



**IMPLEMENTING PROBLEM-BASED LEARNING TO
ENHANCE SPEAKING SKILL IN A VOCATIONAL
ENGLISH CLASS: AN INVESTIGATIVE STUDY**

**BY
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**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
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Thesis entitled

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Abstract

This study aimed to 1) investigate the effectiveness of problem-based learning method in enhancing students' English speaking skill; and 2) find the level of satisfaction of students in the study. This study is an experimental one group pre-test and post-test design. The data were collected by pre-post tests, questionnaires as well as semi-structured interviews. 3 experts validated all the instruments. Data analysis for the pre-test/post-test was done by a computer program for a paired sample T-test value. The 5 Likert scale satisfaction questionnaire responses were analyzed with descriptive statistics showing means and standard deviation. As for the third instrument, the interviewed scripts were analyzed by coding into themes.

The pre-post tests data demonstrated that students improved in the posttest. The mean score was 4.95 and 6.5 respectively; T-test was -14.470, p values or the Sig. (1-tailed) was lower than 0.005; The 10 items questionnaire data was divided into aspects: course design, teaching professionalism and classroom equipment. The findings showed that students were mostly satisfied with 'teaching professionalism' ($\bar{x}=4.75$), followed by 'course design' ($\bar{x}=4.73$), and 'classroom equipment' ($\bar{x}=4.53$). The 3 questions semi-structured interviews found that students could improve their speaking skills with vocabulary improvement the most, students also improved the other necessary skills of the twenty-first century. Recommendation for this study is to use problem-based learning to teach students in various subjects

(Total 179 pages)

Keywords: problem-based Learning, speaking skills, vocational students, using PBL to teach English

Student's Signature Thesis Advisor's Signature

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Chapter 1

Introduction

This chapter introduces the background of the study and proposes the research questions, research objectives and Hypothesis of the study to be conducted. In addition, the scope of the study and significance of the study are described in this chapter. It also provides the definitions of terms used in the study.

1.1 Background of the Study

Nowadays, there is no doubt that English has become an International language, According to Crystal (1997), English is the global language that has spread throughout the world most extensively and is dominating in a number of important fields. English is considered the most communicative language worldwide and the need to learn the English language has become more of an imperative because people with good English skills have more career opportunities than those who do not. (Mala, 2018). For Hanlan (2008), English proficiency can be the key to success for an individual. A non-native speaker of English can have a greater chance of getting a good position in an organization. On the other hand, chance of advancement will be less for a person who cannot use English. This can often lead to a struggle for that person to try rapidly to improve his/her English. English is the dominant business language and it has become almost a necessity for people to speak English if they are to enter a global workforce. Research from around the globe demonstrates that cross-border business communication is most frequently performed in English, and many global businesses expect staff to speak English fluently (Aichhorn & Puck, 2017).

To learn a language, learners must be motivated to speak (Dornyei, 2011). In the past, when students were learning English, students were asked to focus on textbooks (Schleppegrell, 2014). According to Hinkel (1994, p. 31) and Lightbown,

Spada & White (1993, p.1), the Grammar-Translation method (GTM), which was the first method based on grammar and translation, has been influenced by the school of Behaviourists with a view that language learning is a matter of imitation and Spada (1993) has still been in use up to now in the teaching of English and of other modern languages (Mitchell, Myles & Marsden, 2019). It is a method, in which the language is obtained by remembering the grammatical rules, paradigms and long lists of words. At the same time, this methodology needs direct and reverse translation activities to practice (Hinkel, 2006, p.18). In addition to these principles, Larsen-Freeman and Anderson (2011) state that in the GTM, all the guiders and learners have a common and traditional role. The teacher has the power in the classroom, while students only listen and follow the teacher. What's more, learners learn grammar rules deductively because, at first, they are offered with grammar rules and examples, In addition, they are asked to remember the rules before they are allowed to use these kind of rules in other examples. Kim (2015) stated that Grammar Translation Method does not mention and focus on oral communication or listening skills. It focuses on recalling vocabulary words and exploring the principles of language structure. According to Richards and Rodgers (2001), the GTM approach for language structures is a method with no hypothesis in areas such as phonetics, science or training.

In today's learning, other teaching methods have appeared. One which seems to be popular is communicative language teaching approach (CLT). Daisy (2012) said CLT is a second foreign language teaching strategy that emphasizes communication as both the means and the ultimate goal of language learning. Richards and Rodgers (2001) explain that CLT's aim is (a) to create communication skills and the objective of language teaching; (b) to create processes for learning the four language skills recognizing the prohibition. Zhou (2015) said that this 'grammar-neglected' strategy has created many issues, particularly among foreign language students and educators who are used to this technique of grammar translation. The learners often feel insecure without any sense of accomplishment because they do not learn any grammar guidelines and use vocabulary.(Barkley& Major, 2020).

