CONSTRUCTIVE ROLE-PLAYS VIA E-LEARNING

FOR EFL LEARNERS

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การเรียนแบบแสดงตามบทบาทตามทฤษฎีการสร้างความรู้ผ่าน
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นักศึกษาที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ

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ในปัจจุบันการพูดมีบทบาทสำคัญเพิ่มมากขึ้น ในบริบทของภาษาที่สอง/ภาษาต่างประเทศ
อย่างไรก็ตามในมหาวิทยาลัยหลายแห่งในประเทศจีน นักศึกษาที่เรียนภาษาอังกฤษเป็น
ภาษาต่างประเทศแทบจะไม่มีโอกาสในการสื่อสารกับผู้อื่นเป็นภาษาอังกฤษได้อย่างมีประสิทธิภาพ
กิจกรรมการเรียนแบบแสดงตามบทบาทเชิงพฤติกรรมที่มีอยู่บนระบบบริหารจัดการเรียนรู้ด้วยสื่อ
อิเล็กทรอนิกส์ นิวฮอไรซันคอลเลจอิงลิช (เอ็นเอชซีอี) ไม่สามารถใช้ได้อย่างมีประสิทธิภาพในการ
เป็นบทเรียนเสริมสำหรับห้องเรียนการพูดภาษาอังกฤษเป็นภาษาที่สอง

งานวิจัยชิ้นนี้มีจุดมุ่งหมายเพื่อตรวจสอบการนำกิจกรรมการเรียนแบบแสดงตามบทบาท
ตามทฤษฎีการสร้างความรู้ผ่านระบบบริหารจัดการเรียนรู้ด้วยสื่ออิเล็กทรอนิกส์เอ็นเอชซีอีมาใช้
และตรวจสอบผลกระทบที่มีต่อการพูดของผู้เรียนชาวจีนที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ
ในห้องเรียนภาษาอังกฤษระดับอุดมศึกษาเครื่องมือวิจัยมีทั้งหมด 6 เครื่องมือ คือ แบบทดสอบการ
พูดก่อนและหลังการเรียน การวิเคราะห์ภาษาของบทบันทึกการแสดงกิจกรรมการเรียนแบบแสดง
ตามบทบาทแบบสอบถามผู้เรียน การสัมภาษณ์ผู้เรียน บันทึกข้อมูลของผู้สอน และ บันทึกการ
เรียนรู้ของผู้เรียนออนไลน์ ซึ่งนำมาใช้เพื่อเก็บข้อมูลระหว่างการสอน 18 อาทิตย์

ผู้ร่วมวิจัยจำนวน 300 คน เข้าร่วมในการทดลอง 18 อาทิตย์ ผลการทดลองแสดงให้เห็นว่า
กิจกรรมการเรียนแบบแสดงตามบทบาทตามทฤษฎีการสร้างความรู้ผ่านระบบบริหารจัดการเรียนรู้
ด้วยสื่ออิเล็กทรอนิกส์ มีผลกระทบเชิงบวกต่อการพัฒนาการพูดของผู้เรียนที่มีทักษะทางภาษา
แตกต่างกัน โดยมีความแตกต่างกันอย่างมีนัยยะสำคัญทางสถิติระหว่างผลคะแนนการทดสอบก่อน
และหลังการเรียนที่ระดับความเชื่อมั่นที่ 0.05 (ค่าความเชื่อมั่น = 0.000<0.05) ในกลุ่มทดลอง และ
แม้ว่าจะมีการรายงานผลถึงการลังเลใจ และความคิดเห็นในเชิงลบ ความคิดเห็นของผู้เรียนส่วน
ใหญ่ต่อกิจกรรมการเรียนแบบแสดงตามบทบาทตามทฤษฎีการสร้างความรู้ผ่านระบบบริหาร
จัดการเรียนรู้ด้วยสื่ออิเล็กทรอนิกส์เอ็นเอชซีอีในห้องเรียนการพูดส่วนใหญ่ยังคงเป็นไปในเชิงบวก
ผู้เรียนจำนวนร้อยละ 91.6 แสดงความคิดเห็นในเชิงบวกต่อการใช้กิจกรรมการเรียนแบบแสดงตาม
บทบาทตามทฤษฎีการสร้างความรู้ผ่านระบบบริหารจัดการเรียนรู้ด้วยสื่ออิเล็กทรอนิกส์สำหรับ
ห้องเรียนการพูดภาษาอังกฤษเป็นภาษาต่างประเทศ ผลการวิจัยระบุว่าการนำเทคโนโลยีการเรียน
ภาษาใช้คอมพิวเตอร์ช่วย และเทคโนโลยีอินเตอร์เน็ต มาใช้อย่างเหมาะสม มีความสำคัญต่อ
ความสำเร็จในการเรียนและการสอนภาษาอังกฤษสำหรับผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ

ในประเทศจีน ผลการวิจัยจะเป็นประโยชน์โดยตรงต่อผู้วิจัยท่านอื่นที่มุ่งหวังในการพัฒนาการพูด
ภาษาที่สองของผู้เรียน รวมถึงการสอนการพูดภาษาที่สองของผู้สอน จึงนับว่าเป็นสิ่งสำคัญในการ
นำตัวแบบการเรียนตามทฤษฎีการสร้างความรู้ มาใช้ในการเรียนภาษาอังกฤษระดับอุดมศึกษา
โดยเฉพาะอย่างยิ่งในห้องเรียนการพูดภาษาอังกฤษเป็นภาษาต่างประเทศ เนื่องจากผู้เรียนสามารถ
ร่วมเรียนอย่างมีส่วนร่วมในกระบวนการเรียนรู้ แทนที่จะรับรู้อย่างไม่แสดงปฏิกิริยาในสิ่งที่ผู้สอน
สอน งานวิจัยชิ้นนี้เป็นประโยชน์ต่อความเข้าใจเรื่อง การเรียนภาษาใช้คอมพิวเตอร์ช่วย ระบบ
บริหารจัดการเรียนรู้ด้วยสื่ออิเล็กทรอนิกส์ และทฤษฎีการสร้างความรู้ ในบริบทของประเทศจีน
และได้ตรวจสอบถึงประสิทธิภาพในการเปลี่ยนจากการสอนที่มีผู้สอนเป็นศูนย์กลางไปสู่การ
เรียนรู้ที่มีผู้เรียนเป็นศูนย์กลางในบริบทของประเทศจีน

สาขาวิชาภาษาอังกฤษ   ลายมือชื่อนักศึกษา_____

ปีการศึกษา 2553   ลายมือชื่ออาจารย์ที่ปรึกษา_____

LIN SHEN : CONSTRUCTIVE ROLE-PLAYS VIA E-LEARNING FOR

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Ph.D., 271 PP.

CONSTRUCTIVISM/CALL/E-LEARNING/ROLE-PLAY

Recently, speaking has played an increasingly important role in second/foreign language settings. However, in many Chinese universities, EFL students rarely communicate in English with other people effectively. The existing behavioristic role plays on New Horizon College English (NHCE) e-learning do not function successfully in supplementing EFL speaking classes.

The present study aims at investigating the implementation of constructive role plays via NHCE e-learning and its effects on Chinese EFL learners' speaking in college English classes. 6 research instruments, the speaking pretests and post-tests, student role play recording language analysis, student questionnaires, student interviews, teacher logs, and student online learning logs have been employed to collect data during the 18-week instruction.

300 participants were involved in the 18-week experiment. Results show that the constructive role plays via e-learning have positive effects on improving students' speaking with different language proficiency levels, there was a statistical significant difference between the speaking pretest and post-test scores at 0.05 level (p=0.000<0.05) in the experimental group and even though there were some

indecisiveness and negative opinions, the majority of students' opinions towards the implementation of constructive role plays via NHCE e-learning in speaking classes were still positive. There were 91.6% of the students who delivered with affirmative opinions towards the utilization of constructive role plays via e-learning for EFL speaking classes. The results indicate that the appropriate integration of CALL and the Internet technology is important to the success of English language learning and teaching for EFL learners in China. The findings from this study are directly beneficial to other researchers aiming at developing students' L2 speaking as well as teachers' L2 speaking instruction. It is important to implement a constructive learning model in college English study, especially for EFL speaking classes, because students can actively participate in the whole learning process instead of passively accepting what the teacher teaches. The present study contributes to the understanding of CALL, e-learning, and constructivism in the Chinese context, and it has also explored the effectiveness on the shift from teacher-centered instruction to student-centered learning in Chinese context.

School of English   Student's Signature _____

Academic Year 2010   Advisor's Signature _____

ACKONWLEDGEMENTS

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CALL	Computer-Assisted Language Learning
CET	College English Test
EFL	English as a Foreign Language
L2	Second Language
NHCE	New Horizon College English
SET	Spoken English Test

CHAPTER 1

INTRODUCTION

The present study aims at investigating the utilization of constructive role plays via e-learning on Chinese EFL learners' speaking in college English classes. The purpose of the study is to examine how constructive role plays can effectively help students on their L2 speaking via e-learning. This chapter is an introduction and background to the entire study. It starts with a brief introduction of college English learning in China, followed by a more specific situation of college English learning and teaching at Guizhou University. After that, a statement of the problem, the purpose of the study, research questions, hypotheses, and definitions of the terms are presented. Finally, the significance of the study is introduced, as well as the limitations.

1.1 Background to the Study

Currently, English speaking has become ever more important in people's daily lives. It also continues to take an increasing importance in second/foreign language settings. However, it is very difficult for Chinese students to communicate with other people in English effectively. In this case, such scholars as Hu (1988) and Weng (1996) described the situation of English learning in China as "dumb English" during 1980s to 1990s (as cited in Wang, 2006). Even at present, the term "dumb English" is still

used to describe students' English learning in China, especially in universities. The "dumb English" refers to the situation when students want or need to communicate in English but they cannot due to such possible reasons as tension, shyness and/or lack of effective communication skills in English. According to the statistics of the Chinese Ministry of Education, over 27 million students are enrolled in 2,321 institutions of higher education in China in 2007 (Liu, 2008). At all levels of doctorate, master, undergraduate and college diploma programmes, an ability to communicate at least one foreign language, in most cases, English, is compulsory, it is called college English (Zhang, 2008). The situation of "dumb English" has already become the biggest obstacle in second/foreign language learning and teaching in China.

For Chinese university students, after they finish their college English studies, all of them are required to take a national English test called College English Test, or CET in brief, to evaluate students' English abilities. It is an English as a foreign language test (Xu, 2007). This test is held twice a year, in June and in December. The CET consists of non-English-specialized band 4 and band 6 (the CET 4 and the CET 6 tests). The CET 4 test consists of listening, grammar, reading comprehension, and short essay writing, and after students finish their college English studies, all of them are required to take the CET 4 test. The CET 6 test consists of listening, grammar, vocabulary, reading, translation, and writing. The CET 6 is an optional test for those who have already got the CET 4 certificates or those who want to continue their graduate studies. According to the regulations from the test committee, only university students are allowed to take the CET 4 and the CET 6 tests.

A lot of universities in China require students to get a CET certificate (at least CET 4) to obtain a bachelor's diploma. Employers in China as well, prefer applicants with a CET certificate.

In 1999, a spoken English test was added to the CET 4 and the CET 6 tests in some areas of China as pilots for the test revision. It is called CET-SET (see Appendix E and Appendix F for more details on the test and a sample). This spoken English test is an optional test for those who have already passed the CET 4 and the CET 6 written tests. From the statistics of previous CET tests, there were nearly 98% of the students who have past the CET 4 and the CET 6 applied for the CET spoken English test (Yang & Weir, 1999). The purpose of adding this national spoken English test is to enhance the quality of speaking and listening learning and teaching during students' college English studies and also to cooperate with the reformation of college English learning and teaching. In 2004, there were 34 different testing centers in different universities in China. Guizhou University is one of the testing centers among them.

Apart from a small proportion of English-major programmes in Chinese universities, most of the non-English-major English courses have long been deemed inefficient and ineffective. Even though China has the largest population of English language learners in the world (Xiao, 2009), most students still finished their college English courses as good test-takers, but poor communicators (Li, 2001). English is learned as a foreign language (EFL) in China, and, therefore, not used as the everyday means of communication for most people. In many Chinese universities, EFL students rarely speak English in their daily lives. However, in order to, for example, take part

in some international seminars, or present research papers in international conferences, thus, students do need to be able to give oral presentations in English and discuss with other people in English. Therefore, being able to speak English efficiently has a particular importance to Chinese university students and also to the speaking learning and teaching. In order to develop college English learning and teaching in China, computer-assisted language learning (CALL) has been suggested to be one plausible way to improve the situation. According to the College English Curriculum Requirements, one of the requirements is as follow:

> …in designing college English courses, requirements for competence in listening and speaking should be fully considered. Moreover, the extensive use of advanced information technology based on the theory of constructivism and task-based language learning and teaching should be encouraged. Computer and the Internet-based English teaching should be promoted ... (as cited in Xu, 2007, College English Curriculum Requirements, pp. 29-30)

From the requirement mentioned above, computer-assisted language learning and task-based language learning and teaching approach should be promoted in college English learning and teaching processes. And it is increasingly being seen as effective way to improve the situation of college English learning and teaching in China. Computer-assisted language learning, hereafter CALL, was started in the 1970s in the United States, since then computers have changed a lot. It becomes easily handable machines and it can be found almost everywhere. Computer technology nowadays becomes more and more popular in many aspects of people's lives, especially in schools. Universities, as well, have achieved such great development as teaching materials, facilities and resources during the past twenty years (Calvo, 1997).

The main aim of CALL is to find out a suitable method for using computers for the purpose of assisting language learning and teaching effectively and actively because CALL is represented by the use of computer technologies that promote active learning. The CALL literature since the 1960s has recorded an interesting parallel between the emerging theories on language learning, and the technological and pedagogical innovations in CALL (Bach, Haynes, & Smith, 2007; Bax, 2003; Davies, 2005; Warschauer, 1996; Warschauer & Healey, 1998). However, Wang and Motteram (2006) pointed out that in China, the use of computer in language learning and teaching has not always been with the trend. Bach, Haynes, and Smith (2007) addressed that when European and North American countries have achieved the computer and the Internet as useful teaching tools in the 1990s, China's computer era has just arrived. But in the same decade, it has witnessed the outstanding development in educational technology in China.

Moreover, from pedagogical point of view, task-based language learning and teaching has consolidated some language learning theories (Nunan, 2004). Task-based language learning and teaching takes the same point of view with constructivism which argues that learners construct knowledge on the basis of their experiences (Zhou, 2006). Recently, task-based learning and teaching has become an important approach in L2 speaking learning and teaching process. As a part of task-based language learning and teaching, role play activities act as an effective tool for L2 speaking classroom instruction as it provides an opportunity for EFL learners to be actively engaged in language communication and knowledge construction. In

the present study, different role plays on the NHCE e-learning are tasks which stimulating students to practice EFL speaking and interact with the speaking materials. The existing behavioristic role plays on the e-learning, which focus on working the role out by repeating the same pre-set speaking materials and provide the platform for students to practice L2 speaking without interactions among themselves. However, students do not effectively fulfill the task requirements for speaking classroom in Chinese context, and students have low motivation on repeating the same speaking materials. On the contrary, the proposed constructive role plays that the present study tends to implement provide the platform for students to practice EFL speaking with interactions among themselves, and students actively construct knowledge based on their previous learning experiences. The proposed constructive role plays are different from the existing behavioristic ones in terms of the task instructions, scaffolding and the whole instructional design process on the NHCE e-learning, for example, scaffolding and discussion forums are provided to students for more opportunities for classroom interactions (see Appendix K for an example), and it was discussed in detail in the following section and Chapter 3.

The development of computer technology and the Internet has brought new trends into language learning and teaching processes, for example, distance learning and e-learning. In this light, more research studies of CALL are needed to guide EFL educators in the development, implementation and evaluation of teaching materials that aim to enhance learners' language acquisition (Davies, 2005). It is clear that there is a kind of connection between language learning and the technological

implementation. Take Guizhou University for example, in 1999, teachers still used cassettes to teach English listening and it was very difficult to locate a specific section that students wanted to listen again, which wasted lots of the classroom time, and it was not easy to keep those cassettes for a long time for the next use. In 2004, multimedia classrooms and sound-labs with projectors were introduced to classes, the Internet service made college English learning and teaching more convenient. It is easier for teachers to handle the problems of operating cassette tapes. Also, it saved lots of time for students to practice their English in class. Moreover, the theory of constructivism, which focuses on a learner-centered study and involves learners' active participation, has become popular in language learning and teaching (Tam, 2000).

Following the development of computer technology in language learning and teaching, e-learning has become the main trend in CALL because of its technicality, practicality and diversity. Holmes and Gardner (2006) proposed that e-learning has the potential to impact positively on the whole process of education. In the College English Department of Guizhou University, the New Horizon College English e-learning, which is the only e-learning platform among universities in Guizhou province, was exercised since 2004. New Horizon College English (henceforth, NHCE) e-learning acts as an assistance for computer laboratory practice, which is developed for online EFL courses based on the NHCE textbooks. Students can be engaged in self-study activities from time to time. Moreover, it can also be used in a traditional classroom setting to assist both EFL instruction and learning (Xu, 2007).

There are 4 levels of the NHCE textbooks, students study level 1 and level 2 in their first-year, and level 3 and level 4 are taught in their second-year. Each level of textbook consists of two textbooks: 1) reading and writing; and 2) speaking and listening. The reading and writing textbook aims for students' reading comprehension and writing ability. And the speaking and listening textbook aims for students' oral communication and listening skills. The NHCE e-learning consists of two parts: 1) textbooks' contents; and 2) supplementary section, which is based on the NHCE textbook system as shown in Figure 1.1.
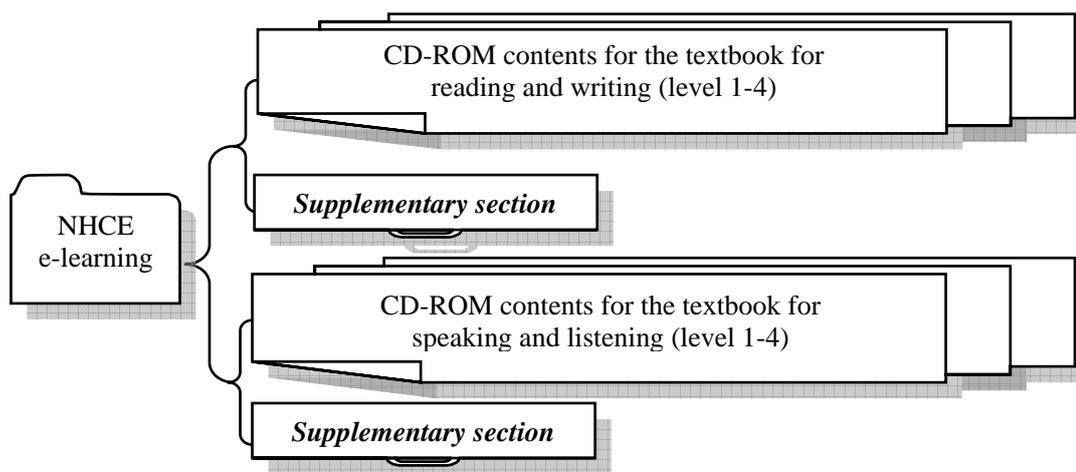
Figure 1.1: Contents of the NHCE E-learning

The NHCE e-learning already consists of all the materials from the textbook CD-ROMs, which means that the electronic content on the NHCE e-learning is exactly the same as the hard copy textbook for each level. Students can study those materials anytime anywhere. Another part of the e-learning is the supplementary section. Teachers can upload such teaching materials as slides files, audio and video

files, and homework, or provide students some useful links to other recourses from the Internet. As well, such online interactions as online chatting and discussions between students and students, and/or between students and teachers can be implemented through the chatroom and discussion forum on the NHCE e-learning.

1.2 Statement of the Problem

Following the Chinese central government's policy on developing West-China, great changes have taken place in Guizhou province, so did in Guizhou University. In 1999, based on the university's statistics, the total number of the university's multimedia classrooms was about 100, but this number increased to more than 500 in 2008 and it is still growing these days. Now Guizhou University has adopted the "211 Project". The "211 Project" is a project that involved 106 (as of 2007) key universities and colleges in the 21st century in China. It was initiated in 1995 by the Ministry of Education of the People's Republic of China. The project aims at cultivating high-level elites for national economic and social development strategies. The inclusion of universities in the project means that they have to meet scientific, technical, and human resource standards and to offer a set of advanced degree programs. The figures 21 and 1 from the number 211 are from the abbreviation of the 21st century and approximate 100 universities respectively (Wang, 2006). In the beginning of 2004, the Ministry of Education of China initiated the first round of a nationwide research-oriented reform on English language teaching in China by selecting four multimedia web-based English course packages to be piloted in 180

colleges and universities for one academic year. These 180 colleges and universities were required to implement computer-assisted multimedia-supported online courses in their college English curriculum (Wang & Motteram, 2006). The College English Department of Guizhou University is one of the experimental units among those 180 universities. Being the experimental units of college English reformation, the teaching materials were changed according to the requirements of Chinese Ministry of Education, a new coursebook for college English, namely New Horizon College English (level 1-4) has been introduced to replace the former one. As mentioned before, this textbook contains 4 levels, level 1 and 2 for the first-year undergraduate non-English majors, and level 3 and 4 are for the second-year undergraduate non-English majors. For each level, there are two main textbooks. Each textbook contains a CD-ROM and the NHCE e-learning.

Since Guizhou University is the only university which implements the NHCE e-learning for college English learning and teaching according to College English Curriculum Requirements in Guizhou province, new technologies, such as computers, the Internet, and multimedia can be applied in language learning and teaching. However, there appeared some problems because of the changing of teaching materials and the implementation of new technologies. And most teachers do not prefer using multimedia classrooms. They still prefer the traditional chalk-and-talk method. Another phenomenon is that once teachers begin to use multimedia facilities, there occur such problems as broken computer system, unstable Internet connection, broken projectors, and unstable sound control.

More importantly, the main problem lies on the implementation of NHCE e-learning system in L2 speaking classes. The NHCE e-learning has been exercised since 2004 according to the College English Curriculum Requirements in Guizhou University. It is made possible as a part of the Online Course Development Initiative Project of the Ministry of Education in China, which is designed to conform to the requirements set forth by the national college English teaching syllabus (Li, 2007). However, the existing NHCE e-learning does not function effectively in supplementing EFL speaking classes. From the NHCE e-learning evaluation, Wang and Wang (2005) pointed out that the problem of the NHCE e-learning rests with its behavioristic nature, especially in the speaking section. It involves such speaking activities as behavioristic role-playing, recording and comparing, listening and retelling, which require students to repeat the same pre-set speaking materials over and over again. Students lose their interests and pay less attention to practice their speaking. Furthermore, the behavioristic role play on the e-learning does not have a specific and clear instruction. Students are asked to choose a role first, then, they begin the role play activity by "reading the role scripts out" sentence by sentence and they can do the same role play repeatedly as many times as possible by reading the same scripts out again and again.

Based on the problem mentioned above, the present study will implement constructive role plays and adopts a classroom-oriented instructional design model, the PIE (Newby, Stepich, Lehman, & Russell, 2000) model (see Chapter 2 and 3 for more details) as the framework for instructional analysis and design on the NHCE

e-learning. Clark and Mayer (2002) mentioned that instructional design can be the practice of creating instructional tools and content to facilitate effective learning. The Newby *et al.*'s (2000) PIE model – planning, implementing, and evaluating, which focuses on classroom instruction with an emphasis on using media and/or technology to be an effective assistance to facilitate learning. According to Watson (2000), instructions can help learners to think more creatively, it is an important part of the classroom interaction between the teacher and the learner. Additionally, data analysis from the needs analysis questionnaire administered by the researcher at Guizhou University showed that 59.60% of the students (N=300) agreed that the existing NHCE e-learning has advantages in motivating them to learn to speak English. However, 50.33% of the students (N=300) have learned little from the existing NHCE e-learning from their previous speaking classes. And 43.83% of the students (N=300) explained that they felt bored to do the speaking activities on the e-learning. From their feedbacks, role plays on the e-learning should be improved because those role plays are simple repetitions from what students have learnt in tutorial classes, and students are simply required to read the role scripts out repeatedly. They cannot concentrate and stay interested in performing those behavioristic role plays because students mostly practice speaking through mere repetitions, as Naik (2007) emphasized that students cannot concentrate in learning to speak English without interacting with others at a low cognitive level, in a de-contextualized learning environment, and with a passive and repeated roll in the learning situation. Moreover, from the feedbacks of the needs analysis questionnaire administrated by the researcher,

students also suggested that it is necessary to get them involved in learning how to speak English under an interactive and active environment.

Furthermore, from Wang and Wang's (2005) arguments, on the existing NHCE e-learning, students finish role play activity by reading the scripts out, which is more or less the same as a reading and recording activity. As behaviorism holds the point that learning takes place through repetitions until it becomes automatic based on observable changes in behavior while the interactions among learners are ignored (Schuman, 1996). Those speaking activities require students' to repeat the materials as the behaviorists believe in learners' minds as a black box that responses to stimulus (Good & Brophy, 1990). He and Zhong (2006) mentioned in their research study on considerations for implementing e-learning for college English classes, results confirmed that students passively finish the behavioristic role plays and some students still cannot learn to speak English effectively. Li (2007) examined the effectiveness of using e-learning for enhancing college English teaching, results proved that the use of NHCE e-learning could enhance college English learning and teaching, especially for speaking and listening classes, however, arguments on how to utilize existing materials and activities for students to practice their speaking effectively should be carefully considered. Huang and Li (2007), and Tan (2008) also mentioned in their research studies that in general, the NHCE e-learning is mainly developed based on the theory of constructivism. However, the nature of some speaking activities from the inside learning content, for example, role plays, are done behavioristically. It is undoubted that the behavioristic role plays on the NHCE e-learning can help students practice their speaking many times repeatedly and

they can help students to understand the use of each word and sentence through repeated stimulus and response (Li, 2007; Tan, 2008). Furthermore, this kind of speaking practice has some shortages and it causes problems on students' L2 speaking because, eventually, students lack an ability to communicate properly to the context as they do not know how to utilize conversation strategies in the real context.

The importance of mastering certain English communication strategies or having the ability to communicate in English properly is also emphasized in a basic college English course according to the College English Curriculum Requirements. The objective of college English study is to develop students' ability to implement four skills in English, especially speaking and listening, so that in their future work and social interactions, they will be able to exchange information effectively (Li, 2007). Thus, continual attention must be given to the speaking learning and teaching process for EFL university students in China. Since the behavioristic role plays on the NHCE e-learning have such shortages as students practice speaking through mere repetition, they do not interact with other students, they passively learn in the L2 speaking class, and there is a lack of clear instruction. As a result, students' speaking can hardly be improved and they have low motivation in working out behavioristic role plays. It is necessary to find a suitable way to effectively develop and implement new kind of role plays. Therefore, constructive role plays, which provide students opportunities to construct knowledge through interactions with other classmates actively instead of repeating the same pre-set speaking materials, could be incorporated on the NHCE e-learning in speaking classes. Moreover, in the present

study, such role play task instructions as providing students language input, giving them examples on each role play task, introducing students certain conversation strategies and giving them comments on the language use in each conversation before performing constructive role plays are provided as the scaffolding so that students can acquire better understanding towards constructive role plays via NHCE e-learning.

1.3 Purpose of the Study

The main purpose of the present study focuses on the implementation of constructive role plays via the NHCE e-learning in L2 speaking classes, so as to examine the usefulness of the instructional process based on constructive learning theory. The effectiveness of the constructive role plays can be reflected by the comparison between the speaking pretest and post-test scores in terms of students' speaking achievement, and the analysis of student role play recording in terms of their language productivity on the word level and the sentence level, respectively. Meanwhile, the above effects can be supported from the data in terms of the teacher's observation logs and students' attitudes towards constructive role plays via NHCE e-learning. Therefore, the specific purposes of this study are to:

1. Investigate whether or not the constructive role plays via e-learning have positive effects on improving students' speaking and how they can help with students' L2 speaking in college English classes.

2. Investigate second-year non-English major students' opinions on the constructive role plays via e-learning at Guizhou University.

1.4 Research Questions and Hypotheses

To achieve the aforementioned purposes, the present study addresses the following research questions:

1. Do constructive role plays have any positive effects on improving speaking performance of students with different levels of proficiency?

2. What are second-year non-English major students' opinions on the constructive role plays via e-learning in their college English speaking classes?

Since the present study intends to explore the effects of the implementation of constructive role plays via e-learning on students' speaking performances, in line with the two research questions, the present study assumes the 2 hypotheses as follow:

Hypothesis 1.   Constructive role plays via NHCE e-learning have positive effects on improving speaking performance of students with different levels of proficiency.

Hypothesis 2.   Students hold affirmative opinions towards the utilization of constructive role plays via NHCE e-learning in L2 speaking classes.

1.5 Definition of Key Terms

EFL Learners – EFL learners in the present study refer to the second-year non-English major students who enrolled in college English classes at Guizhou University, People's Republic of China.

CALL – It is the abbreviation of computer-assisted language learning. In the present study it refers to the use of computer, especially e-learning, as a tool to

help the researcher to facilitate language learning and teaching process.

E-learning – Dudeney (2007) explains that e-learning refers to learning that takes place using technology, such as the Internet, CD-ROMs and portable devices like mobile phones or MP3 players. In the present study, e-learning refers to the NHCE e-learning at Guizhou University.

Behavioristic Role Play – In the present study, the behavioristic role play refers to the existing "reading the role scripts out" role play activities on the NHCE e-learning in the computer lab class. It focuses on playing the role out by repeating the same pre-described set of speaking materials over and over again on the computer without scaffolding from the teacher and interaction among students themselves.

Constructive role plays – The constructive role plays in the present study refers to the "acting the role out" role play activities with other partners on the chatrooms by using microphones and earphones on the NHCE e-learning in the computer lab class. It focuses on providing students chances to construct knowledge, from both their previous studies and their real-life situations. It also provides the platform for students to practice speaking by interacting with their classmates actively.

High, medium and low proficient students – In the present study, standard scores, or z scores from students' former English final examinations and the speaking pretests are calculated to classify students into three groups in terms of language proficiency. According to Triola (2000), a standard score is "the number of standard deviations that a given value is above or below the mean" (p. 85). It can be used to

compare values from different data sets. High proficient students in this study refer to Guizhou University second-year non-English majors with the z score of more than 1.00 ($z > 1.00$). Medium proficient students refer to Guizhou University second-year non-English majors with the z score between -1.00 and 1.00 ($-1.00 \leqslant z \leqslant 1.00$), while low proficient students refer to Guizhou University second-year non-English majors with the z score of less than -1.00 ($z < -1.00$). The scoring system was discussed in detail in Chapter 3.

1.6 Significance of the Study

Rivers (1987) points out that language development is one of the social processes that depend on interaction with others. A good interaction is hypothesized to occur when the normal interactive structure has been modified, for example, a repetition, clarification, or restatement of the original input. CALL has attracted students effectively by its unique characteristic of teaching. It can bring the vigor to the speaking classroom. It also can help establishing a good computer-based constructive learning to speak English environment for students, and it can motivate students through the sensation towards related English materials. Therefore, considering the current college English learning and teaching situation in Guizhou University, the appropriate integration of CALL and the Internet technology is important to the success of English language learning and teaching.

The most important significance of the study is to implement a constructive and interactive learning model for college English study. The findings from this study

will be directly beneficial to other researchers aiming at developing students' L2 speaking abilities as well as teachers' L2 speaking instructional methods. This study is essential and contributes to EFL speaking instruction for its theoretical and practical significance. It will contribute to the improvement of the understanding of CALL, e-learning and constructivism. It will help practitioners build the theoretical basis. It will also help to identify a more effective methodology for teaching L2 speaking by using computer technologies, multimedia and the Internet resources. The present study provides some insights into how constructivism and e-learning could be effectively used to help Chinese students' learn to speak English, which is in line with the goal of the new Chinese education system, shifting from examination to quality education. Hence, the present study might have some insights on the teaching of English speaking in China including the syllabus design, language testing, and curriculum development.

The present study is also a contribution to the reform of English pedagogy in China, especially in Southwest China, a relatively under-developed area where most current pedagogical methods emphasize teacher-centered approaches. Within China's English teaching environment, this teacher-centered method is slowly changing. The present study is a useful and meaningful exploration on the shift from teacher-centered instruction method nowadays, which still dominates the Chinese EFL classroom, to student-centered teaching methodology, which is the new trend in EFL classroom.

1.7 Limitations of the Study

Like other studies, this study also has its limitations.

First, the subjects of this study are the limited population of second-year undergraduate non-English major students at Guizhou University, People's Republic of China. If the investigation had been extended to students who are not from Guizhou University, the results of the study would be more generalizable.

Second, the purposive sampling procedure may decrease the generalizability of the findings. The subjects of this study are chosen based on convenience and availability. This study is not generalized to all areas of EFL speaking learning and teaching since the aim for this study is to investigate the process of implementing constructive role plays via e-learning and how it can benefit students' learning to improve their speaking skills.

1.8 Summary of Chapter 1

This chapter gives the background and the context of the investigation of the present study. It first describes the importance of speaking to the EFL learners and the difference between the existing role plays and constructive role plays. After that, the statement of problems, the research purpose, questions and hypotheses, and definitions of frequently used terms in the present study are briefly discussed. This chapter concludes with the significance and the limitations of the study which hopefully intends to offer insights toward implementing constructive role plays via e-learning to improve students' L2 speaking. In the next chapter, a review of the related theories and research studies will be presented.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of related literature in relation to the research questions and the research hypotheses. Firstly, it begins with the reviewing of second language (L2) speaking, computer-assisted language learning (CALL), and theory of e-learning. Secondly, three learning theories, behaviorism, cognitivism and constructivism are reviewed. Finally, role play, constructive learning environment, and constructive instructional design theory are presented. This chapter concludes with the theoretical foundations of the effective role play activity based on e-learning, scaffolding and constructivism.

2.1 Second Language Speaking

In language learning, four language skills are often talked about (speaking, listening, reading and writing) in terms of their direction and modality. Language generated by the learners, for example, speaking or writing is considered productive language, and language comprehended by the learners, for example, reading or listening, is known as receptive language (Savignon, 1991). According to the concept, speaking is the productive and oral skill. Speaking is a process of producing systematic verbal utterances to convey meaning. Bailey (2005) explained that

speaking is "an interactive process of constructing meaning that involves producing, receiving and processing information" (p. 2). According to Krashen (1988), there are two independent systems of second language performance. The first is the acquired system and the second is the learned system. The acquired system is called acquisition. It is the product of a subconscious process very similar to the process of children acquires their first language. And the learned system is called learning. It is the product of formal instruction and it comprises a conscious process which results in conscious knowledge about the language, for example, conversation strategies.

However, for the majority of the EFL learners in China, as mentioned in Chapter 1, they rarely speak English in their daily conversations. It is very difficult for Chinese EFL students to communicate with other people in English effectively after they finish their college English studies. Whenever EFL students need to have conversations in English, they cannot perform the task successfully due to such possible reasons as tension, nervousness, shyness and/or lack of effective communication skills in English. According to Xiao (2009), China has the largest population of English language learners in the world. However, most students still finished their college English courses as poor communicators (Li, 2001). Bygate (1987) pointed out that "speaking is a skill which deserves attention in both first and second languages" (p. 1). Learning second language speaking is quite different from learning first language speaking. Second language speakers' knowledge including its vocabulary and grammar, is rarely as extensive or established as their knowledge of their first language. It has not been sufficiently integrated into their existing language

knowledge. The process of arranging the grammar or repossessing the word is not yet automatic. The result is that the process may be complicated by learners' tendency to formulate the utterance first in the first language and then translate it into the second language (Hampel, 2003; Horwitz, 2001; Thornbury, 2007). This is the main reason why such scholars as Hu (1988) and Weng (1996) described the situation of English learning in China as "dumb English" during 1980s to 1990s (as cited in Wang, 2006). EFL learners feel nervous and anxious when learning a second language and it is hard to motivate them to practice more. Therefore, in the present study, with the Chinese EFL learning context, the utilization of role plays assisted by computer technologies and the Internet could provide active and interactive learning environment which motivates learners to acquire meaningful solutions to their second language speaking.

The continual growths of computer technologies and e-learning have facilitated second language (L2) learners easily to get access to huge amount of relevant online resources for free and commercial courses as well. Languages, which are taught via the assistance of computers and e-learning, provided with clear instructions, also help develop the practice of speaking for L2 learners (Hampel, 2003; Henriksen, 2004). On the other hand, learners may feel more confident and can take more trials when they practice speaking using computers in a chatroom than in a face-to-face setting such as a real classroom. It can help learners feel less anxious and nervous for constructing knowledge for real-life communications (Chang, 2007; Gong, 2002; Horwitz, 2001; Ng, Yeung, & Hon, 2006; Son, 2007; Stockwell, 2007).

2.2 Computer-Assisted Language Learning (CALL)

According to Ahmad, Corbett, Roger, and Sussex (1985), computer is a tool, it cannot make actions itself. That means it has no inborn wisdom, no mind of its own, no initiative, and no inherent ability to learn or to teach. It will operate with remarkable speed by a human user. Ahmad *et al.* (1985) addressed that computer plays the role as an assistant, it is a medium used as teaching tools in education. It is the teacher, however, who can make the computer play various roles in and out of classes, in stead of the computer itself.

2.2.1 Definitions of CALL

Beatty (2003) defined CALL as "any process in which a learner uses a computer and, as a result, improves his or her language" (p. 7). According to Levy (1997), CALL is "the search for and study of applications of the computer in language learning and teaching" (p. 1). This definition is a very broad one. However, Davies (2006) offered a more precise way of describing CALL, which is an approach to language learning and teaching where computer technology is used as a tool to the presentation, reinforcement, and assessment of materials to be learned, and usually it includes a substantial interactive element. Hubbard and Levy (2006) explained that CALL is "a vocabulary flashcard program or set of online grammar exercises, where the computer in some way has a teaching function" (p. 1). CALL is not only a kind of method, but also a tool that helps teachers to facilitate language learning and teaching. CALL covers a broad range of activities which makes it difficult to describe as a

single idea or simple research agenda. CALL is employed in many ways, both in and out of the classroom. In classrooms, it can be used both with better learners and weaker ones. Delivery methods for CALL include individual computers at home or in the classroom, classroom sets of computers, language laboratories into which computer functions have been incorporated, and the online instruction through the World Wide Web, or in particular, e-learning (Beatty, 2003). In the present study, CALL refers to the use of computer, especially the NHCE e-learning, as a teaching tool to improve students' L2 speaking performance, and to facilitate language learning and teaching.

2.2.2 CALL in Language Learning and Teaching

From the educational point of view, computer promotes a learner-centered learning both in and out of the classrooms. Khalili and Shashaani (1994) stated that the teacher is no longer the key of the learning process. According to Shi (2006), computer can help to create an active learning environment that learners' energy is focused on learning. Computer and language teaching have walked hand in hand for a long time and computer has been viewed as a useful teaching tool in second language classroom (Beatty, 2003; Boswood, 1997; Brierley, 1991; Chesters, 1987; Lee, Jor, & Lai, 2005; Mayer & Moreno, 2002; Sabourin, 1994; Szendeffy, 2005; Towndrow, 2007). Nevertheless, computers and technologies are still a source of fears and insecurity for many teachers everywhere in the world, despite the latest advanced applications in language teaching such as specialized websites, blogs, wikis, language

teaching methodology, journals, and so on. According to Wang (2006), although many countries have done institutional efforts to modernize their equipments, spent large amounts in technology, and proved the positive effects of integration of computer in language learning, many teachers still ignore the usefulness of teaching via computer. However, it can be noticed that in L2 speaking class, the use of computer as a teaching tool has a strong effect on enhancing learners' motivations and some teachers provide assignments around learner interactions in multi-user domains (MUDs), the relatives of today's chatrooms (Bax, 2003; Merrill & Hammons, 1996; Molnar, 1997).

