

การเรียนรู้แบบมีส่วนร่วมโดยใช้กิจกรรมจิกซอว์ในชั้นเรียนการพูดภาษาอังกฤษ
ในระดับมหาวิทยาลัย

นางหลี่ เซียน

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต
สาขาวิชาภาษาอังกฤษศึกษา
มหาวิทยาลัยเทคโนโลยีสุรนารี
ปีการศึกษา 2555

**COOPERATIVE LEARNING USING JIGSAW
ACTIVITIES IN COLLEGE ENGLISH
SPEAKING CLASSES**

Li Qian

**A Thesis Submitted in Partial Fulfillment of the Requirements for
the Degree of Master of Arts in English Language Studies
Suranaree University of Technology
Academic Year 2012**

COOPERATIVE LEARNING USING JIGSAW ACTIVITIES IN COLLEGE ENGLISH SPEAKING CLASSES

Suranaree University of Technology has approved this thesis submitted in partial fulfillment of the requirements for a Master's Degree.

Thesis Examining Committee

(Dr. Butsakorn Yodkamlue))

Chairperson

(Dr. Sirinthorn Seepho

Member (Thesis Advisor)

(Dr. Nattaya Puakpong)

Member

(Prof. Dr. Sukit Limpijumnong)

Vice Rector for Academic Affairs

(Dr. Peerasak Siriyothin)

Dean of Institute of Social Technology

หลี่ เจียน : การเรียนรู้แบบมีส่วนร่วม โดยใช้กิจกรรมจิ๊กซอว์ในชั้นเรียนการพูดภาษาอังกฤษ
ในระดับมหาวิทยาลัย (COOPERATIVE LEARNING USING JIGSAW ACTIVITIES
IN COLLEGE ENGLISH SPEAKING CLASSES) อาจารย์ที่ปรึกษา :
อาจารย์ ดร.สิรินทร์ ศรีโพธิ์, 133 หน้า

เนื่องจากการพูดยังไม่ได้รับการเน้นหนักในการเรียนการสอนภาษาอังกฤษมากนัก นักศึกษาระดับมหาวิทยาลัยของจีนมักจะได้รับการวิพากษ์วิจารณ์ว่ายังพูดภาษาอังกฤษได้ไม่ดีนัก นอกจากนี้ยังพบว่าความเครียดเป็นสาเหตุหลักของปัญหานี้ ดังนั้นงานวิจัยนี้จึงมีวัตถุประสงค์เพื่อศึกษาว่านักศึกษาต้องประสบกับความเครียดในระดับใดในชั้นเรียนวิชาการพูดภาษาอังกฤษ และศึกษาผลกระทบจากกิจกรรมจิ๊กซอว์ต่อความเครียดและความสามารถในการพูดภาษาอังกฤษ งานวิจัยนี้ดำเนินการที่มหาวิทยาลัยแห่งหนึ่งในประเทศจีน มีการเก็บข้อมูลโดยใช้แบบสอบถามที่คัดแปลงจาก “มาตรวัดความเครียดในห้องเรียนวิชาภาษาต่างประเทศ” ของ ฮอร์วิทซ์ (Horwitz) และ “รายงานส่วนบุคคลเกี่ยวกับความเครียดในการสื่อสาร (PRCA-24)” ของ แมคโครสกี (McCroskey) รวมถึงการใช้การสัมภาษณ์กึ่งโครงสร้าง และบันทึกสะท้อนความคิดเรื่องการสอนของผู้วิจัย ผู้เข้าร่วมการวิจัยคือนักศึกษาภาควิชาการศึกษาปฐมวัยที่ไม่ได้เรียนวิชาภาษาอังกฤษเป็นวิชาเอกจำนวน 30 คน สถิติเชิงพรรณนาถูกใช้ในการประเมินขอบข่ายและความรุนแรงของความเครียดต่อการเรียนภาษาต่างประเทศสถิติที่ใช้ในการทดสอบความแตกต่างระหว่างค่าเฉลี่ยที่กลุ่มตัวอย่างสัมพันธ์กัน (Dependent Samples T-test) ถูกใช้เพื่อประเมินผลของกิจกรรมจิ๊กซอว์ที่มีต่อการพูดภาษาอังกฤษของผู้เข้าร่วมการวิจัย การวิเคราะห์เนื้อหา (Content Analysis) ถูกใช้ในการวิเคราะห์ข้อมูลเชิงคุณภาพ ผลการวิจัยพบว่า 1) ผู้เข้าร่วมการวิจัยส่วนใหญ่มีความเครียดสูงก่อนเข้าร่วมกิจกรรมจิ๊กซอว์ 2) กิจกรรมจิ๊กซอว์สามารถช่วยลดความเครียดของนักศึกษาในการพูด และส่งเสริมการพัฒนาความสามารถในการพูด และ 3) ผู้เข้าร่วมการวิจัยส่วนใหญ่มีทัศนคติที่ดีต่อการเรียนและการพูดภาษาอังกฤษโดยใช้กิจกรรมจิ๊กซอว์

สาขาวิชาภาษาต่างประเทศ
ปีการศึกษา 2555

ลายมือชื่อนักศึกษา _____
ลายมือชื่ออาจารย์ที่ปรึกษา _____

LI QIAN : COOPERATIVE LEARNING USING JIGSAW ACTIVITIES
IN COLLEGE ENGLISH SPEAKING CLASSES. THESIS ADVISOR :
SIRINTHORN SEEPHO, Ph. D., 133 PP.

COOPERATIVE LEARNING / JIGSAW ACTIVITIES / ENGLISH SPEAKING
CLASSES

In recent years, since Speaking English has not been the focus in EFL classes, Chinese college students have often been criticised for their poor spoken performance. Moreover, anxiety was reported as one of the major causes of this problem. Therefore, the purpose of this research was to investigate to what degree students experienced anxiety in an English Speaking class and examine the effects of Jigsaw activities on their anxiety and speaking ability. The study was conducted at a University in China, using questionnaires adapted from Horwitz's "Foreign Language Classroom Anxiety Scale" and McCroskey's "Personal Report of Communication Apprehension (PRCA-24)", semi-structured interviews and also through the researcher's reflective teaching journals. The subjects were thirty non-English majors of the Primary Education Department. Descriptive statistics were used to assess the scope and severity of foreign language anxiety experienced by the subjects. The dependent samples t-test was used to examine if the Jigsaw activities has an impact on students' speaking. Content analysis was used to analyze the qualitative data. The results revealed that (1) most students reported high level of anxiety before the use of Jigsaw

activities; (2) Jigsaw activities had a positive effect on the reduction of students' speaking anxiety and their improvement of speaking ability; and (3) most students hold positive opinions towards learning in Jigsaw activities.



School of Foreign Languages

Student's Signature _____

Academic Year 2012

Advisor's Signature _____

ACKNOWLEDGEMENT

The process of writing my master thesis is the most significant journey I have ever taken in my academic life. Without this journey, I would not have realized how much I've learned or how mature I've grown in my academic life. It would not have been possible to write the thesis without the support of the kind people around me, to whom I want to express my sincere gratitude.

First and foremost I offer my sincerest gratitude to my supervisor, Dr. Sirinthorn Seepho, who has supported me throughout my thesis writing with her clear and detailed comments, great patience and timely supervision. Without her guidance and encouragement, it would not have been possible for me to complete this thesis. She patiently and carefully went over each draft page by page and line by line, making numerous valuable suggestions and feedback that had a significant impact on the final form of the thesis. I sincerely appreciate her professional guidance and personal help throughout the years of my study at Suranaree University of Technology (SUT).

I am also obliged to my committee members, Dr. Butsakorn Yodkumlue and Dr. Nattaya Puakpong, who gave their valuable time to read my paper carefully and gave me inspiring ideas and constructive feedback about my research. Without their devotion and help, I would not have completed my paper on time.

I am very grateful to Varun who helped me with the statistical analyses in this study. Without his help, the statistical analysis process would not have gone

smoothly. Also, I would like to give my thanks to my home institute of teaching, Tongren College, China. I owe special thanks to the college staff and 30 students for their kind cooperation which made my research project possible and successful.

Lastly, but by no means least, I want to thank my parents for their understanding and financial help throughout the years of my study, and to extend my thanks to my sisters, who helped and encouraged me greatly.

Li Qian

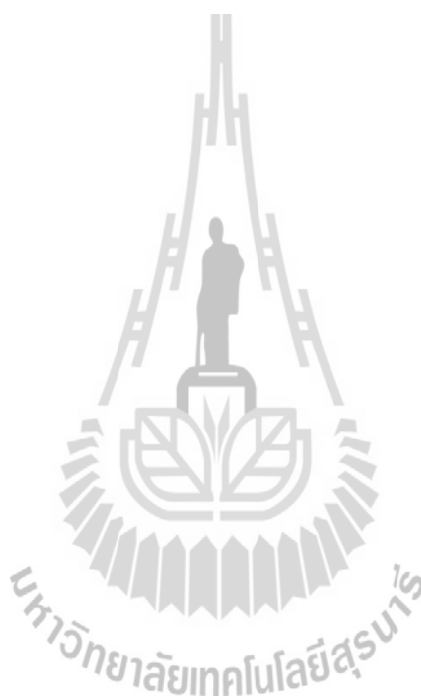


TABLE OF CONTENTS

	Page
ABSTRACT (THAI).....	I
ABSTRACT (ENGLISH).....	II
ACKNOWLEDGMENTS.....	IV
TABLE OF CONTENTS	VI
LIST OF TABLES.....	XIII
LIST OF FIGURES.....	XIV
CHAPTER	
1. INTRODUCTION.....	1
1.1 Statement of the problem.....	2
1.1.1 Problems of the English language teaching Method	3
1.1.2 Students' speaking problem.....	4
1.2 Rationale of the study.....	7
1.3 Purposes of the study.....	10
1.4 Research questions and hypotheses.....	10
1.5 Significance of the study.....	11
1.6 Scope of the study.....	11
1.7 Definitions of terms.....	12

TABLE OF CONTENT (Continued)

	Page
1.7.1 Speaking.....	12
1.7.2 Speaking Anxiety Scale (SAS).....	12
1.7.3 Cooperative Learning Activity.....	12
1.7.4 Foreign Language Anxiety (FLA).....	12
1.7.5. Communication Apprehension.....	13
1.7.6 Fear of Negative Evaluation.....	13
1.7.7 Jigsaw Method.....	13
1.8 Summary.....	14
2. LITERATURE REVIEW.....	15
2.1 Theories concerning cooperative learning.....	15
2.1.1 Definitions of cooperative learning.....	15
2.1.2 Elements of cooperative learning.....	17
2.1.3 Benefits of cooperative learning.....	22
2.1.4 Limitations of CL.....	23
2.1.5 CL and second language acquisition (SLA) theories.....	25
2.1.5.1 The input and output hypothesis.....	26
2.1.5.2 Interaction hypothesis.....	27
2.1.5.3 Affective factors.....	28
2.1.6 Cooperative learning methods.....	29

TABLE OF CONTENT (Continued)

	Page
2.2 Speaking a foreign language.....	32
2.2.1 The importance of speaking.....	32
2.2.2 The nature of speaking.....	34
2.2.3 Factors inhibiting speaking ability.....	34
2.3 Language anxiety scales.....	39
2.3.1 Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz.....	39
2.3.2 Personal Report of Communication Apprehension (PRCA-24) by McCroskey.....	40
2.3.3 Development of Speaking Anxiety Scale (SAS) for the present study.....	40
2.4 Related research studies.....	43
2.4.1 Cooperative learning.....	43
2.4.2 Speaking.....	48
2.4.3 Anxiety.....	50
2.4.4 Summary for related studies.....	54
2.5 Summary	55

TABLE OF CONTENT (Continued)

	Page
3. RESEARCH METHODOLOGY	56
3.1 Research method.....	56
3.2 Research design	57
3.3. Research procedure.....	58
3.4 Instruments.....	59
3.4.1 Speaking test.....	59
3.4.1.1 Scoring rubric for speaking tests	60
3.4.1.2 Inter-rater reliability.....	61
3.4.2 Speaking Anxiety Scale (SAS) adapted from FLCAS and PRCA.....	61
3.4.3 Semi-structured interview.....	62
3.4.4 Researcher’s journal.....	62
3.5 Data analysis.....	63
3.5.1 Analysis of data obtained through speaking test....	63
3.5.2 Analysis of data obtained through speaking anxiety scale.....	63
3.5.3 Analysis of data obtained through semi-structured interview.....	64
3.6 The pilot study.....	65
3.6.1 Participants for pilot study	66

TABLE OF CONTENT (Continued)

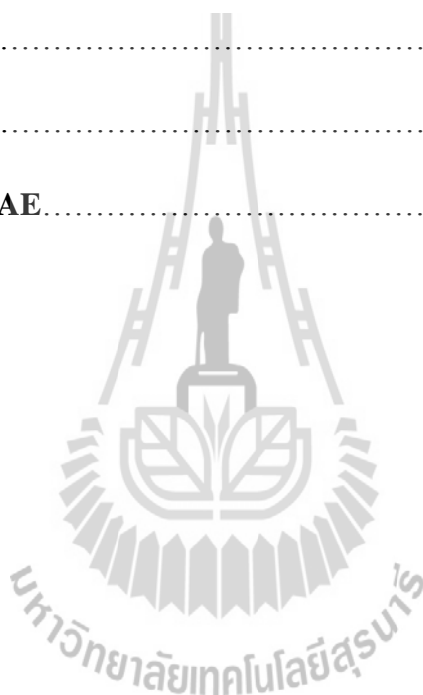
	Page
3.6.2 Procedure for the pilot study.....	66
3.6.3 Results of pilot study.....	67
3.6.4 Implications for the main study.....	67
3.7 Summary.....	68
4. RESULTS.....	69
4.1 Answers to research question 1.....	69
4.1.1 Speaking anxiety degree reported by 30 participants before and after the Jigsaw training.....	69
4.1.2 Items with high frequency of responses to “Agree” and “Strongly Agree” before and after the Jigsaw intervention.....	72
4.2 Answer to research question 2.....	74
4.2.1 Results of speaking ability as a whole.....	74
4.2.2 Results of five individual criteria on the speaking test.....	75
4.2.3 Inter-rater reliability.....	76
4.3 Answer to research question 3	76
4.3.1 Data obtained from the student interview and the questionnaire.....	77

TABLE OF CONTENT (Continued)

	Page
4.3.1.1 Supportive learning environment (SLE).....	77
4.3.1.2 Active learning process (ALP).....	79
4.3.1.3 Positive learning results (PLR).....	80
4.3.2 Data obtained from the journal.....	84
4.3.2.1 Changes in class participation.....	85
4.3.2.2 Changes in peer interaction.....	87
5. DISCUSSIONS, CONCLUSION AND IMPLICATIONS.....	90
5.1 The effects of Jigsaw activities on students' FLA.....	90
5.2 The eEffects of Jigsaw activities on students' speaking ability.....	93
5.2.1 General improvement of speaking ability	93
5.2.2 Improvement only in “eye contact” and “conversation skills”.....	96
5.3 Factors influencing students' positive opinions of the Jigsaw activities.....	97
5.3.1 Eliciting ideas and lessening burden.....	97
5.3.2 Positive self-realization of their own ability.....	98
5.3.3 Socializing students.....	99

TABLE OF CONTENT (Continued)

	Page
5.3.4 Issues to consider when implementing Jigsaw activities.....	100
5.4 Conclusion and implications.....	101
5.5 Limitations and further research recommendations.....	101
REFERENCES	103
APPENDICES	116
CURRICULUM VITAE	113



LIST OF TABLES

Table	Page
2.1 Comparison between Cooperative and Teacher-centered Classroom.....	17
2.2 Methods of Cooperative Learning.....	29
2.3 The Levels of Anxiety.....	42
2.4 The Results of the Reflection on the 8 Themes.....	45
3.1 Research Questions, Instruments and Data Analysis.....	65
4.1 Student's Total FLA Scores and Anxiety Levels before and after the Jigsaw Activities.....	70
4.2 Comparison of Anxiety Levels before and after Jigsaw training (N=30).....	71
4.3 Paired Samples t Test of Anxiety in pre-and post-test.....	72
4.4 Items Showing the High Frequency of Responses Coded as 4 or 5 (before the Jigsaw Activities).....	73
4.5 Items Showing the High Frequency of Responses Coded as 4 or 5 (after the Jigsaw Activities).....	73
4.6 Paired Samples t-Test of Speaking Ability in Pre-and Post-test.....	75
4.7 Paired Samples t-Test of Five Individual Aspects.....	75
4.8 The Kappa Value for Five Individual Criteria.....	76
4.9 Summary of 6 Journal Entries.....	85

LIST OF FIGURES

Figure	Page
3.1 Notation of Pre-experimental Design.....	55
3.2 Distribution of 15Interviewed Students' Opinions on Jigsaw Activities.....	59
4.1 Distribution of 15Interviewed Students' opinions on Jigsaw Activities.....	84



CHAPTER 1

INTRODUCTION

In the recent decade, because of the political shifting situation in China, the teaching and learning of English as a foreign language (EFL), has been given increasing importance (Dzau, 1990). The practice of English language teaching in the entire world has gained steady growth for the last twenty years. Remarkably, more attention has been given to improve learners' ability to use a second language effectively in order to establish meaningful communication. Influenced by this new tendency, language teachers and researchers in China have made much effort in finding an effective way of English language teaching and learning (Luchini, 2004) .

The ministry of education in China has recently shifted the focus of the teaching syllabus from reading to speaking. Currently, all teachers, students, and stake-holders have realized the importance of spoken English and they are eager to help students improve their English speaking ability. High English proficiency, especially in speaking, helps people with their future promotion and career development. Furthermore, the first impression of a person's English is based on his/her ability to speak fluently and comprehensibly. Therefore, improving students' speaking ability is of great importance and justifies more attention.

In the past decade, although ever-increasing effort has been made to improve the teaching of English in China, the widespread use of traditional grammar-translation

method is still found throughout the whole country (Luchini, 2004). This situation is also found at the researcher's school where teaching still focuses on teacher-centered or teacher-directed instruction. Naturally, teachers in general usually spend a lot of time in lecturing and explaining grammar points in class. Students are required to sit in their seats passively and listen to the lecture attentively. This phenomenon is very similar to the researcher's own experiences. In general, teachers translate dialogues or passages into Chinese, highlighting some language points which students are required to memorize.

In what follows, the problems of students' speaking are presented. Then the rationale of this study is given, along with the purposes of study, the research questions and the significance of the study. Finally, the key terms will be defined.

1.1 Statement of the problem

At the researcher's school, all the Non-English majors have to take an English speaking course in their first academic year. According to the researcher's personal observation in English teaching and communication with other English teachers, it was found that the students are very quiet and not very interactive in their speaking class. It seems to be very hard for students to express their ideas in English. They feel a lack of confidence and are uncomfortable when required to speak English in class. From the students' perspective, they find it hard to improve their oral English. The reason given by them is that they do not get opportunities to use English in class. The

activities used in speaking class are repeating words and phrases and mechanical drilling. For example, the teacher explains the meaning of a dialogue or passage and then translates them into English. Students take some notes about the language points. Then students are required to practice reading the same dialogue in pairs before they are called upon to read in front of the whole class. Sometimes, role-play or presentation may be used, but this is not common. It is claimed by the teachers at this school that students are not interactive enough to do role-play or to give presentations due to their limited language proficiency. Therefore, the teachers just let the students read the same dialogues or sentences in their books. As a result, the students may be able to read the same sentences in their books, but they can not generate or organize new sentences to express their own ideas. This phenomenon can be caused by two possible factors: the teaching method and the students' speaking ability.

1.1.1 Problems of the English language teaching method

Although many popular teaching methods such as Communication Language Teaching, Task-based instruction are not new concepts in English teaching education, the traditional English teaching methods such as Grammar translation and Audiolingualism are still widely used and have great impact on teaching practice in China. Many researchers have noted (Lai, 2002; Tsai, 1998; Wei & Chen, 1993; Yu, 1995) that traditional teacher-centered Grammar Translation Method is still the dominant method in China and this is also true of the researcher's teaching situation. Little attention has been paid to speaking. Studies have pointed out that students tend

to become overly passive under traditional way of teaching (Liang, 1996). Students do not have an opportunity to speak in class. Instead, they just keep quiet and listen passively.

Under instruction using these methods, it is possible that students may have a large amount of vocabulary and become good at grammar rules, but they do not become fluent in speaking. It is obvious that traditional teaching methods have their own merits, such as enlarging students' vocabulary and enabling students to master grammar rules well. However, they may not be an effective way to teach speaking because speaking requires adequate opportunity to practice the usage of the language. Unfortunately, traditional ways of teaching do not provide adequate opportunity to practice.

Therefore, a more interactive teaching method is needed to improve speaking performance and enhance the "usage" of the language. Scholars both abroad (Johnson & Johnson, 1989b; Kagan, 1990) and in China (Chang, 1995; Chen, 1999; Cheng, 2000; Lai, 2002; Tsai, 1998) have claimed that Cooperative Learning (CL) is an effective teaching method in foreign language education.

1.1.2 Students' speaking problems

Getting students to express themselves or respond to teachers in class is a major and common problem encountered by teachers in the language teaching classroom. The students seem to be very passive and are afraid of speaking English in class. As a result, this makes speaking classes quiet. For most of the time, students just sit there

and look at the teacher. If the teacher begins to ask questions, most students will try to avoid eye-contact. They will lower their heads and look at their books. This is because they are trying to avoid being noticed and singled out to answer. Even if they are called upon to express their ideas or answer a question in front of the whole class, some students will just remain quiet and appear very shy, uneasy and embarrassed with their heads buried in their hands. Others may just simply say: "I don't know". In brief, students have little involvement and participation throughout the whole lesson. They may have a good knowledge of the language rules, but they are not able to use the language to communicate. They seem reluctant to participate in classroom activities, especially in speaking activities. Some students may not have much to say and even though they have something to say, they feel it is difficult to express their thoughts and feelings in English. So they just blurt out short and brief ideas. Most students just choose to remain silent.