Crystal (2007) discovered that the most prevalent classification of English was to differentiate English as a native language (ENL), English as a second language (ESL) and English as a foreign language (EFL). According to this this classification, ENL is spoken in countries where English is the primary language of the great majority of the population. Australia, Canada, New Zealand, the United Kingdom and the United States are countries in which English is said to be spoken and used as a native language. On the other hand, ESL is spoken in countries where English is an important official language, but not the main language of the country. These countries are typically ex-colonies of the United Kingdom or the United States. Nigeria, India, Malaysia and the Philippines are examples of countries in which English is said to be spoken and used as a second language. This model's final classification is EFL. EFL is spoken in nations where English in the ordinary course of daily life is not often used or spoken very much. English is typically learned at school in these countries but learners have little chance of using English outside the classroom and little motivation to learn English. China, Indonesia, Japan, and many Middle East countries are countries where English is said to be an EFL. The Cambridge University's classification is along the same line as Kashru (1986)'s three concentrated circles. The inner circle is the traditional English base. It includes countries such as the United Kingdom and Ireland and the Anglophone populations of the former British colonies of the United States, Australia, New Zealand, South Africa, Canada, as well as various Caribbean countries, Indian and Pacific Ocean islands. The outer circle includes countries where English has official or historical significance. Most of the countries of the Commonwealth of Nations (the former British Empire), including populous countries such as the Philippines, India, Pakistan, and Nigeria belong to this circle. In these countries, higher education, the legislature, the judiciary and national trade are carried out predominantly in English. The third circle relates to those nations where English is just a school subject, but is nevertheless essential for certain areas, such as international business and tourism. As the population of the outer circle grows, there are more non-native speakers of English and nowadays, English as an international language (EIL) is a trend.

As a matter of fact, China belongs to the EFL group but currently, English is playing a very significant role in China. Firstly, China has joined the World Trade Organization (WTO) since the year 2000. This great movement made China become more prosperous and international. According to the Ministry of Education of People's Republic of China (2018) shows that many foreign students come to China to study Mandarin (492,185 persons). At the same time, plenty of Chinese students go to other countries to further their studies (662,100 persons). At present, English exists in every Chinese school as a compulsory course. Lin & Warden (2010) states that English becomes an international language in China.

There are several problems for Chinese students learning the English language. Zhou (2004) shows that Chinese students are good at reading and writing, but they can't talk in English well enough. There is a misunderstanding when Chinese learners study English in China, the greater scores they have in TOEFL, GRE or GEMT, the greater English abilities they have. Once Chinese learners arrive in other nations, they discover the English which they have learned in China is far from being efficient, particularly for interacting with other indigenous English speakers. Secondly, Dunsmore (2018) indicated that it would be incorrect to assume that the achievement of Chinese learners learning English depends on the attempts of a student alone, even with guidance from a foreign teacher. The English teacher also shares responsibility for adjusting to local language learners' common issues. A basic aspect of a teacher's work is to be able to apply suitable techniques and equipment by thinking the cultural elements. Unfortunately, one of the issues in China is that they are motivated to compromise because of the huge demand for skilled English teachers. More often than not, universities and linguistic training centers employ inexperienced foreign educators who do not meet a decent educational standard. Lastly, Chinese English lesson classroom activities, perhaps focusing on grammatical practice (Lin & Warden, 2010). According to these portrayals, English Language educators are in the front of the classroom transmitting information by reading texts phrase by phrase, explaining grammar and language points in detail while learners take down some notes, doing grammar exercises of multiple choices, and translating passages. There are few meaningful interactions between teachers and students (Zhang, 2011).

New English Curriculum Standards for Chinese higher technical colleges suggest that the main course objectives of English teaching are passing on the basic English knowledge and cultivating practical language applications. It enhances the five skills in English: listening, speaking, reading, writing and translating. Students should be able to talk in daily English and write easy information (Higher Educational Department of the Ministry of Education (MOE), 2018, p.1)

The final objective for speaking skill is as follows:

Speaking skill:

Level A: Students can use English to interact with teacher in class as well as speak daily English fluently. Meanwhile, they speak English in business activities (MOE, 2018, p.4)

Level B: Students can speak English in class and use English in daily life. (MOE, 2018, p.4)

The higher technical college where the research is conducted is located in Hefei, Anhui province, China. This college is a public comprehensive higher technical college which was founded in 1956. It is a high reputation technical college recognized by the Ministry of China. At the same time, this college is an innovative college admitted by Hefei Technical College (2018). Its official website indicated that the college has two campuses and it covers the area of about 1260 acres. The total building squares are 50 square meters. Total investments are about 230 million Chinese Yuan. Total employees are about 539. There are 10281 full time students and 1835 part time students in this college. It has 9 faculties, 44 majors and 2 joint majors with an American high level technical college until May, 2019.