According to Hubbard (2007), CALL is being integrated into language learning activities. In the process of language learning and teaching innovation, CALL plays an important role in developing a constructive learning and teaching environment for both learners and teachers, especially for motivating learners to study language actively. Linguistic information provided by the computer is modular, with multiple links and joints forming a comprehensive system which reflects more accurately and in a more systematic method. Maria, Vicky and Stefanos (2001) stated in their research study that with computer hypertext techniques, different kinds of information may provide active and interactive learning. Via computers, written texts are merged with audio sequences and graphics. Thus, effective techniques are available in constructing new methods of representing knowledge. Computer technology has provided the turning point for English classroom reformation,

especially in speaking classes. Johnson and Maddux (2003) pointed out that computer assisted L2 speaking class is becoming increasingly important since the learners are the center in the entire learning and teaching process, learners become the knowledge explorer instead of an accepter, and teachers become the study helper instead of the lecture giver.

2.2.3 Related Studies on CALL and L2 Speaking Instruction in China

There are some previous research studies on benefits of CALL in college English classes in China. From Wu's (2004) study, which analyzed such multimedia technologies as sound-lab and e-learning system assisted EFL speaking classroom teaching in China, results show that digital learning materials are used to assist teacher's instruction, and serves as a preliminary step regarding the implementation of instructional strategies in a language teaching process. Also, collected feedbacks from online discussion forum and face-to-face verbal conversations between teachers and students reveal learner's preferences over the current status of computer assisted language learning. Students agreed that they were motivated to speak more under active learning environment which assisted by those computer technologies. Likewise, Zheng (2006) suggested in her research study about the second thought of college English teaching nowadays in China, especially in the situation of college English reformation. She recommends the use of such computer program as PowerPoint and Flash to create students' self-learning consciousness and student-centered consciousness in EFL speaking classes. Results show that under the computer assisted

learning environment, students actively constructed knowledge by interacting with other classmates to practice more in class. Feng (2006) also conducted an experimental study on computer assisted EFL speaking learning environment in a college English class in China. The results show that computer assisted college English speaking teaching can provide a constructive language learning environment to EFL learners and it can improve students' interests in learning English. Teaching materials presented by the assistance of PowerPoint, word processing and video files help EFL learners understand better towards the learning contents, and it also reduces the nervousness and tension when EFL learners practice speaking in class. She also suggested using constructive instructional method to improve the quality of college English teaching in terms of four language skills. Among those research studies, some research studies are related to investigations of Chinese EFL learners' speaking skills (e.g. Liu, 2008; Ou, 2006; Shi, 2006; Yang, 2007; Zhang, 2008; Zhao, 2007). However, to my best knowledge, a research study on implementing constructive role plays on NHCE e-learning on students' speaking in college English class in China has not been conducted. And there is no research study has been done on implementing constructive role plays activities via chatroom on NHCE e-learning. So the present study brings forth its significance.

2.2.4 CALL and L2 Speaking

In terms of practicing speaking, one of the important recent developments in CALL is the component that allows voice chatting. It supports the possibility for

learners and teachers to interact through the Internet in and out of the classroom. Asynchronous speaking practice is possible through some on-line devices, for example, www.wimba.com website Internet voice mail, or sound files that can be attached to email. It is addressed that putting learners in front of a computer in groups of two or more will get them talking about the computer task and improve speaking fluency, although research study has not borne this out, like many other CALL activities, it depends on the learners' readiness and motivation (Davies, 2005; Maria, Vicky, & Stefanos, 2001; Meng, 2007; Spiro, Feltovich, Jacobson, & Coulson 1992;). According to Hubbard (2007), practicing speaking has always been an interesting aspect for computer-assisted language learning. TRACI Talk and Tell Me More® are examples of programs which allow some limited conversation simulation and give some kinds of the experience through the use of speech recognition software. Like other programs that simply rely on voice recording, the behavioristic role play on the NHCE e-learning provides a recording function for learners to record a line from a dialogue and then compare it with the native speaker's samples which are installed in the system.

To sum up, the application of CALL in a speaking classroom may 1) increase the classroom information capacity and enlarge the language input value; 2) speed up the rhythm; and 3) provide more opportunities for language practicing for learners. First, in terms of providing information and enlarging language input, CALL can help teachers to provide learners such information as class objectives, lessons'

documents, homework, discussions, and other useful recourses from the Internet. Ou (2006) pointed out that teacher in a speaking class, as an organizer, can use CALL to give learners instruction about one topic and with plenty of materials to stimulate learners' interests to speak. It is helpful to improve learners' abilities of self-learning, group cooperation, and learners' interaction. Second, in terms of speeding up the rhythm, CALL can help teachers to save class time in presenting learning contents as the traditional chalk-and-talk method. Learner's English ability, especially the speaking ability, depends on their English language practice (Ellis, 2003). During the teaching process, teacher can put some important points and language contents on computer or through e-learning. This can help teachers to save class time in presenting the teaching materials to learners in stead of keeping writing on the blackboard. According to Hubbard (2007), the main characteristic of L2 speaking is its reciprocal effects, for example, the more you practice English speaking, the more fluently you can speak the target language. In this case, CALL can help teachers to create an interactive learning environment to let learners get more chance to speak English like in the real-life situation. It can motivate learners to practice more in speaking classes.

2.2.5 Advantages of CALL

CALL provides many advantages to L2 classrooms. It is quite clear that CALL has come to a new stage, especially with the development of new technology and the Internet. Computers can facilitate a variety of learning tasks and have

enormous potency as a teaching tool (James, 1996). It can handle a much wider range

of activities. Ahmad *et al.* (1985) suggested that computers can offer interactive

learning. It means that computer can conduct a two-way learning session with the

learners. It is much more than a mere programmed textbook, for example, the

programmed instruction. Computers can repeat an activity with less errors than which

usually made by humans. Calvo (1997) addressed that computers can handle a very

large volume of interaction and they can deliver learners with some feedbacks. It is

beneficial in terms of the flexibility and learning and teaching. In English learning and

teaching, learners are the center of the whole process. Computers may help teachers to

meet different learners' needs by providing learners with different levels of learning

materials, by offering learners different studying methods, or by helping learners

work at their own paces. Wang and Motteram (2006) explained that learners become

the center of learning, and teachers, instead, become the facilitators. It requires

learners to take more responsibility for their learning, to learn how to learn. Such

individualized instruction can initiate learners' active learning, promote learning with

comprehension, and allow learners to see their own progress, which is in line with the

focus of constructivism. As a result, slower learners can catch up, and advanced

learners can do extra assignments. Computer's flexibility of time allows the learner to

choose when to study particular topics and how long to spend on them. Wang (2006)

explained that traditionally, learners must go to a lecture themselves at a fixed time

and in a fixed classroom. However, nowadays, if computer laboratories are connected

to the Internet, learners can study English at various places on and off campus at any time. If the school has a network of computer laboratories, learners can use the materials wherever they are working. Learners can even study at home if their personal computers have the Internet connection with their school's system or network. Teachers and learners cannot only get materials and information from the websites of their own country, but also from those of foreign countries.

Another important advantage of CALL rests on the fact that it can motivate learners to practice more and it can help teachers to create a constructive learning environment for learners to practice their English, especially in speaking classes. Ahmad *et al.* (1985) contended that computers help motivate learners. Language teaching in the past was conducted mainly in the classroom with teachers' teaching and learners' passive learning, and with the traditional chalk-and-talk practice. However, with computers, teachers can present pictures, videos and written texts with or without sound. Learners can practice language in a more real and understandable situation. Through simulation and other techniques, computers can present abstract things in a concrete and easily understandable method. Zhang (2008) explained that many learners who are tired of traditional English classes become more and more interested in this new style of language learning and teaching. That means when learners learn in a computer assisted classroom, they may study more actively, and they do not just listen to the teachers passively. On the contrary, they may actively participate in the whole learning process. Taylor (1980) clarified that

computer-assisted language learning can be the wonderful stimuli for second language learning. Currently, computer technology can provide a lot of fun games and communicative activities, for example, role plays, picture games, and story telling, to reduce the learning stresses and anxieties. According to Wu (2000), through various communicative and interactive activities, computer technology can help second language learners strengthen their linguistic skills, affect their learning attitude, build their self-instruction strategies, and improve their self-confidence. Many experts have pointed out that practical experience is a very important factor for people's learning. Many educators also believe that learning is about making sense of information, extracting meaning, and relating information to everyday life and that learning is about understanding the world (Ormrod, 1999). When computer technology is combined with the Internet, it creates a platform for learners to obtain a huge amount of information. In this way, learners not only can extend their personal view, thought and experience, but also can learn to live in the real world. They become the active creators not just the passive receivers of knowledge (Lee, 2000).

2.2.6 Disadvantages of CALL

However, among those advantages of CALL, there are still many doubts whether computers can serve well in teaching language and whether they can provide learners with efficient and effective practice. Dimova (2007) argued that computers can only do what they are programmed to do because they are machines. Firstly, no matter how powerful they are, computers still cannot replace teachers. Computers

cannot handle unexpected situations. They cannot communicate meaningfully with the users because they do not recognize natural language fully. They can only respond to certain commands that are already programmed in advance. Thus, many programs fail to meet users' individual demands. In addition, most classroom teachers have neither the skills nor the time to design programs (Wang, 2006). Secondly, language learners' learning situations are various and changeable. Because of the limitations of computer's artificial intelligence, computer is unable to deal with learners' unexpected learning problems and to response to learners' question immediately as teachers do. Blin (1999) explained that without some certain intelligence, computers are not expected to exist for quite a long time. In other words, today's computer and its attached language learning programs are not yet intelligent enough to be truly interactive. Wang (2006) suggested that people still need to put effort in developing and improving computer technology in order to assist second language learners.

Since computer technology requires people's basic skills to master it. Another disadvantage of CALL is about teachers who use computer to teach. Before they really begin to use computer, some of the language teachers may need to learn the basic skills on how to use a computer, to understand the theory behind CALL, to learn how to operate special programs effectively, and to learn the best methods for teaching classes with computers. According to Roblyer (2003), this will, definitely, increase the teaching workload on top of other responsibilities for teachers. And new programs and software are developing so fast that teachers may feel that they need to

change programs sometimes, which involves taking a longer time learning a new program. Davies (2005) addressed that as for learners, it will take them a long time and a lot of energy to learn the basic skills for using a computer before they can even begin to use them to study a subject. That is to say both teachers and learners should have basic computer knowledge before they apply it to assist second language learning and teaching. No learner can utilize computer if he/she lacks training in the uses of computer. Moreover, Wang (2006) pointed out that unfortunately, most teachers today do not have sufficient technological training to guide their learners exploring computer and its assisted language learning function. There are some other disadvantages about using computer in a classroom. For example, schools need to spend much money hiring technicians to deal with such computer problems as broken system and unstable Internet connection. And the price of computer is not so cheap that everybody can afford. Cheng and Kritsonis (2006) addressed that computers are expensive, though the price has become lower and lower now, they are still not so cheap that everyone can afford. When computers become a basic requirement for learners to purchase, low budget schools and low income learners usually cannot afford a computer. It is a big problem for schools and universities which cannot afford many computers. Even for schools that are rich enough, computer laboratories, once established, are not possible to be updated in time (Son, 2004). It is, therefore, less likely for them to follow the development of computers, new equipments, and new programs, which seem to come out every day. As a result, it is necessary for those

people who are in charge of schools' administration to make good decisions about what the computers will be used for and to buy the most appropriate hardware and software for education purposes, which preferably can be upgraded easily with changes in technology.

2.3 E-learning

Since the development of computer technologies and the Internet are rapidly increased, e-learning becomes the new trend in CALL. Holmes and Gardner (2006) addressed that no matter where learners learn a language, the e-learning approaches can provide significant opportunities for learners to create and acquire knowledge for themselves.

2.3.1 Definitions of E-learning

Dudeney and Hockly (2007) defined e-learning as "learning that takes place using technology, such as the Internet, CD-ROMs and portable devices like mobile phones or MP3 players" (p. 136). According to Rosenberg (2001), e-learning is "the use of the Internet technologies to deliver a broad array of solution that enhances knowledge and performance" (p. 28). It is based on three fundamental criteria. Firstly, e-learning is networked, which makes it capable of instant updating, storage or retrieval, distribution, and sharing of instruction or information. Secondly, e-learning is delivered to the end-user via a computer using standard Internet technology. And thirdly, e-learning focuses on the broadest view of learning-for-solving-problem that goes beyond the traditional paradigms of teaching (Holmes & Gardner, 2006).

E-learning is often delivered via a learning platform, which is known as a Learning Management System (LMS). It is a web-based platform on which course content can be stored. It can be accessed by learners on the Internet. Learners can see not only the course content, for example, lesson documents, audio and video lectures, but also they can do such activities as quizzes, questionnaires, and tests, or use communication tools like discussion forums or text and audio chat. Cole (2005) explained that LMS is the Web applications, and it offers teachers useful tools to create a constructive and interactive learning environment for learners to learn anywhere and anytime. Increasingly popular in LMS is the Moodle system. Moodle refers to the Modular Object Oriented Developmental Learning Environment. It is an open source software package designed by using sound pedagogical principles to help educators create effective e-learning communities (Cole, 2005). According to Mason and Rennie (2006), an LMS system's objective is to simplify the administration of learning or training programs. It can help learners to gauge and plan their learning progress, and to communicate and collaborate with their peers. For teachers, it helps them to target, deliver, track, analyze, and report on their learners' learning situations. In the present study, e-learning refers to the existing NHCE e-learning of Guizhou University, which is the only e-learning system among universities in Guizhou province.

2.3.2 E-learning in Education

E-learning has become the new trend in education because of its technicality, practicability, diversity, and interactive nature. Increasingly, educational institutions

are moving toward the use of the Internet, both on campus and at a distance. For learners, e-learning knows no time zones, and location and distance are not an issue. In asynchronous e-learning, learners can access the online materials at anytime, while synchronous e-learning allows real time interaction among learners themselves and between the teachers. Learners can use the Internet to access to up-to-date and relevant learning materials, and can communicate with experts in the field in which they are studying. Learners can use the Web to go through the sequences of instruction to complete the learning activities, and to achieve learning outcomes and objectives (Ally, 2002; Ally, 2004; Ritchie & Hoffman, 1997). Anderson and Elloumi (2004) explained that for the teachers, teaching can be done at anytime and from anywhere with any kind of instructions. Online materials can be updated, and learners are able to see the changes at once. When learners are able to access to the materials on the Internet, it is easier for them to direct to appropriate information based on their needs. A properly designed e-learning can be used to determine learners' needs and current level of expertise, and to assign appropriate materials for learners to select from to achieve the desired learning outcomes (Anderson & Elloumi, 2004). A variety of learning activities may be used to accommodate the different learning styles. Learners will choose the appropriate strategy to meet their learning needs. Different kinds of interaction will promote learning at different level. Horton (2006) proposed a framework of effective e-learning system, as shown in Figure 2.1, to examine the effectiveness of e-learning.
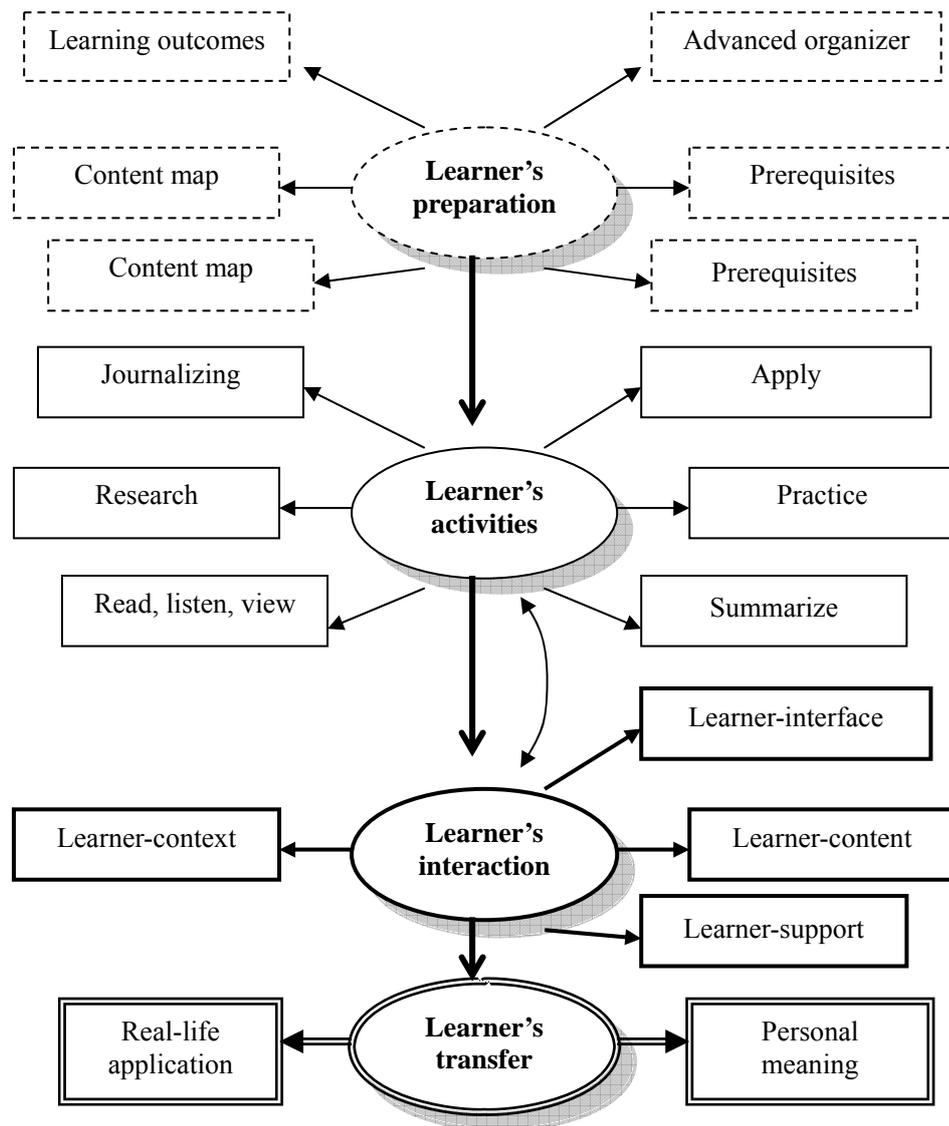
Figure 2.1: Components of Effective E-learning System

(as cited in Anderson & Elloumi, 2004, p. 25)

In learner's preparation part, variety of pre-learning activities can be used to introduce learners to the details of learning, and to get them connected and motivated to learn. Learners will be informed of the learning outcomes so that they know what is

expected and will be able to gain when they have achieved the learning outcomes. In learner's activities part, the online learners will be provided with a variety of learning activities to achieve the learning outcomes and to accommodate learners' individual needs, for example, reading textual materials, listening to audio materials, or viewing visuals or video materials. Learners can investigate on the Internet and link to online information and libraries to acquire further information. In learner's interaction part, learners complete the learning activities; they will be involved with a variety of interactions. Learners need to interact with the interface to access to the online materials. The interface should not overload learners, and should make it as easy as possible for learners to sense the information for transferring to sensory store and then into short-term memory for processing. And in the last part, learner's transfer, it offers the opportunities to learners to transfer what they learn to their real-life applications, so that they can be creative and go beyond what has been presented in the class.

From Figure 2.1 above, it is obvious that e-learning is helpful and useful, and "the e-learning will emerge as the core of a wider variety of customizable tools," (Holmes & Gardner, 2006, p. 29). E-learning has the potential to impact positively in the whole process of education. According to Dudeney and Hockly (2007), the advantage of e-learning is that everything is in one place, teachers can see who has logged in, and see what activities learners have done, or what documents and forums they have accessed. E-learning also usually provides fairly sophisticated tools for assessment and grading, with records kept for each learner. Thus, a teacher can

evaluate a learner's written work or oral assignments, and those grades are automatically recorded. Dudeney and Hockly (2007) pointed out that result for automatically graded activities, like quizzes or tests, will also be fed into learners' graded books and learners can check their grades or progresses at any point. In the present study, the discussion forum on NHCE e-learning serves as one part of the scaffolding to present students' and teachers' interactions, and teacher's feedback towards students' questions and answers can also be offered so that students can check it anytime anywhere.

2.3.3 Benefits and Drawbacks of E-learning

The benefits of e-learning can be summarized in three main parts: 1) it is convenient for using; 2) it motivates learners to learn more; 3) it has no limitation in terms of time and place. Holmes and Gardner (2006) mentioned that e-learning can ensure that no one is excluded from education by geographic, physical or social circumstance. According to Dawley (2007), e-learning can encourage learners to seek information, evaluate it, share it collaboratively and, ultimately, transform it into their own knowledge. That means e-learning can greatly enhance the interactive and constructive learning. Holmes and Gardner (2006) suggested that the appropriately designed, learner-centered, and constructivist models of e-learning have the potential to assist learners to plan for and cope with significant changes in their lifestyle and workplaces. Physical limitations on access to information are removed, and learning is increasingly taking place in locations selected by learners and at a time that suits

their needs. That is to say e-learning allows people to learn anytime and anywhere. Koper (2004) addressed that e-learning can enrich and extend the learning experience of learners and provide powerful tools for learners to explore.

However, Cuban (2001) argued that in schools, the response to e-learning initiatives remain comparatively minimal. E-learning environments demand course management, design procedures and protocols to be developed to shift the emphasis in teaching towards learner engagement and peer-support. Rajasingham (2007) and Simmons (2002) addressed that a key to successful integration of e-learning, therefore, is a careful implementation on the teachers' own motivation to enhance the learning of their learners and in tandem with supporting structures and resources that allow innovation in practice without overwhelming in time commitment and preparation.

In sum, a properly designed e-learning can benefit both teachers and learners. Zhang (2005) concluded that CALL and e-learning are becoming increasingly important in both of our personal and professional lives. More and more language learning process now is involved with the use of technology, especially in the content of the development of the Internet. Despite an increased use of computers in teaching, fundamental changes yet have to occur within educational perspectives. According to He (2002), computer-assisted language learning and e-learning should be integrated step by step from the beginner's to the advanced level, and then computer activities should be included in the curriculum with well-defined goals. After reviewing theories of second language speaking, computer-assisted language

learning, and e-learning, it is necessary to review learning theories. In the present study, three learning theories, behaviorism, cognitivism, and constructivism, will be reviewed in details as they provide relevant theoretical framework to the present study.

2.4 Learning Theories

In education, a common definition of learning is "a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and world views" (Ormrod, 1995, p. 7). Learning is a process focuses on what happens when the learning takes place. Explanations of what happens are called learning theories. A learning theory is an attempt to describe how people learn and to help us to understand the inherently complex learning process. There are three main categories or philosophical frameworks under which learning theories fall: behaviorism, cognitivism and constructivism. Behaviorism focuses only on the objectively observable aspects of learning. Cognitivism looks beyond behavior to explain brain-based learning. And constructivism views learning as a process in which the learner actively constructs or builds new ideas or concepts (Ertmer & Newby, 1993).

2.4.1 Behaviorism

Behaviorism theory focuses on a new behavioral pattern being repeated until it becomes automatic based on observable changes in behavior (Schuman, 1996). Baum (2005) addressed that behaviorism is a philosophy of psychology based on the

proposition that all things which organisms do, including acting, thinking and feeling.

Behaviorism comprises the position that all theories should have observational

correlates but that there are no philosophical differences between publicly observable

processes (such as actions) and privately observable processes (such as thinking and

feeling).

2.4.1.1 Key Concepts of Behaviorism

Behaviorism is based on observable changes in behavior. The

behaviorism theory concentrates on the study of overt behaviors that can be observed

and measured. It views the mind as a black box that responses to stimulus (Good &

Brophy, 1990), as shown in Figure 2.2, which can be observed quantitatively, it

totally ignores the possibility of thought processes occurring in the mind.

| Stimulus S | → | **Organism** | → | Response R |
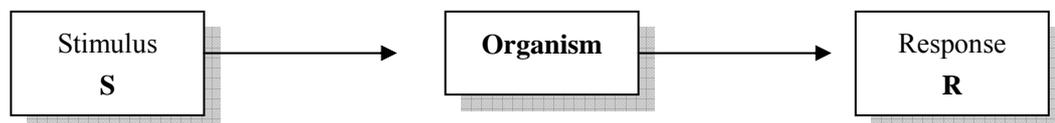
Figure 2.2: Behaviorism S-R Paradigm

Some main masters in the development of the behaviorists' theory are

Pavlov, Watson, Thorndike and Skinner. Pavlov's (1927) explanation of the learning

process is best known in terms of classical conditioning or stimulus substitution.

Likewise, Thorndike's (1911) theory stated that learning is the formation of a

connection between stimulus and response. His theory holds that the more an S-R

(stimulus and response) bond is practiced, the stronger it will become. Saettler (1990)

pointed out that Thorndike believes that a neutral bond would be established between the stimulus and response when the response is positive. Learning takes place when the bonds are formed into patterns of behavior. In the light of stimulus-response pattern, Skinner (1958, 1968) asserted that positive reinforcement is more effective at changing and establishing behavior than punishment, with obvious implications for the then widespread practice of rote learning and punitive discipline in education. He also explains that the main thing people learn from being punished is how to avoid the punishment.

Table 2.1: Skinner's Operant Conditioning Mechanisms: Difference between

Classical and Operant Conditioning (as cited in Mergel, 1998, p. 4)

Classical Conditioning (Pavlov)	Operant Conditioning (Skinner)
Unconditioned Stimulus → Unconditioned Response (food) (salivation)	Response → Stimulus (reward) (press lever) (food)
Unconditioned Stimulus → Unconditioned Response (food) (salivation) Conditioned Stimulus ↗ (bell)	**TIME**
Conditioned Stimulus → Conditioned Response (bell) (salivation)	Conditioned Response → Conditioned Stimulus (press lever) (reward) (food)

Table 2.1 above shows that in classical conditioning, a neutral stimulus becomes associated with a reflex. According to Naik (2007), behavioral chaining occurs when a succession of steps need to be learned. Skinner's behavioristic theory is based on the idea that learning is a function of change in overt behavior. Changes in behavior are the result of an individual's response to events that occur in his or her environment. Skinner advances previous behaviorists' theories by showing how a

response produces a consequence such as defining a word, hitting a ball or solving a mathematic problem. Beatty (2003) explained that when a particular stimulus and response pattern is reinforced through rewards, the individual has been conditioned to respond. That is why Skinner calls this approach operant conditioning. It recognizes that a person (or animal) can "emit" responses and not only "elicit" responses in reaction to a stimulus.

Saettler (1990) stated that behaviorism does not have an impact on educational technology until the 1960s, which was the time that behaviorism actually began to decrease in popularity in American psychology. Six areas are identified which demonstrate the impact of behaviorism on educational technology. 1) the behavioral objectives movement; 2) the teaching machine phase; 3) the programmed instruction movement; 4) individualized instructional approaches; 5) computer-assisted learning; and 6) the systems approach to instruction. Saettler (1990) also explained that another important feature of behaviorism theory is the role of reinforcement. In order to develop behavioral objectives, a learning task must be broken down through analysis into specific measurable tasks. The learning success may be measured by tests developed to measure each objective.

CALL, somehow, has the connection with behaviorism (Black, 1995). One of the particular applications of the behaviorist approach is the design of programmed instruction on which Skinner's behaviorist contributes to CALL center (Merrill, 1996). Much of the programmed instruction in American schools is used with individuals or

small groups of learners and was more often used in junior high schools than senior or elementary schools (Saettler, 1990). Many features of programmed instruction are found in CALL, for example, as shown in Figure 2.3, the use of multiple-choice questions, constructed response answers, and hyperlinks. But critics soon see that programmed instruction has its faults. As mentioned in Chapter 1, the behavioristic role plays on the NHCE e-learning is similar to the programmed instruction, students read the role scripts out as it is programmed. Rivers (1981) pointed out that programmed instruction tends to teach details about language but not communication. The use of programmed instruction tends to concentrate on the development of hardware rather than course content. Concerned developers moved away from hardware development to programs based on analysis of learning and instruction based on learning theories. Despite these changes, programmed instruction died out in the later part of the 1960s because it did not appear to live up to its original claims (Saettler, 1990).

A set of frames to teach the spelling of "manufacture" to third-graders.

1. *Manufacture means to make or build. Chair factories manufacture chairs. Copy the word here:*
   __ __ __ __ __ __ __ __ __ __ __
2. *Part of the word is like part of the word factory. Both parts come from an old word meaning make or build. m a n u __ __ __ __ __ u r e*
3. *Part of the word is like part of the word manual. Both parts come from an old word for hand. Many things used to be made by hand. __ __ __ __ __ f a c t u r e*
4. *The same letter goes in both spaces: m __ n u f __ c t u r e*
5. *The same letter goes in both spaces: m a n __ f a c t __ r e*
6. *Chair factories __ __ __ __ __ __ __ __ __ chairs.*

Figure 2.3: An Example of Programmed Instruction (as cited in Beatty, 2003, p. 87)

However, there is another term to describe behavioristic CALL, which is computer assisted instruction. According to Burns and Bozeman (1981), computer assisted instruction, hereafter CAI, is "a narrower term and most often refers to drill-and-practice, tutorial, or simulation activities offered either by themselves or as supplements to traditional, teacher-directed instruction" (p. 32). Cotton (2001) found in her study that computer software provides many instructional benefits and CAI can have a much greater impact on student learning. In a classroom utilizing CAI, students often work independently or in pairs at computers around the room. Software effectively guides students through a series of interrelated activities and instruction, addressing a variety of learning styles. Working in pairs could also facilitate learning. Davidson and Kroll (1991) found in their research study that students in cooperative environments developed more positive attitudes towards learning than students in traditional environments. Johnson and Johnson (1985, 1986) advocated cooperative learning not only for the positive effect it has on student performance but also for the positive effect it has on motivation, classroom socialization, students' confidence in learning, and attitude toward the subject being learned. However, by the mid-1970s it was apparently suggested that CAI was not going to be the success as people had believed. Some of the reasons are as follows: firstly, CAI has been oversold and could not deliver. Secondly, it lacks of support from certain sectors, it has technical problems in implementation, and thirdly it has a lack of quality software and it has high cost. CAI is very much drill-and-practice, it is controlled by the program

developer rather than the learner, in other words, it is rather a teacher-centered learning model.

In behaviorism, firstly, learners can shape behavior quickly. But the internalized reasoning may not be an outcome. For example, when having class, teacher will check learner's attendance before teaching, every time learners would come to the classroom on time and then the teacher would give those learners an "on time" point. A learner may act respectfully but not feel respected towards the teacher. That means the internalized reasoning "come to class on time" may not be the outcome that truly reflect learner's feeling about this class. Dörnyei (1998) explained that the outcome of 'come to class on time' cannot motivate learners to study more. Secondly, learners adapt to the environment, but they adapt to a poor environment. For example, the class has been designed to speak a topic every day. They are reinforced with a smiley sticker. But a learner adapts to a classroom where the other learners' behaviors may be negative and destructive to the learning environment. Gardner (1960) explained that learners will feel very bored to 'speak a topic' every day. Thirdly, learners' behaviors can be measured but again behaviors measured may not be a true picture of understanding. For example, learners can take tests to measure whether they can answer the questions correctly. But taking a true or false test with the assurance of retaking it until the learner gets it right can lead to guessing for the correct answers.

2.4.1.2 Summary of Behaviorism

Behaviorism takes the view that the learner comes to the learning process with little or no background knowledge. Beatty (2003) argued that learning activities are sequenced from simple to complex with frequent reviews and tests of key points. Failures or mistakes lead the learners to repetitions of key parts of the program or remedial activities. The control of the sequence or program is usually with the program, not the learner. However, behaviorism has its advantages towards language learning. Firstly, the learner is focused on a clear goal and can response automatically to the cues of one goal (Schuman, 1996). Secondly, learners can retain and maintain skills and knowledge and learners can endure or resist distraction by offering responses repeatedly (Black, 1995). Thirdly, learners apply or transfer training from repetition and they practice attainment of fluency on critical skills (Ertmer & Newby, 1993). And lastly learners demonstrate an observable change in behavior (Gagné & Medsker, 1996). Nevertheless, the weakness and drawbacks of behaviorism theory can be discussed as follows: 1) learners may find themselves in a situation where the stimulus for the correct response does not occur, therefore the learner cannot response (Shuman, 1996); 2) learners get spoon-fed and regurgitate knowledge at low cognitive levels (Ertmer & Newby, 1993); 3) learners have limited ability to transfer knowledge and learners have limited retention unless reinforced (Brunning, Schraw and Ronning, 1999); 4) learners fail to learn by association and they are restricted to linear learning (Flavell, 1977); and 5) learners learn in a

decontextualised learning environment and learners assume a passive roll in the learning situation (Sternberg, 1984). Since behaviorism focuses only on the objectively observable aspects of learning, as mentioned in Chapter 1, there are some shortages about the behavioristic role plays and problems can occur in speaking classes, next, the other two learning theories – cognitive and constructive learning theories – will be reviewed.

2.4.2 Cognitivism

Broadly speaking, cognitivism is interested in how people understand reading materials. It emphasizes on "the active mental process involved in language learning, and not simply the forming of habits as the behaviorist views," (Schmidt & Richards, 2002, p. 83). Lave (1988) argued that behaviorists were unable to explain certain social behaviors, for example, children do not imitate all behavior that has been reinforced. Cognitivism recognizes that the learning involves associations established through individual's personal experience. It also acknowledges the importance of reinforcement. Good and Brophy (1990) explained that even while learners accepting such behavioristic concepts, cognitive theorists view learning as "involving the acquisition or reorganization of the cognitive structures through which human process and store information" (p. 187). One of the major cognitivists is Piaget, who develops the major aspects of his theory as early as the 1920's. In Piaget's view, people organize their thoughts so that they make sense, sorting out thoughts and connecting one idea to another.

2.4.2.1 Key Concepts of Cognitivism

Cognitivists view learning as a reorganization of the cognitive structure in which individuals store information (Good & Brophy, 1990). From cognitivists points of views, knowledge occurs in internal structures called schemas. It means new information is compared to existing cognitive structures. Schema may be combined, extended or altered to accommodate new information. When new information comes in through the senses, it is compared with the schemas already presented, and the schemas may then be combined or changed in light of the new information which is processed in three stages. It first enters through the senses, and, if it is important or interesting, it then goes to short-term memory, where it may be kept for 20 seconds or more. Some of this information in short-term memory may then go on to long-term memory, where it is stored and from which it can be retrieved. According to Fitzpatrick (2001), learning requires methods that enable learners to store new information in their cognitive structures. The structures are dynamic and can be changed by new experiences or through instruction. That means when new information comes in, it may attach itself to a structure that is already present, change an existing structure, or go into a new structure. Salas and Cannon-Bowers (1997) pointed out that cognitivism views the learner as an active participant in the language acquisition process, which is the origin of constructive learning.

By about 1960 behaviorism began to lose its dominance in psychology and language. From the 1960s, cognitive psychology has increased in influence, and for

the following two decades it has been considered the dominant approach. Kern and Warschauer (2000) stated that cognitivism views language as a mentally constructed system. Language learning is understood to develop through the operation of innate cognitive ability or language input. Therefore, the language education is oriented towards cognitive processes involved in the learning and use of language. Cognitive CALL emerged in the 1970s and 1980s as a reaction to the behaviorist approach to language learning. Proponents of cognitive CALL rejected behaviorist approaches at both the theoretical and pedagogical level. They stressed that CALL should focus more on using forms rather than on the forms per se. Grammar should be taught implicitly and learners should be encouraged to generate original utterances instead of manipulating prefabricated forms. This form of computer-based instruction corresponded to cognitive theories which recognized that learning was a creative process of discovery, expression, and development. The mainframe was replaced by personal computers that allowed greater possibilities for individual work. Popular CALL software in this era included text reconstruction programmers and simulations (Warschauer, 1996; Warschauer & Healey, 1998; Zhang, 1995).

2.4.2.2 Summary of Cognitivism

Cognitive psychologists challenge the limitations of behaviorism in its focus on observable behaviors. They incorporate mental structure and process into their learning theories. Anderson (1982) explained that "learning is a process of recognition which occurs with associations through contiguity and repetition" (p. 399).

According to Wilson (1996), language learning should be problem-centered and involve the authentic needs and contexts of the content. The requirements for learning tasks should be similar to the requirements for real-life activities, with instruction sequenced so learners can immediately benefit from what they learn by applying it to actual situation. Based on this, it is necessary for the present study to review constructivism theory, which comes from cognitivism but in an advanced cognitive structure.

2.4.3 Constructivism

Constructivism is a psychological theory of knowledge which argues that humans construct knowledge from their experiences. Sweller (2003) addressed that constructivism relies its theoretical framework on the earlier framework of cognitivism, which holds that learning should build upon knowledge that a learner already knows. This prior knowledge is called a schema. Constructivists suggest learning is a more effective process when a student is actively engaged in the construction of knowledge rather than passively receiving it.

2.4.3.1 Key Concepts of Constructivism

Basically, constructivism holds the view that knowledge is not "about" the world, but rather "constitutive" of the world (Sherman, 1995). It means that learners are active organisms seeking information. According to Mergel (1998), constructivism's basic assumptions include knowledge constructed from experiences. Based on constructivists' view, learning is a personal interpretation of the world, and

it is an active process in which information or knowledge is developed on the basis of experiences, conceptual growth comes from sharing multiple perspectives and changing in our internal representations through collaborative learning and realistic settings should be used for learning, and testing should be integrated with the task and not be a separate activity.

One of the main constructivists is Bruner, who holds that individuals are able to go beyond the information they are given (Kearsley, 1999). Bruner (1996) stated that in teaching learners, teachers should take into account the learner's feelings, structure the knowledge so that it can be easily understood by the learner, and create the most effective sequences for presenting the material (as cited in Kearsley, 1999, p. 29). Knowledge is not a fixed object. It is constructed by an individual through his or her own experience. Constructivists' approach to learning emphasizes authentic, challenging projects that include learners, teachers and experts in the learning community. Its goal is to create learning communities that are more closely related to the collaborative practice of the real world. Constructivism is a philosophical position that views knowledge as the outcome of experience mediated by one's own prior knowledge. According to Piaget (1954, 1972), each new conception of the world is mediated by prior-constructed realities that we take for granted. Human cognitive development is a continually adaptive process of assimilation, accommodation, and correction. Social constructivists suggest that it is through the social process that reality takes are formed and reformed through the dialectical process of socialization.

Likewise, Lemke (1993) stated that a similar dialectical relationship informs our understanding of science, and it shapes the technical artifacts that we invent and continually adapt to our changing realities. But while it is important for educators to understand constructivism, it is equally important to understand the implications of this view of learning on teaching and teacher's professional development. Constructivism's central idea is that human learning is constructed, that learners build new knowledge upon the foundation of previous learning. This view of learning sharply contrasts with one in which learning is the passive transmission of information from one individual to another, a view in which reception, not construction, is the key. On the basis of this constructivist viewpoint, teaching should be done in some ways that differ from what follows from the cognitive model. For example, if learning consists in learning about an objective "world", then the teacher should try to organize the "world" and present it to the learner. But, in the constructivist view, teachers should help learners to construct a model to explain the "world". Hein (1991) suggested that teachers should focus on the learners when they think about learning, not on the subject or the information to be taught.