Such reticence as discussed above is not just a problem found in the researcher's teaching situation. It is a common problem for all EFL students, but more especially for Asian students (Lee & Ng, 2010). They prefer to sit quietly and seldom volunteer to answer the teacher. Even though they are called upon to give an answer or a presentation on a topic by a teacher, they just give some brief replies or ideas (Jackson, 2002). Liu and Littlewood (1997) found that most students in China have experienced inadequate speaking opportunities at school, where "listening to teacher" has been their most frequent classroom experience. Many have low confidence in their ability

to speak without prior planning and they feel uneasy when they have to speak the language.

According to Gregersen and Horwitz (2002), the inability of students to express themselves fully and freely can be caused by anxiety and frustration, lack of confidence, and even apprehension. In these circumstances, it is difficult for them to speak freely or express their ideas properly. This phenomenon may be attributed to two reasons. One is that students have nothing to say. The other is that they may have something to say, but due to anxiety or low language proficiency, they choose not to express their opinions properly. Instead, they just blurt out a brief answer so that they can escape an awkward and embarrassing situation. Furthermore, Jackson (2002) claimed that one of the key sources of student reticence is anxiety about losing face in front of a large group.

According to what has been discussed above, it can be seen that the causes of students' reticence or low interaction are a lack of opportunity to use English for communicative purposes, and their limited English proficiency and lack of confidence, which will probably generate anxiety in speaking. Anxiety will in turn prevent students from a good speaking performance. Therefore, in order to improve their speaking, a more interactive teaching method is needed to provide students with more opportunity to practice using English. Meanwhile, anxiety should be reduced so that students can feel safe or free to participate more in class activities. In this way, students will gradually change from passive receivers to active producers.

1.2 Rationale of the study

In China, English teaching is not satisfactory, especially with regard to students' speaking ability. Speaking is very important and it is the final purpose of language learning. Students cannot perform well in speaking due to a lack of opportunity to practice and also due to their anxiety. Therefore, improving speaking performance calls for a more interactive method. Furthermore, from the perspective of second language acquisition, the need to establish a comfortable and low-threat learning environment has long been emphasized and recognized. The less anxious learners feel, the better results language learning yields (Krashen, 1982).

In response to this problem, Cooperative Learning (CL) is proposed for the purpose of improving speaking. Although some other teaching methods are very popular in the language teaching field, they may not be appropriate to the Chinese EFL context. For example, Schmitt, Schmitt and Clapham (2001) argued that CLT needs quite large amount of vocabulary for functional language use, but it does not give guidance about how to deal with vocabulary. In addition, Stoller (2004) stated that Content-based Instruction (CBI) has gained global attention, especially in English as a Second Language (ESL) setting. However, in English as a Foreign Language (EFL) setting, CBI is claimed to be less effective (Heo, 2006; Wesche & Skehan, 2002).

By contrast, CL seems to be more suitable in Chinese context because of its five key characteristics (provided in the following paragraph). In general, students will feel more relaxed in talking in a foreign language with each other during pair work

and group discussions and most of them will actively participate in class activities of CL (Liu, 2006). In addition, CL provides more interactive activities and more equal opportunities for students to use the language and it also creates a caring atmosphere for learning, which may gradually reduce anxiety in language teaching and learning situation.

The following is a brief theoretical framework of CL. Generally, the five key **elements define cooperative learning and make it successful teaching/learning** approach (Johnson & Johnson, 1994). They include, (1) Positive interdependence: Positive interdependence links students together so that group success depends on each group member's success. (2) Face-to-face or promotive interaction: When doing real work together students need to share resources, help, support, and encourage each other to achieve group goal. (3) Individual and group accountability: The whole group must hold accountable for achieving its goals and each member must take accountability to contribute his or her share of the work. Without any member's contribution, the common shared goal will not be achieved. (4) Interpersonal and small group skills: Skills refer to group-related skills and task-related skills. The former deals with the ways students interact with their teammates, such as encouraging, praising and mediating disagreement. The latter refers to how students interact with one another in order to reach their task objectives, such as asking questions, paraphrasing, explaining and summarizing. Students are empowered by all these skills to successfully manage both teamwork and task work. (5) Group processing: Group processing refers to the

members' reflecting on their group work and interactions with each other. It involves for example, discussion about what members' actions are helpful and unhelpful and decisions about what behaviors to continue or change.

From what has been discussed above about CL, many benefits can be seen from implementing such cooperative learning strategies. Firstly, cooperative learning develops students' social skills. When doing group work, students need to share and exchange ideas with each other in order to successfully solve a problem. This is very helpful for students in developing their interpersonal skills. Secondly, cooperative learning can increase students' motivation and opportunity to practice their language learning. Cooperative learning develops students' social skills. When doing group work, students need to share and exchange ideas with each other in order to successfully solve a problem. This is very helpful for students in developing their interpersonal skills. Moreover, each member has opportunities to contribute to the group. Additionally, cooperative learning can help students to easily understand the ideas. Because lots of ideas and views are shared, students may receive different kinds of responses or feedback. As a result, each student can effectively have a better understanding about the construction of these ideas. Finally, Long and Porter (1985) stated that cooperative learning creates a more positive and affective climate in the classroom and can reduce anxiety. Therefore, it is worthwhile to make an effort to implement CL in the language teaching classroom and to test whether it works effectively or not in the researcher's teaching situation.

In this study, Jigsaw activities were proposed to reduce the students' anxiety and increase their confidence in speaking. In practice, Jigsaw activities apply cooperative learning principles in designing the learning tasks. With their characteristics, they were hoped to encourage cooperation, interaction and engagement by giving each member of the group an essential part to play in the activity. Group members must work together as a team to accomplish a common goal. No student can succeed completely unless everyone works well together as a team.

1.3 Purpose of the study

With regard to the problems mentioned above, this study aims at investigating the effects of CL in a college English class with the purpose of reducing student anxiety thus enhancing students' speaking ability in the English language class.

1.4 Research questions

The present study attempts to answer the following research questions:

- (1) Can students' anxiety be reduced through the use of Jigsaw activities?
- (2) Can students' speaking performance be enhanced through the use of Jigsaw activities?
- (3) What are the students' opinions towards the use of Jigsaw activities in the speaking class?

Research hypothesis:

- (1) Jigsaw activities can enhance students' speaking performance.
- (2) Students' anxiety can be reduced through the use of Jigsaw activities
- (3) Students hold positive opinions towards the use of Jigsaw activities.

1.5 Significance of the study

This research will help English teachers in general and the teachers who teach speaking courses in colleges in particular to have a proper understanding and attitude towards using CL in English classes. By carrying out this study, the researcher hopes that CL will receive more attention from English teachers and that it will help them to make their classes more interactive. If CL works effectively, students' speaking performance will be improved and classroom teaching will become more interesting and productive. Also, this study will give EFL students an opportunity to see themselves as active participants and to be accountable to each other for learning in SLA (Second Language Acquisition). It may also provide some ideas for future SLA research in terms of students' input, output and interaction in language acquisition.

1.6 Scope of the study

Within the scope of this study, the researcher does not intend to cover all CL methods or all students at Tongren College. This study only focuses on the use of the jigsaw method in a speaking class for the first-year students in the Primary Education

Department. In addition, anxiety levels measured in this study include only two related dimensions. They are communication apprehension and fear of negative evaluation. Moreover, due to limitation of time and resources, only 30 first- year college non-English majors were involved in the research.

1.7 Definition of terms

The terms defined in this study include:

1.7.1 Speaking

Speaking in this study refers to answering questions, students introducing themselves or discussing a topic within a group or in front of the whole class.

1.7.2 Speaking Anxiety Scale (SAS)

The speaking anxiety scale used for this study is a 16-item survey adapted from Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz et al.(1986) and The Personal Report of Communication Apprehension-24 (PRCA-24) developed by McCroskey (1970)

1.7.3 Cooperative Learning Activity

Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning (Johnson & Johnson, 1999).

More details will be given in Chapter 2

Cooperative learning activity in this study refers to jigsaw group speaking activities designed by the researcher based on CL principles.

1.7.4 Foreign Language Anxiety (FLA)

Horwitz et al. (1986) defined foreign language anxiety as “a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process” (p.31). It is prompted by specific sets of conditions, for example, public speaking or participating in class (Ellis, 2008). Anxiety is described as the anticipation of a threatening situation.

1.7.5. Communication Apprehension

Horwitz et al. (1986) conceptualize communication apprehension as “a type of shyness characterized by fear of or anxiety about communicating with people” (p.127).

1.7.6 Fear of Negative Evaluation

“apprehension about others’ evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively,” (Horwitz, et al 1986, p.128).

1.7.7 Jigsaw Method

Jigsaw is a cooperative learning strategy that enables each student in a “home” group to specialize in one aspect of a topic. Students meet with members from other groups who are assigned the same aspect, and after mastering the information or material, return to the “home” group and teach the material or information to their group members (Aronson & Patnoe, 1997).

1.8. Summary

In this chapter, firstly, the statement of the problem for this research study has been discussed in the light of the research context. Secondly, the rationale of the study, the purpose of the study, and the research questions are presented. This is followed by an explanation of the significance and scope of the study and, finally, the definitions of some key terms are also provided. The next chapter will review the literature regarding CL, speaking, and anxiety.



CHAPTER 2

LITERATURE REVIEW

In this chapter, firstly, theoretical studies on Cooperative Learning (CL) including its definition, elements, advantages and disadvantages and activities are presented. Secondly, studies of foreign language speaking skills are discussed in terms of the importance of speaking, the nature of speaking and factors inhibiting speaking. Thirdly, studies on foreign language classroom anxiety scales (FLCAS) are reviewed. Lastly, related studies on CL, speaking and anxiety are provided, followed by a summary of this chapter.

2.1 Theories concerning cooperative learning

2.1.1 Definitions of cooperative learning

Cooperative Learning is a theory and an approach in language education. It is group instruction using a learner-centered approach. It makes use of cooperative activities which involve pairs and small groups of learners in the classroom. During the process of cooperative learning, learners help and interact with one another in a group in order to accomplish a set of shared goals in a group. Many educators have given definitions of cooperative learning as follows:

“Cooperative learning is the instructional use of small groups so that the students work together to maximize their own and each other's learning” (Johnson & Johnson, 1989a, p. 12).

“Cooperative learning exists when students work together to accomplish shared learning goals” (Johnson & Johnson, 1989b, p.30).

Slavin (1995) defines Cooperative learning as an instructional program in which students work in groups to help their group members master academic content. In addition, Brown (1994) defines cooperative learning as an approach in which students work together in pairs or groups, and share information. They are like a team whose players must work together in order to achieve goals successfully.

Furthermore, Kessler (1992) proposes a definition of cooperative learning specifically in a language learning context. He defines cooperative learning as grouping students of varying levels of language proficiency, work together on a specific task in such a way that all students in the group can benefit from the interactive learning experience.

According to the definitions given above, cooperative learning is working together to accomplish shared goals. While completing cooperative activities each member seeks outcomes that are not only beneficial to themselves but also to other members within the same group. It requires each member's contribution to a task or project. It is not just giving a task to a group of students for which some students may do all the work and the others may do nothing. CL entails students working closely together and giving assistance to each other when necessary. They must help each other if a team member encounters any problem.

In a team, every member has a clear role for the common task. They all have to work on their own assigned job within their team and meanwhile they have to share

what they have done in order to reach the final common shared goal of the group. Being a free-rider is not an option. Without everyone's efforts, the goal will not be accomplished. Therefore, each member of a team is accountable not only for doing their own part of a job, but also for helping teammates learn, thus creating an atmosphere of achievement.

To better understand cooperative learning, it is necessary to make a comparison between a cooperative learning environment and a traditional environment which commonly exists in Chinese EFL classrooms.

Table 2.1 Comparison between Cooperative and Teacher-centered Classroom

Dimensions	Cooperative Learning	Traditional Instruction
Teacher roles	Facilitator, observer, monitor, adviser, and supporter	Dominator, controller, and authority
Teaching activities	Group discussion, cooperation and teambuilding	Mechanical drilling, competition, and memorizing knowledge
Interaction	Positive interdependence, two-way communication between the teacher and students	Mostly negative interdependence, One-way transmission from the teacher to students
Evaluation	Emphasis on both learning process and outcomes	Emphasis on learning outcomes

This table is adapted from (Wang, 2007) who adopted the ideas from the following scholars in this field: John & Johnson (1994); McDonell (1992); Kessler, (1992); and Slavin(1996).

2.1.2 Elements of cooperative learning

Cooperative efforts can yield more productive results than competitive efforts

only under certain conditions (Johnson, Johnson, & Holubec, 1993). The following are the five basic elements of cooperative learning:

(A) Positive interdependence

Positive interdependence exists when all group members realize that they are linked together with their group members. In a cooperative learning environment, students hold the belief they either sink or swim together (Johnson, Johnson, & Stanne, 2000). The group success is dependent on the effort of all the individual members in a group. That is to say, each group member must realize that his or her contribution is necessary for the group's success. Students have to learn to work together effectively in order to accomplish tasks, thus reach the common shared group goal.

Positive interdependence can be considered as the key of cooperative learning. Cooperation will not exist when there is no positive interdependence perceived within a group. Therefore, it is very important to structure positive interdependence within a learning group. The following are a number of ways of structuring positive interdependence (Johnson, Johnson, Smith, & Center, 1994).

The first is positive goal interdependence. Students within a group have a shared goal and they achieve their learning goals only if all the members of their group also accomplish their goals. For example, the goal in a group is to find the facts about the rainforests, their location, weather, plants and animals. Each student is assigned to find one fact. All members should maximize their own learning and also help other's productivity. To ensure that, students must believe they "sink or swim together" and care about how much each other learns.

The second is positive rewards. If all group members achieve their common goal, each will receive a reward. For example, each will get some points added to their performance score if the group work is completed. That is to say, if a group completes a task, everyone in the group can receive the same reward. While if they fail, no one in the group can be rewarded. These shared rewards will motivate the group members to participate actively in their task and also encourage and help each other to strive for the reward.

The third is positive resource interdependence. Each group member has a different background, knowledge, skills, information, or materials necessary for the task. The members' resources have to be shared and put together for the group to achieve its goals. Without everyone's resources, the task will not be achieved. For example, each team mate holds one piece of an article, but without any one piece, the article will not be complete.

The fourth is positive role interdependence. Each member is assigned a specific role. The groups need responsibilities that the role requires from individuals in order to complete the task. For example, some group members work as a reader, recorder, checker of understanding, encourager of participation, and elaborator of knowledge.

(B) Individual accountability

The second essential element of cooperative learning is individual accountability. This exists when each individual student's performance is assessed and the results are given back to both the individual and the group so that they know who needs more

help, encouragement, and support (Johnson & Johnson, 1994). The group is responsible for achieving its goals, and each member must be accountable for his or her own share of the work within a group. Since each member is assigned a specific task, no one can get a free ride on the work of others.

In order to ensure that each member individually hold accountability to do his or her part of work, teachers need to assess each member's effort contributing to the group's work, provide feedback to both individuals and groups, and ensure that every member is accountable for the final results (Johnson & Johnson, 1994).

(C) Face-to-face promotive interaction

The third element of cooperative learning is face-to-face promotive interaction. Promotive interaction occurs when group members encourage and help each other in order to reach the group's goals. This means that students promote each other's success by interacting with one another face to face, and sharing resources, such as information and materials. They help, support, encourage, and praise each other's efforts to learn.

(D) Interpersonal and small-group skills

The fourth essential element of cooperative learning is the appropriate use of interpersonal and small-group skills. Learners in CL need to possess well-developed interpersonal and group communication skills in order to carry out CL activities successfully. The most commonly needed small group social skills include communication, leadership, trust, decision-making and conflict-management.

To achieve shared goals, students need to get to know and trust each other; communicate effectively and solve conflict constructively; support and accept each other (Johnson, 1990; Johnson & Johnson, 1994). Placing students in a group and telling them to cooperate does not guarantee that they have the ability to do so effectively. Interpersonal and small-group skills do not magically appear when they are needed. Social skills in this study referred as conversation skills (see Appendix I), the list of phrases and patterns for conversation skills). Students were taught these phrases and patterns by providing examples about how to use them. Students should be taught social skills and be motivated to use them in order to make cooperative learning productive.

(E) Group processing

The fifth essential component of cooperative learning is group processing. Effective group work is influenced by how well groups are functioning. Group processing can be defined as reflecting on a group work to assess what member's actions were helpful and unhelpful; and determine what actions to continue or change. Johnson and Johnson (1994) stated that the purpose of group processing is to betterment group function and the members' effectiveness contributing to the group's goals.

In order to make group processing successful, according to Johnson and Johnson (1994), some key points should be taken into consideration, such as providing sufficient time, emphasizing positive feedback, and maintaining student involvement

in processing. Such processing empowers the group to stay focused on group maintenance, ensures that individuals getting feedback on their participation and facilitates the cooperative learning skills.

To sum up, in cooperative learning, group members must keep positive interdependence, promote each other's learning and success face-to-face, work with each other closely and be individually accountable to do a fair share of the work, and use the interpersonal and small group skills needed for cooperative efforts to be successful. To be truly cooperative in small group learning, these five components are essential and indispensable. The five basic elements of cooperative learning developed by Johnson and Johnson can be used to distinguish between cooperative learning tasks and group work which simply places students in groups and tells them to work together.

2.1.3 Benefits of cooperative learning

Learners tend to gain higher achievement through cooperative learning than competitive and individual work (Johnson, Johnson, & Stanne, 2000). Cooperative learning is different from traditional classroom competition, because cooperative learning emphasizes success for all group members, lowers the students' anxiety and fear about failure and promotes positive feelings toward schools, teachers, peers and subjects studied. All students participate actively in learning and helping others to learn. It is believed that all students at different proficiency levels can make contribution to their groups, thus, experience sense of achievement.

According to Long and Porter (1985), cooperative learning can create a more positive affective classroom environment, and motivate students. Some more benefits are listed as follows:

- Increasing motivation self-confidence;
- Increasing opportunities for learners to listen and produce language;
- Reducing anxiety and promoting interaction;
- Providing learners with opportunities to foster friendship and develop positive social skills.

Recently, some people have reported that cooperative learning can enhance academic achievement (Costa & Kallick, 2004). Siegel (2005) revealed that individual accountability and academic achievement could be promoted through cooperative learning. Those studies demonstrate that cooperative learning can yield advantages benefiting to students.

In a cooperative learning group, different ideas in a group are accepted, valued and encouraged. By supporting, helping and encouraging each other, students build up their self-esteem.

2.1.4 Limitations of CL

As a coin has two sides, cooperative learning also has some limitations. Although it has been accepted and recommended for language teaching and learning, it is by no means a panacea. Here are some limitations of cooperative learning:

The limitations are mainly generated by not being able to implement the

cooperative structure carefully (Liang, 2002). If the students fail to realize that their “fate” is tied together with other group members or they are not given a clear specific role in the task, then it will not be surprising to find out groups in which one person did most of the work, while others just took a free-ride, or it might be easy to have a dominating student who did not allow the others to take part; as a result, only this one student learnt, while the others did not get a chance to learn.

Another concern is about forming groups. Grouping students according to academic proficiency is a controversial issue in cooperative learning (Allan, 1991). When putting high proficiency students with low proficiency ones in the same group, the high achievers may be bored and the low ones may feel threatened. However, Johnson, Johnson, and Holubec (1993) argue that when high achievers help their lower-achieving group mates, they also help themselves because they may enjoy the feeling of acceptance; explaining to others may also enhance their memory and deepen their understanding. No matter how students are grouped, the final purpose is that students can learn something from the task. Students may not feel comfortable in either heterogeneous or homogeneous groups, but they may learn from the task. Any grouping is acceptable as long as students learn. Besides, in real life work, one is not likely to always work in homogeneous groups. Students need to learn to cooperate with different people.

The difficulty regarding controlling conflict or achieving consensus among group members may be another limitation of CL (Tsai, 1998). Encouraging

consensus may cause unnecessary peer pressure to suppress different ideas from individuals (Dipardo & Freeman, 1988). When a group has conflicting ideas, it may be difficult or take some time to analyze the ideas in order to reach a final consensus, but it is helpful in bringing more creative or constructive ideas to a group.

Although CL has such limitations, there are ways to reduce or avoid such limitations to some extent (Cheng, 2000 & Lai, 2002). A good explanation about a task or clear specifications about assigned work share for each member can also help reduce some problems. For example, if each member clearly understands the importance of his/her own share of work, they may not delay their own work or take a free-ride. In a similar way, if students understand a task well, they may not have misunderstandings about it. Sometimes, conflicts come from misunderstanding.

2.1.5 CL and second language acquisition (SLA) theories

Some theories of SLA can be linked with CL regarding the use of CL in speaking. Specifically to be considered are the input and output hypotheses, the interaction hypothesis and the affective factors. Below are some further explanations on the connections between CL and SLA. Researchers have argued that cooperative learning methods are beneficial in learning a second language (L2) because they provide opportunities for learners to increase language production and allow learners to negotiate meaning in natural, low-anxiety environments (Bailey, Daley, & Onwuegbuzie, 1999; Long & Porter, 1985)

2.1.5.1 The input and output hypothesis

It is commonly believed that by providing opportunities for both language input and output, cooperative learning maximizes second language acquisition (Fathman & Kessler, 1993; Long & Porter, 1985).

The input hypothesis hypothesize that comprehensible input fosters language acquisition (Krashen, 1985). Therefore, to facilitate language acquisition, input must be comprehended. In cooperative learning, students need to express themselves in group work and make themselves understood, so they adjust their output to make it comprehensible. Kagan (1990) suggests that the small group setting provides more comprehensible input, because the speaker has to adjust speech to the level appropriate to the listener to understand what the speaker says.

However, only comprehensible input is not enough, especially for improving speaking proficiency. The output hypothesis (Swain, 1985) states that comprehensible input is necessary for L2 learning, but learners also need to speak to produce output in their L2. CL offers students many opportunities for output and when working in groups, so output from students can be increased dramatically.

