many educators in Taiwan strongly propose the use of CL precisely because of the growing problem of anti-social and criminal acts committed by students.

There have been a number of studies concerned with strategies, approaches and students' reactions to CL (Chen & Wei, 1993; Chane & Kuo, 1995; Tseng, 1996). However, no qualitative interview studies conducted to investigate students' perceptions of CL have been found. Therefore, this study was an attempt to utilize Cooperative Learning in three classes at the junior college level to explore how students perceived the changes in their language and social development in their new learning environment.

## **The Performance of Junior College Students Studying English Through Cooperative Learning**

Hsiu-chuan Chen\*

### **ABSTRACT**

The study explores how junior college students perceive the changes in their language and social development when they switch to a new Cooperative Learning (CL) environment. A total of 143 freshman students majoring in nursing were instructed to learn English through CL for two months. STAD (Student Teams Achievement Division) was chosen as the framework. Three Cooperative structures—Within-Team Jigsaw, Roundrobin and Number Heads Together—were utilized in sequence to ensure individual accountability, equal participation and increased social skills. In addition, the activity of Acting out the Story was applied to enhance students' speaking and listening abilities.

For data collection, 12 students with different levels of proficiency were selected as the participants in open-ended interviews with the teacher-as-researcher. The results showed that most participants' reactions to CL were positive and they seemed to have achieved some accomplishments in three aspects: language development, social relations and affective development. Some problems pinpointed by a few participants were classroom management, team identity, the possibility of fossilization and complaints about teammates doing poorly on quizzes. Possible solutions to those problems are discussed in the study.

**Key words:** Cooperative Learning, STAD (Student Teams Achievement Division), EFL, TESOL

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