There are two important notions around the constructivism theory. The first is that learners construct new understandings using what they have already known. Learners come to learning situations with knowledge gained from previous experiences, and that prior knowledge influences what new or modified knowledge they will construct from new learning experiences. The second notion is that learning

is active rather than passive. Learners form their understanding in light of what they encounter in the new learning situation by interacting with other learners. If what learners encounter is inconsistent with their current understanding, their understanding can change to accommodate new experience. Learners remain active throughout this process, they apply current understandings, note relevant elements in new learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, and they can modify knowledge (Hoover, 2001).

2.4.3.2 Constructivism in Education

Constructivism has important implications for teaching. First, teaching cannot be viewed as the transmission of knowledge from enlightened to unenlightened. Constructivist teachers do not take the role of the "a sage on the stage", rather, teachers act as "guides on the side" who provide learners with opportunities to test the adequacy of their current understandings. Second, if learning is based on prior knowledge, then teachers must notice that knowledge and provide learning environments that exploit inconsistencies between learners' current understandings and the new experiences before them. Meng (2007) addressed that the changing of teacher's role in classroom challenges teacher, because they cannot assume that all learners understand something in the same way. Furthermore, learners may need different experiences to advance to different levels of understanding. Third, if learners must apply their current understandings in new situations in order to build new knowledge, then teachers must engage learners in learning, bringing learners' current

understandings to the forefront. Teachers can ensure that learning experiences incorporate problems that are important to learners, not those that are primarily important to teachers and the educational system. Teachers can also encourage learners' interaction, where the interplay among participants helps individual learners become explicit about their own understanding by comparing it to that of their peers. Fourth, if new knowledge is actively built, then time is needed to build it. Ample time facilitates learner reflection about new experiences, how those experiences line up against current understandings, and how a different understanding might provide learners with an improved (not 'correct') view of the world.

2.4.3.3 Constructive CALL and E-learning

In parallel to the development of computer technology, constructive view of language learning and teaching is applied incorporated as one of the, and major theoretical frameworks for CALL pedagogies and development. Bonk and Cunningham (1998) pointed out that "the blending of … technological and pedagogical advancements has elevated the importance of research on electronic learner dialogue, text conferencing, information sharing, and other forms of collaboration" (p. 27). The interactive nature of some technologies provide frameworks for investigating the effectiveness of various technologies in fulfilling pedagogical goals and particular interest to educators who value constructivist principles of learning (Bednar, Cunningham, Duffy, & Perry, 1995; Chapelle, 1997; 2003; O'Malley, 1995; Ortega, 1997; Tella & Mononen-Aaltonen, 1998).

Constructivists have found that computer technologies can realize constructivist ideals

of learning (Bonk & Cunningham, 1998). Active, collaborative construction of

knowledge instead of knowledge transfer from one person to another (Cobb, 1994;

James, 1996; Jonassen, 1994; O'Malley, 1995; Schank & Cleary, 1995), engagement

in contextualized authentic tasks as opposed to abstract instruction, and less controlled

environments versus predetermined sequences of instruction where "conditions for

shared understanding" are created and "alternative solutions and hypothesis building,"

(O'Malley, 1995, p. 289) are promoted through learners' interaction. According to

Cobb (1994), such learning environments encourage thoughtful reflection and

"empower … learners … to assume ownership of their knowledge, rather than

reproducing the teacher's" (p. 15). But various technologies differ in the way and

extent to which they facilitate the realization of constructivist principles (Tella &

Mononen-Aaltonen, 1998). Teachers need to identify the technologies and the

implementations of those technologies, which best fulfill curricular goals (Bonk &

King, 1998; Chapelle, 1997; Tella & Mononen-Aaltonen, 1998).

Constructivism focuses on a learner-centered study, which involves

learners' active participation. This theory can be applied to foster an ideal

constructive online learning environment, namely the construction of CALL and

e-learning model. Wang (2002) explained that the model of CALL and e-learning

have the advantages of compositive multimedia, information shared, and interactive

teaching because learners can get what they want about language knowledge and

skills. In constructivism, CALL and e-learning can help teachers to redefine the role of "teaching". Traditional language learning and teaching process just focus more on the process of teachers' teaching. This teaching structure changes the process of learning into a simply accept knowledge phase and ignores learners' self-learning part, which cannot motivate learners to learn more. According to Weasenforth, Biesenbach-Lucas, and Meloni (2002), constructive CALL and e-learning can help teachers to create a learning environment with different materials and information, let learners 'think about', 'discuss', and 'create' the learning tasks, then teachers, learners and teaching materials can be interacted with each other quite well. Learners will feel they are really the center of the whole teaching process instead of passively accepted knowledge from teaching materials. Teachers, as the 'guiders', should provide clear instruction before learners can be guided on how to interact with other learners (Wang, 2002). And learners can also provide their feedback or reflection through the e-learning, for example, the use of blog. Tosh and Werdmuller (2005), and Ferede and Gorfu (2008) mentioned in their research studies that the implementation of online learning log, such as blog, wiki space, can be a useful tool for observing learners' learning, because the teacher can scrutinize learners' cognitive skills, such as observing, evaluating, and criticizing their own learning (Berthold, Nückles, & Renkl, 2004), learners can write their learning log online easily with the instructions from the teacher and they may would like to offer more critical information about their own learning and the teacher's teaching. This can be a good example for learner-teacher

or/and learner-learner interaction. According to Nunan (1999), it is important to find

ways for students rather than the teacher to take control of the interaction.

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        ┌──────────────┐
        │    Begin     │
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        ┌──────────────┐
        │Learning goals│
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        │Background and│
        │ introduction │
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        │Learning strategies│
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┌───────────────┐   ┌───────────────┐   ┌────────────────┐
│Set up study   │──▶│Learning process│──▶│Text comprehension│   NO
│scenes         │   │               │   │                │
└───────────────┘   └───────────────┘   └────────────────┘
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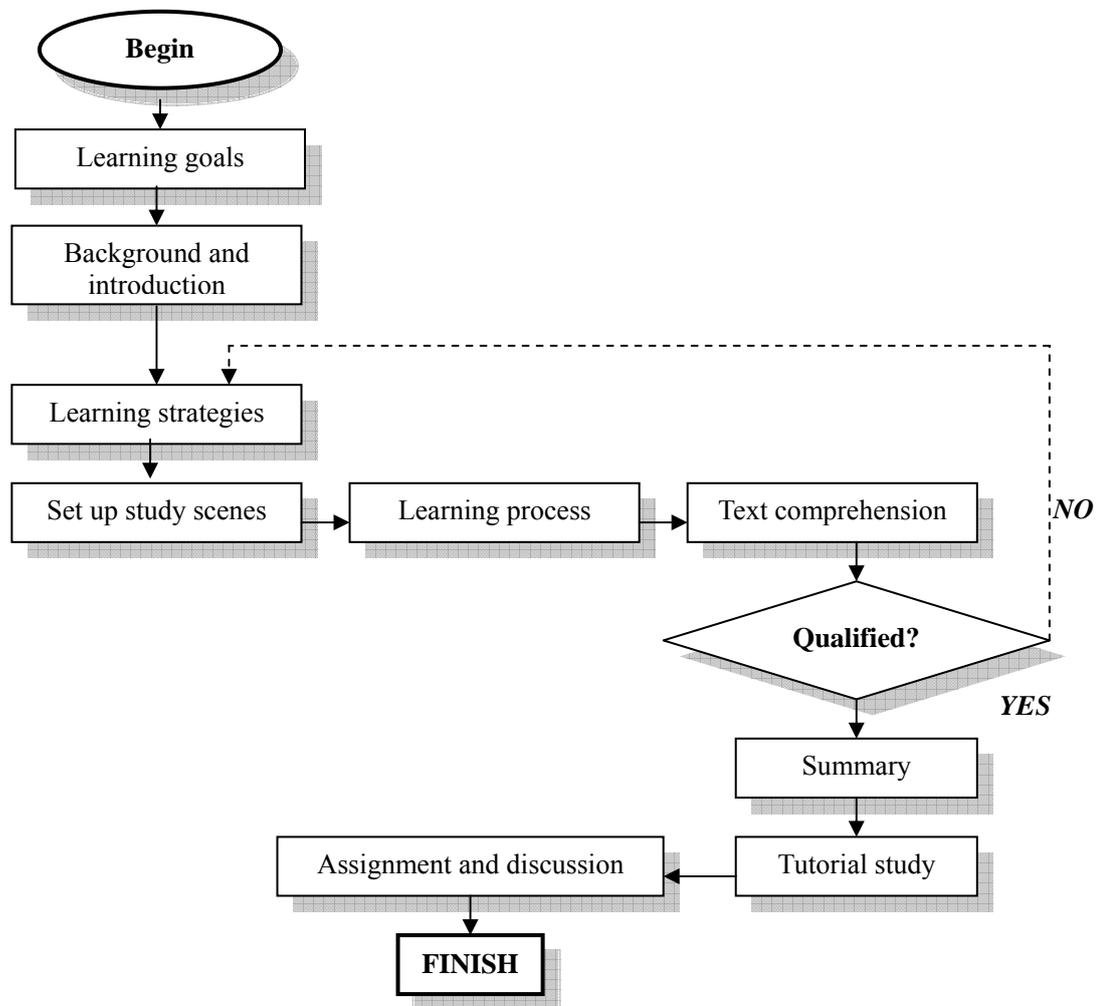
Figure 2.4: Constructive CALL Class Design (as cited in Xu, 2007, p. 37)

As shown in Figure 2.4 above, it is important to implement the constructive

learning environment for learners. The class begins with an introduction of study

goals from the teacher's instruction, for example, the learning objectives and contents

that should be mastered after learning, then a deeper understanding of learning

content, and learners can propose their opinions and ideas of learning this class. Teachers will continue to give clear instruction of some learning strategies assisted by the computer. Teachers can offer learners the materials related to this class and with some related background introduction. Learners can get those materials easily. Computers can help teachers provide such materials as audio and video files pictures, cartoons, flash, and word processing for learners to get better understanding to this class. This can motivate learners to learn more not only just accept knowledge from teachers (James, 1996; Lee, 2000; Wang & Motteram, 2006; Wu, 2000; Zhang, 2008). Learners and teachers can do the interactive learning and teaching by using emails, forum, chatroom, and discussion board. Learners can evaluate themselves after finish learning one lesson and write the learning log online; also, teachers can give more tutorial study according to learners' different problems and questions. And by doing this, it can help learners to get better and deeper understanding about knowledge and learners can generate the knowledge which they have gained from classroom into their real-life. This can be the complete process of 'constructing' knowledge by learners under the supervision of teachers.

2.4.3.4 Benefits and Drawbacks of Constructivism

Constructivism, a theory of knowledge with roots in philosophy, psychology, and cybernetics (von Glasersfeld, 2003) exists as a timely alternative to imposed parameters of enlightenment. That means learners get actively involved in learning in stead of passively accepting what they are being taught. Constructivism is

the manner of thinking about knowledge acquisition which situates the mind at the determinant center (Jonassen, 1991). Constructivism enables the learner themselves to employ their past and present knowledge in concert with their imaginations with teacher's guides and instructions (Ertmer & Newby, 1993). It has its advantages and drawbacks.

The advantages of constructivism are learners' engagement in purposeful activity using knowledge in the real world. According to von Glaserfeld (2003), learning is a problem-solving process and the learner attempts to overcome obstacles and contradictions that arise. Learners need time to engage in tasks, to develop their own theories and to compare their theories with other pupils via discussions. Ertmer and Newby (1993) suggested that learners learn to apply their knowledge under appropriate instructions from teachers, they come to see the implications of new knowledge, and they retrieve knowledge more easily when they return to the setting of its acquisition. According to Savery and Duffy (2005), learners use scaffolding provided by teachers or group members for their individual problem solving. Thus, learners develop their own cognitive skills and they get support via cognitive apprenticeship in the complex environment rather than simplifying the environment for the learner. That means a clear instruction from teachers is necessary to help learners to get the general idea about learning.

However, Merrill (1996) argued that there are some drawbacks of constructivism. Firstly, learners enjoy this new approach of discovery learning, but

they do not always actively construct knowledge or build an appropriate knowledge structure. They may be hampered by contextualized learning in that they may not be able to form abstractions and transfer knowledge and skills in new situations. According to Schuman (1996), learners may get lost in their explorations if teachers do not provide clear instruction and scaffolding. This may lead to the construction of fallacy instead of knowledge. So teachers' instructions and guides are important in constructive learning process in order to make sure that learners know what they are going to learn and how they can learn effectively. Constructivism holds a fairly strong point of view that the instructional method plays an important role in the whole process of L2 language learning and teaching. According to Watson (2000), instructions provided by the teacher help learners think more creatively, it is one part of the classroom interactions between the teacher and the learner. After teacher provides the instructions, learners can begin gathering and summarizing knowledge from their previous studies or from their real-life situations and then they can construct new knowledge for their future use. Learners can be actively involved in the whole learning process by thinking about what they would like to learn rather than passively accept what the teacher teaches them. Tan (2008) also pointed out that instructions provided by the teacher before learners really start to learn are very important to help learners construct knowledge actively. It is the instructions which provide interactions between teachers and learners or among learners themselves.

2.4.3.5 Summary of Constructivism

Constructivism is an educational philosophy. It holds that learners ultimately construct their own knowledge that then resides within them, so that each person's knowledge is as unique as they are. It is based on learners' active participation in problem-solving and critical thinking regarding a learning activity, which they find relevant, and engaging. They are "constructing" their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to a new situation, and integrating the new knowledge gained with preexisting intellectual constructs (Briner, 1999). In the constructivist theory the emphasis is placed on the learners rather than the teachers. It is the learners who interact with objects and events and thereby gains an understanding of the features held by such objects or events. Constructivism is a view that emphasizes the active role of the learner in building understanding and making sense of information. It emphasizes the interaction of knowledge constructing and learning process. It sees learners as creatures of will and purpose. Constructivism holds that learning is a process and it accepts and encourages learner autonomy and initiative, it encourages learner's inquiry and acknowledges the critical role of experience in the learning process. Constructivism takes the learner's mental model into account and it considers the beliefs and attitudes of the learner with the natural curiosity. Mergel (1998) explained that constructivism emphasizes performance and understanding when assessing learning. The constructive learning process can motivate learners a lot and it

can bring learners' independent innovation learning into action. Because the learner is able to interpret multiple realities, the learner is better able to deal with real-life situations. Schuman (1996) also clarified that if a learner can solve a problem, they may better apply their existing knowledge to a novel situation. Constructivism holds that motivation is an essential requirement of learning. This includes understanding the ways the new knowledge can be used. If learners do not know the reasons for learning, then their motivation will suffer (Hein, 1991). In learning process, teachers should be sure to explain the purposes of the learning. Teachers should also explain to the learners what the objectives of the learning are. Everything that people do is done to fulfill a goal and learning environments should support learners in articulating the goals of the learning situation (Jonassen, 2000). Since the present study aims at investigating the effects of constructive role plays on the NHCE e-learning on improving Chinese university EFL learners' speaking in college English classes, from the above review of learning theories, the present study will continue to review the constructive learning environment.

2.5 Constructive Learning Environment

Learning environment requires a manipulative space that provides learners a sufficient area to research, do experiment, and pose hypotheses with the problem (Jonassen, 2000). Active engagement with the problem gives the ownership of the problem to the learner. Some complex problems require related cases to be made available for the learner to have an access to so that learners can make comparisons

with the current problem. Constructive learning environment can be a technology-based platform in which learners are engaged in meaningful interactions. In the present study, students' learning logs on the NHCE e-learning will be implemented as an instrument to collect data. According to Friesner and Hart (2005), learning log is an ideal instrument in social research study. It helps encouraging learners to reflect on learning, and as a source of reflective data. Reflective activities, such as the learning log, improve learning in a number of ways. On the surface, they help students identify what they have learned and the areas in which they need to improve (Angelo & Cross, 1993; Beni'tez, 1990). A learning log also requires students to begin to organize their learning. Rather than simply going through the motions of classroom activities, they must identify and pursue what they are trying to learn (Honey, 2000). That means it allows students to see a purpose in the activities that teacher requires of them in the classroom and at home, it will also lead them to an overall understanding of what the class is all about. A learning log can serve as an ongoing laboratory notebook for learning and teaching process (Baker, 2003). Jonassen, Davidson, Collins, Campbell and Haag (1995) believed that learners should be presented with interesting, relevant, and meaningful problems to solve. These real world problems should not be overly defined in order to allow learners to seek out a solution to the problem. There is no single right answer or single solution for a problem using this approach. Clouse and Nelson (2000) highlighted that in constructive learning environment, learners can create their own knowledge.

Technology can realign the teaching process of teaching with the learners' realities and move from a teacher-centered to learner-controlled environment. Learners' learning becomes an active rather than a passive undertaking, and the teacher becomes a facilitator. The present study aims at investigating the effects of constructive role plays via e-learning, which serves as the constructive learning environment. Students will act the role out through chatrooms, which serve as the scaffolding part on this e-learning, in stead of doing it in front of the classroom. In relation to constructive learning environment, the scaffolding theory will be reviewed in the following section.

2.5.1 Scaffolding

Scaffolding is the term given to the provision of appropriate assistance to learners in order that they may achieve what alone would have been too difficult for them. Scaffolding is an effective way to provide comprehensible input to EFL learners so that not only will they learn the essential subject content but also they will make progress in their acquisition of English. Scaffolding theory was firstly introduced in the late 1950s by Bruner, a cognitive psychologist (Daniels, 1994). According to Wood, Bruner, and Ross (1976), scaffolding also parallels Vygotsky's (1978) work. Smagorinsky (2007) explained that scaffolding is "a temporary framework that is put up for support and access to meaning" (p. 61). Cazden (1983) also defined scaffolding as "a temporary framework for construction in progress" (p. 6). In the present study, scaffolding refers to the use of discussion forum on NHCE e-learning to offer

teacher-students and/or students-students interactions and feedbacks. According to McLoughlin and Marshall (2000), the construction of scaffolding occurs at the time where the learner may not be able to articulate or explore learning independently. The scaffolding provided by the teacher does not change the nature or difficulty level of the task. It allows learners to successfully complete the task instead. Smagorinsky (2007) also pointed out that the scaffolding originates from Vygotsky's (1978) sociocultural theory and his concept of the zone of proximal development.

2.5.1.1 Key Concepts of Scaffolding

In terms of scaffolding, Vygotsky (1978) defined it as the "role of teachers and others in supporting the learner's development and providing support structures to get to that next stage or level" (p. 81). And according to Raymond (2000), an important aspect of scaffolding instruction is that they are temporary, and the learner is able to complete the task or master the concepts independently (Chang, Sung, & Chen, 2001). Hartman (2002) explained that the goal of the teacher, when using the scaffolding instruction, is for the student to become an independent and self-regulating learner and problem solver. As the learner's knowledge and learning competency increases, the teacher gradually reduces the supports provided (Ellis, Larkin, & Worthington, 2002). According to Vygotsky (1978), the external scaffolding provided by the teacher can be removed because the learner has developed "…more sophisticated cognitive systems, related to fields of learning such as mathematics or language, the system of knowledge itself becomes a part of the scaffold or social support for the new learning" (as cited in Raymond, 2000, p. 176).

Chaiklin (2003) addressed that following the use of scaffolding provided by a teacher, students can be engaged in interactive learning. In this type of environment, learners help with each other in small group settings but still receive some teacher's assistance. In the present study, as mentioned before, the role play instructions and task statements before performing constructive role plays are provided as scaffolding for students to get better understanding towards role play activities. Moreover, verbal discussions with the teacher or among students themselves or online discussions on the existing NHCE e-learning system are also provided as the scaffolding to help the researcher to offer students feedback about what they have done with the role play, help students to solve some problems and guide them to think actively about how to practice speaking more. As McKenzie (2000) explained that scaffolding provides a clear direction and reduces learners' confusion. This means teachers anticipate problems that learners might encounter and then develop step by step instructions, which explain what a learner must do to meet expectations. Scaffolding helps learners understand why they are doing the work and why it is important. McLoughlin and Marshall (2002) pointed out that scaffolding is a communication process where presentation and demonstration by the instructor are contextualized for the learner. Performance of the learner is coached; and articulation is elicited on the part of the learner. By focusing on the basic skills instilled or taught to that learner previously, with the foresight and knowledge of what that student needs to get to the next level, the teacher can theoretically build specific scaffolding for that learner to give them

enough support so that they can accomplish the task by themselves. Kao, Lehman, and Cennamo (1996) also explained that scaffolding is the support the teacher gives the learner in any number of methods, ranging from hints or feedback to doing the task for the student as a demonstration. In other words, scaffolding, like its namesake, is a temporary framework that supports learners as they develop new skills.

Wood *et al.* (1976) highlighted that EFL learners are particularly dependent on scaffolding, but often the purely oral scaffolding undertaken by the teacher is not enough. This is another reason why the discussion forum will be used in the present study. EFL learners greatly benefit from the type of scaffolding that makes extensive use of visual aids, hence the term visual scaffolding. When learners can see an image of what the teacher is describing or see the key words that the teacher is explaining, this not only serves to make the input considerably more comprehensible, but also serves to remove the affective filter which results from the fear or boredom that comes of understanding very little in class. Scaffolding is used in a very wide range of situations such as second language learning (Dunn & Lantolf, 1998; Lantolf & Pavlenko, 1995), information technologies and computer-assisted language learning (e.g. Hung, 2001). Kao *et al.* (1996) proposed that scaffolding could be embedded in hypermedia or multimedia software to provide learners with support while using the software. They realize that soft scaffolding is dynamic, situation-specific aids provided by a teacher while hard scaffolding is static and specific. Soft scaffolding requires teachers to continuously diagnose the understandings of learners and provide

timely support based on student responses. This type of assistance is generally provided where the teacher monitors the progress students are making while they are engaged in a learning activity and when support or guidance is needed. For example, if students cannot continue a dialogue about shopping, the teacher may offer help by asking such questions as "*How do you think about the color/style/price?*", "*Is there any discount?*" to let students think more. Hard scaffolding is the support structures which can be embedded within multimedia and hypermedia software to provide students with support while they are using the software (Kao *et al.*, 1996; Krajcik, Soloway, Blumenfeld, & Marx, 1998). For example, Jacobson, Maouri, Mishra, and Kolar (1996) embedded hyperlinks within a database dealing with technology in order to provide students with conceptual links between information in the database. Results demonstrate that students gain a deeper understanding of the instructional content.

2.5.1.2 Benefits and Drawbacks of Scaffolding

One of the primary benefits of scaffolding is that it engages the learner. The learner does not passively listen to information presented instead through teacher prompting the learner builds on prior knowledge and forms new knowledge. In working with other learners, it provides an opportunity to give positive feedback to the learners by saying things like "*…look what you have just figured out*". This gives them more of a can do versus a "this is too hard" attitude. This leads into another advantage of scaffolding in that, if done properly, scaffolding motivates student so that they want to learn more (Oxford, 1996). Another benefit of scaffolding is that it

can minimize the level of frustration of the learner. Scaffolding is individualized so it can benefit each learner. However, Brown (1992) pointed out that it is also the biggest disadvantage for the teacher since developing the so-called scaffolding lessons to meet the needs of each individual would be extremely time-consuming. Implementation of individualized scaffolding in a classroom with a large number of students would be challenging. Another disadvantage is that unless properly trained, a teacher may not properly implement scaffolding and therefore not see the full effect. According to Oxford (1997), scaffolding also requires teachers to give up some of the control and allow the students to make errors. Although there are some drawbacks to the use of scaffolding, the positive impact can have on learners' learning and development is far more important. Since the present study aims at investigating the effects of constructive role plays on the NHCE e-learning, the researcher provided students with clear instructions and task statements for each role play before students act the roles out on NHCE e-learning, as well as such assistance as discussions with the teacher or among students themselves and instructions on how to carry out constructive role plays while students performing role plays as scaffolding, therefore, task-based language learning and teaching approach, role play activity and constructive instructional design theory are also necessary to be reviewed.

2.5.2 Task-based Language Learning and Teaching Approach

Based on the problems found in the present study in Chapter 1, one of the problems of the existing behavioristic role play on the e-learning is that there is no

clear instruction with necessary statement of tasks for each role play before students began to do them. According to constructivists, learners construct knowledge on the basis of their experiences. Learners need opportunities in the classroom to learn through experience and experimentation because the learner is the center for focusing on during the whole learning and teaching process. In the present study, each role play is a task which asking students to practice EFL speaking. Instructions on how to perform constructive role plays via e-learning were provided before students really began to do them so that to make sure students understand the role play task.

Pedagogically speaking, task-based language learning and teaching has strengthened some theories of language learning (Nunan, 2004). In English language learning and teaching, there exists a kind of opinion that successful learning is influenced by appropriate methods of teaching (Zhou, 2006). In recent years, the idea of task-based learning and teaching has become a keen contemporary interest. The emphasis on the task-based learning and teaching is reflected in much current research that studies the characteristics of different kinds of activities and tasks. For example, Belgar and Hunt (2002) studied the implementation of the Internet-task-based language teaching in a speaking classroom; Burden (1999) investigated the university students' perceptions of pair work tasks; Skehan (2001) examined the use of role play for improving students' oral performance. Results prove that the use of role play can motivate learners to speak more in L2 speaking class and a proper instruction of role tasks can help learners generate speaking knowledge to their real life situation.

Task-based instruction takes a fairly strong view of constructivism. It is the task which drives students' system forward by engaging them in acquisitional processes (Long & Crookes, 1993). Zhou (2006) pointed out that in recent years some college English textbooks in China have been compiled mainly on the idea of applying the task-based approach. Some of the textbooks are *A New English Course* (Li, 2000), *College English* (Li, 2001), *New Horizon College English* (Zheng, 2003). The main goal of language teaching is to convey the knowledge to the students and research studies have indicated that in terms of practicing speaking, role play is one of the useful educational activities. Since the present study intends to examine the effectiveness of the implementation of constructive role plays, the next section will review role play activity in language learning and teaching process.

2.5.3 Role Play

Role play is an activity for exploring the issues involved in complex social situations. It may be used for the training of professionals or in a classroom for the understanding of literature, history, and even science (Bartley, 2002). Role play derives from task-based language learning and teaching that can be used to help students with their L2 learning. Furthermore, according to Brown and Yule (1995), role play can help students become more interested and involved in classroom learning by addressing problems, exploring alternatives, and creative solutions, in terms of not only material learning, but also in terms of integrating the knowledge learned in action. Role play may be the best way to develop the skills of initiation,

communication, problem-solving, self-awareness and working cooperatively in teams. Based on constructive point of view, role play activity enables students to develop skills to engage in real-life activities within the controlled environment of the classroom.

Role play activity in the classroom can be implemented in a number of ways. It can involve online elements (Woodhouse, 2007) as well as face-to-face interactions (Northcott, 2002). The length of the process can also vary according to the aims of the activity. Role play is one of the effective learning and teaching tools, which allows students to examine new skills, form attitudes and views, take reactions and offer arguments. These learning methods can provide numerous insights into learners' own traits. There are numerous definitions by researchers and practitioners in sociology, psychology, social work, medicine, education, and language teaching who commonly use role play. In the area of constructive learning, Yardley-Matwiejczuk (1997) defined role play as "a way of deliberately constructing an approximation of aspects of a real-life episode or experience, but under controlled conditions where much of the episode is initiated and/or defined by the experimenter" (p. 1). Role play is a simulation of communicative encounters based on role descriptions. It can be behavioristic or constructive (Kasper & Rose, 2002). For example, behavioristic role play can be the activity that requires students' repetition of roles. Take the Tell Me More® computer program, as mentioned before, as an example. It allows some limited conversation simulation and gives some kinds of the

experience through the use of speech recognition software, and it relies on the voice recording system. However, an argument about the behavioristic role play rests on the activity itself. It is more or less the same as a reading activity, not the really role-playing activity. In the present study, the behavioristic role plays refer to the "reading the role scripts out" role plays on the NHCE e-learning. As mentioned in Chapter 1, from Wang and Wang's (2005) evaluation on the behavioristic role plays on the NHCE e-learning, those role play activities keep requiring students reading the same role scripts out through computer over and over again. Students passively finish the role plays and some students still cannot implement speaking knowledge, for example, conversation strategies, in their real-life context (He & Zhong, 2006). The behavioristic role play focuses on playing the role out by repeating the same learning materials, it seems useful for learners to learn speaking by repeating learning materials over and over again but it is a kind of passive activity (Ge, Lee, & Yamashiro, 2003; Yardley-Matwiejczuk, 1997).

However, the constructive role plays are more active and interactive (Ge, Lee, & Yamashiro, 2003; Northcott, 2002; Van Ments, 1999; Woodhouse, 2007). It can develop a greater understanding of the complexity of professional practice and enable students to develop skills to engage in real-life activities within the controlled environment of the classroom. Using constructive role plays allow students to test out their knowledge that they already have, and/or to study the new knowledge by interacting with the group members, with which the constructivists hold the same

argument of learning is an active process in which new knowledge is developed on the basis of previous experiences. In the present study, constructive role plays refer to the "acting the role out" role plays on NHCE e-learning.

2.5.3.1 Related Studies on Role Play in Language Learning

Larsen-Freeman (1986) explained that role plays, whether structured or less structured, are important in the communicative approach because they give learners an opportunity to practice communicating in different social contexts and in different social roles. A role play is a highly flexible learning activity which has a wide scope for variation and imagination. According to Ladousse (1991), role play involves different communicative techniques, develops learners' language fluency, and promotes interaction in the classroom as well as increases motivation.

Role play activity is popular among most language teachers because of its motivational, entertaining and collaborative nature. It allows learners to apply theoretical knowledge in simulated and practical situation (Bartley, 2002). In Xiao's (2009) study on a new paradigm of teaching English in China, the implementation of role play activity in EFL speaking classes encourages students to engage in L2 speaking freely and creatively, and it encourages the exploration of options through creative use of language. Role play can provide a rich discourse context, allowing practice of language use beyond the mere repetitions of forms and structures. According to Ladousse (1991), incorporating role play into the L2 speaking classroom adds variety, a change of pace and opportunities for a lot of language production and

also a lot of fun. It can be an integral part of the class. The pedagogical value of role play has long been acknowledged by some scholars (Jones, 1982; Ladousse, 1991; Livingston, 1983; Maley & Duff, 1978; Van Ments, 1999). However, only a limited number of researchers categorize the classroom role play as a verbal interaction in itself. Cecile (2001) argued that whether students really learn a foreign language through role playing, results proved that role play activity can help EFL educators to create an interactive speaking learning environment for EFL learners to learn to speak English effectively. Furthermore, from Wang's (2003) investigation on the implementation of role play activity in first-year graduates tourism English classes in China, the findings supported that the implementations of role play activities help EFL students improve L2 learning, especially speaking. It can help EFL students to interact with each other actively and smoothly. Likewise, Chang and Huang (2002) conducted a pilot study on role play activities in a web-based learning environment, they found that role play activity can improve EFL learners' speaking skills in many situations, and helps EFL learners to interact with each other effectively. In Tao's (2007) study which investigated using of role play activity in compulsory English courses in China, he also stated that role play can help EFL students to generate knowledge which they have learnt from classes in their real-life situations. And it can motivate students to speak more in L2 speaking classes. However, to my best knowledge, no studies, so far, have closely examined how the constructive learning process practically takes place in role plays on the NHCE e-learning in EFL speaking classes in Chinese context.

2.5.3.2 Benefits and Drawbacks of Role Play

Role play activity provides some benefits. Role play is used in schools, colleges, youth clubs, industrial training, health and social care, and learners have been reported to find role play exciting and interesting, and teachers have found it a useful teaching activity in classroom. This potency may be the reason why role play is so widely used (Reyes & Vallone, 2008). The situations or scenarios of role play can be simple or elaborated, and familiar or strange. Students can learn through participation or through observation. Hemmingway and Lees (2001) suggested that role play can be used to help learners learn a language by playing the role of someone else. An entire role play can be video-recorded, which allows the role players to view themselves and prompts further debates or the recordings can be uploaded online through a chatroom and/or discussion board. Although EFL students may express anxiety and reluctance in appearing in front of a camera, the reality is that they soon forget that the camera is there, and the students are motivated, hard-working and enthusiastic during the whole learning and teaching process (McHardy & Allan, 2000; Verity, 2004; Xiao, 2003). Horton (2006) addressed that in a role play, teachers state a goal and assign learners' roles in achieving the learning goals. Learners will research their roles and then they can "interact with each other by acting their roles out via online chatroom or discussion board" (p. 135). Feedback gained from video recordings or from voice recordings made during role play is a valuable tool for language use analysis and for personal development (Phaneuf, 2005). Role play can

contribute to learners' learning experience from the cognitive and constructive domains. Tolan and Lendrum (1995) pointed out that role play is able to stimulate imagination and enable course members to engage with people's concerns and complexities within a constructive environment. This is important in students' real-life. Thus, it can be seen that the use of role play as a teaching tool allows the student to test out their knowledge that they already have, and/or to study the new knowledge by interacting with the group members. Kodotchigova (2002) highlighted that using role plays in a speaking class can motivate students to work harder and to be more enthusiastic towards learning a language.

However, apart from those mentioned benefits of role play, there are such drawbacks of role play as learners' noncooperation, time-consuming, and learners' tension. McHardy and Allan (2000) reported in their study that 44% of students have negative feelings about the use of role play. Northcott (2002) pointed out that role play may awaken previously subdued or suppressed emotions, such as feelings of fear, being afraid of failure, and being pressurized into doing something one would rather not do. Thus, it is necessary for the teacher to provide more instructions on how to work on role plays, with the assistance and scaffolding provided by the teacher, students can reduce certain tension when performing role plays in class. Teachers should provide more instructions and clearly state the role play tasks out to encourage students to speak and practice more. Encouragement can work if the teacher uses a friendly and humorous tone (Alwahibee, 2004; Harmer, 1984).

Moreover, the length of time spent in role play may also influence its success or failure. For example, students may find themselves in role for the whole day, and they may find the role play exhausting. Northcott (2002) recommended that teachers should let students take 5 to 10 minutes engaging in a role play activity. This is the reason why the researcher limited the time for carrying out role plays within 30 minutes according to the speaking class time frame for each unit. And it is discussed in detail in Chapter 3.

Nevertheless, if both the benefits and drawbacks of role play are taken into consideration, this activity can be an enjoyable, safe, and powerful tool for enhancing language learning, especially in a speaking class. Students can construct new knowledge from the role play and in the interaction with others because students do not just simply repeat other people's words in class, on the contrary, they can create or build their own knowledge based on their prior one (Reyes & Vallone, 2008), which is also the main focus of constructive learning. According to Nunan (2004), in the constructive learning environment, students will focus not only on language itself, but also on the whole learning process. Their personal experiences are important to contribute as useful elements to classroom learning. Kayi (2006) also explained that role play activity has an attempt to link classroom learning with outside using.

2.5.3.3 Summary of Role Play

Role play is perhaps the liveliest activity to get the class involved in speaking (Bollens & Marshall, 1973; Chesler & Fox, 1966; Collins, Robinson, &

Sullivan, 2005; Ge, Lee, & Yamashiro, 2003; Halapi & Saunders. 2002; Squint, 2002).

Role play brings situations from real-life into the classroom. Students imagine and

assume roles, they can improvise and produce words and/or sentences appropriate to

the situation as well as to the roles they have assumed. Teachers should select the

roles beforehand so that the roles to be assumed are familiar and are within the

linguistic competence attained until then by the students (Yardley-Matwiejczuk,

1997). This means teachers should offer instruction before students really begin the

role plays. Naidu and Linser (2000) pointed out that role play increases motivation.

Students will feel very bored by simply repeating the role scripts in a conversation,

but a role play activity can let students imagine different situations, which adds

interest to a speaking class. In addition, role play gives a chance to implement

language in new contexts and for new topics. Joanna (2006) explained that however,

students may have difficulty composing their thoughts in English or expressing them

coherently, using appropriate grammatical structures and words. Teachers should give

prompts or instructions wherever necessary, which would encourage students to guess

and produce utterances appropriately. Horton (2006) also pointed out that role play

helps reducing the common reluctance found among the second language learners in

using English because of fear of committing errors in English. Teachers can improve

the quality of students' English practice by encouraging them to give a variety of

responses, rather than the usual set responses to a situation that a role may demand.

This means students can be actively involved in the whole learning process by

gathering and summarizing speaking knowledge from what they have learnt before and generating new speaking knowledge for their future use, which is also in line with the constructive learning theory.

Moreover, role play activity can help students become more interested and involved in classroom learning by addressing problems, exploring alternatives, and creative solutions, in terms of not only material learning, but also in terms of integrating the knowledge learned in action. Role play in the classroom can be implemented in a number of ways. It can involve online elements as well as face-to-face interactions. It allows learners to transcend the experience of memorizing information and to apply theoretical knowledge in simulated and practical situation. Role play activity provides some benefits and drawbacks. And those benefits and drawbacks should be carefully taken into consideration, in order that the role play activity can be implemented as a useful tool for enhancing L2 speaking learning and teaching. In the next section, the constructive instructional design model will be reviewed to provide theoretical background on applying theoretical principles of teaching and learning in creating classroom instruction.

2.5.4 Constructive Instructional Design

The term instructional design refers to the systematic process of translating principles of learning and instruction into plans for instructional materials and activities (Smith & Ragan, 1999). Mager (1984) defined instructional design as "a process involved in the systematic planning of instruction" (p. 9). According to

Reigeluth (1983), instructional design consists of two parts: instruction and design. Instruction is the delivery of information and activities that facilitate learners' attainment of intended, specific learning goals. In other words, instruction is the conduct of activities that focus on learners learning specific things (Sun & Williams, 2005). All instructions are a part of education because all instruction consists of experiences leading to learning (Lunenburg, 1998; Smith & Ragan, 1999). The term design implies a systematic planning process prior to the development of something or the execution of some plan in order to solve a problem. It is distinguished from other forms of planning by the level of precision, care, and expertise that is employed in the planning process. Mager (1984) also explained that design involves the consideration of many factors that may affect or be affected by the execution of the plan.

According to Perkins (1992), instructional design theory is a theory that offers explicit guidance on how to better help people learn and develop. The kinds of learning and development may include cognitive, emotional, social, interactive, physical, and spiritual. It identifies methods of instruction and the situations in which those methods should and should not be used. Gros (1997), Tam (2000) pointed out that instructional design theory has the ambition to provide a link between learning theories and the practice of building instructional systems. According to Clark and Mayer (2002), instructional design theory is the practice of creating instructional tools and content to help facilitate learning most effectively. It can be used to make theories which explain how various procedures work, and to link these theories back to the

more conceptual theories of learning and psychology. Wilson (1996, 1997) explicated that instructional theory not only provides a way of seeing the world, but also provides a way of finding solutions. It shows how to find out a problem and then how to link the theoretical solution to the technology of practice.