In a study involving low-intermediate-level ESL students, Pica and Doughty (1985) compared discussions in small-group and teacher-fronted classroom settings. They found that in small groups, students had more opportunities to practice using English than those in teacher-fronted discussions. Another study conducted by Jacob, Rottenberg, Patrick, and Wheeler, (1996) revealed that cooperative learning

gave L2 learners a wide range of opportunities to acquire language by getting a considerable amount of input and output.

Successful language learning requires not only comprehensible input, but also comprehensible output. Traditional methods do not seem to be suitable for teaching speaking due to the dominance of teacher talk. With cooperative learning, students' language output can be increased while decreasing the amount of teacher talk. Therefore, output is as important as input since most people learn how to speak a foreign language by actually speaking that language (Kagan, 1990; Swain, 1985).

2.1.5.2 Interaction hypothesis

The interaction hypothesis (Hatch, 1978) emphasizes a learner's role in a social interaction. Learners receive increasing amounts of comprehensible input through social interaction by asking for more explanation, repetition or clarification when they do not understand input. The nature of language and language learning is interactive or cooperative (Richards & Rodgers, 2001).

Johnson, Johnson, Roy and Zaidman (1985) found that students interacted more with each other in terms of exchanging task-related information, elaborating on the information, encouraging each other to learn, disagreeing with each, and sharing personal feelings.

Without interaction or cooperation with other people, it is impossible to speak a language. Weeks (1997) said that the main purpose of language learning is to use the language to communicate. Most talk or speech is organized as conversation

(Richards & Rodgers, 2001). If it is conversation, it takes at least two or more people to make it happen. The same applies to cooperative tasks which involve at least two persons. In learning a language, learners must interact with each other using cooperation to achieve the purpose of language learning.

2.1.5.3 Affective factors

Many affective elements have been proposed as important to SLA, such as anxiety, motivation, self-confidence and so on. Anxiety can be either facilitating or debilitating while, too often, it produces the debilitating variety (Brookes & Grundy 1990; Horwitz, Horwitz & Cope 1986). Long and Porter (1985, p. 211) suggest “In contrast to the public atmosphere of lockstep instruction, a small group of peers provides a relatively intimate setting and, usually a more supportive environment in which to try out embryonic SL (second language) skills.” Furthermore, Tsui (1996) found one effective way to reduce debilitation anxiety was student-student collaboration. Some students may not be ready to give a speech to a whole class but feel quite confident or are quite at ease talking to other group members. Then, their self-confidence can be increased gradually by talking in a small group. Speech to a whole class was often a threatening experience to most students. But cooperative learning provides them with the opportunity to speak within a group first.

Cooperative learning methods are beneficial in learning a second language (L2) because they provide opportunities for increasing both language input

and output, allow learners to interact with one another, and create low-anxiety environments for learners. Language acquisition effects will be enhanced in a supportive, relaxed and interactive classroom environment.

2.1.6 Cooperative learning methods

Cooperative learning, according to Johnson, Johnson, and Stanne (2000), refers to methods to organize and conduct classroom instruction. Almost any teacher can find a way to use cooperative learning which can fit his or her situation and thus be applicable in classroom practice. A lot of teachers use cooperative learning in different ways. Out of the many methods that different teachers or researchers have developed, as Johnson (et al., 2000) stated, the following had received the most attention, as shown in Table 2.2.

Table 2.2 Methods of Cooperative Learning

Researcher- Developers	Date	Methods
Johnson & Johnson	Mid-1970s	Learning Together (LT)
Sharan & Sharan	Mid 1970s	Group Investigation (GI)
Aronson & Associates	Late 1970s	Jigsaw Procedure
Slavin & Associates	Early 1980s	Student Teams Achievement Divisions (STAD)
Kagan	Early 1990s	Three-Step Interview
Kagan	Late 1980s	Inside- Outside Circle

Source: adapted from (Liang, 2002)

Meng (2010) found that CL methods in general could foster the interest of students' English study and arouse their motivation. The method to be used for this

experimental study is the Jigsaw procedure. Authentic communication generally requires an information gap in which a participant possesses some information that the other does not have. Jigsaw method offers the gap for communication. Lacina (2001) found that students feel less anxious when they do their presentations at first in small groups. After they have had some practice and they tend to feel more comfortable when presenting later in front of the whole class. The jigsaw method of cooperative learning may be an effective way to involve all students in participating in the classroom.

Liang (2002) found that if students had the opportunity to speak repeatedly on the same topic, they would become fluent. The jigsaw method offers an opportunity to speak repeatedly on the same topic because students from an expert group need to go back to teach their home group.

In jigsaw activity, students gain practice in self-teaching and peer teaching, so they can understand the material at a deeper level than students who simply do it alone or listen to the teacher. During a jigsaw activity, students get a lot of opportunity to speak the language and become more fluent in the use of the language. Each student has a chance to contribute meaningfully to a discussion, which is more difficult to achieve in large-group discussion. It encourages cooperation and active learning and promotes the valuing of all students' contributions. Based on what has been discussed above, the jigsaw method seems to be the most appropriate method for teaching speaking.

Jigsaw procedure

Jigsaw, as a cooperative learning method, enables each student of a “home” group to specialize in one aspect of a topic. Students meet with members from other groups who are assigned the same aspect, and after mastering the information or material, return to the “home” group and teach the material or information to their group members (Aronson & Patnoe, 1997).

Method

- Divide the students into groups. Each student is assigned specific work of a task;
- Students leave their "home" groups and meet in "expert" groups which share the same work;
- Expert groups discuss the task and brainstorm ways in which to present their understandings to the other members of their “home” group;
- The experts return to their “home” groups to teach their portion of the task and to learn from the other members of their “home” group.

To be more detailed, in a Jigsaw activity, group members share information with each other, and each member has a specific topic to learn and to teach others. There is a “Home group” and an “Expert group”. Each member in a home group is responsible for a certain sub-topic. They go to meet other members from other home groups who share the same sub-topic. Then they make an expert group and they exchange information and discuss the sub-topic. After that, they go back to their original “home

group” to teach what they have learnt to other members in their home group.

In short, in this section, firstly, definitions, elements, benefits of CL are presented. Then, second language acquisition theories are discussed in regard to the input and output hypothesis, the interaction hypothesis and affective factors. Finally, the Jigsaw method is proposed.

2.2 Speaking a foreign language

2.2.1 The importance of speaking

English as an international language plays a very important role in today's society. In recent years, in China, the study of English has gained increasing attention. It is partly because of the change in education policies of our government and partly the people's needs. In 2001, China entered WTO. Since then, China has participated in more and more international co-operation with the other countries. Because of this irreversible tendency, China is continually engaging in more international communication and inevitably more highly-qualified personnel, especially those with good English speaking skills are required in all domains. For a long time, many people in China did not pay much attention to learning a foreign language, especially speaking. It is commonly believed that in China, among the four skills of English, speaking is the poorest.

Although English has been given more importance over the last decade, these days college students have often been subjected to sharp criticism for not having

acquired a high level of competence in spoken English (Jigang, 2002). They can do well in written exams in school, but when it comes to speaking, most of them do not have enough confidence and competence to speak English. When they go to a job interview, they always have a hard time struggling to speak English, although they may have passed CET (band 4 or 6), or TEM (band4). CET refers to The College English Test which is the national English as a Foreign Language test in the People's Republic of China. Passing the CET is important for Chinese college students. Graduates can only get a degree or a good job if they pass the CET with a satisfactory score. A similar test, the Test for English Majors (TEM), is mandatory for English majors. For these students, passing the TEM-4 is a graduation requirement. The test should be taken by the end of the second academic or sophomore year. Undoubtedly, passing these tests is very important, but speaking good English can add credit to the speaker's performance in a job interview. They may either win or lose the chance to work in a good company just because of their English speaking ability.

Speaking, as one of the productive skills, should be integrated in the development of effective communication. Of all the four English skills, speaking seems to be the most important skill required for communication. From what has been mentioned above, it is clear that speaking is very crucial and is considered to be the basic and most important skill in using a language. It is believed that with the spread of globalization and the rapid expansion of information and technology, there has been an explosion in the demand for people to speak English throughout the whole world.

2.2.2 The nature of speaking

The basis for learning is the time-on-task principle (Nation, 2007). How can people learn to do something if they do not practice it while learning? How can they learn to read if they do not read? How can they learn to speak without speaking? The time-on-task principle simply means that people are more likely to be able to do something well if they spend adequate time on it. For example, good readers usually read a lot (Cunningham & Stanovich, 1991) and good writers usually write a lot. Practice makes perfect. Accordingly, those who speak a lot become better speakers. In order to become good at speaking, students must be offered to a lot of opportunities to speak. It is impossible to have a high proficiency in speaking English without speaking. No matter how much vocabulary they have, or how well they master grammar rules, students will not benefit unless they use what they have learnt by speaking. So speaking requires practice, which is the key to high-proficiency.

2.2.3 Factors inhibiting speaking ability

Learning to speak English is different from learning the grammar rules of English. Speaking a language is especially difficult for foreign language learners. It has been frequently reported that Asian, especially Chinese students of English, are reticent and passive learners (Cheng, 2000). Students often feel reluctant to speak English in class. Therefore, in order to provide a complete picture of understanding about learners' poor speaking abilities, it is necessary to examine the main factors inhibiting learners' speaking.

Language learning is considered as a complex process. Cheng (2000) stated that a particular observed behavior could be caused by many factors. Reticence or passivity observed in class may result from unsuitable methodology, lack of required language proficiency, lack of confidence, lack of rapport between the teacher and the students, lack of motivation. Of course, these factors are interrelated.

Another important factor that is often noticed as a cause of the perceived reticence and passivity is anxiety or fear of making mistakes. It is true that a high degree of anxiety is likely to have a debilitating effect on second language learning (Ellis, 1994).

It is unrealistic and, more importantly, beyond the scope of this paper to discuss all these factors. The researcher only focuses on the two most common factors: unsuitable methodologies and anxiety which are identified at the researcher's school.

a. Unsuitable methodologies

In China, teachers use traditional teacher-centered teaching methodology. The current methodology employed is reliant on 'talk and chalk' (Niu & Wolff, 2004,). Students are usually not allowed to speak or ask questions unless a teacher gives them permission to ask or answer questions. Teachers are viewed as an authority who is not supposed to be challenged by being asked questions in class. Obviously, such a rigid teaching style does not encourage students to speak freely. What makes it worse is that the pattern of classroom teaching does not give students a chance to speak at all.

In the past, teaching might possibly have focused on students' reading and neglected speaking. Learners' roles in classroom may vary in different language

teaching methodologies. In a teacher-centered teaching and learning environment, the learners are more likely to be reticent and passive.

b. Anxiety

Anxiety is also a very important factor that hinders learners' speaking ability. Anxiety reactions can be classified as reflecting emotionality or worry (Liebert & Morris, 1967; Woodrow, 2006). Worry refers to cognitive reactions, such as self-deprecating thoughts or thoughts which are not relevant to the task (Naveh-Benjamin, 1991; Zeidner, 1998). Emotionality can be categorized as physiological reactions, such as racing heart or blushing, and behavioral reactions, such as, fidgeting and stammering. In terms of affective and psychological variables, anxiety is probably one of the most widely-investigated areas and the crucial factor in language learning. It has been considered as one of the major obstacles which inhibit learners' language performance, especially speaking performance. For many years, anxiety has been shown, especially for first-semester students, as a key factor affecting language learning (Frantzen & Mangnan, 2005; Liu, 2006)

According to Horwitz et al. (1986), Foreign Language Anxiety (FLA) is classified as situation-specific anxiety. It is prompted by a specific set of conditions, for example, public speaking or participating in class (Ellis, 2008). Foreign Language Anxiety is also defined as 'a distinct complex of self-perceptions, beliefs, feelings and behaviors related to classroom learning arising from the uniqueness of the language learning process' (Horwitz, et al. and Cope 1986, p.128). There are three primary

sources of foreign language classroom anxiety according to Horwitz, namely, communication apprehension, fear of negative evaluation by others, and test anxiety. In the present study, test anxiety is not related to the topic, so only communication apprehension and fear of negative evaluation by others are included. Horwitz et al (1986, p.127) define communication apprehension as “a type of shyness characterized by fear of or anxiety about communicating with people”. McCroskey, Daly, and McCroskey, (1984, p.13) defines communication apprehension as an “individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons”. Fear of negative evaluation, defined as “apprehension about others’ evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively,” (Horwitz, et al 1986, P. 128).

The complex task of foreign language learning is susceptible to human anxiety (Brown, 1994). If learners have a wide range of vocabulary and good mastery of grammar, they may still not be able to speak well, due to anxiety, which can be seen as a mental block in language production. Speaking a foreign language in public is often anxiety-provoking (Shumin, 2002). Speaking in front of the whole class is seen as the most anxiety-provoking situation of all (Horwitz & Young, 1991). Anxiety has been considered as a negative factor in learning a foreign language, especially in learning to speak the language. A lot of researchers such as Daly (1991); Horwitz et al (1986); Price (1991) and Young (1991) agree that anxiety primarily occurs in listening and speaking in foreign language learning.

Anxiety is a major obstacle affecting foreign language learning, especially speaking (Horwitz, et. al. and Cope, 1986). Speaking is problematic because spontaneity does not allow the speaker preparation time in which to monitor and correct what he or she wants to say, thus the risk of being wrong in an oral class is high (Horwitz and Young, 1991). Students with anxiety have difficulty concentrating and processing input in class and, as a result, their language output will be negatively affected. They tend to avoid from voluntarily participating and are reluctant to take risks. They are anxious, worried and even fearful in the classroom (MacIntyre & Gardner, 1991). Inevitably, such conditions interfere with learning and anxious students are thus deprived of many opportunities to practice the target language. Anxiety is therefore regarded as a major obstacle preventing from developing language skills, and particularly speaking skills. When students are nervous, they tend to make more mistakes. The more mistakes they make, the more nervous they will be, and the less likely they are to perform well.

In summary, English speaking has obviously become very important nowadays. Schools have been paying more attention to English teaching and learning. The final purpose of learning a language is to use the language to communicate with people. However, the speaking skill seems to be the poorest skill among Chinese students. Two factors are identified which negatively affect students' speaking. They are unsuitable teaching methodology and anxiety.

2.3 Language anxiety scales

In this section, two existing language anxiety scales are presented. They are the Foreign Language Classroom Anxiety scale (FLCAS) by Horwitz et al., (1986) and the Personal Report of Public Speaking Anxiety (PRCA-24) by McCroskey (1970). Both of them have been widely used to measure foreign language anxiety levels. To develop a scale for this study, some items will be selected and adapted from each of these two scales to measure student's anxiety of speaking in particular activities. The selection of items is also discussed in this section.

2.3.1 Foreign Language Classroom Anxiety Scale (FLCAS)

An instrument best known as the Foreign Language Classroom Anxiety Scale (FLCAS) (see Appendix A) was developed to measure FLA by Horwitz et al. (1986). It is the most commonly used tool for FLA. The Foreign Language Classroom Anxiety Scale (FLCAS) is a 33-item individual self-report which uses the Likert scale that reflects three dimensions: **a)** communication apprehension, for example, 'I tremble when I know that I am going to be called on in a language class'; **b)** test anxiety, for example, 'I am usually at ease during tests in my language class'; and **c)** fear of negative evaluation, for example, 'I get nervous when the language teacher asks questions which I haven't prepared in advance'.

When it comes to the validity and reliability of FLCAS, Horwitz and Young (1991) refined the FLCAS and claimed that the anxiety scale had established its validity and reliability. The 33 items on FLCAS and the relationship between these

items and the anxiety scale was found to be significantly correlated. Besides, this scale has been used in a large number of research projects (Horwitz, 2001). The scale has been found to be reliable and valid (Aida, 1994; Cheng, Horwitz and Schallert 1999).

2.3.2 Personal Report of Communication Apprehension (PRCA-24)

by McCroskey

The Personal Report of Communication Apprehension-24 (See Appendix B) consists of four sections. The items in the PRCA-24 are based on a five-point Likert-type scale and represent four distinct dimensions of CA. They are: **a)** group discussion (item #1-6), **b)** meetings (item #7-12), **c)** interpersonal conversation (item #13-18), and **d)** public speaking (item 19-24). The PRCA-24 is widely used in the communication field and is established as both valid and reliable (Daly & McCroskey, 1984). It is designed to measure communication apprehension.

2.3.3 Development of Speaking Anxiety Scale (SAS) for the present study

FLCAS was developed by Horwitz et al. (1986) and the PRCA-24 was developed by McCroskey (1970) and they have been adapted for this study to measure students' anxiety levels, before and after the experiment. Although FLCAS has been frequently used for the purposes of research, it doesn't measure anxiety related to a group discussion and giving a speech in class. PRCA-24 has 6 items related to group discussions and 6 items related to giving a speech. In a CL classroom, students are engaged in a lot of group discussions and may need to give a speech in

class. Therefore, it is necessary to consider measuring anxiety in relation to both group discussion and giving a presentation.

The scale used to measure anxiety in this study is named by the researcher the “Speaking Anxiety Scale” (SAS) in order to distinguish it from the original FLCAS and PRCA. For this scale, 17 items from FLCAS are selected, 6 items of which belong to communication apprehension and 11 items of which belong to fear of negative evaluation. Items measuring test anxiety are not included in the anxiety scale for this study because this study is oriented to measure speaking anxiety only.

In addition, 12 items regarding group discussion and giving a speech are selected from PRCA-24. Finally, 4 items are added based on the behavior of students in class and the reported reaction of some of those who participated in this study, for example, “I keep silent in my English class because I am afraid of making mistake.”; “I avoid having eye-contact with teachers in my English class”; “I feel nervous even if I am well-prepared”; and “I bury my head when the teacher asks questions in my English class.”

Therefore, the Speaking Anxiety Scale for this study consists of a 33-item survey. It will be administered to the students to measure their anxiety levels in English speaking classrooms (See Appendix C). Each item on the scale is rated on a 5-point Likert scale ranging from the value of 1 (strongly disagree) to 5 (strongly agree). The anxiety levels are adopted from Bekleyen (2004) who classified anxiety into three ranges. As can be seen in Table 2.3 below, a score between 33 and 66

indicates a low level of anxiety; a score between 67 and 132 belongs to a moderate level of anxiety; whereas a score between 133 and 165 indicates a high level of anxiety. The higher the total number of points, the more anxious the student is.

Table 2.3 The Levels of Anxiety

<u>Levels</u>	<u>Scores</u>
Low Anxiety	33-66
Medium Anxiety	67-132
High Anxiety	133-165

Some modifications have been made to the FLCAS. The language spoken in class was specified as “English.” English is the foreign language focused on in this study, the words “language” and “foreign language” used in the original FLCAS is replaced with “English” in each item. For example, the original FLCAS item “I never feel quite sure of myself when I am speaking in my foreign language class.” was modified to “I never feel quite sure of myself when I am speaking in my English class.” The SAS questionnaire is translated into Chinese to ensure that students understand the items more easily (See Appendix D).

This anxiety scale questionnaire is designed with the purpose of measuring students’ anxiety level. The close-ended questionnaire has 33 items. Questionnaire administered to subjects both before and after the treatment of the Jigsaw activities were exactly the same.

2.4 Related studies

In this section, previous studies related to cooperative learning, speaking and anxiety are reviewed respectively.

2.4.1 Cooperative Learning

Studies have examined the impacts of cooperative learning on student achievement and the development of social skills. Most early studies about cooperative learning were based on the fields of teaching science and mathematics. However, with the increasing attention being given to the effectiveness of cooperative learning, many researchers have conducted studies on CL in the field of foreign language teaching. They share the belief that the CL approach may possibly have benefits in second or foreign language learning (Tang, 2000). These studies are summarized and presented as follows:

Bromley and Modlo (1997) conducted a descriptive study in the USA with four teachers and 92 students at elementary secondary education level. They implemented the cooperative approach with reading and writing instruction. It was found that the cooperative approach helped maximize students' learning in terms of better communication among students and positive social relations among learners.

Liang (2002), conducted a quasi-experimental study to investigate the effects of cooperative learning on EFL junior high school learners' language learning, motivation toward English learning, and the high- and low-achievers' academic achievements in a heterogeneous language proficiency group. 70 first- year junior

high school students in Taiwan were involved in this study. Data were collected from two oral tasks, scores of monthly examinations, motivational questionnaires, student interviews, and teacher interviews. The results of the study showed that the students performed better in the experimental CL group than those in the controlled group in oral communicative competence and the motivational questionnaire. Their academic achievements were also better than those of the students in the control group

In the same year, Ghaith (2002) reported an investigation about the relationship between cooperative learning, perceptions of classroom social support and academic achievement. 135 EFL university students in Lebanon participated in this study. Data were obtained through questionnaires. The findings revealed that cooperative learning had a positive correlation with students' achievement. Likewise, cooperative learning was positively correlated with the perceived degrees of academic and personal support provided by teachers and peers.

Morgan (2003) conducted a study in the United States on the shared reflections of 140 university seniors who had participated in cooperative written examinations for group grades. Students were required to write a cooperative examination in groups of three. Reflections on cooperative examination experience from students were clustered by 8 themes as identified from the students' comments. The results are shown in Table 2.4

Table 2.4 The Results of the Reflection on the 8 Themes.

Themes	Reflections (by percentage of students)
1) feelings of support and/or reinforcement	100% of the 140 students indicated that the cooperative examination was less stressful than individual examinations.
2) feeling relaxed and/or confident	42% students expressed thoughts about feeling relaxed and confident during and after the examination
3) partners knew the material	39% students expressed trust in their peers. Through cooperative work, they knew each other's strengths and weaknesses and trusted their partners would do what they had agreed to do.
4) deeper understanding of material	30% of the students claimed that they had reached a higher level of understanding by preparing for and writing the cooperative examination
5) not wanting to let their team down	15% expressed the pressure they felt to not let their partners down.
6) feelings of stress	13% students described the cooperative examination as producing a level of stress.
7) concern if their partners will prepare as carefully as they had	13% expressed a fear of not being able to trust their partners to prepare for the exam.
8) expressing opinions about their group	6% students included comments that specifically describe the group they worked in as compatible.