English teaching in this school begins from the first-year students to third-year students. The instructors of English are all Chinese teachers except for two joint majors. English teachers' degrees in this college is a master's degree and a doctoral degree. Traditional teaching style and grammar translation methods are used as

English teaching methods. English language and Chinese language are both used as the means of instruction

Teachers give lectures to all the students based on the textbook. There are blackboards, multimedia, and computer in every classroom of this school. Students can use their iPads and laptops in each lesson. Class blog and WeChat group are used as an evaluation tool for students. The textbook has been selected by the Ministry of China, which is “The Practical English for Technical School Students”. There are four books for different level students. It is published by Chinese higher education press. The teachers need to complete all the teaching tasks. The main content of the textbook is based on conversations and new expressions. There is only one English lesson per week and an hour and fifty minutes in each lesson. The course lasts 17 weeks. It means that the course includes 17 lessons. English teaching time is obviously little. The following table shows a common timetable of the university.

Table 1.1 Teaching and Learning Timetable at Hefei, Anhui province, China

Time & Subject	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-9:50	Marketing	Marxism Philosophy	Marketing	Business law	<i>English 1</i>
10:10-12:00	Computer science			Business law	International trade
12:00-14:00	Lunch break				
14:00-15:50		Physical experiment	Statistics		Career Development
16:10-18:00	Math 1				

Source: Hefei Technical College, 2018

The problem of this college's students in English is that students are lack of the opportunity to speak English with one another in class because of the time of teaching is limited. Meanwhile, students are embarrassed and unwilling to speak English since they are afraid of speaking Chinglish (Gao, 2010). Students do not have awareness of cooperating and team work skills as the entire teacher used the lecture-based teaching and grammar translation teaching method (Rands, 2017). According to the record (<https://gaokao.eol.cn/news/>), all the first year students participated in speaking test of Chinese College Examination before they entered the college. The scores of the test were not very high. In 2018 (Hefei Technical College, 2018), some students in accounting major participated in speech competition in Anhui province, the result showed that students are not good enough to speak English. Of all the skills, speaking seems to be lacking teaching in Chinese higher technical school. Problem-based Learning is a method believed to improve the students' abilities to talk, share information with one another in order to solve a task together. Their speaking ability will be improved. If the students regularly practice their speaking abilities. Problem-based learning is believed to have a significant effect in this. According to Rusydiyah (2014), PBL promotes students working together in small groups. It offers a lot of chances to discuss issues (Grajek, 2017). It is an innovative teaching and learning way (Theobald, Eddy, Grunspan, Wiggins & Crowe, 2017). First, students had to go to small groups randomly to find out the solutions to the problem. Teacher introduced PBL approach to all the students in the first lecture. The teacher acted as an observer of the students' small group activities. Presentations and written reports were expected at the end as the product of the group work. The final step of PBL was presenting their ideas to a group, defending and revising them when needed (Malmia et al., 2019) The researcher would like to find a suitable way for students to learn to communicate with real meaning. Therefore, this study aims to use problem-based learning method in a vocational English class.

1.2 Statement of the Problem

1.2.1 To investigate the improvement of problem-based learning method in enhancing students' speaking skill

1.2.2 To find the level of satisfaction students in the study

1.3 Research Questions

1.3.1 Would problem-based learning method enhance students' speaking skills?

1.3.2 Would the students be satisfied with English teaching?.

1.4 Hypotheses

1.4.1 Chinese higher technical college first-year students could improve their English speaking skills at the end of the course.

1.4.2 Students who study through PBL teaching method were satisfied with PBL lessons.

1.5 Scope of the Study

1.5.1 Location of the Study

The research was conducted in one of the public Chinese technology colleges in Hefei, China. This college is a public comprehensive higher technical college which was founded in 1956. It is a high reputation technical college recognized by the Ministry of China. At the same time, this college is an innovative college admitted by Anhui higher education institute. According to Hefei Technical College (2018)

indicated that the college has two campuses, it covered about 1260 acres. The total building area are 50 square meters. Total investments are about 230 million Chinese Yuan. Total employees are about 539. There are 10,281 full time students and 1835 part time students in this college. It has 9 faculties, 44 majors and 2 joint majors with an American High level Technical College until May, 2019. All the students are taught English by Chinese. The first-year students in this school who have all learned English for 9 years, so they can speak easy English by themselves, which makes it interesting to learn English speaking. The first year is the very significant period to study English speaking (Wen, 2018). Therefore, the researcher chose the first year Chinese students for this purpose of study.