There are several instructional design models, for example, Gerlach and Ely model, ASSURE model, and the PIE model (as cited in Gustafson & Branch, 2002, pp. 18-25), which are based on different learning theories, for example, behaviorism, cognitivism, and constructivism (Mergel, 1998). Since the present study focuses on the constructive learning environment, the constructive instructional design model will be introduced. As mentioned in Chapter 1, the Newby *et al.*'s (2000) PIE model – planning, implementing, and evaluating – will be adopted in the present study (see Figure 2.6). Clearly the PIE model focuses on the classroom instruction created and delivered by the same individual or small group with an emphasis on using media and technology to assist them. It is described that the PIE is the support of a shift from a teacher-centered to a learner-centered classroom environment. Huang and Li (2007) adopted the PIE model to design effective listening materials for college English classes. Tao and Wang (2008) also mentioned in their research study about the implementation of PIE model and results show that the PIE model is helpful and exercisable to help teachers to develop effective multimedia teaching materials.

It is the media, particularly computers, play the role of providing their use is carefully planed for, implemented, and evaluated in the whole learning and teaching

process. Planning includes gathering information about the learner, content, and setting. How technology can assist in creating effective and motivational instruction also is a part of this phase. Implementation addresses various forms of media and methods with a particular focus on how the computer and e-learning can be incorporated into lessons. Evaluation includes both learners' performance and how the data can be used to continuously improve the instruction itself and students' performance. The constructivist perspective describes learning as a change in meaning constructed from experiences (Heinich, Molenda, Russell, & Smaldino, 1999; Newby *et al.*, 2000).
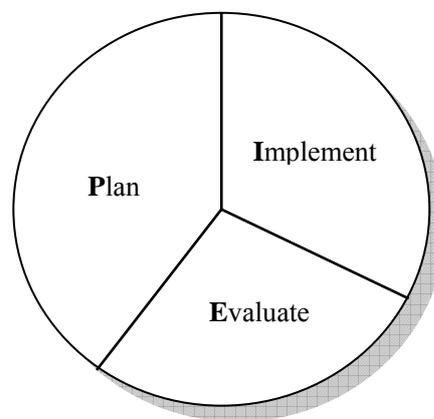
Figure 2.5: The PIE model for Instructional Design

Constructivists believe that knowledge is constructed by people (Duffy and Jonassen, 1991). Von Glaserfeld (1984) claimed that "… learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and they will try to find regularity and order in the events of the world even

in the absence of full or complete information" (p. 26). Woolfolk (1993) described the constructivist view of the learning process that "…. the key idea is that student actively construct their own knowledge, the mind of the student mediates input from the outside world to determine what the student will learn" (p. 485). Learning is an active mental work. It is not a passive reception of teaching. During the process of learning, learners may conceive of the external reality somewhat differently, based on their unique set of experiences with the world and their beliefs about them (Jonassen, 1991).

Nevertheless, learners may discuss their understandings with others and thus develop interaction and shared understanding. They must be able to justify their position to establish its viability (Dick, 1992). While different learners may arrive at different answers, it is not a matter of 'anything goes' (Spiro, Feltovich, Jacobson, & Coulson, 1991). While the important point is that the learner is central to the learning process, as epitomized by the Piagetian individualistic approach to constructivism, it is the collaboration and interaction among learners (Jonassen, 1991). Rather, it encourages the construction of a social context in which collaboration and interaction create a sense of community, and that teachers and learners are active participants in the learning process. Hence, according to the constructivist perspective, learning is determined by the complex interplay among learners' existing knowledge, the social context, and the problem to be solved. In this light, Ertmer and Newby (1993) pointed out that constructive instruction, then, refers to providing learners with "a collaborative and interactive situation in which they have both the means and the

opportunity to construct new and situational-specific understanding by assembling prior knowledge from diverse sources" (p. 63). Constructivist learning encourages learners to acquire necessary knowledge and skills for finding meaningful solutions to the real world problems; it involves learner-centered and situated activities.

There are experiences in the traditional classroom where constructive learning process is practiced across various subject disciplines, but to transform the constructive learning to the e-learning environment remains challenging. There are two main reasons: first, it requires adequate learning content design skills to ensure flexibility and reusability to learners' requirements. Second, the learning content designed must allow a sound educational purpose to enforce knowledge construction. According to Sun and Williams (2005), an effective learning content design is not driven by the advancement of technology. It has to be rooted in the sound learning theories and appropriate instructional designs. In this case, constructivist paradigm (Honebein, 1996; Savery and Duffy, 2005) offers instructional design philosophy that guides learners to conduct and manage their personalized learning activities, and encourage collaborative and interactive learning for critical thinking and problem-solving. Understanding the learning process as knowledge construction based on constructivism theory enables us to identify some important features of learning (Sun and Williams, 2005). Within the constructivist realm, knowledge is constructed through interaction with the environment in which a process of personal interpretation of the perceived world and the negotiation of meaning from multiple

perspectives takes place. Jonassen, Davidson, Collins, Campbell, and Haag (1995) pointed out that constructivism advocates that there are no cause-effect relationships between the world and the learner. Learning to a large extent depends on the subjective view of the learner. Constructivism emphasizes that learning emerges from the human organism in ways which conserve adaptation and organization. Learning is to apply some sort of conceptual system upon the phenomena and to bring forth a world including those phenomena. Learning is situated, and it should occur in realistic settings. Sun and Williams (2005) also explained that the constructive and interactive learning enables learners to structure their experiences and reveal the nature and culture of our understanding. And learning is never a private act. The constructivist approach notes that living systems survive by fitting with one another and with other aspects of the surrounding medium. These features can be incorporated into the learning content design based on an appropriate instructional strategy for e-learning.

2.6 Theoretical Foundations for the Present Study

From the previous sections, the present study addresses the theoretical foundations of investigating the implementation of constructive role plays via e-learning on Chinese university EFL learners' speaking in college English classes based on the theory and related research studies of second language speaking, computer-assisted language learning, constructive learning environment, instructional design and task-based language learning and teaching approach. Firstly, as mentioned in section 2.2.2, computers and language learning and teaching have walked hand in hand for a long time

and contributed as a useful teaching tool in second language classrooms (Beatty, 2003; Boswood, 1997; Brierley, 1991; Chesters, 1987; James, 1996; Lee, Jor, & Lai, 2005; Sabourin, 1994; Szendeffy, 2005; Towndrow, 2007). The application of CALL in speaking classroom may speed up the rhythm, and increase the classroom information capacity, enlarge the language input value, and also CALL can provide more opportunities of language practicing for learners. Secondly, e-learning has the potential to impact positively on speaking classes. Holmes and Gardner (2006) addressed that appropriately designed, learner-centered and constructivist models of e-learning have the potential to assist learners to plan for and cope with significant changes in their lifestyle and workplaces, because e-learning can ensure that no one is excluded from education by geographic, physical or social circumstance. Thirdly, constructive learning theory and task-based language learning and teaching approach hold the similar points of view towards language learning, they all emphasize the active role of the learner in building understandable information which can help to create an interactive knowledge constructing and learning process. They share the principles about learning as a process that encourages learner autonomy, initiatives, and inquiries, and acknowledges the critical role of experiences in the learning process. Fourthly, the utilization of role plays assisted by computer technologies and the Internet could provide active and interactive learning environment which motivates learners to acquire meaningful solutions to their second language speaking. Learners may feel less anxious and nervous and more confident when they practice speaking via e-learning in a chatroom than in a face-to-face setting (Chang,

2007; Gong, 2002; Horwitz, 2001; Ng, Yeung, & Hon, 2006; Son, 2007; Stockwell, 2007).

In sum, from the review of those related literature, some research studies have been conducted on Chinese EFL learners' speaking skills (e.g. Liu, 2008; Ou, 2006; Shi, 2006; Yang, 2007; Zhang, 2008; Zhao, 2007). However, no research study about implementing constructive role plays, and implementing chatrooms on NHCE e-learning to improve students' speaking skills in college English classes in China can be found. So the present study brings forth its significance. Moreover, Chinese is the biggest EFL learning group in the world, it is meaningful to conduct the present research study to obtain more insightful discoveries about the appropriate use of active speaking activities assisted by computers and on e-learning in speaking classes.

2.7 Summary of Chapter 2

In this chapter, the related literature provides an overall picture of the previous research studies on second language speaking, computer-assisted language learning, and e-learning. It also discusses the relevance of the present study to previous research studies. It starts with the nature of second language speaking, computer-assisted language learning, e-learning, and learning theories. After that, scaffolding and constructive instructional design are presented as the theoretical foundations of the present study. Also, the approaches that implement a constructive role plays activity for L2 speaking class are reviewed. In the next chapter, the design and methodology implemented in the present study will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter discusses the principles of the present research methodology. It includes research design, methods of data collection for the experiment and data analysis. It starts with the explanation of the theoretical framework for the present study, then, the research design, participants, research procedures, and research instruments as well as the data analysis methods, and followed by the description of the pilot experiment based on the research design of the present study.

3.1 Theoretical Framework of the Present Study

Based on the literature reviewed in Chapter 2, the present study aims at investigating the implementation of constructive role plays on NHCE e-learning in L2 speaking classes. This section consists of the theoretical foundations of CALL, e-learning, scaffolding, and constructivism. Thornbury (2007) explained that speaking activity involving role plays can provide a useful springboard for real-life language use because students can take an imaginative leap out of the confines in the classroom. Role play is an activity based on role descriptions. It can be done behavioristically or constructively based on different theoretical frameworks: behaviorism and constructivism (Kasper & Rose, 2002). The behavioristic role play focuses on working the role out by repeating the same learning materials. It seems useful for

learners to learn speaking by repeating the same materials over and over again. However, it is a kind of passive activity (Ge, Lee, & Yamashiro, 2003; Yardley-Matwiejczuk, 1997). As mentioned in Chapter 1, the problem of the existing NHCE e-learning rests on the behavioristic role play activity. Firstly, the behavioristic activity does not have a specific instruction and task statement. Secondly, students are asked to repeat the role scripts, sentence by sentence, and over and over again, in front of the computer screen. After a long time sitting in front of the computer and "repeating the role scripts" on the screen, students may feel bored. The behavioristic role play in further activities may no longer draw students' attention because it is only a mere imitation of the same dialogue, it lacks of interaction among the learners and it totally ignores the possibility of thought processes occurring in students' mind. This kind of repeated "stimulus" and "response" is similar to programmed instruction. As reviewed the literature in Chapter 2, programmed instruction tends to only teach details about language but not communication. It concentrates on the development of hardware rather than the course content (Rivers, 1981). In other words, students keep "speaking" to a machine with the same repeated materials. Beatty (2003) addressed that learning activities are sequenced from simple to complex with frequent reviews and tests of key points. That means students may not feel interested in doing the same activity with the same material and the same format.

However, the constructive role plays are more active (Ge, Lee, & Yamashiro, 2003; Northcott, 2002; Woodhouse, 2007). It can develop a better understanding to the learning contexts and it enables students to develop skills to

engage in real-life activities within the controlled environment of the classroom. Woodhouse (2007) addressed that constructive role plays are one of the teaching and learning activities in the field of constructive learning, which allows students to try new skills, attitudes, views, reactions and arguments, it is a powerful method of learning. Using constructive role plays as a teaching activity allows students to test out their knowledge that they already have, and/or to study the new knowledge by interacting with the group members, with which the constructivists hold the same argument of learning as an active process in which new knowledge is developed on the basis of previous experiences.

According to Gustafson and Branch (2002), the classroom instructional design models are "primarily of interest to professional teachers" (p. 18). There are such a wide variety of classroom settings to consider as secondary schools, colleges, vocational schools and universities where different schools may select different instructional design model for appropriate use. According to the problem mentioned in Chapter 1 and based on the literature reviewed in Chapter 2, the present study adopts the Newby *et al.*'s (2000) PIE model as the theoretical framework. Based on the contents of the present study, the "P" for "planning" refers to the plans for each lesson, especially for the constructive role plays. The use of NHCE e-learning is a part of the constructive learning process that assists in creating effective and motivational instruction in speaking classes. The "I" for "implementation" in the present study addresses the utilization of constructive role plays to improve students' speaking. The

"E" for "evaluation" includes learners' performances on both the pretests and post-tests, the reflections from learners' online learning logs, the analysis from students' role play recordings, and the observations from teacher logs. Data from the evaluations can be used to continuously help to improve the instruction itself and students' L2 speaking performance.

3.2 Research Design of the Present Study

The present study is a quasi-experimental design study with a pretest and post-test. A quasi-experimental research is a part of the experimental research. Its most important characteristic is to deal with the phenomenon of cause and effect (Charles & Mertler, 2004; Thomas, 2003; Wiersma & Jurs, 2005). The quasi-experimental study is conducted under the conditions where many variables are difficult to control (Seliger & Shohamy, 2001). There are two main weaknesses in the quasi-experimental research. Firstly, the internal validity is impossible to state with any confidence that the dependent variables are totally influenced by the independent variables (Nunan, 2001; Punch, 1999; Robson, 2002). Nunan (2001) suggested that this problem can be solved by collecting data from learners including background, organization and teaching methods qualitatively. Secondly, Robson (2002) claimed that the weakness of quasi-experimental research study rests on its experimental design. However, if the concern is simply to determine whether there is an increase in performance or even to assess its statistical significance, there are no particular problems.

The main purpose of the present study is to investigate the implementation of constructive role plays via NHCE e-learning on Chinese university EFL learners' speaking in college English classes, the triangulation method was employed in the present study. To date, triangulation involves various forms such as data triangulation, investigator triangulation, theoretical triangulation, and methodological triangulation (Muller-Cajar, 2007).

Theoretical triangulation and methodological triangulation are employed in this study. Theoretical triangulation in this study involves computer-assisted language learning, e-learning, constructivism, scaffolding, and constructive instructional design, which are combined to lend theoretical support for the present study. Methodological triangulation in this study involves using such quantitative and qualitative methods as pretest, post-test, student questionnaires, teacher logs, student role play recording language analysis, student online learning logs, and student interviews to collect data. Robson (2002) explained that the advantage of employing methodological triangulation mainly lies in that it may be used to address different but complementary questions within a study and enhance the interpretability for the research outcomes. For example, the interpretation of statistical data may be strengthened by a qualitative description. In turn, a qualitative account can be enhanced by supportive quantitative evidence. To increase the validity of this study, both quantitative and qualitative methods were implemented to examine the effects of the constructive role plays via NHCE e-learning on learners' speaking performance. And to increase the reliability of this study, the use of data triangulation was involved.

Data collection was entirely conducted within the 18-week course time-frame. The speaking class takes 1 hour a week for the tutorial session and 1 hour a week for the computer lab session. In order to collect the data on students' opinions, comments, strengths, weaknesses and suggestions to the constructive role plays via NHCE e-learning in their speaking classes, and in order to collect the data on the effects of the constructive role plays on students' speaking performance, the speaking pretest and post-test scores, student questionnaires, student interviews, student role play recording language analysis, student online learning logs, and the teacher logs were applied as data collection methods. Data from student questionnaires, student online learning logs, and student interviews were examined to investigate students' opinions towards the constructive role plays via NHCE e-learning. And data from students' speaking pretest and post-test scores, the teacher logs, and student role play recording analysis were applied to investigate improvement on students' L2 speaking.

3.2.1 Population and Participants

According to Cohen, Manion, and Morrison (2000), it is impossible for a researcher to study the whole population. The common way is to select a sample from the whole population to study, hoping the findings achieved from the sample can be applied to the whole. Therefore, in the present study, the sample was purposively selected from second-year non-English majors who enrolled in college English course at Guizhou University, in which the researcher teaches. Each year, approximately 10,000 non-English majors enroll in college English course for each level (1-4) at

Guizhou University. They come from a variety of regions which cover the east, the south, the southeast, the west and the southwest in China, but the majorities are from the southwest area. On average, they have learned English for at least 6 years.

The participants of the present study were undergraduate second-year non-English majors from college English classes. The reasons why the researcher has chosen the second-year students to be the participants in this study are firstly, the second-year non-English majors have already finished their college English level 1, 2 and 3 studies. Students have experiences about and are familiar with using the existing NHCE e-learning, they do not need further explanation and training on how to use the existing e-learning, which will reduce certain variables on familiarity of channel on instructions. Secondly, all the students have got basic speaking skill trainings and have acquired certain speaking skills after they finished their previous levels of college English studies which are suitable for the present study. As introduced in Chapter 1, College English level 4 course is for the second-year undergraduate non-English majors. In this level, there are two textbooks (reading and writing textbook, and speaking and listening textbook).

Six classes were chosen in this study, there are 50 students in each class, so the total number of the participants is 300 students. According to Khaimook's (2004) sample size estimation formula [Computer Software], as shown in Figure 3.1 below, the minimum sample size of this study should be at least 266 students. So the sample size of 300 students is suitable for this study.

$$n = \frac{\left(Z_{\frac{\alpha}{2}}\right)^2 \times (\hat{p}\hat{q}) \times N}{\left[E^2 \times (N-1)\right] + \left[\left(Z_{\frac{\alpha}{2}}\right)^2 \times (\hat{p}\hat{q})\right]} \quad *$$

$$n = \frac{(1.65)^2 \times [0.5 \times (1-0.5)] \times 10000}{\left[(0.05)^2 \times (10000-1)\right] + \left[(1.65)^2 \times 0.5 \times (1-0.5)\right]}$$

$$n = \frac{2.7225 \times 0.25 \times 10000}{(0.0025 \times 9999) + (2.7225 \times 0.25)}$$

$$n = 265.06$$

Population size	10,000
Maximum error	0.05
Proportion value	0.5
Z value at 0.05 level of significance	1.65
Minimum sample size	**265.06**

*Note: $Z_{\frac{\alpha}{2}}$ = Z value at 0.05 level of significance

$\hat{p}$ = Proportion value

$\hat{q} = 1 - \hat{p}$

E = Maximum error

N = Population size

Figure 3.1: Khaimook's (2004) Sample Size Proportion Estimation for Finite

Population

The participants were divided into three groups, high proficient, medium proficient, and low proficient, in terms of their proficiency levels first (see Table 3.1). As mentioned in Chapter 1, high proficient students in this study refer to those whose z scores from the former English final examination and the speaking pretest were more than 1.00 ($z > 1.00$). Medium proficient students refer to those whose z scores from the former English final examination and the speaking pretest were between -1.00 and 1.00 ($-1.00 \leqslant z \leqslant 1.00$), while low proficient students refer to those whose z scores from the former English final examination and the speaking pretest were less than -1.00 ($z < -1.00$). The reasons why the researcher divide students into three

groups in terms of language proficiency based on the z scores from their former final examination scores and the speaking pretest scores are as follows. First, z score is a statistical measure that can be used to compare values from different data sets. Second, students' former final exam scores from the pervious English course are the formative scores including listening, reading comprehension, grammar and writing. Some research studies take students' former exam scores as the criteria to divide them into different groups (Wang, 2002; Yang, 2007; Zhang, 1995; Zheng, 2006). Third, the scores are from the speaking pretest, which is adopted from the national CET-SET test that has a standardized grading system. There are several research studies implementing similar speaking tests as a tool to classify participants into different groups in terms of speaking proficiency. Xiao and Xiang (2005) used PETS (Public English Test System in China) speaking tests to group their participants in their research study. But none of those research studies implements z score to classify students into different groups, as a result, the implementation of z scores can increase the reliability of the present study.

However, there are still some difficulties classifying students into groups based on their z scores. For example, a student with 1.016 z score on the former final examination, which falls in the high proficient level, but with -0.35 z score on the speaking pretest, which falls in the medium proficient level, will be excluded from the data collection because the two z scores signify two different proficiency levels. Then students were randomly divided into a control group and an experimental group. The

format was listed as follows: for the experimental group, students worked with the constructive role plays and the control group carried out the existing behavioristic role plays. Both of the two groups presented their role plays through NHCE e-learning in college English classes.

Table 3.1: Students' Groups in terms of Language Proficiency

Language proficiency level	Former final exam z scores	Speaking pretest z scores
High	$z > 1.00$	$z > 1.00$
Medium	$-1.00 \leqslant z \leqslant 1.00$	$-1.00 \leqslant z \leqslant 1.00$
Low	$z < -1.00$	$z < -1.00$

3.2.2 Variables

The present study aims at investigating the effects of constructive role plays via e-learning on Chinese university EFL learners' speaking in college English classes, as shown in Table 3.2, in line with the above research design, the independent variables are groups (experimental/control), language proficiency levels (high/medium/low) and two tests (pretest/post-test). The dependent variable is students' scores of the speaking pretest and post-test.

Table 3.2: The Format of Independent and Dependent Variables

Language Proficiency Level (Independent Variable)	Group (Independent Variable)	Test (Independent Variable)	Score (Dependent Variable)
high, medium, low	CG*	Pretest	
high, medium, low	EG*	Post-test	

* CG: Control Group; EG: Experimental Group

3.2.3 Instruments

The instruments utilized in the present study were speaking pretest and post-test based on CET Spoken English Test (CET-SET), student questionnaires, student interviews, teachers' logs, student role play recording analysis, and student online learning logs. As shown in Table 3.3 below, in order to address the first research question and to test the first hypothesis, which concerns the effects of constructive role plays via e-learning on students' speaking performance, the speaking pretest and post-test, teacher logs, and student role play recording analysis were employed. In order to address the second research question and to testify hypothesis 2, which concerns students' opinions on the constructive role plays via e-learning in their college English speaking classes, student questionnaires, student interviews, and students' online leaning logs were utilized.

Table 3.3: Summary of Research Questions and Research Instruments

Research Questions	Instruments
1. Do constructive role plays have any positive effects on improving speaking performance of students with different levels of proficiency?	Pretest and Post-test Teacher Logs Student Role Play Recording Language Analysis
2. What are second-year non-English major students' opinions on the constructive role plays via e-learning in their college English speaking classes?	Student Questionnaires Student Interviews Student Online Learning Logs

3.2.3.1 Speaking Pretest and Post-test

The speaking pretest and post-test is based on the national CET Spoken English Test (CET-SET), as mentioned in Chapter 1, the purpose of having the national spoken English test is to enhance speaking and listening teaching during

students' college English studies and also to cooperate with the reformation of college English teaching and learning. There are three parts in this speaking test (see Appendix F for the example). The first part is a free conversation between the examiner and examinees. This part takes 5 minutes for the examiner to ask questions to let the examinees talk about their background information, for example, name, hometown, age and major of study. The second part takes about 10 minutes doing individual talk and group discussion. The examiner will assign examinees a topic and let them discuss it freely. If necessary, the examiner can offer some clues to help examinees continue the discussion. In the third part, examinees will take 5 minutes to answer questions asked by the examiner based on the discussion from the second part. Another examiner will grade examinees while they speak.

The reasons why the researcher adopts the national CET Spoken English Test as the speaking pretest and post-test in the present study are as follow.

First, it is a national standard test and there is a test-bank with different topics (see Appendix G) which includes the previous tests, the topics are related to the contents from college English coursebook and they are chosen based on the criteria of familiarity and relevance according to College English Curriculum Requirements. Yang and Weir (1999) pointed out that the difficulty level of CET-SET topics is not too difficult or too easy, and all of the topics are related to students' daily lives.

Second, as shown in Table 3.4 below, the existing CET-SET grading system provides systematic criteria for marking students' speaking scores after they undergo the test. The CET-SET grading system is suitable and valid for a speaking test (Yang

& Weir, 1999). As a result, it is exercisable for the speaking pretest and post-test in the

present study.

Table 3.4: Grading Criterion of CET-SET

Categories / Scoring Bands	Category 1 Veracity and Language scope	Category 2 Length of the talk and Continuity	Category 3 Agility and Pertinency
5	⚊ Correct use of grammar and words. Plenty of words and complex structure ⚊ Good pronunciation	⚊ When discussing topic, examinee can use continuous words and talk for a relative long time	⚊ Examinee can join the conversation naturally and freely ⚊ The use of language is quite suitable to certain situation.
4	⚊ Some mistakes of the use of grammar and words ⚊ Pronunciation is ok	⚊ Examinee can conduct a continuous talk, but with short and simple content. Examinee often stops	⚊ Examinee can actively join the conversation, but sometimes cannot talk with partners quite well ⚊ The use of language is ok for some certain situation
3	⚊ Mistakes of grammar and words affect the conversation ⚊ Simple structure of language use and simple words ⚊ Some pronunciation problems	⚊ Short conversation ⚊ Often stops when think about topics but can finish the basic part of talking	⚊ Examinee cannot join the conversation actively. Sometimes examinee cannot match the topic with some certain situation
2*	⚊ There are many mistakes of the use of grammar and words. It affect the talk a lot ⚊ Poor pronunciation	⚊ Very short and examinee cannot do the continuous talk	⚊ Examinee cannot join the group discussion

*Note: Student's total score of the spoken English test comes from the three categories together. After the calculation of z score, as presented in Table 3.1, student can be divided in high, medium, or low proficient level. The CET-SET does not have the "1" score grade because this test ensures that every examinee can get at least the score of 6 from 3 categories together.

3.2.3.2 Student Questionnaires

In the present study, student questionnaires were employed to elicit

data on their opinions towards the implementation of constructive role plays via

e-learning. One of the advantages of questionnaire over other types of data collection

methods is that it is inexpensive and does not require as much effort from the

researcher comparing to face-to-face survey. To avoid misunderstanding and confusion, all of the questionnaires were written in both English and translated into Chinese. In order to check the validity of all the questions in student questionnaires, 3 experts have been invited to valid and check the language use for each item. The questions were revised 6 times to be more suitable and exercisable for the present study according to those experts' suggestions. Furthermore, in order to determine the reliability of the questionnaires, Cronbach's Alpha Coefficiency (α) was used to check the internal consistency of the questionnaire items by analyzing the data from the pilot study.

3.2.3.3 Student Interviews

In the present study, a semi-structured interview was conducted. Robson (2002) explained that an interview is "a conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information and focused by him or her on content specified by research objectives of systematic description, prediction or explanation" (p. 97). A face-to-face interview offers the researcher the opportunity to ask participants directly about what is going on and thus it is a "shortcut" (Robson, 2002) in seeking answers to research questions.

The reason why the researcher chooses a semi-structured interview lies in the flexibility that the semi-structured interview provides. The semi-structured interview gives the interviewee a degree of power and control over the course of the interview. Since the purpose of this semi-structured interview is to elicit more

insightful information about students' opinions on the utilization of the constructive role plays via NHCE e-learning, not to test students' English proficiency, both English and Chinese were used for better understanding and convenience. All the students' interview were tape-recorded and transcribed for data analysis.

3.2.3.4 Teacher Logs and Student Online Learning Logs

In the present study, teacher logs and student online learning logs were applied as another two instruments to get more informative and qualitative data. Research studies have proved that the use of teacher logs as research instrument helps researchers to get further insightful data. It also can help teachers to get better observation about students' learning process (Carr, Jones, & Lee, 2005; Cheng, 2006; Levine, Ferenz, & Reves, 2000). As mentioned in Chapter 2, online learning logs can be a useful tool for observing students' learning, because the teacher can scrutinize a student's cognitive skills, such as observing, evaluating and criticizing their own learning (Berthold, Nückles, & Renkl, 2004). Students can write their learning logs online easily anytime with the instructions from the teacher, and students may would like to offer more critical information about their own studies and the teacher's teaching. In the present study, according to the 18-week experiment time frame, in order to examine and observe students' behaviors and classroom activities in the beginning (pre-treatment period), in the middle (during treatment period) and in the end (post treatment period), both of the teacher logs and student online learning logs were divided into three phases – beginning, middle and end, 6-week for one phase, to

determine and observe the differences before and after the implementation of constructive role plays via e-learning, and data collected from the two logs were used to compare with each phase for further qualitative analysis.

3.2.3.5 Student Role Play Recording Language Analysis

Student role play recording analysis in the present study refers to the spoken language use analysis. Harnsberger, Wright, and Pisoni (2008) conducted a research study to analyze three different speaking styles using controlled sentence materials in a laboratory environment. Results demonstrate that it is possible to elicit controlled sentence stimulus materials varying in speaking style in a laboratory setting. Cleland and Pickering (2006) investigated whether writing and speaking uses the same mechanisms to construct syntactic form. Results from language use analysis suggest that the processor employs the same mechanism for syntactic encoding in written and spoken production. According to Boonkit (2010), speaking is the skill for effective communication in any language, particularly when speakers are not using their first language. The analysis of spoken language use can help the learners explore what language is and how it is applied to achieve communicative goals in different contexts (Johnson, 1995).

To my best knowledge, there is no research studies implemented language analysis to examine the improvement on students' L2 speaking in terms of language production in college English classes in China. In the present study, student role play recordings were analyzed to obtain more informative data to examine the speaking

performance of students. Based on the previous studies on EFL speaking instruction and language use analysis (Boonkit, 2010; Cleland & Pickering, 2006; Hampel, 2003; Harnsberger, Wright, & Pisoni, 2008; Horwitz, 2001; Johnson, 1995; Thornbury, 2007), in order to determine students' language productivity in terms of the word level and the sentence level, in the present study, two main types of language modifications: occurrences of word substitutions and sentence variations, were applied to be the spoken language use analysis for further qualitative data collection and analysis. Once students changed a word in a sentence, one occurrence was counted in terms of the word level – synonym, antonym and other proper nouns, and the total occurrences of word substitutions was added together to be divided by the original number of words in each conversation to testify the percentages for those occurrences. Likewise, on the sentence level, as soon as students changed the sentence structure and/or the length, one occurrence was counted, and the total occurrences of sentence variations was combined together to be divided by the original number of sentences in each conversation to determine the total percentages of the occurrence (see examples in section 4.4).

In sum, taking into account the advantages and disadvantages of data collection methods, the present study triangulated the methods by employing students' scores on the speaking pretest and post-test, teacher logs, students' recordings language analysis, student questionnaires, student interviews, and student online learning logs to assess their speaking improvements and to collect data about their opinions towards the implementation of constructive role plays via NHCE e-learning.

3.3 Procedures

Since the present study focuses on investigating the implementation of the constructive role plays via e-learning on Chinese EFL learners' L2 speaking, the research was conducted in an Internet-based English learning environment, where six intact groups of students enrolled in the college English classes. As mentioned before, all of the students enrolled in the college English course of level 4. The researcher presented himself during all data collection sessions.
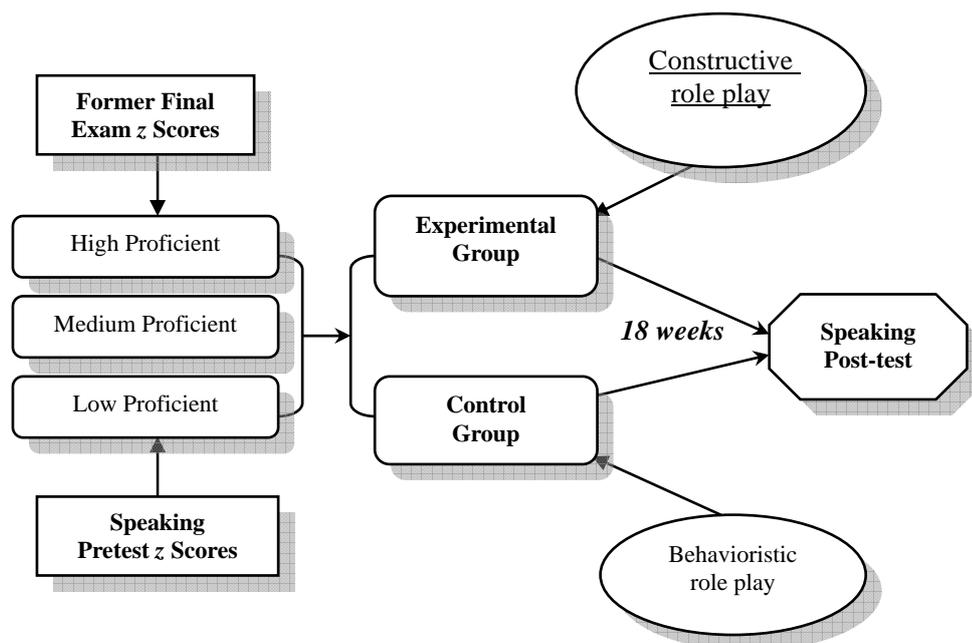
Figure 3.2: An Overview of Data Collection Procedures

Figure 3.2 above is an overall picture of the data collection procedures. As discussed earlier, six classes of students who enrolled in college English level 4 classes were the participants of the quasi-experiment study during regular class time in an 18-week period. This study was conducted from March to July 2009, the second

semester of academic year 2008-2009. In the 18-week research study, all 300 students were required to learn 8 units of the *New Horizon College English* (Zheng, 2003) textbook. The specific procedures in this present research are as follows.

First, all of the 300 participants in six classes were pretested (see Appendix J), and scores from the pretest and students' English former final examination were converted into a z score to classify them into three groups in term of language proficiency levels. After this, the valid participants, or the participants whose English former final examination z scores and the speaking pretest z scores signify the same proficiency level, were randomly divided into an experimental group and a control group. Next, the researcher implemented the constructive role plays to the experimental group. In the experimental group, before asking students to do the role play, the researcher presented the instructions on the content of role plays and the statements for role play tasks. And then, the researcher showed the existing video through the e-learning which is a prompt for students to understand the role play. Students were randomly assigned into groups of 2 and put into chatrooms on the e-learning. After that, students began to act 3 different role plays out by actually interacting with their partners on the chatrooms using microphones and earphones for 30 minutes.

All of the students' conversations were recorded automatically by the e-learning system for teacher's feedback, grading and more discussions. After students finished studying each unit, students in the experimental group were told to

write online learning logs and posed questions through the discussion forum on the NHCE e-learning. The researcher provided role play instructions and tasks before students began their actions. Assistance and answers to students' questions through discussion forum on the e-learning, and/or face to face interactions in classroom were provided while students were in the process of performing role plays and the researcher offered feedback to students after they finished role plays. All of the instructions, assistances, answers, and feedback provided in the present study served as the scaffolding which provided the opportunities for students to ask questions and get interactions in stead of sitting in front of the computer, reading the role scripts out, and recording the sound.

On the contrary, the control group still worked with the existing behavioristic role plays, and the researcher showed students the existing video to help them get better understanding to the learning context. Then, students began the 3 role plays by reading the role scripts out in front of individual computer for 30 minutes. All of the students' conversations were also recorded automatically by the e-learning system. After students finished 3 role plays, they were required to finish the existing fill-in-the-blank quiz on the e-learning as a part of the behavioristic role play activities.

After the 18-week instruction, students took the post-test to determine the effects of the constructive role plays on their speaking performance. The post-test mean scores were compared to the scores of the pretest to examine the improvement.

The topics for the pretest and post-test were the same in terms of difficulty level. The purpose is to compare the students' scores on the two tests and to see their improvements. It has been argued that the pretest and post-test are not parallel forms of the same test, thus, the difference between the pretest and post-test score is not meaningful. However, if the difficulty level of the two tests is controlled, it is theoretically acceptable to use the scores from the pretest and the post-test. In the present study, the use of the pretest and post-test are with the same difficulty level, the concern about the influence of students' pretests scores on the post-tests scores is minimal because the 18-week instruction period is long enough for students to forget what they have talked about in their pretest. The data obtained from the pretest and the post-test scores were used for further quantitative analysis.

3.4 Instructional Analysis of the Present Study

As mentioned before, the college English speaking classes consist of 2 periods of class time, 120 minutes all together, 60 minutes for tutorial classes, 30 minutes for computer lab classes for acting out three role plays, and 30 minutes for finishing assignments, discussions and other activities.
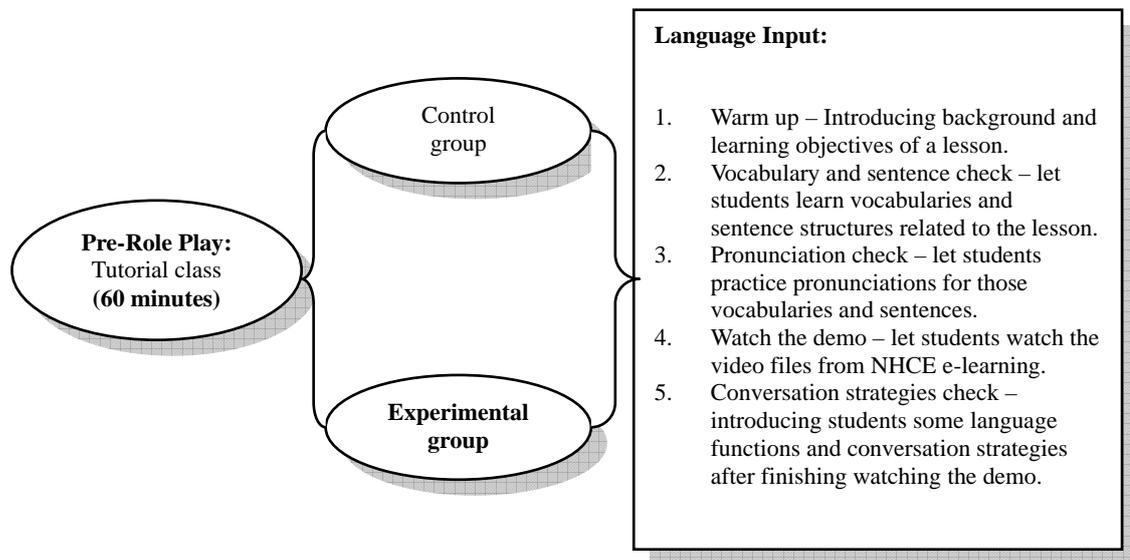
Figure 3.3: Instructional Analysis: Tutorial Class

Figure 3.3 above shows that in the tutorial class, the researcher provided the same language input to both the control group and the experimental group. It can help to control certain variables so that they can be measured in the present study. After the 60-minute tutorial class, students began the computer lab class, as mentioned in section 3.3, the experimental group implemented the constructive role plays while the control group kept using the existing behavioristic role plays on the NHCE e-learning (see Figure 3.4 below for more details). The details of the instructional analysis of the behavioristic and the constructive role plays are presented in Figure 3.5 and Figure 3.6 below.

```
                  ┌─────────────┐      ┌──────────────────────────────────────────┐
                  │  Control    │      │ 1.  Log in NHCE e-learning;              │
                  │  group      │      │ 2.  Watch the video again;               │
                  └─────────────┘      │ 3.  Choose a role;                       │
                                       │ 4.  Enter into the role play activity of this lesson; │
                                       │ 5.  Start the role play, read the role scripts out. (see │
  ┌──────────────┐                     │     Figure 3.5 for more details about the │
  │ Role Play:   │                     │     instructional analysis of behavioristic role play) │
  │ Computer lab │                     └──────────────────────────────────────────┘
  │ class (30    │
  │ minutes)     │                     ┌──────────────────────────────────────────┐
  └──────────────┘                     │ 1.  Log in NHCE e-learning;              │
                                       │ 2.  Watch the video again;               │
                  ┌─────────────┐      │ 3.  Choose a role;                       │
                  │ Experimental│      │ 4.  Enter into the chat room;            │
                  │ group       │      │ 5.  Start the role play, act the role out with │
                  └─────────────┘      │     another partner. Students cannot see the │
                                       │     scripts. They can apply knowledge from │
                                       │     the tutorial class, their previous studies, │
                                       │     and their own English speaking        │
                                       │     knowledge.                            │
                                       │ 6.  Helps provided by the teacher. (see  │
                                       │     Figure 3.6 for more details about the │
                                       │     instructional analysis of constructive │
                                       │     role play)                            │
                                       └──────────────────────────────────────────┘
```

Figure 3.4: Instructional Analysis: Computer Lab Class

In computer lab class, students began to perform role plays. The experimental group implemented the constructive role plays through chatrooms while the control group kept working with the existing behavioristic role plays on the NHCE e-learning. There were 30 minutes for performing 3 role plays in each unit, and thus, it took 10 minutes for students to work out each role play. After finishing the role plays, students in the experimental group were asked to write online learning logs for 15 minutes. However, in the control group, students were asked to finish the fill-in-the-blank quiz at the same time (see Figure 3.5 and Figure 3.6 for more details). As one part of the scaffolding, in the experimental group, clear instructions and role play tasks were provided to students so that they could get better understanding on

each role play, students could pose questions to the teacher anytime when they met

problems, and/or they could discuss with other classmates for another 15 minutes.

```
┌─────────────────────┐
│ Language input from │
│   tutorial class    │
└─────────────────────┘
          │
          ▼
┌───────────────┐   ┌───────────────────┐   ┌──────────────────────────────────────────┐
│  Role play 1  │──▶│  Watch the Video  │──▶│ 1.  Choose "I go ahead first" or "Peedy* says │
└───────────────┘   └───────────────────┘   │      first".                                 │
       │                                     │ 2.  Start the role play. Read the role scripts out. │
       ▼                                     └──────────────────────────────────────────┘
┌───────────────┐   ┌───────────────────┐   ┌──────────────────────────────────────────┐
│  Role play 2  │──▶│  Watch the Video  │──▶│ 1.  Choose "I go ahead first" or "Peedy* says │
└───────────────┘   └───────────────────┘   │      first".                                 │
       │                                     │ 2.  Start the role play. Read the role scripts out. │
       ▼                                     └──────────────────────────────────────────┘
┌───────────────┐   ┌───────────────────┐   ┌──────────────────────────────────────────┐
│  Role play 3  │──▶│  Watch the Video  │──▶│ 1.  Choose "I go ahead first" or "Peedy* says │
└───────────────┘   └───────────────────┘   │      first".                                 │
       │                                     │ 2.  Start the role play. Read the role scripts out. │
       ▼                                     └──────────────────────────────────────────┘
┌───────────────┐   ┌────────────────────────────────────────────┐
│     Quiz      │──▶│ The existing fill-in-the-blank exercises.  │
└───────────────┘   └────────────────────────────────────────────┘
```

*Note: Peedy is the cartoon image on the NHCE e-learning.