This table is adopted from Morgan (2003).

Liao (2005) conducted a quasi-experimental study to examine the effects of cooperative learning on EFL students' motivation, learning strategy utilization, and grammar achievement in Taiwan. 42 college students participated in this study. Questionnaires and grammar tests were used to collect data. The results revealed that

CL had positive effects on motivation, strategy use, and on grammar achievement. It facilitated the motivation and strategy use of learners. Moreover, additional analyses also indicated cooperative learning positively affected learning at higher cognitive levels.

Lawarn (2007) investigated the effects on one of the CL methods, namely STAD activity, in increasing students' English learning achievement and to examine students' perceptions of STAD in the English language classroom. 67 participants in grade 5 at a primary school were involved in this experimental research. The research results showed that the students' achievement was significantly higher through using the CL approach than for those students who were taught through the grammar translation method. Moreover, the students showed positive perceptions on using STAD in the English language classroom.

In addition to Lawarn's findings, Law (2008) conducted two separate experimental studies in Hong Kong, concerning the effects of cooperative learning on learners' motivation and comprehension of text. 267 second-graders participated in the first study and 51 second-graders in the second study. The results from the first study showed students favored cooperative learning in the classroom more and their reading comprehension was better than those in the control group. The results from the second study showed students tended to be more motivated and performed better in reading comprehension when they perceived that their peers were willing to help them.

Moreover, Ai (2009) conducted a survey to explore the effectiveness of cooperative learning in English language teaching in China with 80 first-year university students. The results indicate that almost all students showed great interest in the new learning style and preferred the CL approach to other approaches. Moreover, it was found that the relationship between students, their speaking and communicating ability were also improved.

More recently, Meng (2010) conducted research with attempts to find out whether there were some effects on the teaching of English reading by using the Jigsaw method in cooperative learning in two regular classes of freshmen in China. 146 freshmen students were involved in this study. The pre-test and post-test were given separately to the experimental and the control class. The results showed the students in the experimental class has gained much higher marks than the control class, and made rapid progress in content, organization, vocabulary and grammar learning.

In summary, findings from these studies demonstrate the positive outcomes of using cooperative learning in language teaching and learning. These results also reflect some benefits of cooperative learning mentioned earlier in this chapter as follows: Increasing opportunities for learners to develop higher order and critical thinking skills; increasing opportunity for students to interact with each other and increasing support for language learners to move from interdependence to independence. In other words, benefits from CL include both improvement of academic performance, as well as enhanced social skills.

2.4.2 Speaking

Currently, EFL students learning English have realized the importance of oral English and they are eager to improve their English speaking ability. However, they frequently worry about their oral English when communicating with others.

Rong and Xu (2008) conducted a comparative study of students and teachers' perceptions on designing a group information gap task in college English classrooms in China. 252 subjects were randomly selected from sophomores at Zhejiang University. Two questionnaires were designed for students and teachers respectively. There were three main results from the study as follows:

- 1) It was found that both teachers and students believed that speaking was their weakest skill and they needed to improve it the most;
- 2) More than half of the students did not participate in the speaking activities very actively; only 5% reported a high degree of participation. The main reason they reported for this was that they lacked the ability to express their opinions or ideas in English. Poor pronunciation was the second most common reason which led to a lack of self-confidence as well as passive participation. Some other factors listed by students included lack of interest, laziness, and shyness.
- 3) Students liked participating in information gap tasks, which they believed were more useful for improving their spoken English.

From this study, it can be concluded that both students and teachers agreed that speaking is the weakest poor skill and they also share the same goal — improving students' spoken English. In order to find an effective way to help students with spoken English, teachers should consider students' perceptions of their class activities.

Not only Chinese students face difficulties in improving their speaking ability, but also some other Asian EFL learners encounter similar problems. Boonkit (2010) carried out a research study in Thailand to investigate the factors enhancing the development of speaking skills. 18 university bachelor students on a course entitled '*Listening and Speaking for Special Communication*' were involved in this research. Interviews and recordings were used to collect data. The findings from the interview showed that building up confidence in speaking was the main factor in strengthening speaking performance. It was found that good preparation for speaking tasks could be an effective way to minimize anxiety, thus speaking confidence would be maximized. The findings from the speaking task revealed that a wide variety of real world topics and a broad range of vocabulary made speaking performance easier. However, poor pronunciation and grammar prevented students from speaking much.

It is not surprising to find that confidence played an important role in speaking performance because high confidence can lower anxiety. However, a wide range of vocabulary and mastery of grammar are not always a guarantee for good speaking performance. In fact, anxiety is another factor which can negatively affect speaking performance.

2.4.3 Anxiety

Liu (2006) conducted an investigation in China to examine anxiety in undergraduate non-English majors in oral English classrooms at three different proficiency levels. 547 first-year undergraduates participated in the study. Data were collected through surveys, observations, reflective journals and interviews. The Foreign Language Classroom Anxiety Scale (FLCAS) was adapted to measure their anxiety. The study revealed that (1) a great number of students at all levels felt anxious when speaking English in class; (2) the less anxious students tended to be the more proficient ones; (3) the students felt the most anxious when they responded to the teacher or were singled out to speak English in class. They felt the least anxious during pair work; and (4) increasing exposure to oral English helped the students feel less anxious. In addition, anxious students reported that they felt very uncomfortable when asked to speak English in front of other people. They had low confidence in their English and were afraid of losing face, which made them anxious when speaking. It is clear that low proficiency leads to low confidence, which thus entails anxiety. This vicious circle negatively affects students' learning in general and their speaking performance in particular.

In the same year, Zhang (2006) carried out a survey in China to discuss the causes of the lack of progress in the teaching of speaking. There were 38 subjects for this survey. A combination of questionnaires and interviews were adopted. The findings showed that 29 out of 38 subjects chose "anxiety" as the main reason

preventing them from progressing faster. From the interviews, some other causes of anxiety were identified. They were (1) less proficient English, (2) students' fear of making mistakes and being laughed at, (3) large class size, (4) unwillingness to take risks, and (5) competitiveness.

Xiao and Zhang (2004) investigated the foreign language anxiety levels experienced by 54 Chinese students of College-English Program by examining the relationship between foreign language anxiety and English course grades, reading grades and listening grades respectively. FLCAS was adopted. It was found that the FLCA levels of the College-English students were significantly negatively correlated with their course grades and listening grades. This indicates that the higher the students' levels of foreign language anxiety, the lower their grades was likely to be, and vice versa. The study also showed that foreign language anxiety contributed negatively not only to the students' listening comprehension, but also to their course grades, interest in learning English. For this reason, College-English teachers should not ignore foreign language anxiety of their students and they should make every effort to create a low-anxiety environment for them.

Duxbury & Tsai (2001) conducted a study with the aim of investigating the level of foreign language anxiety in the classroom and the correlation between foreign language anxiety and cooperative learning among university students at a university in the United States and three universities in Taiwan. The subjects were 152 students in a university in US and 233 students from three universities in Taiwan. The results

revealed that students at both the American and Taiwanese universities were not highly anxious. Most of them were in the average anxious range. No significant relationship between Cooperative Learning and foreign language anxiety was found for United States University students, but it was found for students at one of the Taiwanese universities. The relationship showed that foreign language anxiety increased with the use of CL in the classrooms. One possible reason for this, which was found on further investigation was that this university was the only school that had a Taiwanese teacher. However, teachers from the other two Taiwanese universities were both from the United States. Obviously, these results do not appear to be in accordance with some of the literature reviewed above in which CL appears to have been a means of reducing foreign language anxiety. There might be some other causes which would explain these results. It might be because teachers from the United States had already had experience in CL teaching methods, while the Taiwanese teacher had little experience in CL teaching. Or it could be that Taiwanese students favored CL classes taught by foreign professors.

Young (1986) investigated the relationship between anxiety and oral performance in OPI (Oral Proficiency Interview). The purpose of this study was to provide an assessment of how anxiety might influence scores on the OPI. There were 60 subjects from three universities in the United States. Data about subjects' foreign language proficiency was obtained through the Self-Appraisal of Language Proficiency questionnaire and a dictation test. Data about the subjects' anxiety was

obtained through four anxiety measures: the State Anxiety Inventory, the Cognitive Interference Questionnaire, a Self-Report of Anxiety, and a Foreign Language Anxiety Scale of Reactions. Significant negative correlations were found between anxiety and the OPI.

Onwuegbuzie, Bailey, & Daley (1999) conducted a study of 210 university students in the United States to examine factors associated with foreign language anxiety. Results revealed that seven variables (i.e., age, academic achievement, prior history of visiting foreign countries, prior high school experience with foreign languages, expected overall average for current language course, perceived scholastic competence, and perceived self-worth) contributed significantly to the prediction of foreign language anxiety. It was also revealed 1) that freshmen and sophomores reported the lowest levels of foreign language anxiety, and 2) more significantly, that anxiety levels increased linearly with years of study. The first result of this study is contrary to the result of studies conducted by Frantzen & Mangna (2005) and Liu (2006) who found that first-semester students had high anxiety in language learning.

Liu and Huang (2011) conducted a study to examine the relationship between foreign language anxiety, English learning motivation, and performance in English. They investigated 980 undergraduate students from three universities in China. Questionnaires were used to collect data. Results showed that (1) the subjects were moderately motivated to learn English, and in general they did not feel anxious when learning English and (2) negative correlation was found between foreign language

anxiety and English learning motivation and (3) both foreign language anxiety and English learning motivation were significantly correlated with students' performance in English.

2.4.4 Summary for related studies

Foreign language teaching and learning is a long and complex process. One particular teaching method may not lead to similar effects in different contexts. In the EFL context, learning English, especially speaking English is considered as the most difficult issue faced by both teachers and students. Cooperative learning has been adopted by educators in order to improve teaching effectiveness. Theoretically, in most research, CL has proved far more effective than traditional ways of teaching. This may well be because it can increase confidence and reduce anxiety as shown by some research findings. Furthermore, the use of CL improves relationships among students and teachers and increases the opportunity for students to practice English. However, in other research, CL was found not to be that effective. On the contrary, CL can cause anxiety for students. The reason for this may be caused by many factors, such as the understanding and preparation of teaching with CL, the acceptance from students about the activities or topics and the cooperation between the subjects and the researcher.

As regards speaking ability, the most common factors are the teaching method and anxiety. Teaching method is an indirect factor and the root cause which is not usually observed or noticed easily. Anxiety works as a trigger which directly affects

students' speaking performance. Even though students have good grammar and a wide range of vocabulary, they may still not feel confident enough to speak, especially in front of a class due to inadequate practice. They often experience anxiety while speaking. This forms a vicious circle in language learning. The less confident they feel, the more anxious they will become. Then the less willing they are to speak.

It can be concluded that the most effective way of enhancing speaking is to change the root cause anxiety which is the teaching method. Therefore, cooperative learning is chosen to provide more opportunity for students to practice. Theoretically, cooperative learning can reduce anxiety and as a result increase students' confidence. Thus, students may talk more in a cooperative learning environment which they feel has only a little threat. As a result, their speaking performance may improve gradually.

2.5 Summary

This chapter aims to discuss the elements, the benefits as well as the limitations and the methods of cooperative learning. Some relationship between CL and SLA is discussed as well. The Jigsaw method is explained in terms of the procedure and implementation in the English language classroom. Moreover, the importance and nature of speaking, and factors inhibiting speaking ability are explored. Next, FLCAS is presented, followed by the development of an anxiety scale for use in this research study. In addition, related studies about CL, speaking and anxiety are reviewed. The next chapter will discuss the methodology of this research study.

CHAPTER 3

METHODOLOGY

This chapter describes the research methodology for the present study as well as some general principles of research design utilized during the investigation. It starts with the research method, followed by the research procedures. Then, the instruments which include a speaking test, a speaking anxiety scale (SAS), a semi-structured interview for students and the researcher's journal are presented. Finally, the data collection procedure, data analysis and pilot study are explained respectively.

3.1 Research method

Robson (2002) indicates that research methods are crucial for the whole research process, and the methods employed must be appropriate for the research questions. Since this study focuses on the students' performance before and after intervention of CL in only one group, a "pre-experimental" research design seemed to be the most appropriate approach. Therefore one-group pretest-posttest design was utilized. This group was pretested and exposed to the treatment, and then post-tested. This is called a one-group pretest-posttest design because the two tests are administered to the same group (Rubin & Babbie, 2008). The following figure is the notation for a pre-experimental research design.

$O_1 \quad X \quad O_2$

Figure 3.1 Notation of a pre-experimental design

O1 is the pretest before treatment and is the intervention or treatment. O2 is the posttest after the treatment. In this study, O1 is the anxiety pretest and speaking pretest; the treatment is the Jigsaw method and O2 is the anxiety posttest and speaking posttest.

3.2 Research design

Subjects

The subjects of this study were selected from Tongren College where the researcher worked as a teaching instructor. For this study, there were 30 participants who were first-year students, majoring in the Primary Education Department. Subjects were chosen from this department because of the easy access to the teacher who was in charge of the class. First-year non-English major students were chosen for three reasons. Firstly, the English speaking course is a required course for first-year students. Secondly, many research results have revealed that most students have high anxiety in speaking classes. Anxiety has been shown for many years to be a key factor affecting language learning, especially for first-semester students (Frantzen & Mangnan, 2005; Liu, 2006). Last but not least, from the researcher's teaching experience and personal observation, students in speaking classes are quiet and not very interactive (as described in Chapter 1). If students' anxiety problems can be solved as early as possible through the use of a Jigsaw activity, their learning will be more effective and yield better results at later stages (academic year 2, and 3). Therefore, the first-year students seemed to be the most appropriate group for research subjects.

3.3 Research procedure

There were three main phases for data collection: Phase 1) conducting the speaking pretest and administering the anxiety scale questionnaire which is named as the Speaking Anxiety Scale 1 (SAS1); Phase 2) implementing the Jigsaw activities. One lesson plan is provided (See Appendix E). The researcher kept a research journal for each teaching session; Phase 3) conducting the speaking posttest, administering the Speaking Anxiety Scale 2 (SAS2) and conducting the semi-structured interview. To be specific, firstly, the speaking pretest and speaking anxiety scale questionnaire were given to the students. Then, the teaching experiment was started, followed by keeping the research journal. Next, the speaking posttest and SAS2 were administered. Finally, the semi-structured interview was conducted. In conclusion, the framework of the research procedure is summarized as follows:



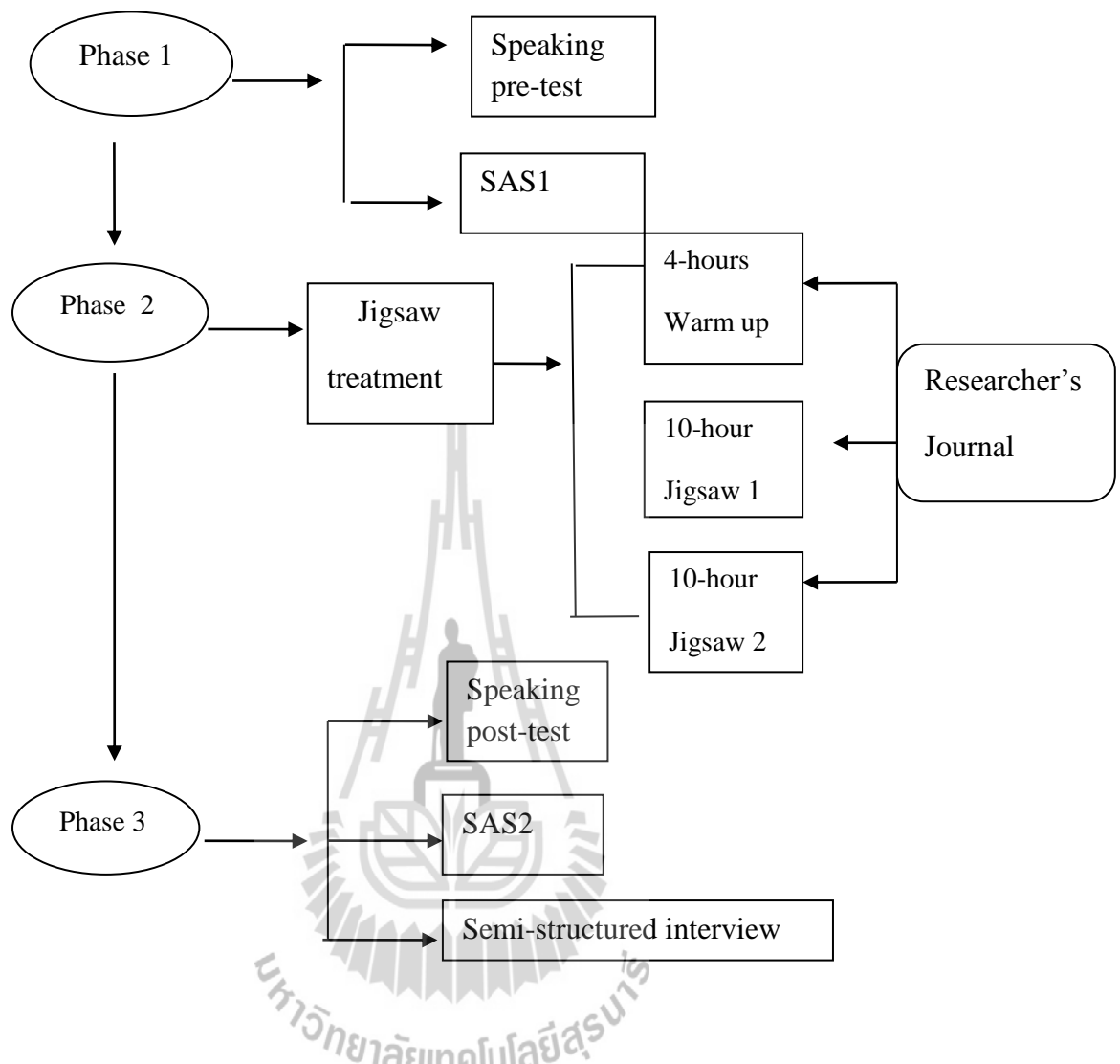


Figure 3.2 Framework of research procedure

3.4 Instruments

Instruments used to collect data in this study included both pre and post tests for speaking, the SAS, the semi-structured interview and the researcher's journal. Detailed information is provided in the following section.

3.4.1 Speaking test

Group conversation

The speaking test was given to the 30 subjects before and after the

implementation of the Jigsaw activity in the form of a group conversation. Group conversation is a form of conversation in which three or more participants talk to each other about a given topic (Matsusaka, Tojo, & Kobayashi, 2003).

Research studies show communication done in a small 5-person group is more effective because it is in the form of dialogue rather than monologue. Besides, members can be influenced most by those whom they interact with in the discussion (Fay, Garrod, & Carletta, 2000). Therefore five students formed one group throughout the study.

Topics for speaking pretests and teaching

The topics for pretest and teaching were selected from the students' speaking textbook. One topic was *Paradise Lost*. The textbook that the first-year students use is *New Century English Integrated Course*, Book 1, compiled by Xu Xiaozhen (2005) and published by Shanghai Foreign Language Education Press.

Topic for posttest

The topic for the posttest was about the environment, particularly regarding environmental problems and possible solutions. This topic is parallel to the pretest topic. They share some vocabulary but not exactly the same, such as, ecosystems, greenhouse, extinction, die out, environmental problems, pollution, erosion, and so on.

3.4.1.1 Scoring rubric for speaking tests

Scoring rubrics used for the speaking tests include five categories (See Appendix F): fluency, content, vocabulary, eye contact, and conversation skills. Rubric developed by Information Technology Evaluation Services from North Carolina Department Public Instruction (<http://www.ncsu.edu/midlink/rub.pres.html>)

was adapted because it provided similar criteria that the present study tended to assess for speaking tasks. Scores for each category range from 1 to 4 points. To ensure the validity and reliability of the rubric, comprehensible and appropriate descriptions of criteria levels were written in detail. Moreover, scorers were trained on how to use them. Lastly, two scorers were involved in scoring. The rubric gives details for each category.

3.4.1.2 Inter-rater reliability

Authur (1989) said that the scoring for speaking tended to be subjective. Therefore, one scorer is not as reliable as one would wish. Therefore, two trained scorers were involved in the scoring of the speaking tests in the study. One was the researcher and the other was an English teacher who has been working as a college English instructor for fifteen years and has been invited many times to grade students' speaking for some provincial English speaking contests.

Then inter-rater reliability was calculated by using Cohen's kappa coefficient of reliability which is a measure of inter-rater agreement. The Kappa score can be obtained through SPSS. According to Fleiss (1981) the kappa coefficient has a range from 0 to 1.00, with larger values indicating better reliability. Its scores range from .40 to .60 which can be characterized as fair agreement, .60 to .75 as good, and over .75 as excellent.

3.4.2 Speaking Anxiety Scale (SAS) adapted from FLCAS and PRCA

As described in Chapter 2 the Speaking Anxiety Scale for this study is a 33-item survey. It was administered to 30 students before and after the CL intervention to measure their anxiety levels in English speaking classrooms. Each item on the scale is rated on a 5-point Likert scale ranging from the value of 1 (strongly disagree) to 5

(strongly agree). The higher the total points are, the more anxious the students are.

3.4.3 Semi-structured interview

May (2001) says that rich insights into opinions, values, attitudes, and feelings can be gained through interviews. There are three types of interviews: structured, semi-structured and unstructured interviews. For this study a semi-structured interview was conducted to gain in-depth information. Of the three types of interviews, many researchers are in favor of the semi-structured interview because of its greater flexibility in data collection (Nunan, 1992).

In this study a semi-structured interview was conducted with 15 subjects randomly selected from the total of 30 subjects to get more in-depth information. This allowed the researcher to talk directly to the participants.

The semi-structured interview was used to triangulate the data and to provide further insights into students' participation in a Jigsaw activity. It was conducted after the Jigsaw activity was finished. With regard to students' low English proficiency and possible anxiety, the interview was conducted in Chinese. Each student was given a 15-minute interview. In total, there were three questions for each interviewee (See Appendix G). The questions for the interview were translated into Chinese (See Appendix H)

3.4.4 Researcher's journal

A research journal is a form of reflective writing to generate data for a research study, researchers involve in a project and through which they document their personal experience of the research process (Thomas, 1995). The journal helps the researcher organize and analyze the progress of his/her project. There is no specific fixed way of how a research journal is organized. A good research journal is written to

record the process of the project and to help keep a researcher focus on target throughout the process.

The entries in a reflective journal of the present study include the following points:

- 1) What did I teach today?
- 2) What were the students' reactions towards the activity?
- 3) Were students interactive in the class or just passive?
- 4) Did the students finish their CL task as expected?
- 5) Were there any problems encountered? If so, how will I solve the problems?

Each time after finishing teaching, the researcher immediately entered in details into the reflective journal.

3.5 Data analysis

3.5.1 Analysis of data obtained from speaking test.

The data collected from both the pre and post speaking test were analyzed by using the SPSS Dependent Samples t-test to compare the means for the two sets of scores.

3.5.2 Analysis of data obtained from speaking anxiety scale

Data obtained from the Speaking Anxiety Scale were calculated and analyzed through the use of descriptive statistics. When calculating the scores, values of items expressing confidence were reversed. The response 'Strongly Agree' is given a value of 1 instead of 5, and the response 'Strongly Disagree' is given a value of 5 instead of 1. There are a total of 33 items. The classification of the anxiety levels was adopted from Bekleyen (2004) and it was classified into three ranges as follows:

- Low level of anxiety with total scores between 33 - 66
- Medium level of anxiety with total scores between 67 -132
- High level of anxiety with total scores 133-165

These criteria were chosen because the subjects in Bekleyen's study shared the same characteristics as those in the present study. They were all freshman EFL non-English majored students.

Remarkably, when computing the scores, the values of items expressing confidence were reversed. The response 'Strongly Agree' got a value of 1 instead of 5, and the response 'Strongly Disagree' got a value of 5 instead of 1. These items were 3, 7, 19, 21, 23, 24, 26, and 28.

3.5.3 Analysis of data obtained from semi-structured interview

Data collected from the students in the semi-structured interview were transcribed then translated by the researcher and were reviewed to check their validity by a teacher who has considerable experience in translation. Content analysis was used to analyze the qualitative data.

Table 3.1 provides a summary of this section.

Table 3.1 Research Questions, Instruments and Data Analysis

Research Questions	Instruments	Data Analysis
1. Can Jigsaw activities enhance students' speaking performance?	Speaking (Pre-test & Post-test)	SPSS (Dependent-samples t-test)
2. Can students' anxiety be reduced through the use of Jigsaw activities?	SAS (Speaking Anxiety Scale)	SPSS (Descriptive statistics, Dependent-samples t-test)
3. What are the students' opinions of the use of Jigsaw activities in speaking class?	Semi-structured Interview Researcher's Journal	Content analysis

3.6 The pilot study

A pilot study is indispensable before conducting the main study. It tests the feasibility, equipment and methods that are to be used in a study. Generally, a pilot study refers to a small-scale rehearsal of the larger research design. It can help researchers to find the problems and difficulties for the main study and thus enable researchers to make modifications of the design for the main study.

For this study, the pilot study was carried out at Tongren College, Guizhou province, in China from November 15th to 27th, 2011. The instruments employed in this study were the speaking anxiety questionnaires, the speaking tests, the researcher's teaching journal and the semi-structured interviews. The purposes of this pilot study were to test the design of the study; to check whether there was any problem or weakness in each procedure and whether the instruments were feasible for the study. The following sections discuss how the pilot study was conducted and its implications for the main study.

3.6.1 Participants for pilot study

Participants were 30 first-year college students majoring in Chinese. These participants were selected on the basis of convenience and availability. They were not English majors, which was a similar arrangement to that of the participants in the main study.

3.6.2 Procedure for the pilot study

The pilot study lasted for two weeks. The whole process was carried out based on the following phases: pre-test and scorer training, Jigsaw activity implementation and researcher's teaching journal, post-test and student semi-structured interviews.

Pre-test and scorer training

This phase lasted eight hours. Firstly, students were asked to complete the pre-anxiety questionnaire followed by the pre-speaking test. Then the scorer training was conducted through two sessions. In the first session, the two raters studied the speaking rubrics in order to understand the contents of the rubrics and clarify any ambiguous points. In the second session, the two raters individually graded group conversation tasks which were derived from the pre-test. The two scorers graded a total of 6 groups of conversations and they were in complete agreement.

Jigsaw implementation and the researcher's teaching journal

In this phase, firstly, the researcher taught the students conversation skills by introducing the phrases and structures (see Appendix I). Then the researcher taught four class sessions for a total of six hours. During the pilot study period, the students studied one topic in the Jigsaw activity. The topic was *Paradise Lost* from *New Century English Integrated Course*, Book 1. The researcher kept two teaching journals during the pilot study.

Post-test and semi-structured interviews

In this phase, firstly, the post-speaking anxiety questionnaire was administered to all the participants. Then the post-speaking test was conducted followed by the semi-structured interviews with the students. Five students were interviewed in the pilot study with ten minutes for each interviewee. This phase lasted a total of three hours.

3.6.3 Results of pilot study

This section reports the results of the pilot study based on the research questions. Research question one is concerned with the effect of Jigsaw activity on reducing the students' anxiety. The students' anxiety level was high and it was not reduced according to the results from the pilot study. Research question two is about the effect of the Jigsaw activity on students' speaking ability. The data shows that the students did not improve in their speaking ability during the pilot study. Research question three is concerned with the students' opinions of the Jigsaw activities. Students did not give much information about their opinions towards the activities in the pilot interviews. Due to the limited time for the pilot study, it was unlikely for students to make any improvement.

3.6.4 Implications for the main study

The pilot study, in general, has proved that the research methodology for the study was feasible. Some implications from the pilot study were drawn for the main study.

1. The time for teaching the conversation skills should be longer.

Students involved in the pilot study stated that they did not thoroughly understand the conversation skills due to the inadequate amount of time in the pilot study. The time for the teaching of conversation skills was only one hour, which was not long enough

for students to fully understand how to practice their skills. Hence, it was decided that the teaching of the conversation skills should be at least two hours.

2. One item on the anxiety questionnaire was not well-designed

The item “*I pretend to feel sick when the teacher begins to call upon the students*” was found to be inappropriate because most students did not give any response to that item. So it was changed to “*I feel anxious in an English Class even I am well prepared*”.

3. The administration of the speaking test was not appropriate

When conducting the speaking test in the pilot study, the groups who did the speaking test first then went back to tell the other groups the topic. So a better method of administering the speaking test was required. In the main study, when doing the speaking test, groups who finished the test were then taken to another room under the supervision of a teacher. In that way, students did not get any opportunity to talk to the other groups who were waiting for the test.

3.7 Summary

This chapter has discussed the research methodology employed for the present study. 30 subjects participated in the study. The instruments used to collect the data were the speaking anxiety scale, the speaking test, the semi-structured interview with the students and the researcher’s teaching journal. The data collection procedure and analysis were also presented followed by a description of the pilot study. The next chapter will present the research results.

CHAPTER 4

RESULTS

This chapter reports the findings of the study which were collected by using three instruments. They included the questionnaires for speaking anxiety, the speaking tests, and a semi-structured interview. The findings obtained can be divided into quantitative and qualitative data which aims to answer the three different research questions.

4.1 Answers to research question 1:

Can students' speaking anxiety be reduced through the use of the Jigsaw activities?

To answer this question clearly, the degree of speaking anxiety before and after the Jigsaw training is reported. Then the effects of the Jigsaw activity on the students' anxiety are presented.

4.1.1 Speaking anxiety degree reported by 30 participants before and after the Jigsaw training.

To find out to what degree the first-year non-English majors reported their degree of anxiety, firstly, data obtained from the 33-item anxiety-measuring questionnaires were recorded. Each participant's total score from the 33-item

questionnaire was calculated. Descriptive statistics for anxiety total scores are given in Table 4.1.

Table 4.1 Student's Total FLA Scores and Anxiety Levels before and after the Jigsaw Activities

Participant	Anxiety total score (before)	Level before	Anxiety total score (after)	Level after
Participant 1	119	M	66	L
Participant 2	66	L	62	L
Participant 3	153	H	134	H
Participant 4	141	H	71	M
Participant 5	145	H	66	L
Participant 6	96	M	52	L
Participant 7	140	H	74	M
Participant 8	144	H	50	L
Participant 9	78	M	78	M
Participant10	107	M	65	L
Participant11	145	H	57	L
Participant12	149	H	77	M
Participant13	136	H	78	M
Participant14	64	L	61	L
Participant15	135	H	77	M
Participant16	152	H	139	H
Participant17	149	H	48	L
Participant18	113	M	57	L
Participant19	154	H	69	M
Participant20	147	H	68	M
Participant21	137	H	53	L
Participant22	112	M	63	L
Participant23	141	H	77	M
Participant24	48	L	48	L
Participant25	134	H	77	M
Participant26	132	M	42	L
Participant27	144	H	79	M
Participant28	91	M	78	M
Participant29	151	H	131	M
Participant30	149	H	56	L
\bar{X}	125.73	M	71.77	M

Note: L = Low; M = Medium; H = High

Table 4.1 shows the total scores for anxiety as reported by all the 30 participants and their levels of anxiety both before and after the Jigsaw activities.

Table 4.2 below shows a comparison of the anxiety levels before and after the Jigsaw training. Based on data provided in Table 4.1, the number of students and the percentage of students at each level is also given.

Table 4.2 Comparison of Anxiety Levels before and after Jigsaw Training

Anxiety range	FLA Total Score	(before) N (%)	(after) N (%)
Low anxiety	33 – 66	3 (10)	15 (50)
Medium anxiety	67 – 132	8 (26.7)	13 (43.3)
High anxiety	133 –165	19 (63.3)	2 (6.7)

As shown in Table 4.2, before the Jigsaw activities, of the total of 30 participants, only three participants (10%) fell into the low level anxiety group; eight participants (26.7%) fell into the medium level anxiety group; and 19 students (63.3%) fell into the high level anxiety group. However, after the Jigsaw activities, 15 participants (50%) fell into the low level anxiety group; 13 participants (43.3%) fell into the medium level anxiety group; and only two students (6.7%) fell into the high level anxiety group. Judging from the mean score obtained before the Jigsaw activities ($\bar{X} = 125.73$ as shown in table 4.1), the participants as a group could be described as moderately anxious. The mean score obtained after the Jigsaw activities ($\bar{X}=71.77$ as shown in table 4.1) indicates that the participants as a group could still be described as moderately anxious. However, the group is not homogeneous in terms of how many students fell into each level of anxiety.

In order to compare two sets of scores for anxiety obtained from questionnaires before and after Jigsaw training, a Paired Samples t-Test was conducted based on each student's total anxiety score to find out if there was a significant difference between students' anxiety scores before the -Jigsaw activity and after the -Jigsaw activities.

The results are presented in Table 4.3 as follows:

Table 4.3 Paired Samples t Test of Anxiety in Pre-and Post-test

	Mean	MD (Post-Pre)	SD	t	p
Pre-Jigsaw	125.73				
Post-Jigsaw	71.77	53.96	31.529	9.375	.000**

** P<0.01

Note: MD stands for Mean Difference between pre- and post-training.

As shown in Table 4.3, p-value is .000, which is less than .01. Therefore, students' anxiety was significantly reduced after the Jigsaw activities. The mean difference between the anxiety score of the pre-Jigsaw and the post-Jigsaw activities was as much as 53.96, with the former scoring 125.73, and the latter 71.77. Hence, it can be concluded that the Jigsaw activities had a strong effect on students' anxiety levels.

4.1.2 Items with high frequency of responses to “Agree” and “Strongly Agree” before and after the Jigsaw intervention

Responses to all items regarding anxiety are based on a 5–point rating scale. The frequency of responses with numerical values of 4 (agree) and 5 (strongly agree) indicate a high level of anxiety. Based on the totals of value 4 and value 5, if more than two thirds of the 30 participants scaled an item either by giving value 4 or 5, it

could be concluded that a majority of the participants felt anxious on the item. Therefore, it is important to consider the following items shown in Table 4.4 which have a frequency higher than 20.

Table 4.4 Items Showing the High Frequency of Responses Coded as “Agree” or “Strongly agree” (before the Jigsaw Activities)

Item	Frequency	Agree	Strongly Agree
10 (worry about failing in English class)	25	8	17
2 (feel panic when speaking without preparation)	24	9	15
29 (too nervous to remember facts while giving presentation)	24	13	11
31 (avoid having eye-contact)	23	11	12
3 (lack of confidence)	22	5	17
7 (worry about making a mistake)	21	8	13
16 (afraid of being laughed at)	21	13	8

There were seven items (item 10, 2, 29, 31, 3, 7 and 16) in Table 4.4 showing relatively high frequency of responses to “Agree” and “Strongly Agree” on the 33-item anxiety questionnaires administered before the Jigsaw activities. However, items with frequencies higher than 20 were not found on the post-anxiety questionnaire.

Table 4.5 Items Showing the High frequency of Responses Coded as “Agree” or “Strongly agree” (after the Jigsaw Activities)

Item	Frequency	Agree	Strongly Agree
10 (worry about failing in English class)	5	3	2
2 (feel panic when speaking without preparation)	4	3	1
29 (too nervous to remember facts while giving presentation)	2	1	1
31(avoid having eye-contact)	0	0	0
3 (lack of confidence)	4	2	2
7 (worry about making a mistake)	4	3	3
16 (afraid of being laughed at)	4	2	2

As shown in Table 4.5 the highest frequency of responses to “Agree” and “Strongly Agree” on the anxiety questionnaires administered after the Jigsaw activities were 5 which was found on item 10. Interestingly, nobody coded 4 “Agree” or 5 “Strongly agree” on item 31(...avoiding having eye-contact). To sum up, the majority of students experienced a high level of anxiety before the implementation of the Jigsaw activities. However, after that, the majority of students reported a low level of anxiety. Therefore, it can be concluded that Jigsaw activities can significantly reduce students’ anxiety.

4.2 Answer to research question 2

Can students’ speaking performance be enhanced through the use of the Jigsaw activity?

In this section, the results of the speaking tests as well as the five aspects of speaking grading criteria (fluency, content, vocabulary, eye contact, and conversation skill) is presented to examine the effects of cooperative learning on the speaking ability of all the participants’. Firstly, the results of speaking ability as a whole are presented. Then the results of the five individual criteria are displayed. Finally, the inter-rater reliability between the two scorers is also provided.

4.2.1 Results of speaking ability as a whole

To measure participants’ speaking ability, two speaking tasks were performed, one as the pre-test, and the other as the post-test. The results from the two speaking tasks are illustrated in Table 4.6.

Table 4.6 Paired Samples t-Test of Speaking Ability in Pre-and Post-test

	Mean	MD (Post - Pre)	SD	t	p
Pre	9.57				
		3.03	2.356	-7.052	.000**
Post	12.60				

** P<0.01

Table 4.6 shows the statistical significance of the two sets of scores obtained from the speaking pre-and post-test. The mean score from the students' speaking pre-test was 9.57 while that of the post-test was 12.60. This finding indicates that the difference is statistically significant since the P value is .000 which is lower than .01. Therefore, it can be concluded that students' speaking ability in general indeed has improved.

4.2.2 Results of five individual criteria on the speaking test

In addition to comparing the total scores of the pre and post-test, an analysis of the five items of grading criteria on which the students were graded were also investigated for further analysis. The five items include: (1) fluency, (2) content, (3) vocabulary, (4) eye contact, and (5) conversation skill. The results of each of the five items are presented in Table 4.7 below.

Table 4.7 Paired Samples t-Test of Five Individual Aspects

Items	Mean (Pre)	Mean (Post)	MD	SD	t	p
Fluency	1.27	1.47	0.20	.551	-1.987	.056
Content	1.83	1.93	0.10	.845	-.648	.522
Vocabulary	1.37	1.60	0.23	.430	-2.971	.006
Eye contact	1.97	2.90	0.93	.583	-8.746	.000**
Conversation skills	1.23	2.10	0.87	.730	-6.500	.000**

** P<0.01

As shown in Table 4.7, among the five items, there were two items, eye contact and conversation skills, that appeared to have improved significantly in the tests, both with p-values of .000, less than .01. The other three items did not improve to the same degree.

4.2.3 Inter-rater Reliability

The inter-rater reliability was achieved through the Kappa measurement. The score from each individual grading item that each student received from the two raters was computed for inter-rater reliability. The kappa coefficient has a range from 0 to 1.00, with larger values indicating better reliability. Scores ranging from .40 to .60 can be characterized as fair agreement, .60 to .75 as good, and over .75 as excellent (Fleiss, 1981). The results of the Kappa measurement of the two raters are presented in Table 4.8

Table 4.8 The Kappa Value for Five Individual Criteria

	Fluency	Content	Vocabulary	Eye-contact	Conversation skills
pre	.784	.766	.754	.764	.776
post	.796	.788	.766	.762	.782

As shown in Table 4.8, all the Kappa values were more than .75, indicating excellent agreement between the two raters.

4.3 Answer to research question 3

What are the students' opinions towards the use of the Jigsaw activity in their speaking class?

To answer this question, a semi-structured interview was conducted to collect in-depth data of the students' view points and the researcher's journal was also used to gather the teacher's point of views. These data were analyzed qualitatively and presented in order to support one another.

4.3.1 Data obtained from the semi-structured interview

The student semi-structured interview was conducted with 15 participants after the post-anxiety questionnaire was administered. The findings revealed students' opinions that were classified into three main themes as follows:

Supportive Learning Environment (SLE)

SLE 1: Non-threatening class

SLE 2: Timely help and encouragement

Active Learning Process (ALP)

ALP1: Keeping attention/focused on activities

ALP 2: Sharing workload

ALP 3: Inspiring more ideas

ALP 4: Strengthening sense of duty

Positive Learning Results (PLR)

PLR 1: Confidence increased

PLR 2: Retention enhanced

PLR 3: Learning perceptions changed

PLR 4: Social skills developed

4.3.1.1 Supportive Learning Environment (SLE)

Firstly, students expressed their positive feelings about the Jigsaw activities for the reason that it provided them with a supportive learning environment.

Different students reported different reasons for this. The following are the informants' responses which can be divided into two sub-themes.

• **SLE 1: Non-threatening class**

The participants mentioned that when they participated in the Jigsaw activities, they were engaged in a non-threatening environment whilst doing their speaking tasks.

What they stated include:

Subject 10: ...I felt less nervous with this new way of learning because all my group members were so nice and friendly to me...

Subject 15: ... The class was not as threatening as before. I did not worry about making mistakes or being laughed at by other students. If they laughed at me, that means they laughed at my group also, not only at me, because I was part of the whole group...

Subject 6: ...I felt less pressure because I knew my teammates were always there to help me if I had some problems...

Subject 8: ... I felt less scared in class because I was studying with other group members. We helped each other and encouraged each other. The pressure was less than before ...

• **SLE 2: Timely help and encouragement**

Besides the non-threatening class, some participants reported that they received timely help and encouragement from their teammates. They became closer to their teammates.

Subject 3: ...I used to stick to my own world. I did not expect that I could get help from my classmates or become friends with them until I worked with them in a group ...

Subject 4: ...Whenever I had difficulty understanding my teammates or understanding the assignment given by the teacher, my teammates were always willing to explain to me patiently until I understood. We became good friends after class.

Subject 15: ...I like to learn in this way because in Jigsaw groups everyone is willing to share their information, encourage and help each other when having difficulty. If it was individual work like we had before, all would struggle to be NO.1 and no one was willing to listen or talk ...

4.3.1.2 Active Learning Process (ALP)

Secondly, based on the information obtained through the student interviews, *the Active Learning Process* is another reason for the use of Jigsaw activities. ALP can be categorized into four sub-groups.

• ALP 1: Keeping attention/focused on activities

A few students stated that a lot of movement could make them more active and focused on the lessons

Subject 2: ...I got a few chances to stand up and move around from the home group to the expert group to group then to the stage. The movement kept me awake. I never felt sleepy in class. It helped me pay attention to what was going on in class...

Subject 1: ...It made the class more interesting and lively. None of us felt sleepy as we did before in class. To follow the Jigsaw activity, we were required to move a lot and to talk to different people. It enabled us to focus on the class...

• ALP 2: Sharing workload

Two students reported that they had reduced the amount of work by sharing the workload which made their learning more effective. They stated:

Subject 11: ...I like the jigsaw method because it reduced the amount of work since each one in a group is responsible for only one sub-topic. Before, we had to learn everything about a topic on our own. I felt we had too much to do. I was always rushing to finish. But now learning with Jigsaw, I spent all time just on one sub-topic and could get more in-depth information related to it. Meanwhile, I can also learn other things from other group members.

Subject 4: ...I felt the amount of work was much less than before. I felt much more relieved by working in a group.

ALP 3: Inspiring more ideas

Two students said they had more information to speak and discuss as they got more ideas by listening to their teammates' ideas and talking to different classmates.

Subject 10: ...We got a chance to brainstorm a lot in the home group and the expert group. The more I think about a topic, the easier it is for me to organize ideas and speak. Jigsaw group work is a good way to boost ideas and opinions....

Subject 9: ...since each of the group members was responsible for one sub-topic, we had to talk to each other in order to get the whole picture of the task, thus we had more opportunity to get more ideas from exploring in-depth information ...

ALP 4: Strengthening sense of duty

One subject reported that he developed a stronger sense of responsibility by assigning work to everyone in a group. He said:

Subject 12: ...when preparing the activity, everyone was assigned a part of the work. I felt that a sense of duty had been instilled in me. This would motivate me to work hard to finish my own part ...