Figure 3.5: Instructional Analysis of Behavioristic Role Plays for

the Control Group

After students finished the tutorial class, as shown in Figure 3.5 above,

students in the control group were asked to perform the existing behavioristic role

plays. First, students were engaged in role play 1, they were told to watch the role

play video on the NHCE e-learning by the researcher. Second, they chose a role to

start the role play activity and then, they began the role play by reading the role

scripts out. Next, they continued doing role play 2 and role play 3. After they finished

all the three role plays, they were asked to finish the existing fill-in-the-blank quiz on

the NHCE e-learning to check whether they can perform according to the learning objectives. The behavioristic computer lab class is simply a channel for manuscript presentation for the pre-described set of speaking materials. It has no clear instruction with necessary task statement to the role play. It provides the platform for students to practice speaking without interactions among themselves. Students came to class and sit in front of the computer and kept reading the same speaking materials out from the screen and they passively practice speaking at a low cognitive level without scaffoldings provided by the teacher.

However, as presented in Figure 3.6 below, after students finished the tutorial class, students in the experimental group were asked to perform the constructive role plays. The constructive computer lab class provides the platform for students to practice speaking by interacting with their classmates actively. It is an interactive instrument for text presentation and learners' interactions.

```
┌─────────────────────┐
│ Language input from │
│    tutorial class   │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐      ┌──────────────────────────────────┐
│ Role play instructions │──▶ │ 1.  Purpose of each role play.   │
└─────────────────────┘      │ 2.  Choose a role.               │
          │                  │ 3.  Enter into the chatroom.     │
          ▼                  └──────────────────────────────────┘
┌─────────────┐    ┌────────────────────────────────┐
│ Role play 1 │──▶ │ Watch the Video and the scripts │
└─────────────┘    └────────────────────────────────┘
                                      │
                                      ▼
                        ┌──────────────────────────────┐
                        │ Start the role play. Act the │
                        │ role out through chatroom    │
                        │ with another partner.        │
          ┌────────────────────────────────────────┐  └──────────────────────────────┘
          │ Scaffolding: assistance from the teacher │◀─
          │ and/or interactions among students.      │
          └────────────────────────────────────────┘
          │
          ▼
┌─────────────┐    ┌────────────────────────────────┐
│ Role play 2 │──▶ │ Watch the Video and the scripts │
└─────────────┘    └────────────────────────────────┘
                                      │
                                      ▼
                        ┌──────────────────────────────┐
                        │ Start the role play. Act the │
                        │ role out through chatroom    │
          ┌──────────────────────────────────────────┐│ with another partner.        │
          │ Scaffolding: assistance from the teacher  │└──────────────────────────────┘
          │ and/or interactions among students.       │◀─
          └──────────────────────────────────────────┘
          │
          ▼
┌─────────────┐    ┌────────────────────────────────┐
│ Role play 3 │──▶ │ Watch the Video and the scripts │
└─────────────┘    └────────────────────────────────┘
                                      │
                                      ▼
                        ┌──────────────────────────────┐
          ┌──────────────────────────────────────────┐│ Start the role play. Act the │
          │ Scaffolding: assistance from the teacher  ││ role out through chatroom    │
          │ and/or interactions among students.       ││ with another partner.        │
          └──────────────────────────────────────────┘└──────────────────────────────┘
          │
          ▼
┌──────────────────────────────────────────┐
│ ➢  More discussions with the teacher and/or │
│    with other students.                     │
│ ➢  Student online learning logs.            │
└──────────────────────────────────────────┘
```

Figure 3.6: Instructional Analysis of Constructive Role Plays for the

       Experimental Group

From Figure 3.6 above, firstly, students were provided the instructions with role play tasks from the teacher to make sure they get better understanding towards what they were going to do, and also, this instruction would provide students opportunities to think creatively before they really began to work out the role play.

Secondly, students were told to enter the chatroom, and then, they began role play 1, they watched the role play video and the role scripts again, next, they started performing the role play by acting the role that they chose out with another partner. Before they moved to the next part, they could propose questions, provide opinions, and ask the teacher for help verbally or through the discussion forum. Next they continued to do role play 2 and role play 3, after finished those three role plays, they were told to write the online learning logs and discussed with the teacher or other classmates again to gather their feedback towards the constructive role plays via e-learning.

As mentioned in Chapter 1, the major difference between the constructive role plays and the behavioristic role plays rest on its instructional design on how to carry out role play activities (see Appendix K for an example). Based on the above instructional analysis, in the present study, four differences between the existing behavioristic role plays and the constructive role plays are as follow: first, in every unit, each role play activity is a task provided with clear task instructions, which is important in constructive learning process as mentioned in Chapter 2, learners can be actively involved in the whole learning process by thinking about what they would like to learn rather than passively accept what the teacher teaches. Second, the procedures of constructive role plays provide students chances to construct knowledge, from both their previous studies and their real-life situations. Third, the scaffolding in constructive role plays provide the opportunities for students to ask questions to the teacher and/or discuss with other classmates, students get on-line or off-line

interactions with other classmates in stead of sitting in front of the computer, reading the role scripts out, and recording the sound. Fourth, teacher logs and student online learning logs provide the opportunity for the teacher to get further informative data from students opinions towards the utilization of constructive role plays via e-learning.

3.5 Data Analysis

This section discusses the methods for data analysis employed in the present study. Data obtained from the 18-week experiment on speaking pretest and post-test scores were presented in terms of quantitative analysis, while data obtained from student role play recording language analysis, teacher logs, student questionnaires, student interviews, and student online learning logs were presented in terms of qualitative analysis.

3.5.1 ANOVA

Prior to the instruction, students' mean scores on speaking pretest were analyzed to see if there were any significant differences among students' speaking proficiency (high, medium, low) level and groups (experimental/control). Analysis of Variance (ANOVA) – One-way in General Linear Model in Statistical Package in Social Science (SPSS) was calculated.

3.5.2 T-test

Paired samples t-test was calculated to compare the participants' mean scores on the pretest and post-test. The purpose is to see whether there are statistical

significant differences between students' pretest and post-test scores, thus, to decide effects on improving speaking performances of students with different levels of proficiency.

3.5.3 Qualitative Analysis

Data collected from student questionnaires, student interviews, teacher logs, student role play recording, and student online learning logs were analyzed qualitatively to find out further information to the implementation of constructive role plays via e-learning, and to investigate what opinions students have towards the utilization of constructive role plays via NHCE e-learning in their college English speaking classes.

3.6 The Pilot Study

Lancaster, Dodd, and Williamson (2004) defined a pilot, or feasibility study, as a small experiment designed to test logistics and gather information prior to a larger study, in order to improve the latter's quality and efficiency. A pilot study can reveal deficiencies in the design of a proposed experiment or procedure and these can then be addressed before time and resources are expanded on large scale studies. Beatty (2003) pointed out that pilot studies are typically done with small groups of subjects and serve to test the methodology as well as a hypothesis or hypotheses. A pilot study may address a number of logistical issues. As part of the research strategy the following features can be resolved prior to the main study: 1) check that the

instructions given to investigators are comprehensible; 2) check that investigators and technicians are sufficiently skilled in the procedures; 3) check the correct operation of equipment; 4) check the reliability and validity of results. The information obtained on logistical issues should be incorporated into the main study design. As the purpose of a pilot study is to assess the feasibility of an experiment, therefore, the purpose of this pilot study in the present study is to check whether or not the following items are appropriate for the main study, they are: 1) the number of participants; 2) teaching procedures; 3) instructional analysis; 4) constructive role plays; 5) speaking pretest and post-test; and 6) statistical and qualitative methods.

3.6.1 Participants

Ten second-year non-English majors from college English course of level 4 at Guizhou University participated in the pilot study. They were in their first semester of the 2008-2009 academic year. The participants were selected on the basis of convenience and availability. According to the background information questionnaires, from SPSS calculation, for the first question about language learning experiences, 60% of the participants have been learning English for 6-8 years.

Table 3.5: Summary of Students' Years of English Study

Categories	Frequency	Percent	Valid Percent	Cumulative Percent
less than 6 years	1	10.0	10.0	10.0
6-8 years	6	**60.0**	60.0	70.0
more than 8 years	3	30.0	30.0	100.0
Total	10	100.0	100.0	

From question 3 to question 7 of the students' background information questionnaires, results were as follow. First, all of the students answered that they knew NHCE e-learning and 60% of the students answered that they knew role play activities. However, 90% of the students reported that they were somewhat familiar with the role play activity. Second, all of the students reported that in the speaking class, they rarely used e-learning role plays to practice their speaking and only 1 student reported with frequently practicing English speaking after class.

3.6.2 Speaking Pretest

Participants were required to take the pretest, and as mentioned before, scores from the pretest were used as a part of the criteria to divide them into three groups in terms of language proficiency levels. It was held on January 14th, 2009. Two examiners conducted the test for the researcher by using CET-SET past test, topic A, city traffic, which belongs to the city life unit, was chosen to be used (see Appendix F). From the analysis of one-way ANOVA between the experimental group and the control group, as shown in Table 3.6, there was no significant difference between the two groups in terms of students' language proficiency (F = 0.891, p = 0.600 > 0.05).

Table 3.6: Comparison of Speaking Pretest Scores between the Experimental Group

and the Control Group in terms of Students' Language Proficiency Levels

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	14.250	2	7.125		
Within groups	8.000	1	8.000	.891	.600
Total	22.250	3			

The grouping details of the high proficient, medium proficient, and low proficient students were presented in Table 3.7. After the pretest, two participants were excluded from the data collection, as explained in section 3.2.1, because their two z scores were in different proficient levels, and it is difficult to tell which group they belonged to. All in all, 8 students were randomly assigned into an experimental group of 4 students and a control group of 4 students.

Table 3.7: Summary of Grouping Details according to *z* Scores

No.	Name	*z* score 1	*z* score 2
1	S1*	1.337 HP1**	1.468 HP1
2	S2	1.176 HP2	1.24 HP2
3	*S3*	*1.016 HP*	*-0.35 MP*
4	*S4*	*0.775 MP*	*1.012 HP*
5	S5	0.294 MP 1**	-0.35 MP 1
6	S6	-0.03 MP 2	-0.35 MP 2
7	S7	-0.43 MP 3	-0.35 MP 3
8	S8	-0.59 MP 4	-0.58 MP 4
9	S9	-0.83 MP 5	-0.58 MP 5
10	S10	-1.71 LP 1**	-1.49 LP 1

* S: Student
** HP-High Proficient; MP-Medium Proficient; LP-Low Proficient

3.6.3 Procedures

The instruction began on the next day after the pretest. During the pilot study, the participants learned Unit 8 "*on or off campus*". The researcher uploaded the role play instructions (see Appendix I) on the NHCE e-learning and after finishing with the language input in the tutorial class, participants in the experimental group were required to act the role out through the NHCE e-learning's chatrooms, while the participants in the control group were asked to read the role scripts out in front of the computer in the computer lab class. All of the participants' conversations were

recorded by the e-learning system automatically. On January 16th, 2009, all of the participants were required to take the speaking post-test. The same examiners conducted the test for the researcher by using sub-topic B, traffic accident, in the same CET-SET main topic area. All the post-test scores were put into the SPSS program to compare means with their pretest scores.

3.6.4 Results of the Pilot Study

The results of the pilot study were presented as follow in two sections. The first section presented the quantitative comparison between the speaking pretest and post-test scores by using statistical methods and the report of qualitative analysis from student role play recording analysis. The second section reports the results of the data elicited through student questionnaires and student interviews.

3.6.4.1 Comparison between the Speaking Pretest
and Post-test Scores

As shown in Table 3.8, from the paired samples t-test analysis, the mean scores of the post-test between the control group and the experimental group were 9.2500 and 11.0000 respectively. In the experimental group, there was a statistical significant difference between the two tests scores because the *p* value was 0.015 which was lower than 0.05 (p = 0.015 < 0.05). However, in the control group, there was no significant difference between the two tests scores because the *p* value was over 0.05 (p = 0.391 > 0.05), and the mean scores of the pretest and the post-test were nearly the same (9.1250/9.2500).

Table 3.8: Comparison between the Two Tests Scores

between the Experimental Group and the Control Group

Group	Scores	Mean	SD	n	df	t	Sig.
EG*	Pretest	9.2500	2.72336	4	3	**-5.000****	**.015**
	Post-test	11.0000	2.78014				
CG*	Pretest	9.1250	1.60078	4	3	1.000	.391
	Post-test	9.2500	1.84842				

* EG: Experimental Group; CG: Control Group
** t value of experimental group is significant at the 0.05 level (2-tailed)

3.6.4.2 Results of Student Role Play Recording Analysis

From the language analysis of students' role play recordings of the experimental group on NHCE e-learning system, students substituted certain parts – words and sentences – from the original conversations to carry out constructive role plays. The examples were presented as follow.

Example 1

	Original role play		Constructive role play
D*:	Max, do you have the key? My hands are full.	S1*:	XX**, do you have the key? My hands are full.
M*:	No. Sorry.	S2:	No. Sorry.
D:	I thought you were going to pick up the key from the landlord.	S1:	I thought you were going to pick up the key from XX.
M:	***I certainly did not. I thought you were going to do that.***	S2:	***Why me? I think it's you.***
D:	Not me, you. I arranged for the ***truck***, and you were to pick up the key.	S1:	Not me, you. I arranged for the ***motorcycle***, and you were to pick up the key.
M:	I hate to say it, ***but I think you're right. It***	S2:	I hate to say it, ***but I agree with you.***
D:	***slipped my mind.***	S1:	***Seems*** like we're not getting in today.
M:	***Looks*** like we're not getting in today.	S2:	***Oh, I am so sorry.***
D:	***Sorry. It's all my fault.***		

* D: David   M: Max   S: Student

Example 2

	Original role play		**Constructive role play**
D*:	Max, do you have the key? My hands are _**full**_.	S3*:	XX**, have you got the key? My hands are _**not available**_.
M*:	_**No. Sorry.**_	S4:	_**No. I don't have the key.**_
D:	I thought you were going to pick up the key from the landlord.	S3:	I thought you were going to pick up the key from the landlord.
M:	_**I certainly did not. I thought you were going to do that.**_	S4:	_**You didn't tell me. I thought you would do it.**_
D:	Not me, you. I arranged for the truck, and you _**were to**_ pick up the key.	S3:	Not me, you. I arranged for the truck, and you _**should**_ pick up the key.
M:	I hate to say it, _**but I think you're right. It**_	S4:	_**I have to say you are right.**_
D:	_**slipped my mind.**_	S3:	Looks like we're not getting in today.
M:	Looks like we're not getting in today.	S4:	_**Sorry about that.**_
D:	_**Sorry. It's all my fault.**_		

* D: David   M: Max   S: Student

** Note: the present study does not include the changes of personal names.

Data elicited from students' role play recordings showed that students substituted some parts from the original conversations in terms of uttering new words and varying sentence structures to perform constructive role plays, for example:

S1: "_I arranged for the motorcycle._"
     (Original: I arranged for the truck)
     "_Seems like ..._"
     (Original: Looks like …)

S3: "_...my hands are not available._"
     (Original: …my hands are full.)
     "_…and you should pick up the key._"
     (Original: …and you were to pick up the key.)

S4: "_No, I don't have the key._"
     (Original: No. Sorry.)
     "_Sorry about that._"
     (Original: Sorry, it's all my fault.)

S2: "_Why me? I think it's you._"
     (Original: I certainly did not. I thought you were going to do that.)
     "_...but I agree with you._"
     (Original: …but I think you are right …)

From the examples above, students could apply knowledge from the tutorial classes and from their previous studies when working out constructive role plays.

They could substitute new words and vary the original sentences to generate similar ones to form new conversations actively and successfully. It indicates that constructive role plays via e-learning have positive effects on improving speaking performances of students with different levels of proficiency.

3.6.4.3 Results of the Student Questionnaires

Generally speaking, data elicited from student questionnaires show that students delivered supportive opinions towards the implementation of constructive role plays via e-learning in speaking classes because all of the students agreed that constructive role plays via e-learning made learning to speak English more enjoyable, and all of them reported that the instructions before performing role plays are necessary. As shown in Table 3.9 below, 75% of the students agreed that constructive role plays via e-learning offered them useful information on how they should speak English and 50% of the students suggested that constructive role plays via e-learning should be utilized more in speaking classes.

However, there were 75% of the students who reported that they felt shy and/or hesitant when performing the constructive role plays via e-learning in class. And 25% of the students expressed that they felt nervous when they performed constructive role plays with their partners. There were 25% of the students who agreed that the time was not enough for them to act the role out in class.

Table 3.9: Responses from Student Questionnaires on the Likert-scale (N=4)

Item	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. The instruction before performing constructive role plays via e-learning is necessary.构建型角色扮演活动开始前的说明部分是必要的	**100%**	0%	0%	0%	0%
2. The constructive role plays via e-learning are interesting.构建型角色扮演活动是有趣的	0%	75%	25%	0%	0%
3. The constructive role plays via e-learning make learning to speak English enjoyable.构建型角色扮演活动使得口语课堂生动有趣	**75%**	**25%**	0%	0%	0%
4. The constructive role plays via e-learning offer me useful information on how I can speak idiomatic English.构建型角色扮演活动给我提供了关于英语口语习语的有用信息	**25%**	**50%**	25%	0%	0%
5. The constructive role plays via e-learning help me generate similar conversations easily.构建型角色扮演活动有助于我容易地构建出其他类似对话	0%	75%	25%	0%	0%
6. The constructive role plays help me improve my speaking performance.构建型角色扮演活动有助于我的口语技能的提高	0%	75%	25%	0%	0%
7. The constructive role plays via e-learning motivate me to practice more.构建型角色扮演活动激励我更多的参与口语训练	0%	75%	25%	0%	0%
8. The constructive role plays via e-learning should be utilized more in speaking classes.构建型角色扮演活动应该在口语课堂上多使用	0%	**50%**	50%	0%	0%
9. I feel shy and/or hesitant when performing the constructive role plays via e-learning. 角色扮演时我感到害羞、结结巴巴	**25%**	**50%**	25%	0%	0%
10. I feel nervous when I act the role out with my partner via e-learning.在和同伴表演对话的时候我感到紧张	0%	**25%**	25%	50%	0%
11. I find that time is not enough for me to act the role out in class.我觉得每堂课上老师规定的角色扮演时间不够用	0%	**25%**	75%	0%	0%
12. I prefer reading out the role script to acting the role out with a partner.我更喜欢读出角色的台词而不喜欢和同伴进行角色表演	0%	0%	75%	25%	0%

3.6.4.4 Results of the Student Interviews

4 students (2 male students and 2 female students) were randomly chosen to conduct the interviews for more informative data. In general, interviewees delivered positive opinions towards the implementation of constructive role plays via e-learning because there were 75% (or 3) of the interviewees who agreed that constructive role plays via e-learning could motivate them to practice more in class.

They reported that: "*we are actively involved in the classroom learning instead of passively accepting what the teacher taught*".

However, one interviewee expressed her disagreement towards the utilization of e-learning constructive role plays because she reported that she still preferred listening and reading activities and she was not sure whether constructive role plays could really help her to improve her speaking or not. Furthermore, she mentioned that she felt rather nervous when performing constructive role plays via e-learning in speaking classes.

3.6.5 Limitations of the Pilot Study and Some Implications for the Main Study

There are two main limitations of the pilot study. First, it was the end of the first semester of the 2008-2009 academic year at Guizhou University, because of the short period of time between the speaking pretest and the speaking post-test, and students were very busy with their final examinations, as a result, there was no chance for the researcher to conduct the teacher logs and student online learning logs to get further informative data. In the main study, the two instruments were importantly applied to get further informative data during 18-week instruction for the qualitative analysis.

Second, students' post-test scores in the pilot study might be influenced by their pretest ones because of the short period of time between these two tests, students might still remember what they have talked about in their pretest and they might try to speak better in their post-test. However, in the main study, will take 18 weeks of instruction, this problem may not affect students' performance on the speaking post-test.

Several implications from the pilot study can be summarized as: 1) the use of z scores to classify students into three groups in terms of language proficiency is suitable; 2) the implementation of national CET-SET as speaking pretest and post-test is suitable and exercisable; and 3) the use of both English and Chinese in student questionnaires is appropriate because students have no difficulty understanding each item. However, there are some items, especially in the open-ended questions, which need more revisions based on experts' suggestions for better understanding;

3.7 Summary of Chapter 3

In sum, this chapter discusses the research methodology employed in the present study. To examine the utilization of constructive role plays via e-learning on students' L2 speaking performance in college English classes, quantitatively, paired samples t-test was employed to analyze students' scores on the speaking pretest, post-test and the differences between the experimental group and the control group. Teacher logs, student role play recording language analysis, student questionnaires, student interviews, and student online learning logs were employed qualitatively to investigate students' improvements in speaking performances and their opinions on the implementation of constructive role plays via NHCE e-learning in English speaking classes. This chapter concludes with the description of the pilot study. The next chapter will present the research results and research findings in details.

CHAPTER 4

RESEARCH RESULTS

This chapter presents the results of the present study in response to the two research questions. It also presents the research findings to test the two hypotheses postulated in Chapter 1. This chapter is divided into two sections. The first section deals with the quantitative analysis of the participant's performance on the speaking pretest and post-test scores by using statistical methods and the report of qualitative analysis from teacher logs and student role play recording language analysis. The second section reports the results of the data elicited through student questionnaires, student interviews, and student online learning logs on both quantitative and qualitative perspectives.

4.1 Results of Speaking Pretest

300 participants were pretested, as introduced in 3.2.1 of Chapter 3, the scores from the pretest were employed as a part of the criteria to divide participants into three groups in terms of students' language proficiency levels. The grouping details of the high, medium, and low proficient students were illustrated in Table 4.1 below.

Table 4.1: Summary of Students' Classifications in terms of Proficiency Level

Proficiency level	Numbers of Students
High	29 (EG*:14; CG*: 15)
Medium	193 (EG: 97; CG: 96)
Low	38 (EG: 19; CG: 19)

* EG: Experimental Group; CG: Control Group

Furthermore, from the statistical analysis of one-way ANOVA between the experimental group and the control group, as elicited in Table 4.2 below, there was no significant difference on the speaking pretest scores between the two groups in terms of students' language proficiency levels because the 0.955 p value was higher than 0.05 (F = 0.324, p = 0.955 > 0.05).

Table 4.2: Comparison of Speaking Pretest Scores between the Experimental

Group and the Control Group in terms of Students' Proficiency Levels

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.830	8	.229		
Within Groups	85.402	121	.706	**.324**	**.955**
Total	87.233	129			

After the pretest, 39 participants were excluded from the data collection because their two z scores (former English final examination scores and the speaking pretest scores) fell in different proficient levels, and it was difficult to determine which group they belong to. In addition, there was one student who missed one of the two speaking tests, and the data from this student was also excluded from the data analysis. All in all, 260 students were randomly assigned into an experimental group of 130 students and a control group of 130 students.

4.2 Results of Speaking Post-test

In response to the first research question: "*Do constructive role plays have any positive effects on improving speaking performance of students with different levels of proficiency?*" the speaking post-test scores were compared with the pretest scores to determine the effects after the implementation of constructive role plays via e-learning. The analysis of the results was considered as the first evidence to the answer, so as to test Hypothesis 1 proposed in Chapter 1.

After the 18-week experiment on implementing constructive role plays via e-learning, all of the 260 participants were post-tested. As presented in Table 4.3 below, from the statistical analysis of the paired samples t-test, the mean scores of the post-test of the experimental group and the control group were 10.481 and 8.957 respectively.

Table 4.3: Comparison between the Two Tests Scores between the Experimental

Group and the Control Group

Group	Scores	Mean	SD	n	df	t	Sig.
EG*	Pretest	8.912	.8223	130	129	**-18.113****	**.000**
	Post-test	10.481	1.4895				
CG*	Pretest	8.935	.8454	130	129	-.199	.842
	Post-test	8.957	.7745				

* EG: Experimental Group; CG: Control Group
** t value of experimental group is significant at the 0.05 level (2-tailed)

In the experimental group, there was a statistically significant difference between the two speaking tests scores because the 0.000 p value was less than 0.05 (p = 0.000 < 0.05), and the mean scores of the post-test (10.481) was higher than that of

the pretest (8.912). However, in the control group, there was no statistically significant difference between the two speaking tests scores because the *p* value was higher than 0.05 (p = 0.842 > 0.05), and the mean scores of the pretest and the post-test were nearly the same (8.935/8.957). When comparing the speaking post-test scores with the pretest scores of the experimental group, there was a significant difference between the two tests in terms of students' mean scores. It signifies that students in the experimental group noticeably improved on their speaking performance. However, in the control group, the mean scores of the two tests were nearly the same. It indicates that students rarely improved their speaking during the 18-week study.

Furthermore, from the paired samples t-test of the speaking post-test scores between the control group and the experimental group, as shown in Table 4.4 below, there was a statistically significant difference between the two scores because the *p* value was 0.000 which was lower than 0.05 (p = 0.000 < 0.05), and the post-test mean scores of the experimental group (10.481) was much higher than that of the control group (8.957). It specifies that students in the experimental group achieved an improvement on their speaking performance after the 18-week experiment.

Table 4.4: Comparison of the Post-test Scores between the Control group and the Experimental Group

Group	Scores	Mean	SD	n	df	t	Sig.
CG*	Post-test	8.957	.7745	130	129	**-10.362****	**.000**
EG*	Post-test	10.481	1.4895	130	129		

* CG: Control Group; EG: Experimental Group
** t value is significant at the 0.05 level (2-tailed)

In addition, in the light of different language proficiency levels, from the paired samples t-test of the experimental group, as presented in Table 4.5 below, the post-test mean scores for each level (high/medium/low) were 12.786/10.546/8.447 respectively, which were higher than the pretest mean scores (10.536/8.918/7.684). The *p* values were all less than the significant level (0.05). The mean scores of the three groups' pretest and post-test performance were significantly different, which suggests that students' speaking performance with different language proficiency levels improved after the implementation of constructive role plays via e-learning.

Table 4.5: Comparison between Two Tests Scores among High, Medium

and Low Proficiency Level in the Experimental Group

Proficiency level	Scores	Mean	n	df	t	Sig.
High	Pretest	10.536	14	13	**-12.022***	**.000**
	Post-test	12.786				
Medium	Pretest	8.918	97	96	**-16.331***	**.000**
	Post-test	10.546				
Low	Pretest	7.684	19	18	**-5.091***	**.000**
	Post-test	8.447				

* t values are significant at the 0.05 level (2-tailed)

To sum up, in the experimental group (N=130), there was a statistically significant difference between the two speaking tests scores (p = 0.000 < 0.05), and the mean scores of the post-test (Mean=10.481, SD=1.4895) was much higher than that of the pretest (Mean=8.912, SD=0.8223). However, in the control group (N=130), there was no significant difference between the two speaking tests scores (p = 0.842 > 0.05), and the mean scores of the pretest (Mean=8.935, SD=0.8454) and the post-test (Mean=8.957, SD=0.7745) were nearly the same (see Table 4.3).

Additionally, students in the experimental group with different language proficiency levels noticeably improved on their speaking performance because the speaking post-test mean scores for each level – high, medium and low – were higher than the pretest mean scores (see Table 4.5). And the *p* values were all less than the significant level (0.05). However, students in the control group rarely improved their speaking during the 18-week study because there was no statistically significant difference between the two speaking tests scores from the data analysis, and the mean scores of the two tests were nearly the same (see Table 4.3).

4.3 Results of Teacher Logs

Results of teacher logs in the present study served as the second evidence to answer the first research question qualitatively. The researcher, as the course instructor, was the only person who did the teacher logs for every class time during the learning and teaching process, participated in the 18-week teaching for the experimental group, and investigated students' improvements on their speaking. Based on the 18-week experiment time frame, as mentioned in Chapter 3, the teacher logs were divided into three phases, 6-week for each phase, in order to examine and observe students' behaviors from the three phases and for the qualitative data analysis. The observation logs can be summarized and classified into three phases for data analysis as presented in Table 4.6 below.

Table 4.6: Summary of Teacher Logs

Phase	Summary of Observations
1. **In the beginning** (Week 1 – Week 6) (Pre-treatment period)	In the beginning, students hardly knew how to do role plays in the speaking class. Followed the researcher's instructions and assistance, as a part of scaffolding, on the constructive role plays, students began to understand how to do the role plays via e-learning. Step by step, students began to show their enthusiasm on doing role plays in the speaking class.
2. **In the middle** (Week 7 – Week 12) (During treatment period)	Students continued showing their enthusiasm on doing constructive role plays via e-learning. Some students who reported in the needs analysis questionnaires that they did not like performing role plays on the existing NHCE e-learning even changed their minds to join the groups on acting out the constructive role plays actively. They began to know how to apply their knowledge by recalling from their previous studies and utilized them in this class, imitating the existing role plays to create similar ones, and they cooperated well with other classmates.
3. **In the end** (Week 13 – Week 18) (Post treatment period)	Students did the role plays smoothly and successfully by substituting new words, creating new sentences with the same meaning. They enjoyed the speaking classes, and the atmosphere in class was quite flexible, relaxed and active. There were more interactions among students themselves and between the students and the teacher. They even suggested that they should do more role plays not only just in the speaking classes.

In the beginning phase, or the pre-treatment period (week 1 – week 6), students hardly knew how to carry out the role plays, especially for constructive role plays via e-learning, from their reports in the needs analysis questionnaires administered at Guizhou University by the researcher, it is likely that the majority of the students agreed that they have not learned much from the existing NHCE e-learning in terms of speaking, and that, from their previous studies, their teachers hardly used role plays via e-learning in speaking classes. The existing role plays are not what students expected because those role plays only ask students to read the role scripts out repeatedly, students keep repeating the same materials passively. However, step by step, students began to show their interests in performing constructive role

plays in speaking classes. They actively participated in the whole learning process. After the researcher provided them with the role play instructions and tasks, most of the students began to think creatively on how to carry out those role plays. They tried to recall the knowledge from the tutorial class and from their previous studies to produce constructive role plays actively. Followed such assistances as conversation strategy introduction, language input and comments on language use in each role play, which provided by the researcher, students knew how to perform constructive role plays via e-learning gradually.

In the middle phase, or the during treatment period (week 7 – week 12), after the researcher had utilized constructive role plays via e-learning for 6 weeks, students continued showing their interests in performing constructive role plays. There were certain students who changed their opinions by discussing more and showing their actions in the speaking classes while they actively participated in performing role plays. However, some problems occurred in this phase. For example, certain students with medium and low proficient levels reported that: "*we don't know whether the words we have chosen for changing in the dialogue are correct or not*". After discussed with the teacher, followed the assistances and helps on how to perform role play tasks effectively, and/or how to substitute words and vary sentences correctly as provided by the teacher, student tried their best to solve those problems by recalling knowledge from their previous studies, searching the Internet for more information and discussing among themselves. They could construct new knowledge

from their learning experiences. Moreover, the researcher observed such situations which student encountered with as broken computer system, broken microphones and unstable connection of the Internet. After contacting with the computer center in the university, the problems were solved and students could concentrate on performing constructive role plays regularly.

In the end phase, or the post treatment period (week 13 – week 18), students with different language proficiency levels enjoyed the speaking classes. There were some students with the high proficiency level once told the researcher that: "*For some of the low proficient students, they never listened to the teacher in previous English speaking classes, now they changed their attitudes to actively joined in acting out constructive role plays in speaking classes, this class really motivated them to learn more. They became more active in the classroom*". In the light of the students' feedbacks, it indicates that the constructive role plays motivate students with different language proficiency levels to speak more in speaking classes and they enjoy the process of actively constructing knowledge instead of passively accepting what the teacher taught. Moreover, with the instructions on role play tasks and assistances from the researcher as part of the scaffolding, for example, how to perform role play effectively, how to correctly choose word to substitute the original conversation and how to vary the sentences in terms of length and structure, the class atmosphere was quite relaxing and enjoyable, there were more interactions among students themselves or between the students and the teacher, and they could ask for helps verbally or

through the e-learning system from the teacher or other classmates whenever they met some difficulties. Students felt they were in the center of the whole learning and teaching process. It was them who made learning to speak English enjoyable, and students with different language proficiency levels felt more interested in applying as much knowledge as possible from what they have learnt from the tutorial class and from their previous studies to work out constructive role plays via e-learning. Students cooperated with each other well and they could apply the knowledge from the tutorial classes and their previous studies to perform the role plays smoothly and successfully by substituting words and varying sentences. The supports of the above observations can be found from student role play recording language use analysis in the following section.

4.4 Results of Student Role Play Recording Language Analysis

As introduced in 3.2.3.5 of Chapter 3, student role play recording language analysis in the present study refers to the spoken language use analysis. It helps the researcher examine how students acquire new knowledge when performing constructive role plays via e-learning with other classmates. In the present study, from the previous introduction, two main types of language modifications, occurrence of word substitutions and sentence variations, were regarded as the third evidence to answer the first research question, so as to testify the first hypothesis. Based on the data found in the teacher logs, from a comparison of the first phase (in the beginning) speaking and the third phase (in the end) speaking from the language analysis of

students' recordings in the experimental group, students could apply knowledge from what they learnt from the tutorial class and from their previous speaking classes to perform the role plays by substituting words and varying sentences (see Table 4.7).

Table 4.7: Summary of Student Role Play Recording Analysis in the

Experimental Group

Types of language modification	Average percentages of occurrence*
Word substitutions	83.6%
Sentence variations	86.8%

* Note: the total number of students is 130

From the student role play recording language analysis, in the experimental group, there were 83.6% of the students with different language proficiency levels who substituted words from the original conversations to perform the constructive role plays. However, students in the control group did not produce much because they read the original role play scripts out. The examples were shown as follow.

Example 1

Original role play		Constructive role play	
D*:	Hi, my name is David. ***But*** you can call me Dave.	S1*:	Hi, my name is XX. ***And*** you can call me XX.
L*:	It's nice to meet you, Dave. My name is Laura.	S2:	Nice to meet you, XX. My name is XX.
D:	***Nice*** to meet you, too, Laura.	S1:	***Glad*** to meet you, too, XX.
L:	I'm a ***freshman*** here. ***What*** about you?	S2:	I'm a ***new student*** here. ***How*** about you?
D:	Me, too. I'll have my first class ***this afternoon***.	S1:	Me, too. I'll have my first class ***tomorrow morning***.
L:	What class is that?	S2:	What class is that?
D:	English ***course*** with Doctor Smith.	S1:	English ***class*** with XX.
L:	Oh, really? We're going to be in the same class!	S2:	Oh, really? We're going to be in the same class!
D:	Oh, that's great!	S1:	Oh, that's great!

* D: David   L: Laura   S: Student

Example 2

Original role play		Constructive role play	
N*:	**_Hi_**, Dave.	S7*:	**_Hey_**, XX.
D*:	**_Hi_**, Nancy.	S8:	**_Hello_**, XX.
N:	You look like you're on cloud nine!	S7:	You look like you're on cloud nine!
D:	I can't believe it! I got an A on my **_biology_** test!	S8:	I can't believe it! I got an A on my **_English_** test!
N:	That's **_great_**! Congratulations!	S7:	That's **_amazing_**! Congratulations!
D:	Thanks. I'm **_so_** excited! I really **_worked_** hard for that.	S8:	Thanks. I'm **_very_** excited! I really **_studied_** hard for that.
N:	I know you did. You deserve it.	S7:	I know you did. You deserve it.

* D: David   N: Nancy   S: Student

Example 3

Original role play		Constructive role play	
D*:	Nancy, what are you planning to do this weekend?	S9*:	XX, what are you planning to do this weekend?
N*:	I haven't **_made_** any plans yet. You got any good ideas?	S10:	I haven't **_got_** any plans yet. You got **_anything_**?
D:	I want to **_get_** away from the rat race of life on campus for a while. **_How_** about going to the **_National Park_** on **_Saturday_**? We could invite Laura, Tony...	S9:	I want to **_be_** away from the rat race of life on campus for a while. **_What_** about going to **_Huaxi Park_** on **_Sunday_**? We could invite XX...
N:	Sounds **_great_**! And what do you think we will do there? Maybe some **_hiking_**, and...	S10:	Sounds **_wonderful_**! And what do you think we will do there? Maybe some **_jogging_**, and...
D:	Barbecue. We could roast **_hot dogs_** and **_hamburgers_** over a fire!	S9:	Barbecue. We could roast **_meat_** and **_vegetable_** over a fire!
N:	Good idea!	S10:	Good idea!

* D: David   N: Nancy   S: Student

Example 4

Original role play		Constructive role play	
D*:	What are your plans for the **_winter vacation_**, Nancy?	S13*:	What are your plans for the **_summer holiday_**, XX?
N*:	I don't know. I guess I'll just try to relax -- it'll be good to forget about **_school_** for a couple of weeks!	S14:	I don't know. I guess I'll just try to relax -- it'll be good to forget about **_study_** for a couple of weeks!
D:	I agree. That's why Laura and I are **_heading south_** for the vacation. How would you like to join us?	S13:	I agree. That's why XX and I are **_going north_** for the vacation. How would you like to join us?
N:	Sounds like it would be a whole lot better than hanging out **_here_**. It would be a nice escape from the **_cold_** weather.	S14:	Sounds like it would be a whole lot better than hanging out **_at school_**. It would be a nice escape from the **_hot_** weather.
D:	Then, would you like to join us?	S13:	Then, would you like to join us?
N:	Mmm, that's a **_great_** idea.	S14:	Mmm, that's a **_good_** idea.

* D: David   N: Nancy   S: Student

To be more specific, from the analysis of the recordings, as presented in the following examples, students with high, medium and low proficiency levels in the experimental group uttered words by substituting synonyms for the original ones.

S1 (LP*):   "***Glad** to meet you.*"
               (Original: **Nice** to meet you)

S10 (LP*): "*I haven't **got** ...*"
               (Original: I haven't **made** …)

S7 (MP):   "*That's **amazing**.*"
               (Original: That's **great**.)

S2 (HP*): "***new student***"
               (Original: **freshman**)

*Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Besides students changed words by substituting synonyms, they also verbalized words by substituting antonyms for the original words, for example:

S1 (LP*):   "*I'll have my first class **tomorrow morning**.*"
               (Original: I'll have my first class **this afternoon**.)

S14 (MP*): "*... the **hot** weather*"
               (Original: … the **cold** weather)

S13 (HP*): "*What are your plans for the **summer holiday**...?*"
               (Original: What are your plans for the **winter vacation**, Nancy?)

*Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Additionally, some students with high, medium and low proficiency levels also substituted words by altering them into other proper nouns, for example:

S10 (LP*): "*Maybe some **jogging**, ...*"
               (Original: Maybe some **hiking**, …)

S9 (MP*):   "*... going to **Huaxi Park** on **Sunday?***"
               (Original: … going to **National Park** on **Saturday**?)
               "*We could roast **meat and vegetable** ...*"
               (Original: We could roast **hot dogs and hamburgers** …)

S8 (HP*):   "*I got an A on my **English** test!*"
               (Original: I got an A on my **biology** test!)

*Note: MP – Medium Proficient; HP – High Proficient

Furthermore, there were 86.8% of 130 students with high, medium and low language proficiency levels in the experimental group who produced different sentences in terms of the length and the structure in the conversations to carry out constructive role plays as presented in the following examples.

Example 1

Original role play	**Constructive role play**
N*: Hi, Dave.	S23*: Hi, XX.
D*: **_Hi, Nancy._**	S24: **_Hey, XX._**
N: **_You look like you're on cloud nine!_**	S23: **_Wow, why are you so happy_**?
D: **_I can't believe it!_** I got an A on my biology test!	S24: **_Am I in my dream_**? I got an A on my biology test!
N: **_That's great! Congratulations!_**	S23: **_Congratulations! You did a good job!_**
D: Thanks. **_I'm so excited! I really worked hard for that._**	S24: Thanks. **_You know, I didn't sleep well for nearly one week to study it._**
N: **_I know you did. You deserve it._**	S23: **_Finally, you got the success._**

* D: David   N: Nancy   S: Student

Example 2

Original role play	**Constructive role play**
D*: Hi, my name is David. **_But you can call me Dave._**	S19*: Hi, my name is XX. **_May I know your name, please?_**
L*: **_It's nice to meet you, Dave. My name is Laura._**	S20: **_Sure, my name is XX, nice to meet you._**
D: Nice to meet you, too, Laura.	S19: Nice to meet you, too, XX.
L: I'm a freshman here. **_What about you?_**	S20: I'm a freshman here. **_And you_**?
D: Me, too. **_I'll have my first class this afternoon._**	S19: Me, too. **_This afternoon is the first time for me to have class._**.
L: **_What class is that?_**	S20: **_May I know what's it_**?
D: **_English course with Doctor Smith._**	S19: **_It's English class_**.
L: Oh, really? **_We're going to be in the same class!_**	S20: Oh, really? **_I will begin my English class this afternoon, too_**!
D: **_Oh, that's great!_**	S19: **_Really? Then we are in the same class!_**

* D: David   L: Laura   S: Student

Example 3

Original role play	**Constructive role play**
D*: Nancy, **_what are you planning to do this weekend?_**	S25*: XX, **_what will you do for this weekend_**?
N*: **_I haven't made any plans yet. You got any good ideas?_**	S26: **_I have no idea, how about you_**?
D: **_I want to get away from the rat race of life on campus for a while. How about going to the National Park on Saturday? We could invite Laura, Tony..._**	S25: **_I'd like to go hiking in Huaxi Park with_** XX...
N: Sounds great! **_And what do you think we will do there? Maybe some hiking, and..._**	S26: Sounds wonderful! **_What else do you plan to do there?_**
D: **_Barbecue._** We could roast hot dogs and hamburgers over a fire!	S25: **_Maybe we can do some_** barbecue. We could roast hot dogs and hamburgers over a fire!
N: **_Good idea!_**	S26: **_That's nice!_**

* D: David   N: Nancy   S: Student

Example 4

	Original role play		Constructive role play
D*:	*What are your plans for the winter vacation, Nancy?*	S31*:	*XX, any plan for the winter vacation?*
N*:	*I don't know. I guess I'll just try to relax -- it'll be good to forget about school for a couple of weeks!*	S32:	*Mmm.., not yet. Maybe I will let myself get relaxed and enjoy the cold weather here.*
D:	*I agree. That's why Laura and I are heading south for the vacation. How would you like to join us?*	S31:	*Really? XX and I are going south for the holiday, would you mind joining us?*
N:	*Sounds like it would be a whole lot better than hanging out here. It would be a nice* escape from the cold weather.	S32:	*Amazing! To the south? It is going to be more fun than staying here. And I can* escape from the cold weather.
D:	*Then, would you like to join us?*	S31:	*Great! Then, join us, XX will be glad to hear that.*
N:	*Mmm, that's a great idea.*	S32:	*Great, let's go!*

* D: David   N: Nancy   S: Student

Data analysis from student role play recording shows that students with

high, medium and low language proficiency levels varied sentences with the similar

meanings from the original ones, for example:

S20 (LP*): "*Sure, my name is XX**, nice to meet you.*"

(Original: **It's nice to meet you XX, my name is XX**.)

S19: (LP) "*... this afternoon is the first time for me to have class*."

(Original: …**I will have my first class this afternoon**.)

S24: (MP*) "*Am I in my dream?*"

(Original: **I can't believe it**.)

S26: (MP) "*I have no idea, how about you?*"

(Original: **I haven't made any plans yet. You got any good ideas?**)

S31: (HP*) "*XX, any plan for the winter vacation?*"

(Original: **what are your plans for the winter vacation,** XX?)

S32: (HP) "*Amazing! To the south? It is going to be more fun than staying here ...*"

(Original: **Sounds like it would be a whole lot better than hanging out here** …).

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

** Note: the present study does not include the changes of personal names.

Based on the above language use analysis, as introduced in Chapter 3, on

the word level and the sentence level in the present study, students with high, medium

and low language proficiency levels tried to apply as much knowledge as they could from the tutorial classes, their previous studies and their real-life situations when performing constructive role plays and they could modify the original sentences to generate similar ones to form new conversations successfully. Scaffolding such as how to choose suitable words for substitution and how to vary grammatically correct sentences as provided by the teacher helped students understand better on how to perform constructive role plays via e-learning. Also, students with different language proficiency levels enjoyed the process of preparing for acting the roles out actively with the partners instead of reading the pre-set speaking materials again and again from the computer screen in the speaking classes.

To sum up, the quantitative data analysis indicates that effects after the implementation of constructive role plays via e-learning were as positive as expected, as evidenced by the fact that the scores in speaking post-test improved and there was a significant difference between the two tests. Qualitatively, data analysis from teacher logs and student role play recording language analysis positively confirmed the answer to the first research question. In general, the above results indicate that constructive role plays via e-learning have positive effects on improving speaking performances of students with different levels of proficiency. Therefore, Hypothesis 1, the constructive role plays via e-learning have positive effects on improving speaking performances of students with different levels of proficiency, was accepted, because there was a highly significant difference between the scores before and after the

implementation of constructive role plays via e-learning and students with different language proficiency levels achieved improvements on their speaking after the utilization of constructive role plays via e-learning.

4.5 Results of Student Questionnaires

In response to the second research question: "*What are second-year non-English major students' opinions on the constructive role plays via e-learning in their college English speaking classes?*" the analysis of student questionnaires was considered as the first evidence to the answer so as to test Hypothesis 2 posed in Chapter 1.

In order to check the validity of all the questions in student questionnaires, 3 experts were invited to valid and check the language use for each item. After revising 6 times according to their suggestions, the questions were suitable and exercisable for the present study. Furthermore, in order to determine the reliability of the questionnaires, Cronbach's Alpha Coefficiency (α) was used to check the internal consistency of the questionnaire items by analyzing the data from the pilot study. According to DeVellis (2003), good reliability of the questionnaire will be found if the alpha is at least equal 0.70 ($\alpha \geqslant 0.70$). The reliability check from the pilot study was 0.902 which was higher than 0.70 ($\alpha = 0.902 > 0.70$), therefore, all of the items in student questionnaires in the present study were reliable.

After students finished their 18-week study, 130 of the students in the experimental group were required to answer the questionnaires. A 5-point Likert-scale

questionnaire that ranged from "strongly agree" to "strongly disagree" was utilized in order to make the significant difference between those students who agreed with the statement and those who did not. Students' responses to the questionnaires were coded and keyed into the SPSS program for statistical analysis. The responses in simple descriptive percentages were distributed in the following table.

Table 4.8: Responses from Student Questionnaires on the Likert-scale (N=130)

Item	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. The instruction before performing constructive role plays via e-learning is necessary.构建型角色扮演活动开始前的说明部分是必要的	**32.3%**	**61.5%**	3.8%	2.3%	0.0%
2. The constructive role plays via e-learning are interesting.构建型角色扮演活动是有趣的	**43.1%**	**40.8%**	14.6%	1.5%	0.0%
3. The constructive role plays via e-learning make learning to speak English enjoyable.构建型角色扮演活动使得口语课堂生动有趣	**49.2%**	**40.8%**	8.5%	1.5%	0.0%
4. The constructive role plays via e-learning offer me useful information on how I can speak idiomatic English.构建型角色扮演活动给我提供了关于英语口语习语的有用信息	**22.3%**	**53.1%**	20.0%	4.6%	0.0%
5. The constructive role plays via e-learning help me generate similar conversations easily.构建型角色扮演活动有助于我容易地构建出其他类似对话	**15.4%**	**56.9%**	33.8%	3.8%	0.0%
6. The constructive role plays help me improve my speaking performance.构建型角色扮演活动有助于我的口语技能的提高	**28.5%**	**54.6%**	12.3%	4.6%	0.0%
7. The constructive role plays via e-learning motivate me to practice more.构建型角色扮演活动激励我更多的参与口语训练	**22.3%**	**48.5%**	25.4%	3.8%	0.0%
8. The constructive role plays via e-learning should be utilized more in speaking classes.构建型角色扮演活动应该在口语课堂上多使用	**20.8%**	**47.7%**	26.9%	4.6%	0.0%
9. I feel shy and/or hesitant when performing the constructive role plays via e-learning. 角色扮演时我感到害羞、结结巴巴	13.8%	**33.8%**	24.6%	23.8%	3.8%
10. I feel nervous when I act the role out with my partner via e-learning.在和同伴表演对话的时候我感到紧张	10.0%	**39.2%**	21.5%	23.1%	6.2%
11. I find that time is not enough for me to act the role out in class.我觉得每堂课上老师规定的角色扮演时间不够用	7.7%	**25.4%**	46.2%	16.9%	3.8%
12. I prefer reading out the role script to acting the role out with a partner.我更喜欢读出角色的台词而不喜欢和同伴进行角色表演	0.0%	16.9%	23.1%	**42.3%**	**17.7%**

Table 4.8 above shows the responses from student questionnaires. Firstly, the majority of the students preferred working on constructive role plays via e-learning in speaking classes. From item 1, the percentage of students who agreed that the instructions were necessary for them to get better understanding on how to carry out constructive role plays is 93.8%, which shows the significant difference among the agreement, indecisiveness and disagreement. From item 2, item 3, and item 4, 83.9% of the students agreed that constructive role plays via e-learning were interesting because 90% of the students reported the process of learning to speak English was more interactive and enjoyable. There were 75.4% of the students who expressed consents that constructive role plays via e-learning provided them useful information on how they should speak English. Secondly, from item 5 and item 6, there were 72.3% of the students who agreed that constructive role plays via e-learning assisted them to generate similar conversations easily. Moreover, 83.1% of the students were in their agreements that constructive role plays via e-learning helped them improve their speaking. From item 7, the percentage of students who were of the same opinions that constructive role plays via e-learning could motivate them to practice more is 70.8%. Additionally, in item 8, 68.5% of the students reported that constructive role plays via e-learning should be utilized more in speaking classes.

To summarize the results of student questionnaires from item 1 to item 8, as displayed in Figure 4.1 below, the majority of the students with different language proficiency levels hold affirmative opinions towards the implementation of

constructive role plays via e-learning in speaking classes because on average, there were 79.73% of the students who showed their agreements from item 1 to item 8.
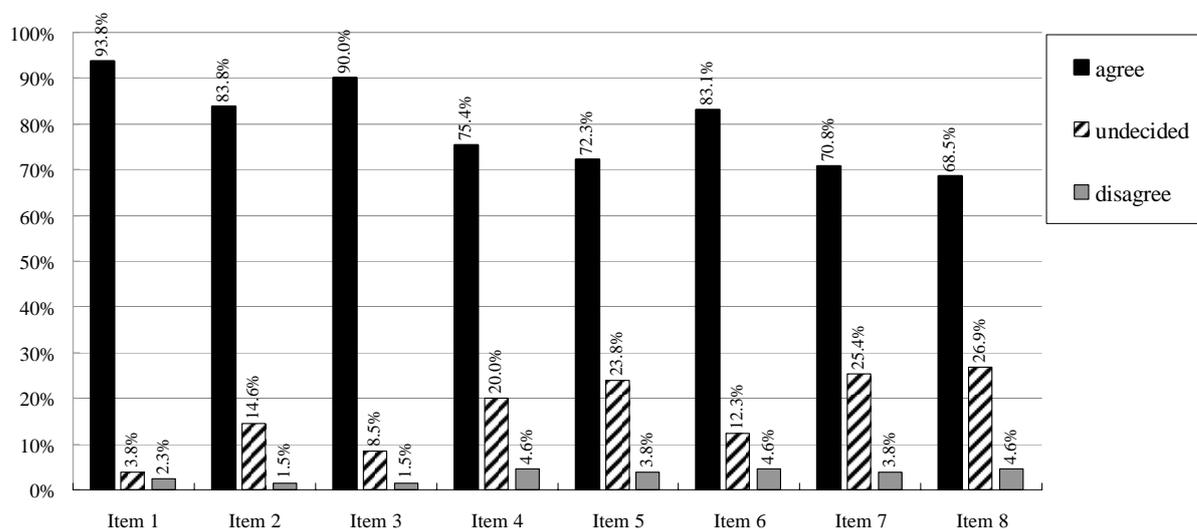
Figure 4.1: Comparison of Student Questionnaires from Item 1 to Item 8

However, from students' feedbacks, there were 47.6% of the students with medium and low proficiency levels who confirmed that they felt shy and/or hesitant when performing constructive role plays via e-learning in item 9. As for item 10, the percentage of students who agreed that they felt nervous when acting the role out with their partners is 49.2 %. Furthermore, 33.1% of the students acquiesced that they did not have enough time to finish the constructive role plays in item 11. Nevertheless, from item 12, there were 60% of the students who disagreed that they preferred reading role scripts out, it specified that students prefer "acting" the role out actively to "reading" the role scripts out repeatedly. It is noticeable that from item 9 to item 11, on average, 43.3% of the students assented that they felt nervous, shy, and/or hesitant

when performing constructive role plays via e-learning, which reflected that instructions before performing role plays as one part of scaffolding are necessary because clear instructions on how to conduct constructive role plays via e-learning can provide students opportunities to think creatively before they really begin the activity, and those instructions provided by the teacher may reduce students' nervousness and hesitance when performing the role plays. Students can be actively involved in the whole learning process by thinking about what they should learn rather than passively accept what the teacher teaches, which helps exploring the effectiveness on the shift from teacher-centered instruction to learner-centered learning.

Nevertheless, in line with the analysis, another aspect, which should be considered carefully, was the time for working on role plays, because in item 11, 33.1% of the students with medium (or 29) and low (or 11) language proficiency levels felt that the time was not enough for them to finish the role play in class. However, students with high proficiency level did not report the lack of time for performing constructive role plays in classes. As mentioned in Chapter 2 and Chapter 3, according to Northcott (2002), the length of time spent in a role play may also influence its success or failure because students may find the role play exhausting and they may lose interests in performing if the role play is too short or too long. From Northcott's (2002) recommendation, teachers should get students involved in role plays within 5 to 10 minutes. According to the one-hour computer lab class as

introduced in Chapter 3, the researcher limited the time for performing each role play within 10 minutes, so that there were 30 minutes for students to work on 3 role plays. Moreover, there were another 30 minutes for students to get involved in posing questions, interacting with the teacher and other classmates, and providing feedbacks, which served as one part of scaffolding in the present study. Only in this way, could students get enough training on how to effectively carry out constructive role plays via e-learning within a proper time.

Additionally, in the open-ended questions from item 13 to 16, generally speaking, students also exhibited supportive opinions towards constructive role plays via e-learning. In item 13, which concerned the reasons why students prefer working out constructive role plays, there were 7.8% (or 10) of the students who showed their indecisiveness and 2.2% (or 3) of the students with medium (1 student) and low (2 students) language proficiency levels expressed their disagreements, however, 90% of the students reported that they preferred working out constructive role plays in the speaking class, the reasons are as follow. First, it is likely that most of the students reported that constructive role plays were more interesting than the behavioristic ones, they felt more interested in performing roles out instead of sitting in front of the computer and reading role scripts out. Second, 75.2% of the students with different language proficiency levels (11 students of high proficiency level, 69 students of medium proficiency level and 8 students of low proficiency level) confirmed that: "*we feel constructive role plays are more active, we can get more interactions among the*

classmates and they are helpful to create an active learning to speak English environment in speaking classes". Third, students felt that constructive role plays provided them useful information on how they should speak English as 87.2% of them highlighted that they applied the knowledge from their previous studies and from their real-life experiences to construct new knowledge which could not learn from the textbook directly. And fourth, the majority of the students agreed that constructive role plays motivated them to speak and practice more in speaking classes. They enjoyed the process of preparing for acting roles out because they could learn useful knowledge by themselves and they could discuss with the teacher anytime when they met problems.

Furthermore, from item 14, which concerned with the difficulty levels for role play topics, 84.6% of the students agreed that the role play's topics were suitable, however, there were 13.1% of them with high (9 students) proficiency level who thought the topics were a little easy but not too easy, and 2.3% showed their indecisiveness. Regarding item 15, which asked about problems students experienced when performing constructive role plays, 33.1% of the students reported that they met some problems. As the rank, they were: 1) the time was not enough for acting roles out in class (93%); 2) students felt nervous when performing the role plays (55.8%); 3) the unstable Internet connection wasted some of the class time for working out role plays (48.8%); 4) the broken microphone made students feel whiny in changing computers (34.9%) which in turn wasted the class time for acting roles out.

Moreover, in item 16, which asked students to provide more suggestions and comments towards the utilization of constructive role plays via e-learning, 68.5% of the students with different language proficiency levels thought that constructive role plays should be used more in speaking classes and they also provided some suggestions towards the implementation of constructive role plays via e-learning. Among them, firstly, 75.4 % of the students with different language proficiency levels (12 students of high proficiency level, 74 students of medium proficiency level and 12 students of low proficiency level) agreed that the teacher could help them learn how to enlarge the vocabularies and how to improve pronunciations. Secondly, 17.7 % of the students with medium (15 students) and low (8 students) proficiency levels suggested that the teacher could provide students more time on imitating role plays via NHCE e-learning and focusing on working out one role play in class, then the teacher could give assignments for students to prepare the rest of the role plays and let students perform the rest of the role plays in the next class. By doing this, students could gain more chances and time to prepare and practice, as a result, the effects might be better than performing those three role plays immediately in class. Thirdly, there were 78.5% of the students with high (12 students), medium (86 students) and low (4 students) language proficiency levels who agreed that the teacher could provide more opportunities to work on constructive role plays outside the speaking class, so that students could keep practicing speaking in the whole learning process.

4.6 Results of Student Interviews

Student interviews results in the present study acted as the second evidence to answer the second research question qualitatively. 44 students (22 male students and 22 female students) were randomly chosen from the experimental group to conduct the interviews for more informative data. In general, interviewees delivered constructive opinions, however, 6.8% of the interviewees with medium (2 students) and low (1 student) proficiency levels could not decide whether they approved the implementation of constructive role plays via e-learning. And, there were 4.6% (or 2 students) of the interviewees with low language proficiency level who expressed their disagreements towards the utilization of constructive role plays via e-learning because they reported that they still preferred listening and reading activities. Nevertheless, 88.6% (or 39 students) of the interviewees agreed that constructive role plays via e-learning could improve their speaking and it should be incorporated more in speaking classes. The reasons are as follow: firstly, there were 65.9% (or 29 students) of the interviewees who explained that they can actively act the role out in constructive role plays via e-learning instead of passively read the role scripts out, for example:

S44 (LP*): "*Constructive role plays are really interesting and active.*"
S15 (MP*): "*I really enjoyed the role play activity because it is quite active and I have the chance to speak something out instead of doing some reading.*" (Translated)
S8 (HP*): "*I can really speak English out, not just read the same materials out.*"

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Secondly, 75% (or 33 students) of the interviewees with high, medium and low language proficiency levels reported with the same opinions that scaffolding, on both the instructions and the role play task performing, provided by the teacher on how to conduct constructive role plays via e-learning helped them understand better before they began to perform the role plays, for example:

S35 (LP*):   *"The guidance from the teacher helps me think creatively on how to perform role plays."*

S9 (MP*):   *"I can think of what I should do first, discuss with my teacher and my classmates, then, I can apply useful information from the tutorial classes and the previous studies to perform the role plays."*

S17 (HP*):   *"I can pose questions to the teacher and/or to other classmates whenever there appear some problems, which is important because I can understand better on how to work out constructive role plays."* (Translated)

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Moreover, there were 56.8% (or 25) of the interviewees who experienced that they were actively involved in the whole learning process instead of passively accepted what the teacher taught. They were in the center of the learning and teaching process instead of the teacher. Some of them explained that: *"we can create new dialogues by using different words and sentences instead of repeat the same materials again and again"*.

Thirdly, there were 79.5% (or 35) of the interviewees with different language proficiency levels (10 students of high proficiency level, 19 students of medium proficiency level and 6 students of low proficiency level) who highlighted

that the constructive role plays via e-learning could motivate them to speak more, for

example:

> S33 (LP*): "*I feel interested in performing role plays in class, I like to speak English actively instead of passively memorize English words.*"
>
> S40 (MP*): "*Constructive role plays and e-learning provide us an active EFL learning environment, I feel motivated and less nervous to practice more in speaking class.*" (Translated)
>
> S27 (HP*): "*This kind of role play can motivate me to speak more in class, and it can help creating an effective and interactive learning to speak English environment.*"
>
> * Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Furthermore, 88.6% (or 39 students) of the interviewees mentioned that the

constructive role plays via e-learning were more active than the existing behavioristic

ones. They reported that: "*we actively act the role out instead of passively finish

reading the same role scripts out repeatedly*".

However, among those agreements, there were 40.9% (or 18) of the

interviewees with medium language proficiency level and 20.5% (or 9) of the

interviewees with low language proficiency level (all together 61.4% or 27 of the

students) who emphasized that they met some problems when performing role plays,

for example:

> S11 (LP*): "*The unstable Internet connection and the broken computer system may interrupt the processes of performing constructive role plays via e-learning.*" (Translated)
>
> S25 (MP*): "*Sometimes I have to switch to many computers because of the broken microphones, and this wasted my time to perform role plays.*"
>
> * Note: LP – Low Proficient; MP – Medium Proficient

The individual difference is another aspect which may affect the implementation of constructive role plays via e-learning. For example, as mentioned before, there were 4.6% (or 2) of the interviewees with the low language proficiency level who reported that they did not like role plays, they still preferred reading and listening activities. One of the interviewees stated that: "*I do not like performing role plays. I like to listen to the materials and then read them out, because I can imitate the native speaker's pronunciation. The more I read, the better I will be*".

4.7 Results of Student Online Learning Logs

Results of student online learning logs in the present study functioned as the third evidence to answer the second research question. After students in the experimental group finished their study on each unit, they were required to write the online learning logs. Based on the 18-week experimental time frame, in terms of the convenience for data analysis, as introduced in Chapter 3, student online learning logs were also summarized in terms of three different phases: in the beginning (pre-treatment period), in the middle (during treatment period), and in the end (post treatment period) as follow.

In the beginning phase, or the pre-treatment period (week 1 – week 6), students showed their great interests in performing constructive role plays via e-learning, as the majority of the students confirmed that they felt interested in doing role plays because they were very interesting and useful as in the following examples:

S92 (LP*):   *"I feel like doing constructive role plays because they are useful for me to practice English in classes."*

S117 (MP*): *"Constructive role plays are interesting and they are helpful in speaking classes. We like to perform this kind of role play."*

S56 (HP*):   *"We seldom did role play before in speaking classes. Constructive role plays make us feel interested in doing so because they are active activities to help us learn how to speak English effectively."*

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

In the middle phase, or the during treatment period (week 7 – week 12), 75.4% (or 98 students) with different language proficiency levels (4 students of high proficiency level, 79 students of medium proficiency level and 15 students of low proficiency level) reported that they met some problems on how to do the constructive role plays via e-learning effectively and smoothly, for example:

S3 (LP*):   *"I do not know whether those new words and sentences we have chosen are suitable for creating new dialogues or not. I need more instructions and guidance from the teacher."*

S88 (MP*): *"I am not sure about the grammar I choose to change in the dialogue because I am poor about it."* (Translated)

S93 (HP*):   *"The broken computer system and unstable Internet connection really discouraged me to work on constructive role plays via e-learning. They are interesting, but the technical problems make me unable to concentrate on doing role plays smoothly."*

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

In the light of the above data analysis, the problems proposed by students confirm that the scaffolding, instructions and role play tasks on how to perform constructive role plays via e-learning are important and necessary. And, after discussing with the teacher and cooperated with the classmates, students solved the problems by searching more information from the Internet, observing information

from their real-life situation, and imitating similar conversations as many as they could from their previous speaking classes, for example:

> S12 (LP*): *"I learned new knowledge which could not get from the textbook directly."*
>
> S87 (MP*): *"The interactions between the teacher and the students are necessary and important because I can get the help from the teacher whenever I need and I can discuss problems with my teacher and among my classmates freely."* (Translated)
>
> S123 (HP*): *"This kind of class provides us a good environment on learning to speak English, and it motivates me to practice more."*
>
> * Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

In the end phase, or the post treatment period (week 13 – week 18), students were familiar with the constructive role plays via e-learning, from the speaking post-test scores and their final examination scores, results showed that students with different language proficiency levels achieved improvements on their speaking performance (see Section 4.2). Furthermore, there were 11.5% (or 15) of the students with medium (9 students) and low (6 students) proficiency levels who approved that they did not prefer performing the role play at the beginning but later they changed their minds on practicing role plays by actively participating in the constructive role plays in class, for example:

> S22 (LP*): *"I did not feel like performing role plays at first, but now, I agreed that those role plays helped me improve my speaking effectively."*
>
> S57 (MP*): *"I felt more and more interested in carrying out constructive role plays via e-learning in speaking classes."*
>
> S106 (MP): *"I suggest that the teacher could use more role play activities in other classes, not only in speaking classes."*
>
> * Note: LP – Low Proficient; MP – Medium Proficient

To sum up, quantitatively, results from student questionnaires, student interviews and student online learning logs in the present study reflected that the majority of students showed affirmative opinions towards the implementation of constructive role plays via e-learning in speaking classes because the distribution percentage of the agreement was accounted and they were higher than the indecisiveness and disagreement. Qualitatively, based on the above results, although there were some negative opinions, the majority answers to second research question were still positive and affirmative, therefore, Hypothesis 2, students hold affirmative opinions towards the utilization of constructive role plays via e-learning in L2 speaking classes, was accepted.

Meanwhile, from students' feedbacks, they confirmed that scaffolding, instructions and role play tasks on how to carry out constructive role plays via e-learning were essential because scaffolding helps them understand better before they start the role plays. Interaction was another indispensable element to promote learner-centered learning. In the present study, students were the center of the whole learning and teaching process, constructive role plays via e-learning could motivate students to be actively engaged in learning to speak English. They enthusiastically applied knowledge from their previous studies to construct new knowledge. Students with high language proficiency level reported that they actively explore knowledge instead of passively accept it. Likewise, students with medium and low proficiency levels confirmed that constructive role plays motivated them to practice more in

speaking class and they were actively engaged in EFL learning, which is helpful and important to create active and interactive learning to speak English environment via constructive role plays and e-learning.

4.8 Summary of Chapter 4

In this chapter, based on the 6 research instruments, the results of the speaking pretest and post-test, teacher logs, student role play recording language analysis, student questionnaires, student interviews, and student online learning logs were presented. The quantitative data were analyzed by paired samples t-test, and the distribution percentage was accounted. As to the qualitative data, responses of student questionnaires, student interviews, and student online learning logs were illustrated respectively. From the analysis, two research questions have already been answered. The two hypotheses have been testified. The answer to the first research question was positive, constructive role plays via e-learning had positive effects on improving speaking performances of students with different levels of proficiency. Then Hypothesis 1 was accepted. The answer to the second research question was positive too. Generally speaking, students showed affirmative opinions towards the utilization of constructive role plays via e-learning in speaking classes. Therefore, hypothesis 2 was also accepted. All above answers to the two research questions could be found not only in the quantitative data, but also in the qualitative data. The results in these two kinds of data were almost the same. The next chapter will discuss the results and research findings in details.

CHAPTER 5

DISCUSSION

This chapter discusses the results and findings reported in Chapter 4. The discussion is organized based on the research questions and hypotheses presented in Chapter 1. The first part illustrates explanations for the results of the comparison between speaking pretest and post-test scores, student role play recording language analysis and teacher logs, which deal with the first research question and Hypothesis 1. The second part discusses the second research question and Hypothesis 2 including the results of student questionnaires, student interviews, and student online learning logs.

5.1 Effects of Constructive Role Plays via E-learning

In order to answer the first research question: "*Do constructive role plays have any positive effects on improving speaking performance of students with different levels of proficiency?*" so as to testify Hypothesis 1: "*Constructive role plays via NHCE e-learning have positive effects on improving speaking performance of students with different levels of proficiency*", this part discusses the research findings reported from Section 4.1 to 4.4 of Chapter 4, which are related to the effects of the implementation of constructive role plays via NHCE e-learning in terms of student speaking performance and language productivity. It starts with the comparison

between the speaking pretest and post-test scores, followed by the observations from teacher logs. Furthermore, student role play recording language use analysis is discussed and examples demonstrating the salient patterns are quoted from the data and explained.

5.1.1 Discussion on Student Speaking Performance

One of the purposes of the present study is to examine whether or not the constructive role plays via e-learning have positive effects on improving EFL students' speaking. The first research question was concerned with the issue of whether constructive role plays via e-learning could improve EFL students' speaking. Hypothesis 1 assumed that there was an improvement after the utilization of constructive role plays via NHCE e-learning. According to the previous data analysis in Chapter 4, the results from speaking pretest and post-test scores indicated that there were positive effects of constructive role plays via e-learning on improving speaking performances of EFL students with different levels of proficiency.

Two main reasons may account for students' improvement on their L2 speaking. First, it could be that no matter what kind of role plays were assigned to students, they all learned 8 units and finished 24 role plays during the 18-week quasi-experiment. The duration of this experiment may have been long enough to improve student's speaking. For example, students' mean scores of speaking post-test (Mean=8.957, SD=0.7745) in the control group were slightly higher than that of the pretest (Mean=8.935, SD=0.8454). After the 18-week experiment, students' speaking

could be improved, but not that much as expected. However, in the experimental group, students' speaking post-test scores (Mean=10.481, SD=1.4895) were much higher than that of the pretest (Mean=8.912, SD=0.8223), which may lead to the second reason, the utilization of constructive role plays and scaffolding, why students' speaking improved more in the experimental group. In addition, from the previous data analysis in Section 4.2 of Chapter 4, it is noticeable that students with different language proficiency levels displayed an improvement on their speaking performance (see Table 4.5). In line with the previous data analysis in Section 4.2 and based on the literature reviewed in Chapter 2, the discussion on student speaking achievement can be summarized as follow.

First, constructive role plays in the present study are active and interactive activities which can develop a greater understanding and enable EFL learners to develop skills to engage in their real-life situations (Ge, Lee, & Yamashiro, 2003; Northcott, 2002; Woodhouse, 2007). As introduced in Chapter 1, for most of the EFL learners in China, they rarely communicate with other people in English. Whenever they need to have conversations in English, students cannot perform the task successfully due to such possible reasons as tension, shyness and/or lack of effective communication skills and strategies in English. When students took their college English courses, they did not obtain enough training on L2 speaking under active and interactive learning environment. As a result, EFL learners did not have enough experience in constructive L2 speaking learning. And most of them still finished their college English courses as good test-takers.

So, the utilization of constructive role plays via NHCE e-learning in L2 speaking classroom in the present study allows students with different language proficiency levels to testify their knowledge that they have already obtained from their previous studies and from their real-life situations, and/or to explore the new knowledge by interacting with other classmates. In the present study, constructive role plays encourage students with high, medium and low language proficiency levels to engage in L2 speaking interactively and creatively, and those role play activities also encourage EFL learners to explore the options through creative use of language. It is argued that learning as an active process in which new knowledge is constructed on the basis of previous experience, and constructive role plays provide a rich discourse context in L2 speaking classes. The incorporation of constructive role plays into the L2 speaking classroom adds varieties and opportunities for language practice. The combination of constructivism, e-learning and role plays helps EFL teachers to create an active and interactive learning environment, and EFL learners with different language proficiency levels can explore their roles and then they can interact with each other by acting their roles out with their partners, which can contribute to EFL learners' learning experiences from the cognitive and constructive domains (Briner, 1999; Clouse & Nelson, 2000; Horton, 2006; Ladousse, 1991; Simina & Hamel, 2005; Xiao, 2005).

Second, task-based language learning and teaching approach help strengthen theories of language learning (Nunan, 2004), especially for EFL learners.

Recently, task-based language learning and teaching has become an important approach which assists L2 instructions. In the present study, based on the instructional analysis for constructive role plays in Chapter 3, role play tasks, as a part of scaffolding, were provided and introduced to students before they began to perform constructive role plays via e-learning. Based on the data elicited from Chapter 4, students reported that they got better understanding towards constructive role plays, and they were actively engaged in the learning and teaching process in college English speaking classes. As some researchers agreed that task-based role play instruction acts as a very important part in L2 learning and teaching process, it takes a strong point of view of constructive learning theory. It is the task which helps motivate EFL learners to speak more, ease their nervousness and anxiety when performing role plays with their partners, and students are engaged in an active L2 acquisition process (Belgar & Hunt, 2002; Burden, 1999; Long & Crookes, 1993; Skehan, 2001). The above data analysis validates the use of constructive role plays which can motivate EFL learners with different language proficiency levels to speak more in L2 speaking class and a proper instruction of role play tasks can help learners testify knowledge from what they already have, and generate speaking knowledge to their real-life situations by imitating similar conversations and recalling from their previous studies.

Third, scaffolding is an effective teaching support to provide comprehensible input to EFL learners so that not only will they learn the essential

content from the textbook but also they will actively make progress in their acquisition of English. The purpose of the teacher, when using the scaffolding, is for students to become independent and self-regulating learners and problem solvers (Daniels, 1994; Ellis, Larkin, & Worthington, 2002; Hartman, 2002). In the present study, role play tasks and instructions before students began to work out constructive role plays, chatrooms and assistance from the teacher while students doing the role plays and online discussion forum after finished performing the role plays, they all served as scaffolding which can help students concentrate in doing constructive role plays via e-learning actively during the whole learning and teaching process. Following the use of scaffolding provided by the teacher, EFL learners with different language proficiency levels can be engaged in active and interactive learning. EFL learners do not passively listen to information presented by the teacher. On the contrary, it is the teacher who prompts the learner to build on their own prior knowledge and to form new knowledge. Scaffolding provides a clear direction and reduces learners' anxiety and confusion. This means teachers anticipate problems that learners might encounter and then develop step by step instructions, which explain what a learner is expected to do to meet the learning objectives. EFL learners are particularly dependent on scaffolding. It is necessary for the teacher to provide more scaffolding in L2 learning and teaching process because scaffolding helps EFL learners understand why they are doing the work and why it is important (Chaiklin, 2003; McKenzie, 2000; Oxford, 1996; Wood, Bruner, & Ross, 1976).

… learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and they will try to find regularity and order in the events of the world even in the absence of full or complete information… (as cited in von Glaserfeld, 1984, Radical constructivism. In P. Watzlawick (Ed.), *The invented reality*, p. 26)

In this light, EFL learners greatly benefit from scaffolding as McLoughlin and Marshall (2002) pointed out that scaffolding is a communication process where presentation and demonstration by the teacher are contextualized for the learner. When EFL learners can see the framework that the teacher is explaining, this not only serves to make the input considerably more comprehensible, but also serves to remove the nervousness and affective filter which results from the fear or boredom that comes from less understanding in class (Wood *et al*., 1976).

The above discussions could also be supported and proved in the data of teacher logs and student role play recording language analysis. In the following section, student language productivity will be discussed.

5.1.2 Discussion on Student Language Productivity

This part continues discussing the effects of the implementation of constructive role plays via NHCE e-learning in terms of student language productivity. Data analysis from the teacher logs support the discussion in 5.1.1.

The researcher, as the course instructor, was the only person who did the teacher logs for every class time during the learning and teaching process, participated in the 18-week teaching for the experimental group, and investigated students' improvements on their speaking.

From the comparison of the first phase (in the beginning: pre-treatment period) speaking and the third phase (in the end: post treatment period) speaking (see Table 4.6), students cooperated with each other well and they could apply the knowledge from what they learnt from the tutorial class and from their previous studies to perform constructive role plays smoothly and successfully by exploring new words and creating new sentences. The speaking classes, especially role play activities became more enjoyable in terms of the learning process. The class atmosphere was quite relaxing and pleasant, there were more interactions among students themselves or between the students and the teacher, and students could ask for helps verbally or through the e-learning system from the teacher or other classmates whenever they met the difficulties. Students were in the center of the whole learning and teaching process. It was them who made learning to speak English enjoyable, and students felt more interested in applying as much knowledge as possible from what they have learnt in the role plays to construct new knowledge. This indicates that the constructive role plays reduce students' tension and nervousness and they motivate EFL students to practice more in L2 speaking classes.

Likewise, as introduced in Chapter 3, role play recording language analysis in the present study refers to the spoken language use analysis. It helps the researcher examine how students perform constructive role plays via NHCE e-learning through chatrooms with other classmates. In the present study, two types of language modifications – word substitutions and sentence variations – were concerned to

examine the language productivity on students' speaking with different proficiency
levels. From student role play recording language analysis in Section 4.4 in Chapter 4,
in the experimental group, students (83.6%) substituted words from the original
conversations to perform the constructive role plays via NHCE e-learning. Three main
categories of word substitutions, synonym, antonym and other proper nouns, were
found in the present study. The examples were shown in the following table.