4.3.1.3 Positive Learning Results (PLR)

Last but not least, as emerged from the interview and questionnaire data

analysis, various interviewees' had other positive thoughts that can be seen as follows.

They include:

PLR 1: Confidence increased

Firstly, participants revealed that they felt more confident in the English class than before. For example,

Subject 11: ...I felt more confident about myself after so many group presentations on the stage. I never realized that I would be able to become so relaxed when speaking English in the class. When our group discussed in front of the whole class, all the other students were looking at our group, not only at me, so I felt ok, no problem. ...

Subject 15: ...I like it a lot. I used to think that I was stupid and could not accomplish anything. Now I know that I can present on behalf of my group members in front of the whole class.

Subject 6: ...I felt more confident speaking English in class this semester because my classmates helped me a lot and they were very friendly to me....

PLR 2: Retention enhanced

Secondly, one subject stated that she could remember what she learnt better than before. She said:

Subject 13: ...Learning with the Jigsaw activity provided me with a lot of opportunities to share my ideas and talk to different people. I could remember better by sharing and talking to people about what I've learnt...

PLR 3: Learning perception changed

Thirdly, according to the data, it was noticed that students' learning perceptions had changed from negative or neutral to positive.

Subject 3: ...I felt I was a necessary part in the group. I am more motivated and can perform better if I know that my effort or work is appreciated and needed....

Subject 11: ...I got a lot of fun working with my teammates. I think my English has become a little more fluent. Before I felt forced to speak. However, now I want to speak English though my English is not good...

Subject 2: ...I like this activity simply because if we learn alone, we only know about ourselves, one person's ability or energy is limited. If we learn in groups, we can gain more knowledge and experiences from both ourselves and others. This will enrich our learning greatly.

PLR 4: Social skills developed

Some subjects shared the same opinion that they learnt to be cooperative and communicative in this new way of learning. They mentioned:

Subject 6: ...I learnt not only knowledge but also learnt how to cooperate with other people. I learnt to be patient and attentive when my teammates are talking ...

Subject 4: ...Besides, through the CL activity, I learnt how to communicate effectively with others. I learnt that we need to be patient and polite to others. For example, when other people are talking, we should listen to them, if I have something to say, we should be polite and say "excuse me,".

Subject 9: ...This is a good way to show our respect and manners to other people. When people feel respected, they will do the same to me in return. With increasing communication and cooperation, we became friends ...

What has been presented above are students' positive attitudes towards Jigsaw activities. However, it is interesting to note that only one participant expressed a neutral opinion and two of them expressed negative opinions towards CL. The following are the comments made by these students.

Subject 14: ... For me, it does not matter. I feel quite comfortable with both learning methods. I can study on my own and I can also work with others.....

Subject 7: I did not feel comfortable with cooperative learning. I felt more nervous in CL environment. I prefer to work alone. I feel greater pressure working in a group because if I don't do a good job, I am afraid I may let my teammates down, or they may blame me. Besides, it is time-consuming to reach an agreement within a group...

Subject 5: To be honest, I don't like Cooperative learning. I prefer to work alone by myself. I can schedule my time according to my own learning habits...

It is important to consider that one subject who had a positive attitude towards CL also raised his concern about using the Jigsaw activity.

Subject 8: But there is one thing to consider that we do not get good English input working in a group since the teacher talks less in CL than in the traditional classroom. What we hear is all from our classmates. Since most of our speaking is not good, I am afraid that we may use incorrect English to talk to each other...

Figure 4.1 shows the distribution of the 15 interviewed students' positive, negative and neutral opinions towards the use of the Jigsaw activity in their speaking class.

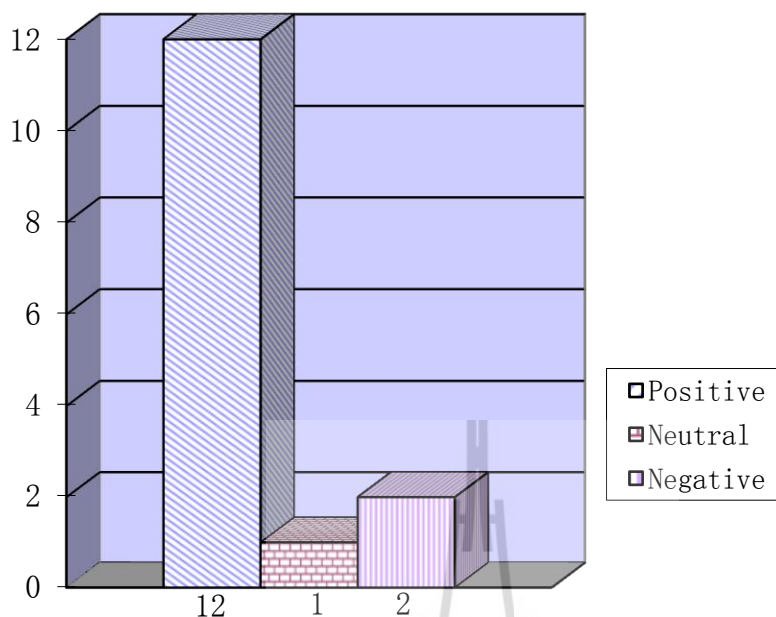


Figure 4.1 Distribution of 15 Interviewed Students' opinions on Jigsaw Activities

As shown in Figure 4.1, among the 15 interviewed participants, 12 of them expressed positive opinions towards Jigsaw activities; one of them reported a neutral opinion and two of them expressed negative feelings. What has been presented above is a qualitative data analysis based on the students' semi-structured interviews. The next section focuses on the qualitative data analysis based on the researcher's journals.

4.3.2 Data obtained from the Journal

The purpose of the teacher's reflective journal was to obtain information regarding the students' class participation and reactions during the Jigsaw intervention. Six journal entries were written in English by the researcher. Table 4.9 shows a summary of the journals.

Table 4.9 Summary of 6 Journal Entries

Journal Entry	Students' behavior/ reaction	problems	Solutions
Entry 1 Communication skills	Shy, quiet, nervous, uncomfortable, nothing to say	Unfamiliar with communication skills	Give more time to students to practice
Entry 2 Jigsaw introduction	Interested in Jigsaw; motivated to participate; Active to get involved; fun to move around; Excited and happy	Not very clear about Jigsaw procedure	Giving more explanation and practice
Entry 3 Jigsaw1: Rainforest	Indifferent to their task on the Internet; Played Internet games; looked around, sat quietly	Distracted by the use of the Internet	Assigning two strong leaders to each group
Entry 4 Jigsaw1: Rainforest	More cooperative and attentive; Appeared less shy	2 students were noticeably nervous	Talking to them in private
Entry 5 Jigsaw2: Marriage	Focused on task with full attention More interaction with group members and teachers	Difficult to use English to discuss	Provide more vocabulary
Entry 6 Jigsaw2: Marriage	Eager to share information Happy to help each other Tried hard to speak English		

The reflective journals shown in Table 4.9 indicate that the Jigsaw activities played a positive role in students' class participation and interaction, although some problems occurred occasionally. The findings from the journals revealed that the researcher' points of view about the effects of the Jigsaw activities could be classified into two main themes: Changes in class participation and Changes in peer interaction

4.3.2.1 Changes in class participation

Positive changes in participation were found for the subjects who were very passive at the very beginning of the Jigsaw activities. Gradually, they became

active in the class. The following are the general points extracted from the journals.

“...While students were asked to practice using the phrases of communication skills, I found them just keeping quiet... They looked shy and uncomfortable when asked to present their work in front of the class.”

(Documented on 28 November 2011)

“The students seemed to be very excited and curious about moving around from home group to expert group... They were eager to move and work with new faces.”

(Documented on 2 December 2011)

“Most students stayed on their task with full attention. They took the initiative to use English to discuss things with their friends although they had difficulty in expressing their ideas in English ... The slow students were more likely to ask for clarification whenever they did not understand something.”

(Documented on 12 December 2011)

“They were eager to share their information with others. They talked loudly and clearly when presenting their ideas, though they still needed to pause a lot and think when speaking English.”

(Documented on 19 December 2012)

It can be seen from these excerpts of the journal entries that the participants became actively involved in the class from the time they were engaged in the Jigsaw activities.

4.3.2.2 Changes in peer interaction

Positive changes in peer interaction were found during the Jigsaw activities. Participants rarely interacted with others at the very beginning. However, after becoming engaged in the Jigsaw activities, there was more interaction between the students. The following descriptions illustrate these positive changes.

“...Most students kept quiet while others worked on their own, mumbling something when asked to work together to practice communication skills, and they seemed not to want to talk to anybody...”

(Documented on 28 November 2011)

“... Some students tried to work together on their task, some groups were playing computer games; others did not do anything, they were just sitting there, looking around from time to time...”

(Documented on 5 December 2011)

“...During group discussion, students tried to help their group members by giving some hints or clues when someone got stuck... They smiled and looked happy...”

(Documented on 9 December 2011)

“...They kept eye contact during their discussion... their speech was well-paced with clear voices... they kept trying to speak more, not rushing as before. When other group members got stuck, they would provide some hints to help out.” (Documented

on 19 December 2011)

From these points, it can be concluded the participants changed to be more cooperative and willing to share their ideas with others.

Interestingly, it was noticed that two of the students were very nervous when speaking English in their group. The researcher approached these two students and talked to them. It was found that these two students were very worried about disappointing their group by not performing well.

In summary, research question three deals with qualitative data analysis based on the data obtained through the semi-structured interview and the researcher's journal. The results revealed that most participants expressed positive feelings towards Jigsaw activities. However, some expressed negative opinions and raised concerns over Jigsaw activity.

Summary of the chapter

In conclusion, this chapter focused on the research findings. Both the quantitative and the qualitative findings were presented to answer the research questions. The results revealed that (1) students' anxiety in general was reduced through the use of Jigsaw activity; (2) student's speaking ability was improved. However, among the five criteria (fluency, content, vocabulary, eye contact and conversation skills), students only made significant gains on eye contact and conversation skills; and (3) students expressed positive feelings and opinions on using Jigsaw activities in college English speaking class.

In chapter five, the research findings will be discussed, followed by the conclusion, implication and limitations. Finally, further research recommendations will be provided.



CHAPTER 5

DISCUSSION, CONCLUSION, AND IMPLICATIONS

This chapter discusses the research findings reported in Chapter Four. The results reveal that the Jigsaw activities had a positive effect on reducing participants' anxiety and that it also improved their speaking. Furthermore, they expressed positive opinions on using the Jigsaw activities. Based on these results, the research questions presented in Chapter One will be further discussed on the following issues: the effects of the Jigsaw activity on students' FLA; the effects of the Jigsaw activity on students' speaking ability; and factors influencing students' positive opinions of the Jigsaw activity.

Following the discussion, some conclusions will be drawn. The pedagogical implications, the limitations of the present study, and further research recommendations are also proposed in this chapter.

5.1 The effects of Jigsaw activities on students' FLA

A high percentage of students' (63.3%) reported high level of anxiety before the intervention of the Jigsaw activities. Following the Jigsaw activities the number of students with a high level anxiety dropped to 6.7%, as illustrated in Table 4.2 and 4.3. The explanations for these results are most probably derived from the advantages of the Jigsaw activities.

Firstly, the Jigsaw activities provided students with a supportive learning environment where team members helped and encouraged each other. For instance, one student (subject 16) said *“I felt less pressure because I knew my teammates were always there to help me if I had some problems”*. Another student (subject 10) said: *“I felt less nervous with this new way of learning because all my group members were so nice and friendly to me.”* Therefore, when feeling supported and receiving positive feedback from teammates, students tended to feel more comfortable and confident. Kagan (1994) says if people feel anxious, but are allowed to affiliate, their anxiety will be reduced. In other words, if people know that they are supported and valued, they tend to feel more confident and perform better. The design of the Jigsaw activity provided group members with an equal opportunity to contribute to the group work. No one is neglected. Every one's contribution to the group is necessary and valued. Under these conditions, group members are encouraged to help each other and to appreciate each other's efforts so that they can reach their final shared group goal.

In addition, the anxiety experienced when the students were in a group is far lower than that produced when a single individual is working alone. For example, one student (subject 15) said *“The class was not as threatening as before. I did not worry about making mistakes or being laughed at by the other students. If they laughed at me, that means they laughed at my group also, not only at me, because I was part of the whole group”*. In a Jigsaw classroom, students are required to work in small groups. When a student is called upon to answer questions, he/she acts on behalf of the whole group. That is, his/her answer represents a collective idea of the group, no matter how poor his/her answer is (Flowerdew, 1998). Therefore, the shared responsibilities produced in Jigsaw activities enable individuals to be less stressed to produce outputs.

Kryszewska (2007) says that in a cooperative learning environment, learners can feel relaxed and free and enjoy themselves in the language acquisition process. Teachers act as facilitators or monitors in cooperative learning activities. When teachers become a facilitator or director, it is helpful to create a learner-friendly, supportive and secure classroom atmosphere. Working in a Jigsaw group makes the pressure on individuals become less. As shown on the data from the students' the interview, jigsaw activity is encouraging and non-threatening. Besides, timely help and encouragement received from their teammates make the students feel relaxed and safe. Therefore, it can reduce the anxiety generated in a class. In Chinese, there is a saying that "The law does not punish the majority". In other words, people tend to feel more secure when they know that they are supported by the majority. Although it is not quite rational, this does describe the psychological state of students in a class and it explains, to some degree, how it can reduce students' anxiety.

This finding advocates the study of Morgan (2003) which indicates that cooperative learning is less stressful than individual learning. However, such findings are contrary to Duxbury & Tsai's (2010) findings that language anxiety increases with the use of cooperative learning activities in the classroom. As a matter of fact, the effect of cooperative learning on students' anxiety may vary from one learning context to others. Moreover, sufficient preparation and a careful design and implementation of Jigsaw activities are a key to determine its success.

To summarize, based on the findings, learning with Jigsaw activities improves the overall atmosphere of the classroom and makes the learning environment supportive, friendly, secure and harmonious. As a result, the students' language anxiety can be reduced. The assistance and encouragement from group members and

the duties shared among them can also possibly reduce a learner's anxiety. Furthermore, support from group members becomes a powerful motivator, especially to shy, insecure, and learners with a low level of confidence.

5.2 The effects of Jigsaw activities on students' speaking ability

In this study, it was found that students' speaking ability improved in general. However, the improvement was only found with regard to "eye contact" and "conversation skills", but not to "fluency", "content" or "vocabulary".

5.2.1 General improvement of speaking ability

As shown in Table 4.6, students made significant gains in speaking through the Jigsaw activities. Moreover, although students' speaking improved, the figures in Table 4.7 indicate that the dramatic improvement only happened with two aspects (eye contact and conversation skills) of the five individual grading criteria.

First of all, this result can be explained partially by reference to Vygotsky's concept of Zone of Proximal Development (ZPD). The zone of proximal development has been defined as "the distance between the actual developmental 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" (Vygotsky, 1978, p. 86). It is the difference between what a learner can do without help and what he or she can do with help. Vygotsky considers interaction with peers as an effective way of developing skills. He suggests that teachers use cooperative learning exercises where less competent children develop with help from more skillful peers - within the zone of proximal development.

According to Vygotsky (1978), learning is involved in a variety of developmental processes. This process is reachable only when the learner is actively engaged in interacting with people in his or her environment and in cooperation with his or her peers. As illustrated in Chapter Four, the findings from the student interview revealed that students were actively involved in their learning process in which they continually paid attention during the class. For instance, one student (subject 1) said: *“It made the class more interesting and lively. None of us felt sleepy as we did before in class. To follow the Jigsaw activity, we were required to move a lot and to talk to different people. It enabled us to focus on the task assigned”*. Under this Jigsaw condition, students were engaged in exchanging a lot of ideas and information sharing in order to complete their task and reach their final shared goal in a group. During that process, they took initiatives to interact with their peers and learn from each other to make the best of their learning.

Second, the “information gap” created by the Jigsaw design was another important factor leading to the improvement of students’ speaking ability. In a Jigsaw activity, everyone within a group was assigned a different part of a task. That is to say, every member’s contribution was needed in order to complete the group work, which benefited not only the group but also each member within that group. The group goal will only be accomplished when all the members within a group share their part of the information. This “information gap” strengthened individual’s sense of responsibility and motivated them to strive for their shared group success. For example, one student (subject 12) said: *“when preparing the activity, everyone was assigned a part of the work. I felt that a sense of duty had been instilled in me. This would motivate me to work hard to finish my own share of the work”*.

Third, having students move from the Jigsaw “expert group” back to teach in the “home group” provided students with opportunities to enhance their use of the language. The student gained the following experiences: improvement in communication skills, a deeper understanding of the knowledge itself and greater retention. For instance, one student (subject 13) said: *“Learning with the Jigsaw activity provided me with a lot of opportunities to share my ideas and talk to different people. I could remember better by sharing and talking to people about what I’d learnt”*.

Finally, an affective filter can be another explanation for such findings. The lower the affective filter is, the better a language learner can perform. Based on the findings of this study, the reduction of anxiety and the increase in confidence significantly contributed to the improvement of speaking. As discussed in Chapter Two, anxiety is a debilitating factor that hinders learners’ speaking ability. Young (1986) found that the more anxious a learner feels, the poorer his / her speaking proficiency will be. In the present study, students’ anxiety was significantly reduced (from high level to low level) as demonstrated in Chapter Four. Furthermore, the qualitative data shows that students’ confidence increased. The supportive relaxed learning environment was the premise for effective language speaking practice.

Such findings are in line with studies of (Lawarn, 2007), Liang (2002), Law (2008), Meng (2010) which they all found a positive correlation between cooperative learning and students’ academic performance. It can be concluded from this, as Wei’s (1997b) pointed out, that cooperative learning can be considered as a suitable instructional format for the enhancement of learner’s communicative competence.

5.2.2 Improvement only in “eye contact” and “conversation skills”

When it comes to students' improvement in speaking ability, the students in this study only made progress with eye contact and conversation skills, but not in fluency, content or vocabulary. Such findings can be explained by the affective domain.

The affective domain (Krathwohl, Bloom, Masia, 1973) deals with things emotionally, such as attitudes, emotions, feelings, willingness to participate, etc. Keeping eye-contact shows the feeling of confidence, interest and respect which in turn may enhance eye-contact. Keeping eye-contact does not require time to practice. When people feel comfortable, they tend to make more eye-contact. Conversation skills in this study are a group of formulaic phrases, which do not require a long time to master. In brief, the improvement of eye –contact and conversation skills can be made in a short time.

McLaughlin and Harrington (1989) say second language learning is a cognitive process which involves knowledge about the language and procedures for using that knowledge to guide performance. In other words, good language performance requires both knowledge and the skills to use the language appropriately. A large amount of vocabulary is important in language learning. However, knowing how to use appropriate vocabulary is equally, if not more, important. Some students may know a lot of vocabulary, but they still have difficulty in speaking. The reason for that may be that they do not know how to select appropriate vocabulary for a topic; or their existing vocabulary and knowledge for that topic is very limited. Content is related to learners' existing knowledge which is a long process of accumulation. Vocabulary, content and fluency influence one another. The lack of existing knowledge limits a speaker's fluency, due to his or her lack of vocabulary for specific content.

To sum up, the Jigsaw activities provided two factors contributing to the students' speaking improvement. One is active interaction; the other is reduction of anxiety. In this study, participants made dramatic improvement in eye-contact and conversation skills. However, due to the time constraints for the Jigsaw training, they did not significantly improve their vocabulary, fluency and content which would need more time to improve.

5.3 Factors influencing students' positive opinions of the Jigsaw activities

Figure 4.1 shows that the majority of the students who were interviewed, 12 out of 15, expressed positive opinions towards using Jigsaw activities in their English speaking class. The number of positive opinions was much greater than that of the neutral and negative ones. Factors leading to positive opinions are discussed and summarized as follows:

5.3.1 Eliciting ideas and lessening burden

In a Jigsaw activity group members help each other elicit more ideas and reduce their responsibilities, which make their learning more productive and effective. Through brainstorming and sharing opinions with their teammates in a CL environment, students have easier access to ideas than in a traditional competitive learning environment. For example, one student (subject 10) said: "*Jigsaw group work is a good way to boost ideas and opinions.*" The number of ideas generated in brainstorming of the CL group work doubled that in an individual brainstorming (Osborn, 1957). Besides, reducing responsibilities seemed to be another reason for positive opinions generated from students and the idea of learning from others in a

group seemed to be stimulating. One student (subject 11) said: *“The Jigsaw method lessened our burden since each one in a group is responsible for only one sub-topic... I spent all the time on this sub-topic and could get more in-depth information related to it. Meanwhile, I can also learn other things from other group members.”* The possible explanation could be the principle of CL, face to face interaction which promoted peer interaction by exchanging information and encouraging each other, so that information was processed more efficiently and effectively, thus more ideas were elicited. In addition, the characteristic of the Jigsaw design which is the sharing of the workload, reduced each individual’s contribution. In these circumstances, with peer interaction and the sharing of the workload, learning is likely to be more effective and productive.

5.3.2 Positive self-realization of their own ability

Some participants expressed the idea that through learning with Jigsaw activities, their confidence was increased and they realized that they were not as incompetent as they thought they were. For instance, one student (subject 15) mentioned: *“I used to think that I was stupid and could not accomplish anything. Now, I know that I can present on behalf of my group members.”* As discussed earlier, the Jigsaw activity provided students with a relaxed atmosphere and non-threatening learning environment where teammates cared about each other and valued each other’s efforts. They experienced a sense of achievement and gained more recognition by contributing their efforts to their group and receiving positive feedback from their teammates. When learners realize that learning brings them positive feedback, they tend to be more motivated and will continue that learning behavior.