Table 5.1: Summary of Categories of Word Substitutions from Student Role Play

Recording Analysis

Categories of words substitution	Examples	
	Constructive role play	**Original role play**
1. Synonym (83.4%)	S1: "_**Glad** to meet you._" S2: "_**new student**_" S7: "_That's **amazing**._" S10: "_I haven't **got** ..._"	➢ _**Nice** to meet you_ ➢ _**freshman**_ ➢ That's _**great**_. ➢ I haven't _**made**_ …
2. Antonym (76.8%)	S13: "_What are your plans for the **summer** holiday XX*?_" S14: "_... the **hot** weather_"	➢ What are your plans for the _**winter**_ vacation, Nancy*? ➢ … the _**cold**_ weather
3. Other proper nouns (77%)	S1: "_I'll have my first class **tomorrow morning**._" S9: "_... going to **Huaxi** Park on **Sunday**?_" "_We could roast **meat** and **vegetable** ..._"	➢ I'll have my first class _**this afternoon**_. ➢ … going to _**National**_ Park on _**Saturday**_? We could roast _**hot dogs**_ and _**hamburgers**_ …

* Note: The present study does not include the changes of personal names.

Table 5.1 above illustrates some examples that students with different
language proficiency levels applied knowledge from what they learnt from the tutorial
class and from their previous studies to perform constructive role plays. There were
83.4% of the students who substituted synonyms and 76.8% of them substituted

antonyms from the original ones to produce new conversations when performing

constructive role plays via e-learning, for example:

S1 (LP*):   "*new student*"
              (Original: freshman) – synonym
S7 (MP*):   "*amazing*"
              (Original: great) – synonym
S14 (MP*):   "*north*"
              (Original: south) – antonym
S13 (HP*):   "*summer*"
              (Original: winter) – antonym
*Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Furthermore, 77% of the students with high, medium and low language

proficiency levels altered original words into other proper nouns, for example:

S10 (LP*):   "*jogging*"
              (Original: hiking) – other proper noun
S9 (MP*):   "*meat and vegetable*"
              (Original: hot dogs and hamburgers) – other proper nouns
S8 (HP*):   "*English*"
              (Original: biology) – other proper noun
*Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient

Additionally, data analysis from students' role play recordings from Chapter

4 displayed that there were 86.8% of the students with high, medium and low

language proficiency levels in the experimental group also produced different

sentences in terms of the length and the structure to carry out constructive role plays

via NHCE e-learning. The examples were presented as below.

Table 5.2: Summary of Sentence Variations from Student Role Play Recording

             Analysis

Sentences variation	Examples	
	Constructive role play	**Original role play**
Students produced different sentences in terms of the length and the structure with the similar meanings from the original ones (86.8%)	S20: "*<u>Sure, my name is</u> XX*<u>, nice to meet you</u>.*" S19: "*... <u>this afternoon is the first time for me to have class</u>.*" S24: "*<u>Am I in my dream</u>?*" S26: "*<u>I have no idea, how about you</u>?*" S31: "*XX*, <u>any plan for the winter vacation?</u>*" S32: "*<u>Amazing! To the south? It is going to be more fun than staying here</u> ...*"	➢ *<u>It's nice to meet you</u> XX*, <u>my name is</u> XX*.* ➢ *…<u>I will have my first class this afternoon</u>.* ➢ *<u>I can't believe it.</u>* ➢ *<u>I haven't made any plans yet. You got any good ideas?</u>* ➢ *<u>What are your plans for the winter vacation</u>, XX*?* ➢ *<u>Sounds like it would be a whole lot better than hanging out here</u> …*

* Note: The present study does not include the changes of personal names.

Table 5.2 above presents that in the present study, students with different language proficiency levels actively applied knowledge from their previous studies to work with constructive role plays via e-learning, and they could modify the original sentences to generate similar ones to form new conversations, for example:

S20 (LP*):   "*Sure, my name is XX**, nice to meet you.*"
               (Original: It's nice to meet you XX, my name is XX.) – to introduce oneself

S24 (MP*):   "*Am I in my dream*"
               (Original: I can't believe it) – to express surprise

S26 (MP):   "*how about you?*"
               (Original: you got any good ideas?) – to ask for opinions

S31: (HP*)   "*XX, any plan for the winter vacation?*"
               (Original: what are your plans for the winter vacation, XX?) – to ask for information

* Note: LP – Low Proficient; MP – Medium Proficient; HP – High Proficient
** Note: the present study does not include the changes of personal names.

In line with the data reported from 4.3 to 4.4 in Chapter 4, based on the teacher's observation logs and from the discussions of Table 5.1 and Table 5.2 on student role play recording language analysis, students could apply knowledge from what they learnt before to construct new knowledge when they performed constructive role plays via e-learning, and they could perform those role plays actively and successfully. Based on the literature reviewed in Chapter 2, those findings above are supported by the following discussions.

Firstly, constructive learning theory is a psychological theory which argues that humans construct new knowledge from their experiences. It holds the argument that EFL learners' engagement in purposeful and interactive activities can help them construct new knowledge from what they already have in mind or from the real-life situations. Constructivists suggest that learning is an interactive and effective process when a learner is actively engaged in the construction of knowledge rather than passively accepted it. Based on the constructivists' view, learning is a personal interpretation of the world, and it is an active process in which information or knowledge is developed on the basis of experiences. Constructivism focuses on a learner-centered study, which involves learners' active participation. In the present study, based on the data analysis in Chapter 4, EFL learners with high, medium and low language proficiency levels constructed their own knowledge by testing ideas and approaches from their prior knowledge and experiences, then, they applied the knowledge and experiences to a new situation, and integrated the new knowledge and experiences into their own. It is the learner who interacts with objects and events, and

thereby, understands and learns the features of the objects and events. Students with high, medium and low language proficiency levels successfully modified new words and sentences to perform constructive role plays. They understood the context of constructive role plays from the instructions and scaffolding provided by the teacher well, and they actively constructed knowledge based on their previous learning. They did not passively accept what the teacher taught (Briner, 1999; Clouse & Nelson, 2000; Mergel, 1998).

Secondly, in association with the development of computer technology, constructive view of language learning and teaching is applied and incorporated as one of the major theoretical frameworks for CALL pedagogies and development. Bonk and Cunningham (1998) pointed out that "the blending of … technological and pedagogical advancements has elevated the importance of research on electronic learner dialogue, text conferencing, information sharing, and other forms of collaboration" (p. 27). Active and collaborative construction of knowledge instead of knowledge transfer from one person to another (Cobb, 1994; Jonassen, 1994; O'Malley, 1995; Schank & Cleary, 1995), engagement in contextualized authentic tasks as opposed to abstract instruction, and less controlled environments versus predetermined sequences of instruction where "conditions for shared understanding" are created and "alternative solutions and hypothesis building" (O'Malley, 1995, p. 289), are promoted through learners' interactions. It is noticeable that in an L2 speaking class, the use of computer and e-learning, for example, online chatrooms and discussion forum, as the teaching tools has a significant effect on reducing the anxiety

and nervousness, and enhancing EFL learners' motivation (Bax, 2003; Merrill & Hammons, 1996; Molnar, 1997). As a part of CALL, e-learning has become the main trend because of its technicality, practicality and interactive nature. Learners can actively access the Web to go through sequences of instruction to complete the learning activities, and to achieve learning outcomes and objectives (Ally, 2002; Ally, 2004; Ritchie & Hoffman, 1997).

Thirdly, role play is an activity for exploring the issues involved in complex social situations. It can be used for training of professionals or in a classroom for the understanding of language, literature, history and even science. Furthermore, role play helps EFL learners become more interested and involved in classroom learning by addressing problems, exploring alternatives, and creating solutions in terms of not only the course material learning, but also in terms of integrating the knowledge learned in action. In the present study, constructive role plays via e-learning are effective learning and teaching activities, which allow students to examine new skills, form attitudes and views, take reactions and offer arguments. Those role plays increase motivation and encourage students to engage in L2 speaking freely and creatively, as well as to explore options through the creative use of language (Bartley, 2002; Brown & Yule, 1995; Naidu & Linser, 2000; Sogunro, 2004).

Fourthly, in the light of the previous discussion in 5.1.1, scaffolding is essential and necessary for EFL learners because it is individualized, so that it can benefit each learner. Students can be motivated to learn more in EFL classes.

Scaffolding is the support the teacher gives the learners in any number of methods, ranging from hints or feedback to do the role play tasks for the students as a demonstration. In other words, scaffolding, like its namesake, is a framework that supports learners as they develop new skills. It is a process for teacher's and students' information exchange. As well, performance of the learner is coached and articulation is elicited on the part of the learner (Kao, Lehman, & Cennamo, 1996; McLoughlin & Marshall, 2000; Oxford, 1996). Learning is an active problem-solving process and the learner attempts to overcome obstacles by themselves. Learners need time to engage in tasks, to develop their own knowledge and to compare their knowledge with others via discussions and interactions. In the present study, scaffolding helps EFL learners learn to apply their knowledge under appropriate instructions from the teacher. Learners with different language proficiency levels applied scaffolding provided by the teacher or group members for their individual problem-solving process. Thus, they developed their own cognitive skills and they obtained a support, which proves that scaffolding provided by the teacher in the present study was essential and necessary to reduce the anxiety and nervousness and to help students understand better on how to carry out constructive role plays via e-learning (Ertmer & Newby, 1993; Von Glaserfeld, 2003).

Additionally, constructive learning environment can help teachers create an interactive learning environment with different materials and information. Such learning environments encourage thoughtful reflections, and it can "empower …

learners … to assume ownership of their knowledge, rather than reproducing the teacher's" (Cobb, 1994, p. 15). EFL Learners with different language proficiency levels can feel they are at the center of the whole learning and teaching process instead of passively accept knowledge from the teacher. Teachers, as guiders, provide clear instructions, tasks and assistances to learners before, while and after they are guided on how to interact with other learners. In the present study, the constructive learning environment really motivated EFL learners to practice more in L2 speaking classes and it helped students improve their L2 speaking, which proved that under the constructive learning environment, learners can create their own knowledge actively (Wang, 2002; Weasenforth, Biesenbach-Lucas, & Meloni, 2002).

To sum up the discussion, from the comparison between the speaking pretest and post-test scores, it validates the answer to the first research question that the constructive role plays via e-learning have positive effects on improving speaking performances of students with different levels of language proficiency. Furthermore, discussions based on the data elicited from the teacher logs and student role play recording language analysis also demonstrate that constructive role plays via e-learning have positive effects on improving speaking performances of students with different language proficiency levels. Students performed well and they applied the knowledge gained from the tutorial class and from their previous studies to perform the role plays actively and successfully. Discussions from above could support the acceptance of Hypothesis 1, which assumed that constructive role plays via e-learning

have positive effects on improving speaking performances of students with different language proficiency levels.

5.2 Students' Opinions on Constructive Role Plays via E-learning

The previous section discussed the results of the quasi-experiment, showing that constructive role plays via e-learning had positive effects on improving speaking performances of students with different levels of proficiency in terms of student speaking performance and language productivity. In order to answer the second research question: "*What are second-year non-English major students' opinions on the constructive role plays via e-learning in their college English speaking classes?*" and to examine Hypothesis 2: "*Students hold affirmative opinions towards the utilization of constructive role plays via NHCE e-learning in L2 speaking classes.*" this part describes and discusses students' opinions on the implementation of constructive role plays via NHCE e-learning.

The present study triangulated the qualitative data collection methods on students' opinions towards the utilization of constructive role plays via e-learning including student questionnaires, student interviews, and student online learning logs. Students' responses are grouped into three categories of similar answers, positive, indecisiveness and negative opinions for the discussion and examples illustrating each of the significant patterns are quoted from the data and explained.

5.2.1 Overall Opinions

Generally speaking, the majority of the students upheld that constructive

role plays via e-learning should be utilized more in speaking classes because they actively participated in learning to speak English process. The role plays instructions and scaffolding provided by the teacher helped students understand better before performing constructive role plays and students were vigorously involved in the whole learning process so that they could carry out those role plays successfully. Moreover, the quantitative analysis of data elicited through the 5 points Likert-scale questionnaires (see Section 4.5 and Table 4.8) revealed to the researcher that students held affirmative opinions towards the implementation of constructive role plays via e-learning. The explanations for these findings could be discussed as follows.

First, the existing NHCE e-learning and behavioristic role play activities are not what students expected because those role plays only ask EFL learners to read the same role scripts out repeatedly, students keep repeating the same materials passively. As mentioned in Chapter 3, the traditional computer lab class is simply a channel for manuscript presentation for the pre-described set of speaking materials. It provides the platform for students to practice speaking without interaction among them. Students came to the class, sat in front of the computer and kept reading the same speaking materials out from the screen again and again. Students passively practiced speaking at a low cognitive level without scaffolding provided by the teacher. This is the reason why 50.33% of the students (N=300) reported that they have not learned much from the existing NHCE e-learning in terms of speaking from their previous studies in the needs analysis questionnaires administered at Guizhou University by the researcher.

Second, teachers hardly utilized role plays via NHCE e-learning for students in their previous speaking classes, and this is another reason why students exhibited their enthusiasm towards the implementation of constructive role plays via e-learning. And the constructive computer lab class provides the platform for students to practice speaking by interacting with their classmates actively (see Appendix K for an example). It is an interactive instrument for text presentation and learner interaction. Students effectively construct new conversations based on what they have learnt from the tutorial class and from their previous studies.

Third, after the researcher utilized constructive role plays via e-learning, students began to actively participate in performing constructive role plays. They cooperated with each other well and they successfully applied as much knowledge as they could from their previous studies to perform the role plays. They enjoyed the speaking class. Students were actively motivated to speak and practice more in speaking classes. Furthermore, the qualitative analysis of data from student questionnaires (open-ended questions), student interviews, and student online learning logs confirmed the 5 points Likert-scale questionnaire results that students held affirmative opinions towards the utilization of constructive role plays via e-learning. Three categories, positive opinions, indecisiveness and negative opinions could be found from the data analysis as shown in Table 5.3 below.

**Table 5.3 Summary of Categories of Students' Opinions from Student Questionnaires (open-ended), Student Interviews, and Student Online Learning Logs**

Categories		Examples
Positive opinions	Student questionnaires (open-ended) (90%, N=130)	S3: "*I feel interested in doing role plays because we seldom do them in speaking classes before and it is very interesting and useful.*" S75: "*I like to do constructive role plays because they are very interesting and interactive.*" S99: "*Constructive role plays are very useful because I can apply the knowledge from the previous studies to construct new knowledge which could not learn from the textbook directly.*" S111: "*I enjoyed the learning to speak English process because constructive role plays motivated me to speak more.*" S126: "*There are more interactions between the teacher and students which are good to create constructive learn to speak English environment.*"
	Student interviews (88.6%, N=44)	S8: "*I can really speak English out, not just read the same materials out.*" S9: "*I can think what I should do first, discuss with my teacher and my classmates, then, I can apply useful information from the tutorial classes and the previous studies to perform the role plays.*" S15: "*I really enjoyed the role play activity because it is quite active and I have the chance to speak something out instead of do some reading.*" (Translated) S17: "*I can pose questions anytime when I meet problems from the teacher and/or from other classmates, which is important because I can understand better on how to work out constructive role plays.*" (Translated) S32: "*I feel interested in performing role plays in class, I like to speak English actively instead of passively memorize English words.*"
	Student online learning logs (96.2%, N=130)	S12: "*I learned new knowledge which could not get from the textbook directly.*" S22: "*I did not feel like performing role plays at first, but now, I agreed that those role plays helped me improve my speaking effectively.*" S57: "*I felt more and more interested in carrying out constructive role plays via e-learning in speaking classes.*" S87: "*The interactions between the teacher and the student are necessary and important because I can get the help from the teacher whenever I need and ...*" S106: "*I suggest that the teacher could use more role play activities in other classes, not only in speaking classes.*" S123: "*This kind of class provides us a good environment on learning to speak English, and it motivates me to practice more.*"
Indecisiveness	Student questionnaires (open-ended) (7.8%, N=130)	S5: "*I don't know whether role plays are good or not because my speaking is poor.*"
	Student interviews (6.8%, N=44)	S11: "*I am not sure, maybe the unstable Internet connection and the broken computer system can interrupt the processes of performing constructive role plays via e-learning.*"
	Student online learning logs (2.3%, N=130)	S98: "*I still don't know whether they are useful or not. If teacher asked me to do it, I will do it. If the teacher doesn't ask me to do, I am also ok with it.*"
Negative opinions	Student questionnaires (open-ended) (2.2%, N=130)	S13: "*I don't think constructive role plays can help me improve my speaking, I don't like them because they are too difficult for me.*"

Student interviews (4.6%, N=44)	S37: "*I do not like performing role plays. I like to listen to the materials and then read them out, because I can imitate the native speaker's pronunciation. The more I read, the better I will be*".
Student online learning logs (1.5%, N=130)	S82: "*I think it doesn't work on me because I prefer reading and listening, I don't like perform role plays.*"

5.2.2 Positive Opinions

Table 5.3 above shows that the majority of the students expressed affirmative opinions towards the implementation of constructive role plays via e-learning, because as shown in Figure 5.1, 90% of the students reported with positive opinions in student questionnaires (open-ended), 88.6% of the students held positive opinions in student interviews, and there were 96.2% of the students who exhibited their agreements on the utilization of constructive role plays via e-learning in student online learning logs. The percentages of positive opinions were much higher than that of the indecisiveness and negative opinions.
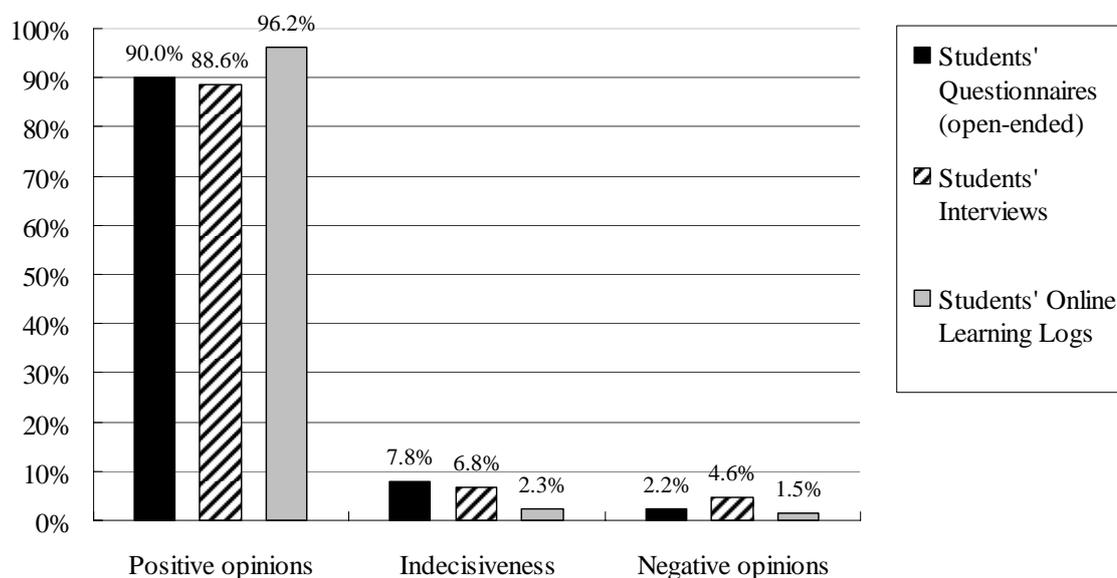
Figure 5.1 Comparison of the Percentages of the three Categories of Opinions

Elicited from Student Questionnaires (open-ended), Student

Interviews, and Student Online Learning Logs

From the previous discussion, the pedagogical value of role plays has long been acknowledged by some scholars (Ge, Lee, & Yamashiro, 2003; Jones, 1982; Ladousse, 1991; Livingston, 1983; Maley & Duff, 1978; Northcott, 2002; Woodhouse, 2007). Based on the constructive learning theory, learning is an active process in which new knowledge is developed on the basis of previous experiences. In the present study, constructive role play activities provided EFL learners with different language proficiency levels an active and interactive learning environment. Those role plays enable students to develop skills to engage in real-life situations. Constructive role play is a highly flexible learning activity with a wide scope for variation and imagination. It involves different communicative techniques, develops learners' language fluency, and promotes interactions in the classroom as well as reduces anxiety and increases motivation. Using constructive role plays as teaching activities allows students to check the knowledge that they have already learnt from their previous studies, and/or to explore new knowledge by interacting with other classmates (Ladousse, 1991; Simina & Hamel, 2005).

To sum up the discussion here, based on the data analysis from 4.5 to 4.7 of Chapter 4, students expressed positive opinions towards the utilization of constructive role plays. The majority of the students expressed that constructive role plays should be utilized more in speaking classes because they actively participated in learning to speak English. The instructions and scaffolding provided by the teacher helped

students understand better before performing constructive role plays and students were actively involved in the center of the whole learning and teaching process.

5.2.3 Indecisiveness and Negative Opinions

However, among those agreements, there were some of the students who showed their indecisiveness or disagreement towards the implementation of constructive role plays via e-learning, for example, there were 7.8% (or 10) of the students with medium (3 students) and low (7 students) language proficiency levels who reported with indecisiveness in student questionnaires (open-ended), and 4.6% (or 2) of the students with low language proficiency level showed their disagreements in student interviews (see Figure 5.1). Nevertheless, students with high language proficiency level did not report indecisiveness and negative opinions towards constructive role plays via e-learning. Two main categories can be summarized to explain the reasons why those students with medium and low proficiency levels answered with indecisiveness and disagreement.

First, some problems occurred during students performing the constructive role plays via e-learning, as some of the students reported that they met problems when working out constructive role plays in student questionnaires (open-ended). For example, 1) students reported that the time was not enough for them to act roles out in class; 2) they felt nervous when performing the role plays, and that is the reason why some of the students suggested that the teacher could ask them to imitate role plays and focusing on working out one role play in class, then the teacher could give assignments for students to

prepare the rest of the role plays and let students perform them in the next class, then, they could gain more chances and time to prepare and practice the role plays.

Furthermore, the unstable Internet connection wasted some of the class time for working out role plays, and the broken microphone and computer system made students feel whiny in changing different computers and it also wasted the class time for acting role plays out. Those problems may discourage students to continue working out constructive role plays via e-learning. As Dimova (2007) argued that computers can only do what they are programmed to do because computers are machines. No matter how powerful they are, computers still cannot replace the teacher. Computers cannot handle such unexpected situations as sudden termination of system operation and low connection of the Internet. Moreover, EFL learners' learning situations are various and changeable. Because of the limitations of computer's artificial intelligence, computer is unable to deal with EFL learners' unexpected learning problems and to response to their questions immediately as teachers do. That is the reason why Wang (2006) suggested that people still need to put effort in developing and improving computer technologies based on reasonable learning theories and instructional methods in order to better assist L2 educators and EFL learners with different language proficiency levels.

However, despite those disadvantages of CALL and e-learning, within the constructivistic point of view, knowledge is constructed through interactions with the environment in which personal experiences are stimulated. Constructivism advocates

that there are no cause-effect relationships between the world and the learner. Learning depends on the view of the learner. Furthermore, a constructive e-learning has the potential to impact positively on L2 speaking classes. An appropriately designed, learner-centered, and constructive e-learning has the potential to assist EFL learners with different language proficiency levels to cope with significant changes in acquiring a language (Holmes & Gardner, 2006; Jonassen, Davidson, Collins, Campbell, & Haag, 1995).

Second, the individual difference is another aspect which may affect the implementation of e-learning constructive role plays in the present study. For example, there were 4.6% (or 2) of the students with low language proficiency level who reported in student interviews that they did not like acting out role plays, they still preferred reading and listening activities. In the light of the previous discussion, constructive learning encourages EFL learners to acquire necessary knowledge and skills in order to find meaningful solutions to the real-life problems (Berthold, Nückles, & Renkl, 2004; Hoover, 2001; Meng, 2007; Savery & Duffy, 2005; Tosh & Werdmuller, 2005). As a result, in the present study, it is acceptable for those EFL learners to acquire certain knowledge to find out suitable solutions to their own studies without working on constructive role plays via e-learning.

It is argued that an effective learning content is not delivered by the advancement of technology. It has to be rooted in the reasonable and reliable learning theories and appropriate instructional design. Since constructive role plays via

e-learning in the present study requires students' basic skills to master computers, one of the disadvantages of CALL and e-learning is that it will take students a long time and a lot of energy to learn the basic skills for using a computer before they can even begin to use them to study a subject. This may discourage those students who do not prefer using computers to learn to speak English (Davies, 2005; Sun & Williams, 2005). In the light of the previous discussion, it indicates that the teacher should provide more guidance and assistance for EFL learners with different language proficiency levels to actively obtain knowledge by exploring and observing suitable learning skills so that they can also benefit from the L2 speaking classes.

Nevertheless, a properly designed CALL and e-learning in L2 speaking class can benefit both teachers and EFL learners as Zhang (2005) concluded that CALL and e-learning are becoming increasingly important in both of our personal and professional lives. More and more language learning process now is involved with the use of technology, especially in the content of the development of the Internet. Computer-assisted language learning should be integrated step by step, and some of the computer activities should be included in the curriculum with well-defined goals. Constructive e-learning environments encourage learners to provide thoughtful reflections and feedbacks, it empowers EFL learners with different language proficiency levels to test out their own knowledge, then, to explore new information and construct new knowledge rather than simply repeat from what the teacher teaches. However, various computer technologies differ in the way and extent to which they

facilitate the achievement of constructive learning. As a result, it is the teacher who needs to identify those technologies and the implementations of technologies, which can be best filled with the curricular goals for L2 speaking learning and teaching process (Bonk & King, 1998; Chapelle, 1997; Cobb, 1994; He, 2002; Schuman, 1996; Tella & Mononen-Aaltonen, 1998).

In conclusion, discussions above from student questionnaires, student interviews, and student online learning logs in the present study reflected that students exhibited affirmative opinions towards the implementation of constructive role plays via e-learning in L2 speaking classes. Scaffolding and instructions on how to carry out constructive role plays via e-learning are essential and necessary because scaffolding help students understand the materials and the tasks better before they start the role plays. Interactions are another indispensable element to promote learner-centered learning. In the present study, students are the center of the whole learning and teaching process, constructive role plays via e-learning can reduce EFL learners' tension and nervousness, motivate students to be actively engaged in the process of learning to speak English. They enthusiastically apply as much knowledge as possible from their previous studies to construct new knowledge. Students actively explore the knowledge instead of passively accept it. The teacher becomes a study helper instead of a lecture giver. It is helpful to create an active, interactive and constructive learn to speak English environment for students to practice their L2 speaking.

5.3 Summary of Chapter 5

This chapter mainly discussed the research results in response to the two research questions and research hypotheses which had arisen from the present study, and referred to the research studies and theories which were relevant to those findings. The main reasons for the results of the first research question and hypothesis were that the constructive role plays via e-learning were effective and appropriate. Students' speaking performance improved after they practiced speaking with constructive role plays via e-learning. The major reason for the results of the second research question and hypothesis was the clear and systematic instructions and scaffolding provided by the researcher helped students understand better before they start the role plays and they obtained more interactions with each other when performing constructive role plays. Students actively constructed new knowledge instead of passively accepted it. As well, students exhibited affirmative opinions towards the utilization of constructive role plays via e-learning. In the next chapter, the limitations of the study, the pedagogical implications, and some suggestions for further research will be discussed.

CHAPTER 6

CONCLUSIONS

In this chapter, the research findings are summarized and a conclusion will be drawn according to the results of the study. Pedagogical implications to EFL speaking learning and teaching are presented. Finally, limitations of the present study and suggestions for further research are described in details.

6.1 Summary of the Study

The current study was conducted to examine the effectiveness of the implementation of constructive role plays via e-learning on Chinese EFL students' speaking and to investigate their opinions towards the constructive role plays via e-learning. The mixed research design was employed. Quantitatively, students' speaking pretest and post-test scores were compared to find the significant difference and qualitatively, students' opinions towards the utilization of constructive role plays via e-learning were explored. Two research questions were examined and two hypotheses were accepted.

Based on the results and discussions of this study, it can be concluded that constructive role plays via e-learning can help improving students' L2 speaking. From the analysis of research findings in Chapter 4 and based on discussions in Chapter 5,

students' speaking performance improved after they practiced speaking with constructive role plays via e-learning. And, students expressed positive opinions towards the use of constructive role plays via e-learning in speaking classes. The implementation of constructive role plays via e-learning, the scaffolding and instructions provided by the teacher before students began to perform constructive role plays helped EFL learners construct knowledge based on the previous learning experience. Students actively engaged in performing tasks in constructing role plays by imitating similar ones from their previous studies, exploring more information from many aspects and students created new conversations by substituting new words and varying sentence structures from the original dialogues, which is different from the existing behavoristic role plays on the NHCE e-learning in terms of the instructional design. The majority of the students agreed that constructive role plays via e-learning should be implemented more in EFL speaking classes so that their speaking could be improved and they were actively motivated to practice more.

In line with the previous analysis and discussions, role play is an activity that can be utilized to help students with their L2 learning. Furthermore, constructive role plays make students become more interested and get involved in classroom learning by addressing problems, exploring alternatives, and creating solutions, not only in terms of material learning, but also in terms of integrating the knowledge learned in action. In the present study, constructive role plays via e-learning provide suitable way to develop the skills of initiation, communication, problem-solving,

self-awareness, and cooperative-working in teams. Based on the constructive point of view, constructive role plays develop a greater understanding of the classroom practice and enable students to develop skills to engage in their real-life situations.

Moreover, computer-assisted language learning has become increasingly useful in second/foreign language learning. The application of CALL in speaking classroom can increase the classroom information capacity, enlarge the language input value, and also, CALL can provide more opportunities for language practices for EFL learners. And, as a part of CALL, e-learning has the potential to impact positively on L2 speaking classes. Additionally, constructive learning theory with an emphasis on the active role of the learner in building understandable information can be applied in constructing interactive knowledge and in developing a learning process. Meanwhile, task-based language learning and teaching approach helps EFL learners acquire reasonable solutions when learning a foreign language. It is the task instructions which help motivate EFL learners to speak more, ease their nervousness and anxiety when performing constructive role plays via e-learning. Teachers can improve the quality of students' English practices with different language proficiency levels by encouraging them to generate a variety of responses, explore more information from online resources and think actively on how to construct knowledge based on their previous experience, rather than the usual set and prescribed responses to a situation that a role may demand. This means students can be actively involved in the whole learning process by gathering and summarizing EFL speaking knowledge from what

they have learnt before and from their real-life experience, and/or generating new speaking knowledge for their future use.

To sum up, based on the research results and discussions of the present study, the constructive role plays via e-learning are useful on improving students' L2 speaking, and, even though there are certain indecisiveness and negative opinions towards constructive role plays via e-learning in the present study, the majority of the students still confirmed that they approve the implementation of constructive role plays via e-learning in EFL speaking classes.

6.2 Pedagogical Implications

The present study aims at investigating the implementation of constructive role plays via e-learning on Chinese EFL learners' speaking in college English classes. Some pedagogical implications can be concluded as follow.

Firstly, from the research results and the discussions of the study, it can be found that currently, the appropriate integration of CALL, the Internet technology and e-learning is essential to the success of English language learning and teaching in Chinese context, especially for Chinese universities' EFL learners. As well, it is also essential to implement a constructive and interactive learning model in college English study, because students can actively participate in the whole learning process instead of passively accept what the teacher teaches. The findings from this study are directly beneficial to other researchers aiming at developing students' L2 speaking abilities with different language proficiency levels as well as teachers' L2 speaking instructional methods.

Secondly, the present study can help in contributing the understanding of CALL, e-learning, role play and constructivism in Chinese context, which is necessary because the new Chinese education system emphasizes the goal of shifting from studying for examinations to quality education. The present study provides some insights into how constructivism and e-learning could possibly be effectively applied to help Chinese students' learn to speak English, which is also in line with the reformation of college English learning and teaching in China.

Thirdly, the present study has explored the effectiveness on the shift from teacher-centered instruction to student-centered learning. Based on the previous discussions in Chapter 5, currently, students are the center of the whole process of English learning and teaching, and the teacher's role has changed. According to constructivists' point of view, it is the learner who actively participates in the process of problem-solving and critical thinking regarding a learning activity, which they find relevant and engaging. The emphasis is placed on the learners rather than the teachers.

6.3 Limitations of the Study

This study triangulated data collection including pretest, post-test, student questionnaires, student interviews, student role play recording language analysis, teacher logs, and student online learning logs. The triangulation method in the study enabled the researcher to verify the research findings. Triangulating quantitative and qualitative data and methods contributes to a better understanding of the investigation of the effects of constructive role plays via e-learning on students' L2 speaking

performance. However, although the present study yielded some insights and perspectives about implementing constructive role plays via e-learning in EFL speaking classes in Chinese universities, some limitations should be addressed.

First, the subjects of this study were the limited population of second-year undergraduate non-English major students at Guizhou University, People's Republic of China. If the investigation had been extended to students who were not from second-year and were not from Guizhou University only, the results of the study would be more generalizable to a broader scope instead of confining to a single level.

Second, the purposive sampling procedure of the present study decreased the generalizability of the research findings. The subjects of this study were chosen based on convenience and availability. The participants of this study came from the classes that the researcher taught, other classes taught by other teachers were not included. Because of this limitation, the findings of this study should not be generalized to all areas of EFL speaking learning and teaching.

Third, the present study does not examine the grammatical functions when analyzing the data from student role play recordings. If the investigations had involved the analysis with grammatical structures and functions, it would be more applicable for EFL learners on learning to speak English more effectively.

Fourth, the present study focuses on investigating the effects of the implementation of constructive role plays via NHCE e-learning, and Guizhou University is the only university who has the NHCE e-learning system among

universities in Guizhou Province, People's Republic of China. Therefore, the instructional process in the present study was designed based on the NHCE e-learning system. It may not be suitable and applicable to all other universities who do not have the NHCE e-learning system for EFL speaking classes.

6.4 Suggestions for Further Research

The limitations discussed above lead to the need to conduct further research that explores the effects of the implementation of constructive role plays via e-learning in L2 speaking classes. Based on the information from the present study, the researcher offers some recommendations for further research in college English speaking classes.

First, this study was a preliminary attempt to improve EFL speaking performance by utilizing constructive role plays via NHCE e-learning in L2 speaking classes for non-English majors. More research in this area is clearly needed to be conducted since the new Chinese education system emphasizes the shift from studying for examinations to quality education and EFL speaking continues to take an increasing importance in second/foreign language settings, thus, continual attention must be given to the processes of L2 speaking learning and teaching for EFL university students in China.

Second, the present study limited the participants in the second year non-English majors from one university. A wider range of participants which may include both the first year and the second year non-English majors who are not from only one

university could be considered to get more informative data for further analysis.

Third, the present study does not consider gender as one variable. It is possible for further research to consider gender as one of the variables to investigate students' L2 speaking performances. Different genders may influence students' speaking in performing this type of role play tasks and research exploring the effects of gender could be conducted.

Fourth, the present study does not investigate the grammatical structures when students performing constructive role plays via e-learning. The analysis from student role play recordings were only examined in the light of the word substitutions with synonyms, antonyms and other proper nouns, and sentence variations in terms of the length and the sentence structure. It is helpful for future research to analyze student conversation scripts in terms of the grammatical structures and functions so that results could provide more insightful data on student speaking performance. Moreover, the exploration of grammatical functions in conversations can help finding meaningful solutions on how to effectively assist EFL learners in college English speaking classes.

A final suggestion for further research is to examine effects of learning strategies via the Internet. To my best knowledge, there has been little research on learning strategies utilized for L2 speaking learning with computers and technologies, for example, constructive role plays via e-learning. There could be more empirical studies in this regard.

All in all, research on implementation of constructive role plays via e-learning on EFL learners' speaking performance is well worth conducting. It is the researcher's hope that this study has made certain significance and contribution to the research in the field of EFL speaking.

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APPENDIX A

Needs Analysis Questionnaire 需求分析问卷

Students' opinions towards the NHCE e-learning. 学生意见

1. What do you think about the usefulness of the NHCE e-learning in terms of improving your speaking? Explain the reason why? Please write down your reasons. 你认为 NHCE 网络平台能够提高你的口语吗？请说明原因？
   ☐Very useful   ☐Useful   ☐Undecided   ☐Little useful   ☐Non useful
      非常有用   有用   不确定   没多有用   根本没用
   _____

2. How much did you learn from the NHCE e-learning from your previous studies in terms of speaking? 你从 NHCE 平台学到多少知识？
   ☐Very much   ☐Much   ☐Little   ☐Very little   ☐Nothing
       很多   比较多   较少   很少   根本没有

3. Which speaking activity do you like most? Why? Please write down your reasons. 你最喜欢那项口语活动？为什么？
   ☐Role play   ☐Read and compare   ☐Listen and retell
       角色扮演   阅读比较   听音复述
   _____

4. What do you think about the usefulness of the role play? Why? Please specify your reasons.你认为角色扮演活动有用吗？为什么？
   _____
   ☐Very useful   ☐Useful   ☐Undecided   ☐Little useful   ☐Non useful
      非常有用   有用   不确定   没多有用   根本没用

5. What's your opinion towards role play? Please specify your answer.你对角色扮演活动有什么意见看法吗？请说明。
   _____

6. Do you think you get enough interaction with your classmates from role plays on the NHCE e-learning? If yes, why? Please specify your reasons.你认为角色扮演活动让你和同学时间有足够的互动吗？如果有，是什么样的互动？
   _____

   If not, why not? 如果没有，为什么
   _____

7. Do you have any other comments on the NHCE e-learning? Please specify your answers. 针对 NHCE 网络平台你有什么评价吗？

_____

8. In your opinion, what should be improved? Please specify your answer. 在你看来哪些地方需要改进？

_____

Opinions of teachers on the NHCE e-learning. 教师意见

9. What do you think about the usefulness of the NHCE e-learning? And why? Please write down your reasons. 你认为 NHCE 网络平台有用吗？为什么？

☐Very useful   ☐Useful   ☐Undecided   ☐Little useful   ☐Non useful
  非常有用   有用   不确定   没多有用   根本没用

_____

10. Please rate your experiences in using NHCE e-learning on the following scales. 请就以下项目作出您的评估

(5=very much; 4=much; 3=little; 2= very little; 1=nothing)

Easy 容易	5	4	3	2	1	Difficult 困难
Interesting 有趣	5	4	3	2	1	Boring 无聊
Clear 清晰	5	4	3	2	1	Confused 混淆
Instruction						Instruction

11. Do you use role play? If yes, how often do you use it in your teaching?您课堂上运用角色扮演活动吗？如果有，多久用一次？

_____

12. Which speaking activity do you do the most in speaking class? Why? Please specify your reasons. 课堂上最常用哪种活动进行教学？为什么？

☐Role play   ☐Read and compare   ☐Listen and retell
  角色扮演   阅读比较   听音复述

_____

13. Do you have any other comments on the NHCE e-learning? Please specify your answers. 针对 NHCE 网络平台你有什么评价吗？

_____

14. In your opinion, what should be improved? Please specify your answer. 在你看来哪些地方需要改进？

_____

APPENDIX B

Background Information Questionnaire
个人信息调查问卷

Gender 性别: ☐Male 男   ☐Female 女

1. How long have you been learning English? _____ years. 你已经学了多少年的英语？_____年。

2. What's your English score from last semester's final exam, please specify it. 上学期英语期末成绩是多少？请写出具体分数_____

3. Do you know how to use the NHCE e-learning? 你知道如何使用大学英语网络平台吗？
   ☐Yes 知道   ☐Undecided 不确定   ☐No 不知道

4. Do you know role play speaking activities? 你知道角色扮演这种口语活动吗？
   ☐Yes 知道   ☐Undecided 不确定   ☐No 不知道

5. How familiar are you with the role play activity? 你对角色扮演活动有多熟悉？
   ☐Very familiar   ☐Undecided   ☐Not familiar at all
      很熟悉   不确定   根本不熟悉

6. How frequently do you use role play activities in speaking class? 口语课堂上经常使用角色扮演活动训练口语技能吗？
   ☐Frequently 经常   ☐Rarely 很少   ☐Never 从来没有

7. How frequently do you practice your English speaking after class? 课后你经常练习英语口语吗？
   ☐Frequently 经常   ☐Rarely 很少   ☐Never 从来没有

APPENDIX C

Student Questionnaire 学生问卷调查

Opinions towards the Use of Constructive Role Plays via E-learning
基于网络平台进行构建型角色扮演活动的意见调查

Direction: This questionnaire is designed to gather information about your opinions towards the use of constructive role plays via e-learning. Please read each statement carefully and mark (√) the response which best describes your opinions.