Behavioral learning theory indicates that students will commit themselves to

striving for group success if they are rewarded for that participation, and tend not to commit themselves if they get no reward (Morgan, 2003). Similarly, if students never feel valued, they are likely to think negatively about themselves or doubt their learning ability, which will become a psychological barrier preventing them from learning. The concept of cooperative learning that emphasizes the need for each student's contributions to achieve collective goals benefiting both the individual and the team, has a very positive impact on student learning (Dyson & Grineski, 2001).

5.3.3 Socializing students

It was found that students did not only learn content knowledge from books but also learnt social skills. For example, one student (subject 6) mentioned: "*I learnt not only knowledge, but I also learnt how to cooperate with other people.*" One of the principles of CL, the use of interpersonal and small-group skills, can be used to explain such findings. One of the benefits from CL is the development of interpersonal or social skills and how to work as a part of a team or a small group. Cooperative learning is more complex than individual learning because students have to manage their own share of work and cooperate with others at the same time. With increasing exposure to CL, social skills such as decision making, communication, conflict management, etc. can be developed. Properly applied, CL can socialize students and better prepare them for their future career development (Caroselli, 1998). Parrenas and Parrenas (1993) suggested that cooperative learning promotes higher student achievement. Working in CL groups helps students become more adaptable in society and also promotes interpersonal relationships and enhances social skills which can lead to students being more successful in their lives.

5.3.4 Issues to consider when implementing Jigsaw activities

Interestingly, one subject raised his concern over using Jigsaw activities in the speaking class. He said: *“What we hear is all from our classmates. Since most of our speaking is not good, I am afraid that we may use incorrect English to talk to each other.”* Therefore, when implementing the Jigsaw method, it cannot be left entirely to the students. Proper corrections and comments from the teacher are also required. For example, the teacher can walk around from group to group, note down students’ incorrect English and give timely feedback to them without reference to any specific name of student. In that way, students get corrected without feeling embarrassed.

Surprisingly, peer pressure was experienced by one of the two subjects who held negative opinions towards the use of the Jigsaw activity. That subject mentioned that she felt greater pressure because she worried about being blamed by her teammates for poor task performance. Thus, peer influence can be both positive and negative. As discussed earlier, peer interaction, mutual encouragement and help were found to be effective with students in the group work. However, negative behavior or attitudes experienced or perceived by students from their peers can be anxiety-provoking. This result is consistent with the study of Bekleyen (2004) who cited peer pressure as a source of anxiety. However, the negative results may be avoided through creating a friendly classroom setting in which students are encouraged and valued.

In short, Jigsaw cooperative learning elicited more ideas and lessened the pressure on the students. It enabled students to gain positive self-realization and developed students’ communication skills, thus socializing them for long-term success in their future life. However, the class design should take the teacher’s roles in instructing, correcting, and commenting into consideration. Besides, it is important

to note that the behavior or attitudes of peers towards each other may also increase the level of anxiety.

5.4 Conclusion and implications

As mentioned earlier, anxiety was found to be the main psychological barrier in language learning. The implementation of Jigsaw activities is a possible and feasible strategy to address these problems. Cooperative learning is considered as a powerful teaching method that can reduce students' anxiety through a supportive climate of caring, sharing and encouragement in the classroom, which, in turn, enhances students' learning. The present study shows that Jigsaw activities had a positive effect on students' anxiety and speaking ability; and students had positive opinions towards it.

There are two major pedagogical implications arising from this study:

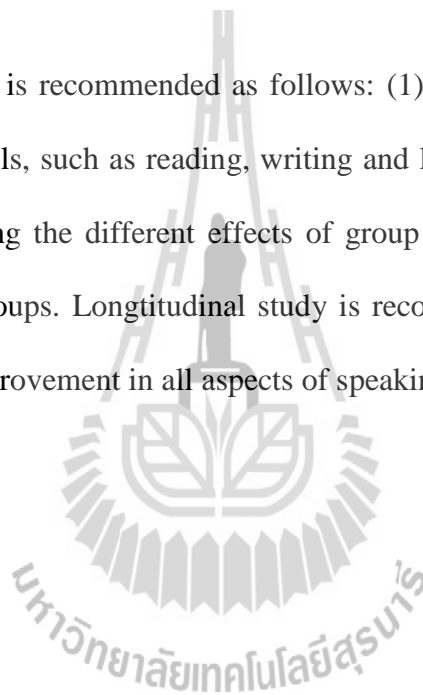
- (1) a relaxed learning atmosphere is important for foreign language learning and it can be provided through well-designed group activities such as Jigsaw activities.
- (2) it takes long time to make significant improvement of speaking in some aspects such as content, fluency and vocabulary. It needs to be done step by step with a suitable learning situation and appropriate kind of help from both peers and teachers.

5.5 Limitations and further research recommendations

As in other studies, some limitations of the present study should be noted. Firstly, the sample of the participants was restricted to only one class at one university. The sample might not be sufficiently large to be representative. Secondly, the duration

of the experiment was not long enough. If the duration had been longer, the participants might have made more significant improvements in their speaking. Finally, the scope was limited. Being limited to the scope of the research questions, which focused on the effects of the Jigsaw activity on students' anxiety, speaking ability and their opinions towards it, this study did not investigate the teacher's opinions or the possible factors affecting the successful implementation of the Jigsaw activities..

Further research is recommended as follows: (1) implementing Jigsaw activity for use with other skills, such as reading, writing and listening, critical thinking, and so on; (2) investigating the different effects of group formation with homogeneous and heterogeneous groups. Longitudinal study is recommended for further research to gain significant improvement in all aspects of speaking ability.



REFERENCES

- Ai, B. (2009). *A survey on the effectiveness of Cooperative Learning in English Language Teaching in China*. Master degree thesis. University of Wisconsin.
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155-168.
- Allan, S. D. (1991). Ability-Grouping Research Reviews: What Do They Say about Grouping and the Gifted? *Educational Leadership*, 48(6), 60-65.
- Aronson, E., & Patnoe, S. (1997). *The jigsaw classroom: Building cooperation in the classroom*. New York: Addison Wesley Longman.
- Arthur, H. (1989). *Testing for language teachers*. Cambridge: Cambridge University Press.
- Bailey, P., Daley, C. E., & Onwuegbuzie, A. J. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics*, 20(2), 217-239.
- Bekleyen, N. (2004). The Influence of Teachers and Peers on Foreign Language Classroom Anxiety, *Dil Dergisi (Language Journal)*, 123, 49-66
- Boonkit, K. (2010). Enhancing the development of speaking skills for non-native speakers of English. *Procedia-Social and Behavioral Sciences*. 2 (2), 1305-1309
- Bromley, K., & Modlo, M. (1997). Using cooperative learning to improve reading and writing in language arts. *Reading & Writing Quarterly*, 13(1), 21-35.

- Brookes, A., & Grundy, P. (1991). *Writing for study purposes*. Cambridge: Cambridge University Press.
- Brown, H. (1994). *Principles of Language Learning and Teaching*. New Jersey: Prentice Hall.
- Caroselli, M. (1998). *Great session openers, closers, and energizers.*: New York: McGraw-Hill.
- Chang, M. (1995). Teacher-oriented learning vs. cooperative learning in English reading class. *Journal of Pingtung Polytechnic Institute*, 4, 271-277.
- Chen, H. (1999). A comparison between cooperative learning and traditional, whole-class method—teaching English in a junior college. *Academic Journal of Kang Ning*, 3, 69-82.
- Cheng, C. (2000). Cooperative learning in second language instruction. *Hwa Kang Journal of Foreign Languages & Literature*, 7, 185-195.
- Cheng, Y., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning*, 49(3), 417-446.
- Costa, A. L., & Kallick, B. (2004). *Assessment strategies for self-directed learning*. Thousand Oaks, CA: Corwin.
- Cunningham, A. E., & Stanovich, K. E. (1991). Tracking the unique effects of print exposure in children: Associations with vocabulary, general knowledge, and spelling. *Journal of Educational Psychology*. 83 (2), 264-274.
- Daly, J. A. (1991). Understanding communication apprehension: An introduction for language educators. In E. K. Horwitz & D. J. Young (Eds.), *Language Anxiety:*

- From theory and research to classroom implications* (pp. 3-13). Englewood Cliffs, NJ: Prentice Hall.
- Daly, J. A., & McCroskey, J. C. (1984). *Avoiding communication: Shyness, reticence, and communication apprehension*: Sage Publications (Beverly Hills, CA).
- DiPardo, A., & Freedman, S. W. (1988). Peer response groups in the writing classroom: Theoretic foundations and new directions. *Review of educational research*, 58(2), 119 -149.
- Duxbury, J. G., & Tsai, L. (2010). The effects of cooperative learning on foreign language anxiety: A comparative study of Taiwanese and American universities. *International Journal of Instruction*, 3(1), 3-18.
- Dyson, B., & Grineski, S. (2001). Using cooperative learning structures in physical education. *Journal of Physical Education, Recreation, and Dance*, 72(2), 28-31.
- Dzau, Y. (1990). *How English is taught in tertiary educational institutions: English in China*. Hong Kong: API Press Ltd Hong Kong.
- Ellis, R. (Ed.). (2008). *The study of second language acquisition*. Oxford: Oxford University Press.
- Fathman, A. K., & Kessler, C. (1993). Cooperative language learning in school contexts. *Annual Review of Applied Linguistics*, 13(2), 127-140.
- Fay, N., Garrod, S., & Carletta, J. (2000). Group discussion as interactive dialogue or as serial monologue: The influence of group size. *Psychological Science*, 11(6), 481-486.
- Fleiss, J. L. (Ed.). (1981). *Statistical methods for rates and proportions* (2 ed.). New York: John Wiley.

- Flowerdew, L. (1998). A cultural perspective on group work. *ELT Journal*, , 53(4), 323-329.
- Frantzen, D., & Magnan, S. S. (2005). Anxiety and the true beginner-false beginner dynamic in beginning French and Spanish classes. *Foreign Language Annals*, 38(2), 171-186.
- Ghaith, G. (2002). The relationship between cooperative learning, perception of social support, and academic achievement. *System*, 30(3), 263-273.
- Gregersen, T., & Horwitz, E. K. (2002). Language Learning and Perfectionism: Anxious and Non-Anxious Language Learners' Reactions to Their Own Oral Performance. *The Modern Language Journal*, 86(4), 562-570.
- Hatch, E. (1978). Acquisition of syntax in a second language. In J. C. Richards (Ed.), *Understanding second and foreign language learning* (pp. 34-70). Rowley, MA: Newbury House.
- Heo, Y. (2006). Content-based instruction. *TESL Working Paper Series*, 4(2), 25-32.
- Horwitz, E. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, 21(1), 112-126.
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, 20(3), 559-562.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Horwitz, E. K., & Young, D. J. (1991). *Language anxiety: From theory and research to classroom implications*. Englewood Cliffs, NJ: Prentice Hall.
- Jackson, J. (2002). Reticence in second language case discussions: anxiety and aspirations. *System*, 30(1), 65-84.

- Jacob, E., Rottenberg, L., Patrick, S., & Wheeler, E. (1996). Cooperative learning: Context and opportunities for acquiring academic English. *TESOL Quarterly*, 30(2), 253-280.
- Jigang, C. (2002). On the evaluation of college student's English speaking ability. *Foreign Language World*, 01.
- Johnson, D. W. (1990). *Reaching out: Interpersonal effectiveness and self-actualization* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Johnson, D. W., & Johnson, R. T. (1989a). *Cooperation and competition: Theory and research*: MN. Interaction Book Company. 12-13
- Johnson, D. W., & Johnson, R. T. (1989b). Social Skills for Successful Group Work. *Educational Leadership*, 47(4), 29-33.
- Johnson, D. W., & Johnson, R. T. (Eds.). (1994). *Learning together and alone: Cooperative, competitive, and individualistic learning*. Boston: Allyn & Bacon.
- Johnson, D. W., & Johnson, R. T. (Eds.). (1999). *Learning together and alone: Cooperative competitive, and individualistic learning*. Englewood Cliffs, NJ: Prentice-Hall.
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (Eds.). (1993). *Circles of learning: Cooperation in the Classroom*. MN: Interaction Book Company.
- Johnson, D. W., Johnson, R. T., Roy, P., & Zaidman, B. (1985). Oral interaction in cooperative learning groups: Speaking, listening, and the nature of statements made by high-, medium-, and low-achieving students. *The Journal of psychology*, 119(4), 303-321.
- Johnson, D. W., Johnson, R. T., Smith, K. A., & Center, C. L. (1994). *Cooperative learning*: University of Minnesota, Cooperative Learning Center.

- Johnson, D. W., Johnson, R. T., & Stanne, M. (2000). Cooperative learning methods: A meta-analysis. Retrieved from [www.Clcrc.com/pages/clmethods](http://www.Clcrc.com/pages/clmethods.html). html.
- Kagan, S. (1990). The structural approach to cooperative learning. *Educational Leadership*, 47 (4), 12-15.
- Kagan, S. (1994). *Cooperative Learning*. San Clemente, California: Kagan Publishing.
- Kessler, C. (1992). *Cooperative language learning: A teacher resource book*. Englewood Cliffs, NJ: Prentice Hall.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York: Prentice-Hall.
- Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. New York: Longman
- Krathwohl, D., Bloom, B., & Masia, B. (1973). Taxonomy of Educational Objectives, the Classification of Educational Goals. *Handbook II: Affective Domain*. New York: David McKay Company Incorporation.
- Kryszewska, H. (2007). Expertise in second language learning and teaching. *ELT Journal*, 61(2), 179-181.
- Lacina, J. (2001). Cultural kickboxing in the ESL classroom: Encouraging active participation. *The Internet TESL Journal*, 7(10), 1-3.
- Lai, M. W. (2002). A study of cooperative learning in the EFL junior high classroom. *Unpublished master's thesis*. National Chung Cheng University.
- Law, Y. (2008). Effects of cooperative learning on second graders' learning from text. *Educational Psychology*, 28(5), 567-582.

- Lawarn, Y. (2007). *The effects of student teams achievement division on thai students's english language learning*. Unpublished Master's Thesis, Suranaree university of technology.
- Lee, W., & Ng, S. (2010). Reducing student reticence through teacher interaction strategy. *ELT Journal*, 64(3), 302-313.
- Liang, T. (1996). *Cooperative learning in English education*. Proceedings of the 5th International Symposium on English Education, 65-71. Taipei: Crane.
- Liang, T. (2002). *Implementing cooperative learning in EFL teaching: Process and effects*. Unpublished Doctoral' Dissertation. National Taiwan Normal University.
- Liao, H. C. (2005). *Effects of cooperative learning on motivation, learning strategy utilization and grammar achievement of English language learners in Taiwan*. Doctoral dissertation. University of New Orleans, USA.
- Liebert, R. M., & Morris, L. W. (1967). Cognitive and emotional components of test anxiety: a distinction and some initial data. *Psychological Reports*, 20(3), 975-978.
- Liu, M. (2006). Anxiety in EFL classrooms: causes and consequences. *TESL REPORTER*, 39(1), 13-32.
- Liu, M., & Huang, W. (2011). An Exploration of Foreign Language Anxiety and English Learning Motivation. *Education Research International*, 2011.
- Liu, N. F., & Littlewood, W. (1997). Why do many students appear reluctant to participate in classroom learning discourse? *System*, 25(3), 371-384.
- Long, M. H., & Porter, P. A. (1985). Group work, interlanguage talk, and second language acquisition. *TESOL quarterly*, 19(2), 207-228.

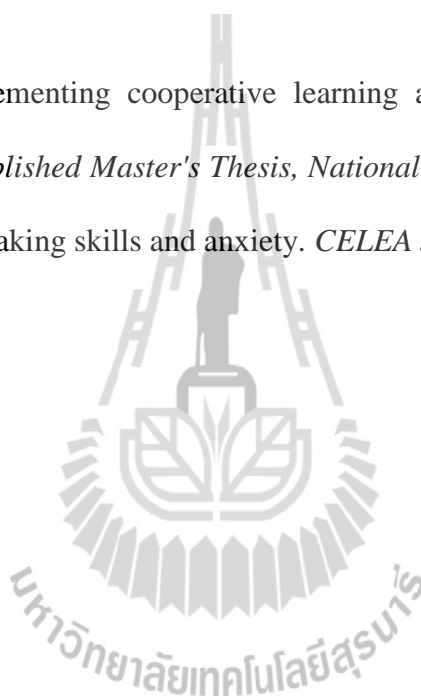
- Luchini, P. L. (2004). Developing oral skills by combining fluency-with accuracy-focused tasks: A case study in China. *The Asian EFL Journal*, 6(4), 129-138.
- MacIntyre, P. D., & Gardner, R. C. (1991). Language Anxiety: Its relationship to other anxieties and to processing in native and second languages. *Language Learning*, 41(4), 513-534.
- Matsusaka, Y., Tojo, T., & Kobayashi, T. (2003). Conversation robot participating in group conversation. *IEICE TRANSACTIONS on Information and Systems*, 86(1), 26-36.
- May, T. (2001). *Research Methodology: Issues, methods and precess (3rd Edition)*. Maidenhead: Open University Press.
- McCroskey, J. C. (1970). Special Reports: Measures of communication-bound anxiety. *Speech Monographs*, 37, 269-277.
- McCroskey, J. C., Daly, J., & McCroskey, J. (1984). The communication apprehension perspective. *Avoiding communication: Shyness, reticence, and communication apprehension*. Beverly, CA: Sage.
- McDonell, W. (1992). *The role of the teacher in the cooperative learning classroom*. In C. Kessler *Cooperative language learning: A teacher's resource book* (163-174). New Jersey: Prentice Hall.
- McLaughlin, B., & Harrington, M. (1989). Second language acquisition. *Annual Review of Applied Linguistics*, 19, 122-134.
- Meng, J. (2010). Jigsaw Cooperative Learning in English Reading. *Journal of Language Teaching and Research*, 1(4), 501-504.

- Morgan, B. M. (2003). Cooperative learning in higher education: Undergraduate student reflections on group examinations for group grades. *College Student Journal*, 37(1), 40-49.
- Nation, I. (2007). The four strands. *Innovation in Language Learning and Teaching*, 1(1), 1-12.
- Niu, Q., & Wolff, M. (2004,). Can you get first class education at a third tier college in China. *Asian EFL journal*, 6(1), 9-18.
- Nunan, D. (1992). *Research methods in language learning*: Cambridge University Press.
- Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics*, 20(2), 217-239.
- Osborne, A. F. (1957). *Applied imagination*. New York: Scribner.
- Parrenas, C. S., & Parrenas, F. Y. (1993). Cooperative learning, multicultural functioning, and student achievement. In L. M. Malave (Ed.), *Proceedings of the National Association for Bilingual Education Conferences* (pp. 181-189). Washington, DC.
- Pica, T., & Doughty, C. (1985). The role of group work in classroom second language acquisition. *Studies in Second Language Acquisition*, 7(2), 233-248.
- Price, M. L. (1991). The subjective experience of foreign language anxiety: Interviews with highly anxious students. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications*. Englewood Cliffs, NJ: Prentice Hall.
- Richards, J. C., & Rodgers, T. S. (Eds.). (2001). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.

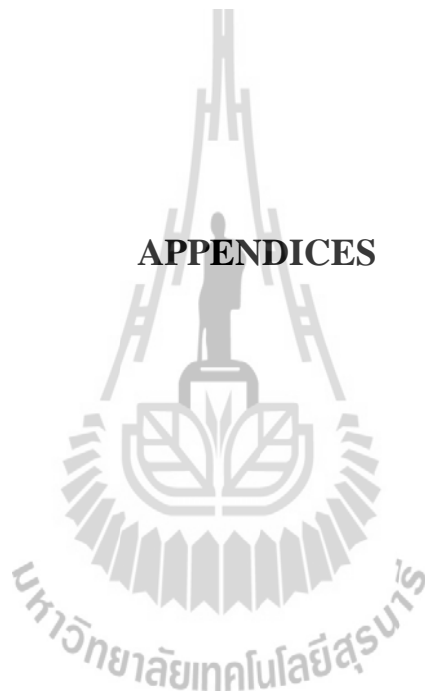
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researcher*. Oxford: Wiley-Blackwell.
- Rong, & Xu, R. (2008). On designing group information gap task in college English classrooms -A Comparative Study of Students and Teachers' Perceptions. *CELEA Journal*, 31(2), 36-46.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing*, 18(1), 55-88.
- Siegel, C. (2005). Implementing a research-based model of cooperative learning. *The Journal of Educational Research*, 98(6), 339-349.
- Shumin, K. (2002). Factors to consider: Developing adult EFL students' speaking abilities *Methodology in language teaching: An anthology of current practice* (pp. 204-211). Cambridge: Cambridge University Press.
- Slavin, R. (1995). *Cooperative learning: Theory, research, and practice*. Massachusetts: Allyn and Bacon.
- Slavin, R. (1996). Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary educational psychology*, 21, 43-69.
- Stoller, F. L. (2004). Stoller, F. (2004). Content-based instruction: Perspectives on curriculum planning. *Annual review of applied linguistics*, 24(1), 261-283.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp.235-253). Rowley, MA: Newbury House.
- Tang, H. (2000). Using cooperative concept mapping skill to teach ESL reading. *PASAA*, 30, 77-92.

- Thomas, D. J. (1995). *Treasonable or trustworthy text*. In Thomas, D. *Teachers' stories*. Buckingham: Open University Press,.
- Tsai, S. (1998). The effects of cooperative learning on teaching English as a foreign language to senior high school students. *Unpublished Master' Thesis, National Kaohsiung Normal University*.
- Tsui, A. (1996). *Reticence and anxiety in second language learning*. In: K. Bailey, and D. Nunan, (Eds.), *Voices from the language classroom*, (pp. 145-164). Cambridge Cambridge University Press.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Wang, T. P. (2007). The Comparison of the Difficulties between Cooperative Learning and Traditional Teaching Methods in College English Teachers. *The Journal of Human Resource and Adult Learning* 3(2), 23-30.
- Weeks, T. E. (1979). *Born to talk*. New York: Newbury House Publishers.
- Wei, C. (1997b). Union is strength: Applications of cooperative learning to college EFL class in Taiwan. Taipei, Taiwan: Crane.
- Wei, C., & Chen, Y. (1993). *A study of Taiwanese college students's perceptions about cooperative learning in English class*. Paper presented at the Proceedings of the 10th International Symposium on English Teaching. 175-191. Taipei: Crane.
- Wesche, M. B., & Skehan, P. (2002). Communicative, task-based, and content-based language instruction. In R. B. Kaplan (Ed.), *The Oxford handbook of applied linguistics* (pp. 207- 228). New York: Oxford University Press.
- Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC journal*, 37(3), 308-328.