说明： 此问卷的目的在于收集您对口语课堂上通过网络平台辅助进行构建型角色扮演活动训练口语技能的意见。请仔细阅读以下条目，在最能够表达您意见的位置划（ √ ）

5 = strongly agree	**5＝完全同意**
4 = agree	**4＝同意**
3 = undecided	**3＝不确定**
2 = disagree	**2＝不同意**
1 = strongly disagree	**1＝完全不同意**

Example:
举例：

	5	4	3	2	1
Role play is useful in speaking class. 角色扮演活动在口语课上是有用的		√			

Explanation: It means that you somewhat agree that role play is useful in speaking class. 此处表示你比较同意角色扮演活动在口语课上是有用的

Questions 问卷部分

Your opinions towards the use of constructive role plays via e-learning.您对通过网络平台进行构建型角色扮演活动的意见	5	4	3	2	1
1. The instruction before performing constructive role plays via e-learning is necessary.构建型角色扮演活动开始前的说明部分是必要的					
2. The constructive role plays via e-learning are interesting.构建型角色扮演活动是有趣的					
3. The constructive role plays via e-learning make learning to speak English enjoyable.构建型角色扮演活动使得口语课堂生动有趣					
4. The constructive role plays via e-learning offer me useful information on how I can speak idiomatic English.构建型角色扮演活动给我提供了关于英语口语习语的有用信息					

5. The constructive role plays via e-learning help me generate similar conversations easily.构建型角色扮演活动有助于我容易地构建出其他类似对话					
6. The constructive role plays help me improve my speaking performance.构建型角色扮演活动有助于我的口语技能的提高					
7. The constructive role plays via e-learning motivate me to practice more.构建型角色扮演活动激励我更多的参与口语训练					
8. The constructive role plays via e-learning should be utilized more in speaking classes.构建型角色扮演活动应该在口语课堂上多使用					
9. I feel shy and/or hesitant when performing the constructive role plays via e-learning. 角色扮演时我感到害羞、结结巴巴					
10. I feel nervous when I act the role out with my partner via e-learning.在和同伴表演对话的时候我感到紧张					
11. I find that time is not enough for me to act the role out in class.我觉得每堂课上老师规定的角色扮演时间不够用					
12. I prefer reading out the role script to acting the role out with a partner.我更喜欢读出角色的台词而不喜欢和同伴进行角色表演					

Please answer the following questions. 请回答下列问题。

13. What do you like the most about the constructive role play? And why? Please write down 你最喜欢角色扮演活动的什么特点？为什么？
_____

14. Do you think the role play's topics are too easy or too difficult for you? And why? Please write down. 你觉得角色扮演的话题太容易或者太困难吗？为什么？
_____

15. Do you have any problems when acting the role out with your partner? If yes, what are your problems? Please write down. 你在进行角色表演的时候是否有困难？如果有，请说出困难所在。
_____

16. If you have any suggestions and comments to the constructive role play, please write down. 你对角色扮演活动有什么意见或看法吗？请写下你的意见以及看法。
_____

Thank you for your cooperation!
谢谢合作！

APPENDIX D

Interview Questions

1. Why do you think constructive role plays are good for improving your speaking skills? 你觉得构建型角色扮演活动能够提高你的口语吗？

2. Do you think the scaffolding for constructive role play is necessary? Why or why not? 你认为支架模式在构建型角色扮演终是必要的吗？为什么？

3. Do you think that constructive role plays should be used in speaking classes? Why or why not? 你认为构建型角色扮演活动应该在口语课上使用吗？为什么？

4. Why do you think the existing behavioristic role plays are good for your speaking study? 为什么你认为已有的行为式角色扮演活动对你的口语有帮助？

5. Do you think the instruction of the role play is necessary? Why or why not? 你认为角色扮演的介绍部分是必要的吗？

6. Did you enjoy the role play in speaking classes? Why or why not? 你在口语课上喜欢角色扮演活动吗？为什么？

7. Did the role play help you participate actively in speaking classes? Why or why not? 角色扮演活动使你积极参与口语课堂学习吗？为什么？

8. How did the role play help to improve your speaking skills? 角色扮演活动如何帮助提高你的口语？

APPENDIX E

CET Spoken English Test (CET-SET)

1. Grading criteria

a. Veracity – examinees' pronunciation, intonation and the level of using grammar.

b. Language scope – examinees' level of using language and its scope

c. Length of the talk – examinees' contribution to the conversation

d. Continuity – examinees' ability of continue talking

e. Agility – examinees can handle different topics with different situations

f. Pertinency – examinees' ability for choosing suitable language to talk under some certain situation.

2. Exam format

CET-SET

- Part 1: examiner's conversation with examinees. Asking and answering questions. (5 minutes)

- Part 2: examinee's individual talk and group discussion (10 minutes)

- Part 3: examiner asking questions again. (5 minutes)

3. Grading criterion

Categories / Scoring Bands	Category 1 Veracity and Language scope	Category 2 Length of the talk and Continuity	Category 3 Agility and Pertinency
5	• Correctly use of grammar and words. Plenty of words and complex structure • Good pronunciation	• When discussing topic, examinee can use continuous words and talk for a relative long time	• Examinee can join the conversation naturally and freely • The use of language is quite suitable to certain situation.
4	• Some mistakes of the use of grammar and words • Pronunciation is ok	• Examinee can conduct a continuous talk, but with short and simple content. Examinee often stops	• Examinee can actively join the conversation, but sometimes cannot talk with partners quite well • The use of language is ok for some certain situation
3	• Mistakes of grammar and words affect the conversation • Simple structure of language use and simple words • Some pronunciation problems	• Short conversation • Often stops when think about topics but can finish the basic part of talking	• Examinee cannot join the conversation actively. Sometimes examinee cannot match the topic with some certain situation
2	• There are many mistakes of the use of grammar and words. It affect the talk a lot • Poor pronunciation	• Very short and examinee cannot do the continuous talk	• Examinee cannot join the group discussion

APPENDIX F

CET-SET Sample Test

Main Topic: City Life
Sub-topic A: City Traffic

Part 1 (5 minutes)

Examiner:

Good morning (Good afternoon), everybody. Could you please tell me your name and the number of your admission ticket? Your name, please. And your number? … Your name? … And your number? ... Thank you.

Now would you please briefly introduce yourselves to each other? Remember, you should not mention the name of your university. (1.5 minutes)

OK, now that we know each other we can do some group work. First of all, I'd like to ask each of you to say something about life in the city.
[C1, C2, C3]
1) How do you like living in Beijing (Shanghai , Nanjing …)?
2) What do you think is the most serious challenge of living in a city like Beijing (Shanghai , Nanjing …)?
3) How do you like shopping in a supermarket?
4) Where would you like to live, downtown or in the suburbs, and why?
5) What measures do you think we should take to reduce air pollution in Beijing (Shanghai , Nanjing …)?
6) Can you say something about the entertainment available in your city?
7) Where would you like to find a job after graduation, in a big city like Beijing or Shanghai or in a small town and why?
8) What's your impression of the people in Beijing (Shanghai , Nanjing …)?

Part 2 (10 minutes)

Examiner:

Now let's move on to something more specific. The topic for our discussion today is "City Traffic". You'll have a picture (some pictures) showing two different types of transport. I'd like each of you to give a brief description of each type and then compare the two types. You'll have one minute to prepare and each of you will have one and a half minutes to talk about the picture(s). Don't worry if I interrupt you at the end of the time limit. Now here are your pictures.
[1 minute later]
Now, *[C1],* **would you please start first?** *[C2]* **and** *[C3],* **please put your pictures aside and listen to what** *[C1]* **has to say.**
[1.5 minutes later] **OK.** *[C2],* **now it's your turn.**
[1.5 minutes later] **OK,** *[C3],* **and now it's your turn.**

Right. Now we all have some idea of various kinds of city transport. I'd like you to discuss this topic further and see if you can agree on which is the best type of transport for a big city like Beijing (Shanghai , Nanjing …). During the discussion you may argue with each other or ask each other questions to clarify a point. You will have about four and a half minutes for the discussion. Your performance will be judged according to your contributions to the discussion.
[If one candidate talks too long]
Sorry, I'll have to stop you now. Let's listen to what *[C?]* **has to say.**
[If one candidate keeps silent for a long time] / [If the group is silent for some time, then ask one of the candidates to start the discussion.]
Now, *[C?],* **could you please say something about your view of …?**
[4.5 minutes later]
All right, that's the end of the discussion.

Part 3 (5 minutes)

Examiner:

Now I'd like to ask you just one last question on the topic of "City Traffic".
[Select a question from the following list to ask each of the candidates.]
[C1 or C2 or C3]
• **During the discussion, why did you say that ... ?**
• **What kind of transport do you usually use in your city?**
• **Do you have any suggestions as to how traffic conditions can be improved in big cities?**
• **Do you think private cars should be encouraged?**
• **Why do you think some Western countries encourage people to ride bicycles?**
Now, that's the end of the test. Thank you, everybody.

Certificate Grades

Grade	Descriptions	Certificate
A (13.5-15)	Examinees have no difficulties to use English for daily conversations.	Yes
B (11-13.4)	Examinees can use English for daily conversations. And there are some difficulties, but they will not affect the understanding to the conversation.	Yes
C (8-10.9)	Examinees can use English only for some simple conversations. And the conversation cannot go on smoothly.	Yes
D (less than 7.9)	Examinees are not qualified to use English for basic conversation.	No

http://www.cet.edu.cn/cet_spoken1.htm

Explanation of the style

Content	style	example
• examiner	**A**	**Good morning.**
• clew to examiners	[A]	[Interrupt him/her if …]
• examinee	[A]	*[C1]*
• time	(A)	(5 minutes)
• process	*A*	*Part 1*
• convertibility	( )	Good morning (Good afternoon)

Picture cards

A. Bicycle and motorcycle
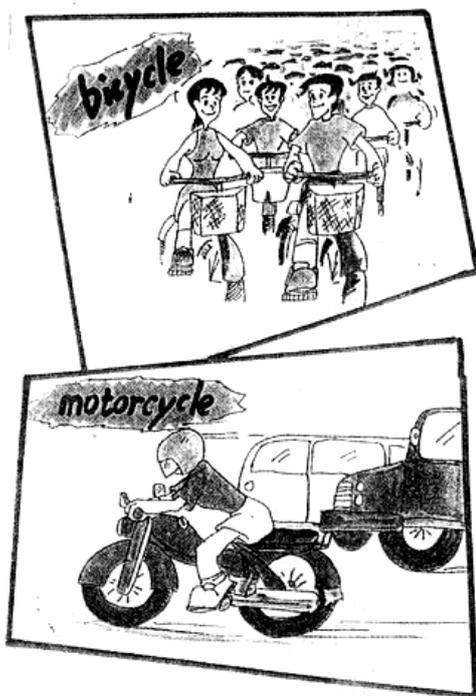
B. Bus and subway
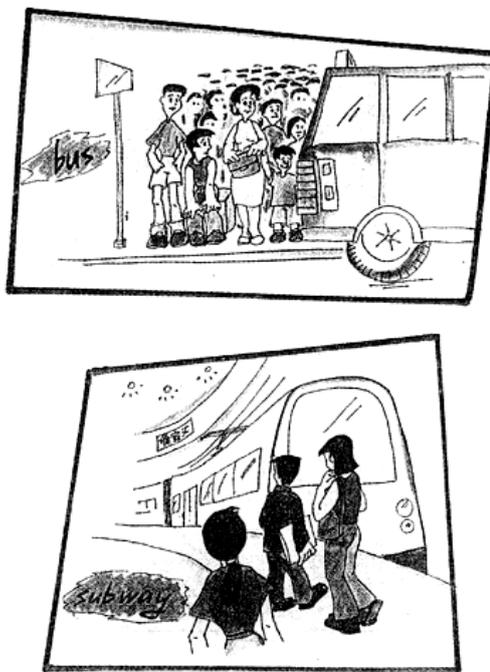
C. Private car and taxi
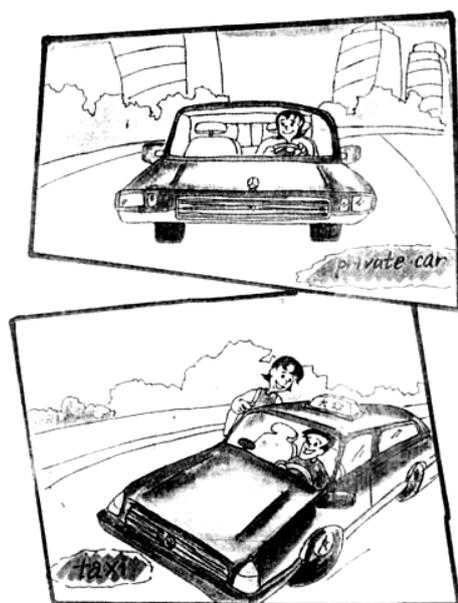
APPENDIX G

Topics in the Previous CET-SET Tests (1999-2001)

Main topics	Sub-topics	
City Life	A: City Traffic (1999)	B: Traffic Accident (2001)
	A: Mass Media (2000)	B: TV Commercials (1999)
	A: Pollution (1999)	B: Plastic Bags (2001)
University Life	A: Student Accommodations (1999)	B: Students' Activities (2001)
	A: Keeping in Touch with Friends (1999)	B: Making Friends (2000)
	A: Hobbies (2000)	B: Part-Time Jobs (2000)
Leisure Activities	A: Physical Exercise (1999)	B: Week-Long Holidays (2000)
	A: Outside activities (2001)	B: Indoor Exercises (2001)
Education in China	A: Increased College Enrollment (2000)	B: Learning English (2000)
	A: Studying at Home (2001)	B: Going Abroad (2001)
Social Events	A: Generation Gap (2001)	B: Changes in People's Life (2000)
	A: Working for a Local Company (1999)	B: International Employee (1999)

CET spoken English test: A collection of past test papers. (2002). Shanghai: Shanghai Foreign Language Education Press.

APPENDIX H

Constructive Lesson Plans for Role Plays via E-learning

(Unit 1 – Unit 8)

Lesson Plan 1

Unit 1: All about me

Objectives:	Students can:	1. Talk about English names. 2. Introduce and greet people. 3. Respond to greetings.
Materials:	Video one: It's nice to meet you. Video two: How are you doing? Video three: I'd like you to meet my friend. Role scripts for those three video files.	
Time:	1 periods (60 minutes)	

Role Play: Computer lab class

Period:	2 (30 minutes, 10 minutes for each role play)	
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:	2 (30 minutes)	
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Greeting differently	Greetings differ from culture to culture. Take the customs of English-speaking people and the Chinese speakers for example. It is a common practice for English-speaking people to greet friends every time they meet during the same day. Thus the same greeting "How are you?" may be repeated several times a day to the same friend, which seems to be redundant and unnecessary to a Chinese speaker A Chinese speaker may greet his friends with "Ninzao" just once in the morning. To greet a stranger for the first time, he may just say "Ninhao".

Lesson Plan 2

Unit 2: Express yourself!

Objectives:	Students can:	1.	Express congratulations and sympathy.
		2.	Understand and talk about friendship
Materials:	Video one: Congratulations!		
	Video two: How wonderful!		
	Video three: What's wrong?		
	Role scripts for those three video files.		
Time:	1 periods (60 minutes)		

Role Play: Computer lab class

Period:	2 (30 minutes, 10 minutes for each role play)	
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:	2 (30 minutes)	
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Ears and mouth are good neighbors	If we want to be a good partner in a conversation, we have to be skilled as both listener and speaker. Think about our real-life conversations. We need to understand what the speaker is saying and respond correctly and appropriately. Researchers have found that the best speaking performances usually come from those students who have heard something on the same Topic beforehand. This tells us listening provides us with some prior knowledge about the Topic and therefore decreases the difficulty of our speaking activities. Don't you think so?

Lesson Plan 3

Unit 3: Let's eat!

Objectives: Students can: 1. Listen for people's food preferences.
                              2. Understand and talk about food
Materials: Video one: You got any ideas?
               Video two: What do you recommend?
               Video three: It's easier said than done!
               Role scripts for those three video files.
Time: 1 periods (60 minutes)

Role Play: Computer lab class

Period:		2 (30 minutes, 10 minutes for each role play)
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:		2 (30 minutes)
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Gap-fillers in English	In a conversation, sometimes you have to delay answering a question to think it over or check on the facts. On such an occasion, don't keep silent and think very hard. It's better to use some expressions to fill the gap. The following are some expressions that can be used for this purpose. ● *Well. let me see....* ● *Let me check....* ● *Good question....* Other useful expressions for the similar purpose may include: ● *I'm afraid,* ● *Let's say,* ● *...say, ...* ● *As far as I can say,* ● *You know,* ● *Don't you think,* ● *Do you Think, etc.* These expressions help not only fill the gap. But soften your tone of voice and make your words more polite. For example, it is better to say "Who do you think is the most valuable player this season?" rather than "Who is the most valuable player this season?" It sounds more polite to say "I'm afraid I can't agree with you." rather than "I can't agree with you."

Lesson Plan 4

Unit 4: Today's trends

Objectives: Students can: 1. Listen to people talk about health.
           2. Express worries and reassurance.
           3. Understand and talk about health and health problems

Materials: Video one: Everything will be OK.
     Video two: Is it serious.
     Video three: What's on your mind?
     Role scripts for those three video files.

Time: 1 periods (60 minutes)

Role Play: Computer lab class

Period:	2 (30 minutes, 10 minutes for each role play)	
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:	2 (30 minutes)	
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Sharing your worries and reassurance	People sometimes express worries about themselves or about others. When you express worries about yourself, you may say "It makes me uneasy" or "It worries me". When you ask "What's on your mind?" or "What's wrong?" you express worries about other people. You can reassure either yourself or others. When you want to reassure yourself, you can say "I wouldn't worry" or "I wouldn't be concerned". If you want to reassure others, you can say "You don't have to worry about that" or "Don't be concerned". Here are explanations of some words and expressions. 1) You say "No need to get so worked up" when you tell someone not to be so worried. "Worked up" means "very excited and showing strong feelings, especially when worried". 2) You say "Cheer up!" when you urge someone to be happy. It can also be used to encourage someone in an activity. For instance, in a sports meet, people will shout "Cheer up!" to encourage the athletes. 3) "Pull yourself together" means "control your own feelings".

Lesson Plan 5

Unit 5: Unsolved mysteries

Objectives:	Students can:	1. Make and respond to requests.
		2. Understand and talk about possibility and impossibility
Materials:	Video one: Where are you off to?	
	Video two: Could you do me a favor?	
	Video three: I was wondering if you could possibly …	
	Role scripts for those three video files.	
Time:	1 periods (60minutes)	

Role Play: Computer lab class

Period:	2 (30 minutes, 10 minutes for each role play)	
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:	2 (30 minutes)	
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Being indirect	When you make a request in English, it's important to be indirect sometimes. For example, instead of saying "Open the window!", you can be more polite by saying "Would you mind opening the window?" or "I was wondering if you could possibly open the window." Generally, the more indirect the expression you use, the more polite you seem. Note that you can be considered rude if you are too direct. You can either accept or decline a request. For example, you accept a request by saying "No problem." Or "That's fine with me." On the other hand. if you want to decline a request, you may say "I'd love to, but....", "I'd like to, but...." or "I'm sorry, but..."

Lesson Plan 6

Unit 6: The mind

Objectives: Students can: 1.   Make complaints and give warnings.
                              2.   Expressing degrees of certainty
Materials: Video one: Would you mind …?
               Video two: It's terrible!
               Video three: Take care!
               Role scripts for those three video files.
Time: 1 periods (60 minutes)

Role Play: Computer lab class

Period:		2 (30 minutes, 10 minutes for each role play)
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:		2 (30 minutes)
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Complaining politely	There're a number of ways of complaining in English. It's important to remember that a direct complaint often sounds very rude. It's best to mention a problem in an indirect manner. When making a complaint, you may show your reluctance and hesitation by a controlled tone, repetition and filled pauses to break the news to the hearer. For example, (1) I. [pause] er. I'm not exactly sure how to put this, but, um [pause].... Another point of a polite complaint is that you have to take the other party's interest into consideration. For example, (2) I'm sorry to bother you, but... [pause]. (3) There's something you could help me with. In example (2), you mention the possible trouble you may bring to the hearer. And in example (3), you speak from the perspective of the hearer and change your COMPLAINT to a FAVOR that the speaker can do to you. In short, if you want to make your complaint heard and accepted, you have to do it politely.

Lesson Plan 7

Unit 7: Let's celebrate!

Objectives: Students can: 1. Listen to people talk about their holiday plans.
                                    2. Give invitations.
                                    3. Understand and talk about holiday travels

Materials: Video one: Would you like to join …?
                     Video two: I was wondering if …
                     Video three: Can you make it?
                     Role scripts for those three video files.

Time: 1 periods (60 minutes)

Role Play: Computer lab class

Period:		2 (30 minutes, 10 minutes for each role play)
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:		2 (30 minutes)
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

To invite and to be invited	1. It is very common to invite people together for various activities. You can make invitations in a direct or indirect way. For example, "How about coming to our party this weekend?" can count as an indirect invitation, whereas "We'd like to invite you to our party this weekend" is a direct one.
	2. A reason is usually given if you wish to decline an invitation. For example, if you hear "Would you like to come boating with me tomorrow?", you could decline this invitation by saying "I'd like to, but I'm having examinations these days."
	3. Here are explanations of some words and expressions.
	  1) You say "How about... -ing?" when you invite someone to do something in a tentative way. "How about...?" can also be used to ask for information (e.g. How about Shaw?) or make a suggestion (e.g. How about a trip to Shanghai next week?).
	  2) You say "Can you make it?" when you ask someone if he or she can manage to accept your invitation. Therefore, it often means "Can you come?" or "Can you join me?"

Lesson Plan 8

Unit 8: In the neighborhood

Objectives: Students can: 1. Listen for rents and charges.
                               2. Deny and admit.
                               3. Understand and talk about housing
Materials: Video one: It's my fault.
              Video two: I don't do that.
              Video three: I'm afraid you're right.
              Role scripts for those three video files.
Time: 1 periods (60 minutes)

Role Play: Computer lab class

Period:		2 (30 minutes, 10 minutes for each role play)
Activities:	CG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the role play activity of this lesson. 5. Start the role play, read the role scripts out. Students are allowed to change the contents of the scripts, for example, persons' names.
	EG*	1. Log in NHCE e-learning. 2. Watch the video again. 3. Choose a role. 4. Enter into the chat room. 5. Start the role play, act the role out with another partner. Students cannot see the scripts. They can generate knowledge from the tutorial class, their previous studies, and their own English speaking knowledge. 6. Scaffolding: some help provided by the teacher.

Post-Role Play

Period:		2 (30 minutes)
Activities:	CG*	Quiz: the existing fill-in-the-blanks exercises according to the role scripts from those three role plays (30 minutes).
	EG*	Discussions with teacher and other classmates (15 minutes). Student online learning logs (15 minutes)

*Note: CG: Control Group; EG: Experimental Group

Conversation Strategy and Language Tips:

Denial and admission are risky!	You can make a denial in a strong or mild way. When you make a strong denial, you can say "I certainly did not." or 'That just isn't so" On the other hand, you say "I'm sorry, but I don't think I did that" or "I'm sorry, but that's not what I said" to make a mild denial. You can admit something in a direct or indirect way. For example, if you say "It's all my fault," you admit your fault in a very direct way. Conversely, you say "I hate to tell you this, but...." when you admit your fault in an indirect way. Here are explanations of some words and expressions: 　　1) You say "I really blew it!" when you admit that you indeed spoilt the whole thing. 　　2) You say "I'm to blame." when you admit that you are at fault and are responsible for something.

APPENDIX I

A Sample of Role Play Instruction in the Pilot Study
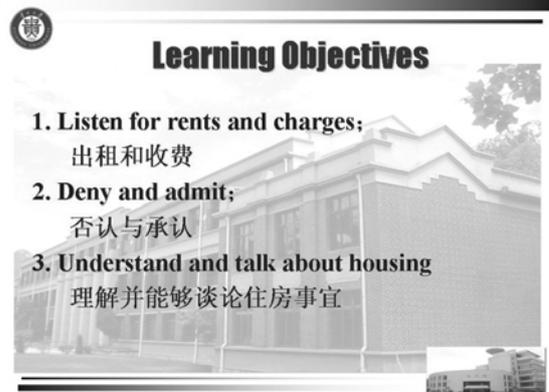
Role Play 1 – Task 1: It's all my fault

- David: Max, do you have the key? My hands are full.
- Max: No. Sorry.
- David: I thought you were going to pick up the key from the landlord.
- Max: I certainly did not. I thought you were going to do that.
- David: Not me, you. I arranged for the truck, and you were to pick up the key.
- Max: I hate to say it, but I think you're right. It slipped my mind.
- David: Looks like we're not getting in today.
- Max: Sorry. It's all my fault.

Role Play 1 – Task 1: It's all my fault

- It is a conversation between David and Max. *What's the topic about?* 此对话的主题是什么？

2. Please login NHCE e-learning platform; 请登陆大学英语学习平台；

3. Go to unit 8, "Speaking Out" activity; 进入第八单元，选择 "Speaking Out" 任务

Role Play 1 – Task 1: It's all my fault

4. Please choose a role (David/Max). 请选择一个角色（David/Max）。

5. Please watch the video again. 请再观看一遍视频。 ▶

Role Play 1 – Task 1: It's all my fault

Unit 8

Model 1   It's all my fault.

Role Play 1 – Task 1: It's all my fault

6. Please go to the chat room 请进入聊天室，

7. Act your role out with your partner using microphones.和你的同伴一起表演此对话。

8. You have 5 minutes. Your voice will be automatically recorded by the e-learning system. 5分钟的时间。你们的声音将被自动录入系统。

Role Play 1 – Task 2: On your own

9. Can you form a similar dialogue with your partner? You can change the names into yours. Try again.能否根据此对话组织一个类似的对话呢？你可以更换某些人物名称。尝试一下吧。

10. Act your role out with your partner again through chat room.和你的同伴一起再次表演此对话。

贵州大学
GUIZHOU UNIVERSITY

Ok, good job!

Let's go to Role Play 2

APPENDIX J

Speaking Pretest and Post-test

Pretest

Main Topic: University Life
Sub-topic A: Coping With Stress

Part 1 (5 minutes)

Warm up:

1. *What do you think of campus life?*
2. *How's the food in your school dining hall?*
3. *How often do you have tests? What if you don't do well on the tests?*
4. *How do you usually spend your weekends?*
5. *What would you do if you feel lonely on campus?*

Part 2 (10 minutes)

Discussion:

How to cope with the stress students may experience while studying at school? Please talk about the kind of pressure college students may experience as specified on your card:
C1: Academic pressure.   C2: Financial pressure.
C3: Job-hunting pressure.   C4: Emotional pressure.

Part 3 (5 minutes)

Last Questions:

1. *Why is it important for college students to learn to cope with stress?*
2. *Do you think it a good habit to stay up late before an examination? (Why or why not?)*
3. *Do you think pressure is always a bad thing? (Why or why not?)*
4. *Do you thing school authorities are paying enough attention to students' psychological health? (Please explain.)*
5. *Do you think psychological counseling can help students relieve their stress? (Why or why not?)*

Picture cards

A. Academic pressure
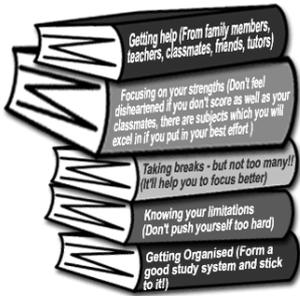
B. Financial pressure

C. Job-hunting pressure

D. Emotional pressure

Post-test

Part 1 (5 minutes)

Warm up:

> 1. *Do you find your life on campus enjoyable? (please explain)*
> 2. *How do you spend the last winter vacation?*
> 3. *How do you usually spend your weekends?*
> 4. *What optional courses do you take? (why do you choose them?)*
> 5. *Did it take you long to get adapted to campus life? (please explain)*

Part 2 (10 minutes)

Discussion:

> *In what way summer vacations benefit students? Cards: Suppose you are going to spend your summer vacation …. Say something about your plans.*
> *C1: traveling*
> *C2: taking a summer job*
> *C3: taking summer courses*
> *C4: working as a volunteer*

Part 3 (5 minutes)

Last Questions:

> 1. *Is it advisable for students to travel to remote areas during the summer vacation? (why or why not?)*
> 2. *What are the possible risks involved in traveling?*
> 3. *Have you ever thought of doing something for your family during the summer vacation? (please elaborate)*
> 4. *Do you think most students make good use of their summer vacation?(why do you think so?)*
> 5. *What precautions should college students take while traveling during the summer vacation?*
> 6. *During the discussion, why did you say that ….?*

Picture cards

A. Travelling

B. Taking a summer job

C. Taking summer courses

D. Working as a volunteer

APPENDIX K

Constructive Role Play Instructional Process Sample

Unit One

Objectives
1. To talk about English names.
2. To introduce and greet people.
3. To respond to greetings.

Step 1: Language Input: Background Introduction

Instructions: Take a look at the instructional presentation, study the conversation strategies on how to introduce people, talk about names and respond to people's greetings in English.

UNIT ONE
ALL ABOUT ME

LESSON A
THE PEOPLE IN MY LIFE

Talking about relationships

SPEAKING

Introducing people

Informal introductions	Formal introductions
Junko, *this is* Ricardo.	*I'd like you to meet* Tarry.
Maria, *meet* Harry.	*Let me introduce you to* Tarry.
I'm ... (My name is ...)	*Allow me to introduce ...*
	May I introduce myself?
	I have great pleasure in introducing ...
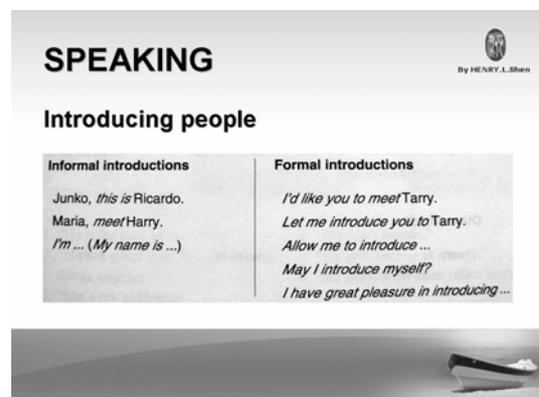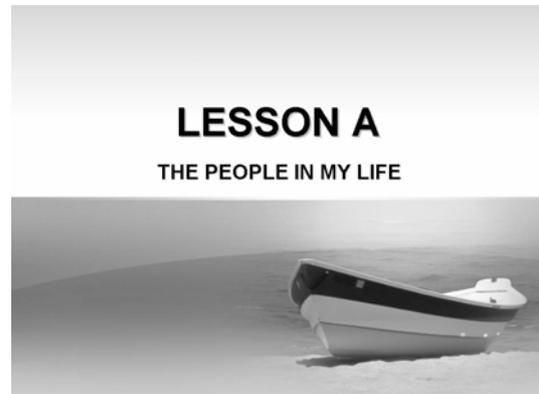
Step 2: Watch the Role Play Demo Video

Instructions: Watch the existing videos on each role play. Try to make notes on the language for conversations.

Step 3: Log in to NHCE e-learning, start role play tasks

**Instructions:** Log in NHCE e-learning, go to the role play tasks and start role play 1.

Step 3.1: Role Play 1

Instructions: Watch the video again, choose a role and enter into the chatroom.

A sample chatroom for working out constructive role plays
Explanation: Students start the role play by acting the roles out with another partner using microphones and earphones in the chatroom.
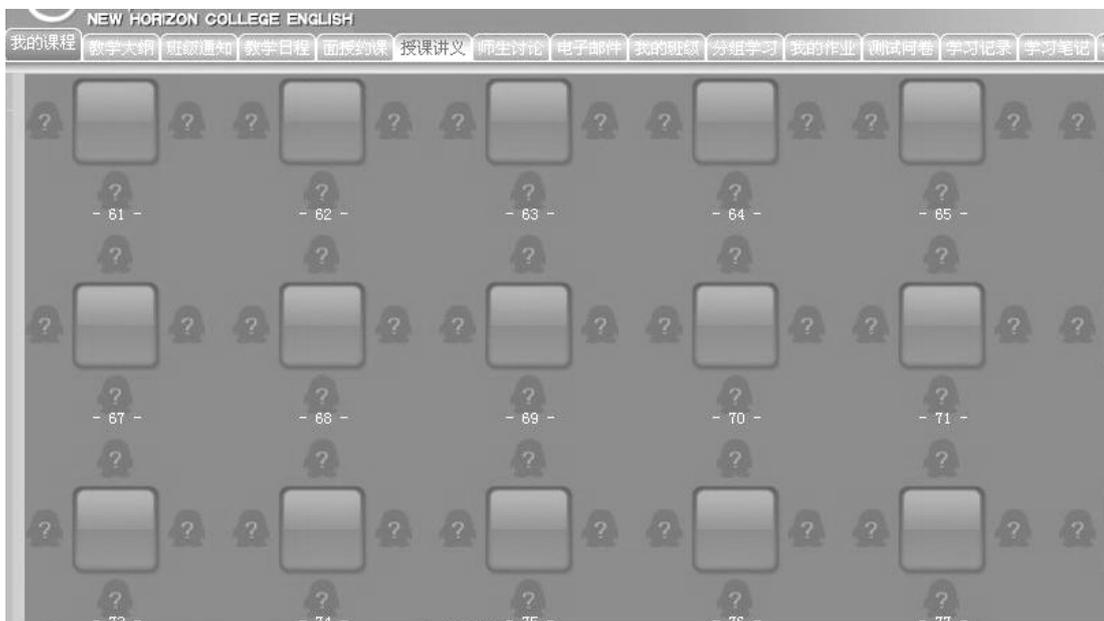
A sample discussion forum on NHCE e-learning
Explanation: Students can pose questions through discussion forum to interact with the teacher or with other classmates.
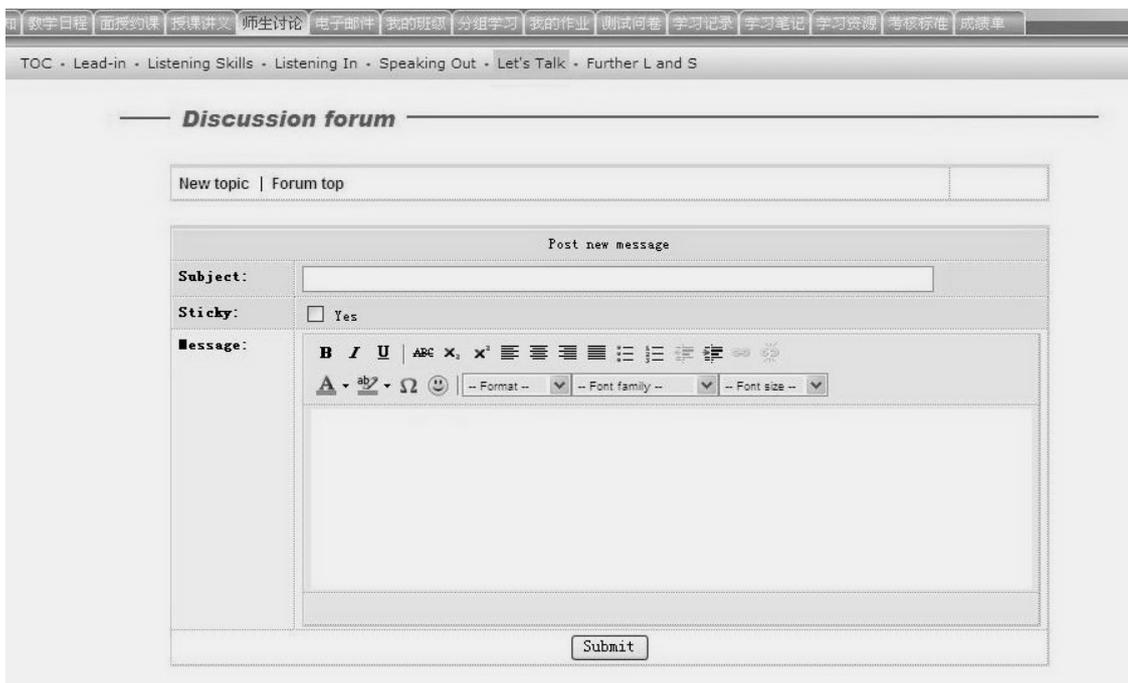
Some examples from student online learning logs

Explanation: In the experimental group, after students finished studying each unit, they were asked to write online learning logs on the NHCE e-learning system. Students can express their opinions towards construction role plays and they can also offer suggestions on the role play activities.

Name	Bo Ou
ID	080804110131
Log	From unit1 I know how to learn English. It is very fun, once upon a time, I thought learning English is very hard, so I hate English very much and my English is rubbish. After the speaking class, I think I should try my best to learn English. Towards the use of role play activity, in my opinion, I think it is very interesting, after that class, I show a great interest in English class, this role play activity can improve my English. It's very useful.

Name	Li Liu
ID	080804110122
Log	I think role play is good. It can make class more alive and make students more active. It's good for speaking and over come shy. No matter how bad you do, if you insist on it, you will be better.

Name	Shuizeng Qiao
ID	080804110127
Log	It is intresting, but we are too shy to express ourselves. The point is that we should improve our speaking skills. We want our teacher to correct our mistakes when we are speaking. I like the role play activity, and I hope that we can do a lot in the future! Thank you!

CURRICULUM VITAE

Lin Shen was born in Guizhou Province, People's Republic of China. He obtained his B.A. degree in English Linguistics and Literature from Guizhou University, P.R.C in 2003. In 2004, he began his M.Sc. study at the University of Greenwich, London, the Great Britain. In 2007, he graduated from the University of Greenwich with a M.Sc. degree in Project Management (MPM).

Since his graduation from Guizhou University in 2003, Lin Shen has been inviting to teach as a guest-lecturer at Guizhou University, Guizhou Normal University, and Guizhou TV University, he was invited to teach both English majors and non-English majors courses.

Lin Shen earned his Ph.D. degree in English Language Studies in 2010 from Suranaree University of Technology, Thailand. His academic areas of interest include second language speaking, computer-assisted language learning and e-learning. He can be reached at the e-mail: henryslin@yahoo.cn and henryxiaolinzi@hotmail.com.