- Xu, X. (2005). *New Century English Integrated Course, Book 1*. Shanghai Foreign Language Education Press.
- Young, D. J. (1986). The relationship between anxiety and foreign language oral proficiency ratings. *Foreign Language Annals*, 19(5), 439-445.
- Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal*, 75(4), 426-439.
- Yu, G. (1995). Implementing cooperative learning approach in an EFL class in Taiwan. *Unpublished Master's Thesis, National Kaohsiung Normal University*.
- Zhang, X. (2006). Speaking skills and anxiety. *CELEA Journal*, 29(1), 34-39.



APPENDICES



APPENDIX A

Foreign Language Classroom Anxiety Scale

by Horwitz et al. (1986)

Directions: This section contains items that may reflect your feelings about your English class. Please read each item and indicate whether you (1) Strongly agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly disagree.

- () 1. I never feel quite sure of myself when I am speaking in my foreign language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 2. I don't worry about making mistakes in language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 3. I tremble when I know that I'm going to be called on in language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 4. It frightens me when I don't understand what the teacher is saying in the foreign language.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 5. It wouldn't bother me at all to take more foreign language classes.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 6. During language class, I find myself thinking about things that have nothing to do with the course.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 7. I keep thinking that the other students are better at languages than I am.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 8. I am usually at ease during tests in my language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 9. I start to panic when I have to speak without preparation in language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 10. I worry about the consequences of failing my foreign language class.
 Strongly agree Agree Neutral Disagree Strongly disagree
- () 11. I don't understand why some people get so upset over foreign language classes.
 Strongly agree Agree Neutral Disagree Strongly disagree

- () 12. In language class, I can get so nervous I forget things I know.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 13. It embarrasses me to volunteer answers in my language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 14. I would not be nervous speaking the foreign language with native speakers.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 15. I get upset when I don't understand what the teacher is correcting.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 16. Even if I am well prepared for language class, I feel anxious about it.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 17. I often feel like not going to my language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 18. I feel confident when I speak in foreign language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 19. I am afraid that my language teacher is ready to correct every mistake I make.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 20. I can feel my heart pounding when I'm going to be called on in language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 21. The more I study for a language test, the more confused I get.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 22. I don't feel pressure to prepare very well for language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 23. I always feel that the other students speak the foreign language better than I do.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 24. I feel very self-conscious about speaking the foreign language in front of other students.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 25. Language class moves so quickly I worry about getting left behind.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 26. I feel more tense and nervous in my language class than in my other classes.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 27. I get nervous and confused when I am speaking in my language class.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 28. When I'm on my way to language class, I feel very sure and relaxed.
Strongly agree Agree Neutral Disagree Strongly disagree

- () 29. I get nervous when I don't understand every word the language teacher says.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 30. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 31. I am afraid that the other students will laugh at me when I speak the foreign language.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 32. I would probably feel comfortable around native speakers of the foreign language.
Strongly agree Agree Neutral Disagree Strongly disagree
- () 33. I get nervous when the language teacher asks questions which I haven't prepared in advance.
Strongly agree Agree Neutral Disagree Strongly disagree



APPENDIX B

Personal Report of Communication Apprehension

(PRCA-24) by McCroskey (1982)

DIRECTIONS: This instrument is composed of twenty-four statements concerning feelings about communicating with other people. Please indicate the degree to which each statement applies to you by marking whether you strongly agree (1-SA), agree (2-A), undecided (3-U), disagree (4-D), or strongly disagree (5-SD).

Work quickly; record your first impression.

Question	Response
1. I dislike participating in group discussions.	1 - SA 2 - A 3 - U 4 - D 5 - SD
2. Generally, I am comfortable while participating in group discussions.	1 - SA 2 - A 3 - U 4 - D 5 - SD
3. I am tense and nervous while participating in group discussions.	1 - SA 2 - A 3 - U 4 - D 5 - SD
4. I like to get involved in group discussions.	1 - SA 2 - A 3 - U 4 - D 5 - SD
5. Engaging in a group discussion with new people makes me tense and nervous.	1 - SA 2 - A 3 - U 4 - D 5 - SD
6. I am calm and relaxed while participating in group discussions.	1 - SA 2 - A 3 - U 4 - D 5 - SD
7. Generally, I am nervous when I have to participate in a meeting.	1 - SA 2 - A 3 - U 4 - D 5 - SD
8. Usually I am calm and relaxed while participating in meetings.	1 - SA 2 - A 3 - U 4 - D 5 - SD
9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.	1 - SA 2 - A 3 - U 4 - D 5 - SD
10. I am afraid to express myself at meetings.	1 - SA 2 - A 3 - U 4 - D 5 - SD
11. Communicating at meetings usually makes me uncomfortable.	1 - SA 2 - A 3 - U 4 - D 5 - SD
12. I am very relaxed when answering questions at a meeting.	1 - SA 2 - A 3 - U 4 - D 5 - SD
13. While participating in a conversation with a new acquaintance, I feel very nervous.	1 - SA 2 - A 3 - U 4 - D 5 - SD
14. I have no fear of speaking up in conversations.	1 - SA 2 - A 3 - U 4 - D 5 - SD
15. Ordinarily I am very tense and nervous in conversations.	1 - SA 2 - A 3 - U 4 - D 5 - SD
16. Ordinarily I am very calm and relaxed in conversations.	1 - SA 2 - A 3 - U 4 - D 5 - SD
17. While conversing with a new acquaintance, I feel very relaxed.	1 - SA 2 - A 3 - U 4 - D 5 - SD
18. I'm afraid to speak up in conversations.	1 - SA 2 - A 3 - U 4 - D 5 - SD
19. I have no fear of giving a speech.	1 - SA 2 - A 3 - U 4 - D 5 - SD
20. Certain parts of my body feel very tense and rigid while giving a speech.	1 - SA 2 - A 3 - U 4 - D 5 - SD

Question	Response
21. I feel relaxed while giving a speech.	1 - SA 2 - A 3 - U 4 - D 5 - SD
22. My thoughts become confused and jumbled when I am giving a speech.	1 - SA 2 - A 3 - U 4 - D 5 - SD
23. I face the prospect of giving a speech with confidence.	1 - SA 2 - A 3 - U 4 - D 5 - SD
24. While giving a speech, I get so nervous I forget facts I really know.	1 - SA 2 - A 3 - U 4 - D 5 - SD



APPENDIX C

Questionnaire of Speaking Anxiety Scale (English Version)

Name: _____

Contact Number: _____

Directions: This section contains items that may reflect your feelings about your English class. Please indicate the degree to which each statement applies to you by marking whether you (1) Strongly Disagree, (2) Disagree (3) Neutral (4) Agree, (5) Strongly Agree. This is not a test. There is no “right” or “wrong” answer.

1. I never feel quite sure of myself when I am speaking in my English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
2. I start to panic when I have to speak without preparation in English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
3. I feel confident when I speak in English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
4. I feel very self-conscious about speaking English in front of other students.
Strongly Disagree Disagree Neutral Agree Strongly Agree
5. I get nervous and confused when I am speaking in my English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
6. I get nervous when I don't understand every word the English teacher says.
Strongly Disagree Disagree Neutral Agree Strongly Agree
7. I don't worry about making a mistake in English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
8. I tremble when I know that I'm going to be called on in English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
9. I keep thinking that the other students are better at English than I am.
Strongly Disagree Disagree Neutral Agree Strongly Agree
10. I worry about the consequences of failing my English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
11. It embarrasses me to volunteer answers in my English class.
Strongly Disagree Disagree Neutral Agree Strongly Agree
12. I am afraid that my English teacher is ready to correct every mistake I make.
Strongly Disagree Disagree Neutral Agree Strongly Agree
13. I can feel my heart pounding when I'm going to be called on in English classes
Strongly Disagree Disagree Neutral Agree Strongly Agree
14. I always feel that the other students speak English better than I do.
Strongly Disagree Disagree Neutral Agree Strongly Agree
15. English class moves so quickly I worry about getting left behind.
Strongly Disagree Disagree Neutral Agree Strongly Agree

16. I am afraid that the other students will laugh at me when I speak English.
Strongly Disagree Disagree Neutral Agree Strongly Agree
17. I get nervous when the English teacher asks questions which I haven't prepared in advance.
Strongly Disagree Disagree Neutral Agree Strongly Agree
18. I dislike participating in group discussions.
Strongly Disagree Disagree Neutral Agree Strongly Agree
19. Generally, I am comfortable while participating in group discussions.
Strongly Disagree Disagree Neutral Agree Strongly Agree
20. I am tense and nervous while participating in group discussions.
Strongly Disagree Disagree Neutral Agree Strongly Agree
21. I like to get involved in group discussions.
Strongly Disagree Disagree Neutral Agree Strongly Agree
22. Engaging in a group discussion with new people makes me tense and nervous.
Strongly Disagree Disagree Neutral Agree Strongly Agree
23. I am calm and relaxed while participating in group discussions.
Strongly Disagree Disagree Neutral Agree Strongly Agree
24. I have no fear of giving a presentation.
Strongly Disagree Disagree Neutral Agree Strongly Agree
25. Certain parts of my body feel very tense and rigid while giving a presentation.
Strongly Disagree Disagree Neutral Agree Strongly Agree
26. I feel relaxed while giving a presentation.
Strongly Disagree Disagree Neutral Agree Strongly Agree
27. My thoughts become confused and jumbled when I am giving a presentation.
Strongly Disagree Disagree Neutral Agree Strongly Agree
28. I face the prospect of giving a presentation with confidence.
Strongly Disagree Disagree Neutral Agree Strongly Agree
29. While giving a presentation, I get so nervous I forget facts I really know.
Strongly Disagree Disagree Neutral Agree Strongly Agree
30. I keep silent in my English class because I am afraid of making mistakes.
Strongly Disagree Disagree Neutral Agree Strongly Agree
31. I avoid having eye-contact with teachers in my English class.

- | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|-------------------|----------|---------|-------|----------------|
| 32. I feel anxious in an English Class even I am well prepared. | | | | | |
| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| 33. I bury my head when the teacher asks questions in my English class. | | | | | |
| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |



Appendix D

Speaking Anxiety Scale (Chinese Version)

说明：下面是关于你对英语课的感觉和反应。请仔细阅读每一项并根据你的第一反应选出你认为适合的答案。这不是测试。所有回答没有“对”，“错”之分。但是非常希望能得到你的真实看法。感谢你参与本次调查活动。请你务必按实际情境填写。

- | | | | | | |
|------------------------------------|-------|-----|-----|----|------|
| 1. 在英语课上，我对说英语没有把握。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 2. 上英语课时，如果没有准备而让我说英语我会开始发慌。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 3. 我对说英语很有自信。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 4. 在同学面前说英语我觉得很不自在。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 5. 上英语课时，我会感到紧张困惑。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 6. 当我听不懂英语老师说的每一个单词时，我会感到紧张。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 7. 上英语课时，我不担心会犯错。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 8. 在英语课上，如果我知道我将被老师点名回答问题时，我会开始发抖。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 9. 我一直认为其他同学的英语比我的好。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 10. 我担心我的英语会不及格。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 11. 要我在英语课上自愿回答问题，我会感觉尴尬，不安。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 12. 我很害怕老师纠正我的每一个错误。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 13. 当我快被老师点到名时，我能感到我的心开始跳动。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 14. 我总觉得其他同学的英语口语比我的好。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 15. 英语课速度很快，我会担心落后。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 16. 说英语时，我害怕其他同学笑我。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 17. 当英语老师问到我那些事先没有准备的问题时，我会感到紧张。 | 非常不同意 | 不同意 | 没意见 | 同意 | 非常同意 |
| 18. 我不喜欢加入小组讨论。 | | | | | |

非常不同意	不同意	没意见	同意	非常同意
19. 总得来说, 小组讨论时, 我觉得很自在。				
非常不同意	不同意	没意见	同意	非常同意
20. 小组讨论时, 我会感到紧张。				
非常不同意	不同意	没意见	同意	非常同意
21. 我喜欢参与小组讨论。				
非常不同意	不同意	没意见	同意	非常同意
22. 跟不认识或不熟悉的人一组讨论时, 我会紧张。				
非常不同意	不同意	没意见	同意	非常同意
23. 小组讨论时, 我感到很放松, 自如。				
非常不同意	不同意	没意见	同意	非常同意
24. 在英语课上作报告, 我并不害怕。				
非常不同意	不同意	没意见	同意	非常同意
25. 在英语上作报告时, 我感觉身体开始变得僵硬。				
非常不同意	不同意	没意见	同意	非常同意
26. 在英语课上作报告时, 我感到很放松。				
非常不同意	不同意	没意见	同意	非常同意
27. 在英语课上作报告时, 我的思路变得模糊, 零乱。				
非常不同意	不同意	没意见	同意	非常同意
28. 在英语课上我会自信地面对作报告的机会。				
非常不同意	不同意	没意见	同意	非常同意
29. 在英语课上作报告时, 我是如此的紧张以至于我会忘记本来就知的东西。				
非常不同意	不同意	没意见	同意	非常同意
30. 在英语课上我很保持沉默, 因为我怕犯错。				
非常不同意	不同意	没意见	同意	非常同意
31. 在英语课上, 我避免跟老师眼睛对视。				
非常不同意	不同意	没意见	同意	非常同意
32. 在英语课上, 即使我准备很好, 我也会感到紧张不安。				
非常不同意	不同意	没意见	同意	非常同意
33. 在英语课上, 当老师开始提问时, 我会把头埋下。				
非常不同意	不同意	没意见	同意	非常同意

APPENDIX E

Lesson Plan for Jigsaw Activity

Lesson Plan for Jigsaw Activity

Topic: Paradise Lost

Place: Students' classroom

Duration: 2 periods

Teaching Objectives:

The students will

1. learn some vocabulary, characteristics and facts about rainforest, such as plant, animals, weather, rainfall, location;
2. identify the causes to the paradise lost (destruction of rainforest) ;
3. state the possible solutions to save the rainforest.

Lesson Focus:

1. Group conversation skills : Keeping the Discussion Moving;
Giving an opinion, Expressing Agreement and disagreement, Making suggestions;
Seeking clarification (see the list for more details);
2. Facts about rainforest.

Prior Knowledge:

What prior knowledge do my students need to be successful with this lesson's focus?

The students will need to:

1. recall the knowledge about rainforest learnt from geography class;
2. use the internet or library facilities to obtain related information;
3. learn the following words, woodland, vegetation, ecosystems, living species, greenhouse, die out etc;

Materials/Preparation for Teaching:

What do I need to know, have, and be able to do before I can begin the lesson?

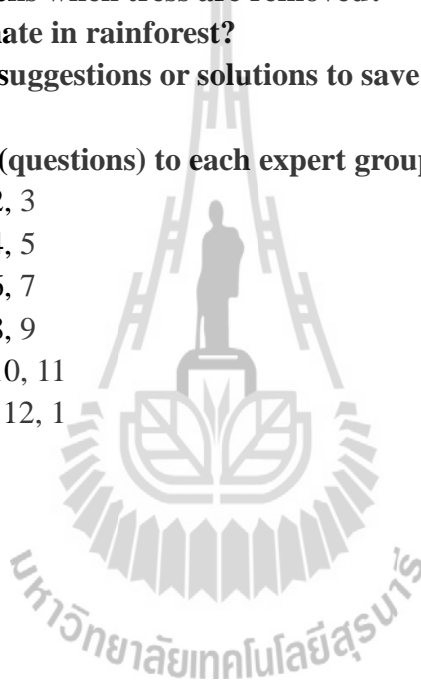
1. Colour-coded sheets (one per person)
2. One large-scale sheet per group
3. Provided questions
4. Some facts about rainforest such as nature, characteristics, causes of destruction, etc.
5. Group discussion task
6. Phrases for conversation skills

Sub-topics (questions) for expert group

- Q1. What is rainforest?**
- Q 2. What are the main characteristics of rainforest?**
- Q 3. what are the animals and plants living in rainforest?**
- Q 4. What are the characteristics of them?**
- Q 5. Do you know any importance of rainforests?**
- Q 6. Why are rainforests important?**
- Q 7. What is/are the problem(s) happening to rainforests?**
- Q 8. Who is to blame for such problem(s) ?**
- Q 9. When trees are cut down, what happens to the water resources?**
- Q 10. What else happens when trees are removed?**
- Q 11. what is the climate in rainforest?**
- Q 12. What are your suggestions or solutions to save rainforests?**

Assigning sub-topics (questions) to each expert group

- Expert Group 1: Q 1, 2, 3
- Expert Group 2: Q 3, 4, 5
- Expert Group 3: Q 5, 6, 7
- Expert Group 4: Q 7, 8, 9
- Expert Group 5: Q 9, 10, 11
- Expert Group 6: Q 11, 12, 1



APPENDIX F

Oral Conversation Rubric

	1	2	3	4
Fluency	Speech halting and uneven with long pauses or incomplete thoughts	Speech slow with frequent pauses; little attempt to keep conversation	Some hesitation but manages to continue and complete thoughts	Speech continuous with few pauses or stumbling
Content	Students' speech does not provide relevant information on the topic.	Students' speech is somewhat relevant to the topic and provides some related information.	Students' speech provides relevant content on the topic but without additional details.	Students' speech provides detailed relevant content (more than required) with explanation and elaboration.
Vocabulary	Very inadequate and inaccurate use of vocabulary	Somewhat inadequate and inaccurate use of vocabulary and too limited	Adequate and accurate use of vocabulary	Rich use of vocabulary with frequent attempts at elaboration
Eye Contact	Student carries out conversation with no eye contact.	Student occasionally uses eye contact.	Student maintains eye contact most of the time	Student maintains eye contact with partner all the time.
Conversation skills	Very inadequate and inaccurate use of conversation skills	Somewhat inadequate and inaccurate use of conversation skills and too limited	Adequate and accurate use of conversation skills	Rich accurate use of conversation skills

Adapted from: <http://www.ncsu.edu/midlink/rub.pres.html>

APPENDIX G

Semi-Structured Interview Questions for Students

(English version)

You are encouraged to express your opinion on CL. Please answer the following questions honestly. This is not a test. Feel free to answer.

1. What do you think of learning English in Cooperative Learning environment? Do you like it? Why or why not?
2. In which learning environment do you feel more comfortable and less anxious, CL learning environment or traditional teaching classroom? Why?
3. What is your attitude towards using CL activity to teaching English speaking?

APPENDIX H

Semi-Structured Interview Questions for Students

(Chinese version)

访谈学生问题

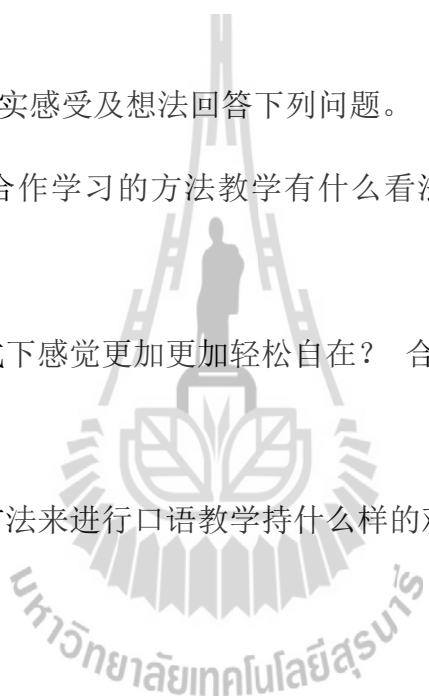
请同学根据自己的真实感受及想法回答下列问题。

1. 你对英语课采用合作学习的方法教学有什么看法？你喜欢这样的方法吗？

为什么 / 为什么不？

2. 你在哪种学习模式下感觉更加更加轻松自在？ 合作学习环境，还是传统教学模式？

3. 你对用合作学习方法来进行口语教学持什么样的观点？



APPENDIX I

List of phrases and patterns for conversation skills

Conversation skills	Examples of phrases /patterns
1. Introducing the topic	Today we are here to discuss... The goal of our discussion today is...
2. Giving an opinion	Well, in my opinion... As far as I'm concerned... Personally, I believe/ think that...
3. Expressing Agreement	Yes, that is right/correct. You are right/correct. I definitely agree with That is exactly what I think.
4. Expressing Disagreement	I don't really agree with him/her. I'm afraid I can't agree with his/her opinion. I can see your point, but I don't really agree with it.
5. Making suggestions	Why don't we/you... How about... I suggest that we/you...
6. Seeking clarification	What do you mean? Sorry, I'm not quite sure what you mean. Do you mean that...?
7. Getting a point into the discussion	I have a point I'd like to make. I'd like to add something here. I'd like to say something about your/her/his idea.
8. Paraphrasing another person's idea	What (s)he means is that... What (s)he is trying to say is that...
9. Expressing Preference	I think the best/worst suggestion is ... His idea is the.....-est (best, most reasonable etc.) I think one of the most practical solution is.....,
10. Closing the Discussion	In conclusion, the purpose of this discussion... The goal of our discussion is to.... We have concluded that...

CURRICULUM VITAE

Li Qian was born in February, 1982. She is a lecturer in the English Department of Tongren University, Guizhou Province, China. She obtained her bachelor's degree in English Language Study from Guizhou University, Guizhou Province, China in 2006. In 2009, she enrolled in the Master Program of English Language Studies in the School of English, Institute of Social Technology, Suranaree University of Technology, Thailand. Her academic interests include English language teaching and learning.