1.5.2 Research Population

The population in this study comes from Hefei Technical college. There are 86 classes in the first year level, The total number is 2,503 students whose ages range between 18-19 years old with mixed gender and mixed abilities. The sample of the study is one of the 86 classes.

1.5.3 Sampling Technique

There are 86 classes in the first year level, only one class of the first year level was selected as sample group. So a convenience sampling technique was used to get 1 class which was 40 students in accounting major from the large population.

1.5.4 Duration of the Study

This study was continued for a four-month period where students receive 150 minutes of instruction each week. Thus, students had a total of 15 lessons during this four-month experimental period.

1.5.5 Time Frame

The research started in the first semester of the 2019 Academic Year from August to January 2020. The experiment lasted four months. The following table shows the steps and time for the study.

Table 1.2 The Steps and Time for the Study

Process	Research Activities	Month/ Year 2019-2020										
		May 19	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan 20	Feb 20	
1	Literature review											
2	Research proposal											
3	Data collection											
4	Data analysis											
5	Final defense											
6	Research report											

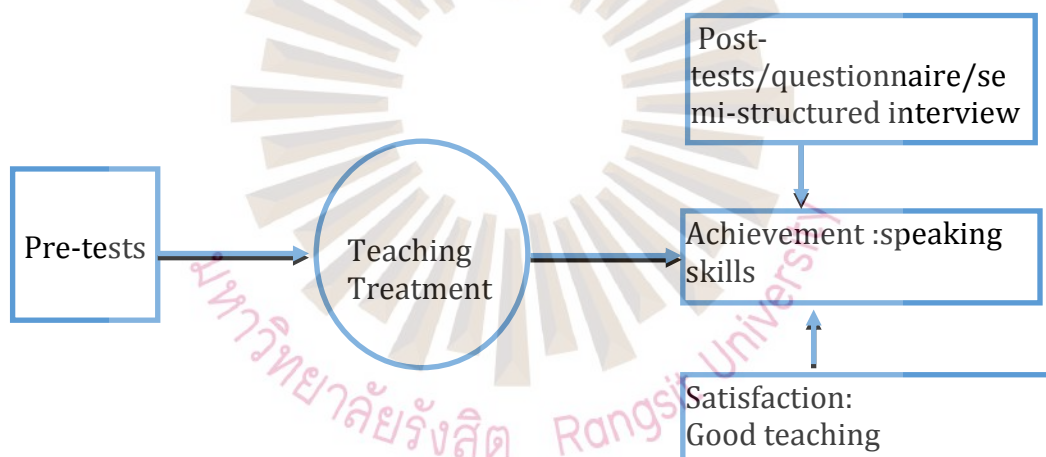
1.5.7 Teaching Content

In total, 15 lessons were taught in 15 weeks. Each lesson lasted 150 minutes. There were 6 problems for students. Each problem lasted 2 weeks. All the themes in

this course were based on the practical English Book 1, Chinese Higher Education Press.

1.6 Conceptual Framework

In the research, at the beginning, the students participated in the pre-text. Then, the researcher implemented PBL method in class. After the teaching and learning tasks, the students had the post-text. From the test results, it was analyzed whether the speaking skills in the experimental group had been improved. Finally, students' satisfaction was collected. The researcher expected the students were satisfied with their performance and teacher's teaching especially in this teaching method.



Figures 1.1 Conceptual Framework

1.7 Basic Assumptions

1.7.1 Students could not respond without noticeable pauses and might speak slowly while they were speaking English.

1.7.2 Students were able to talk about familiar topics but could only convey basic meaning on unfamiliar topics and made frequent errors in word choice.

1.7.3 Students' grammatical errors were frequent and may lead to misunderstanding.

1.7.4 Students' mispronunciation were frequent and caused some difficulty for the listener.

1.8 Significance of the Study

1.8.1 For the Teachers

The outcome of the study is helpful data for the English teacher on the effectiveness of problem-based learning as a technique of language learning, particularly for speaking. The findings can bring benefits to their professional work. Educators must understand which technique performs best in the teaching class. Using problem-based learning will be one of teaching methods in English teaching and learning.

1.8.2 For the students

The findings of the study will be useful for the students. They will be trained to learn actively and creatively in doing all the classroom activities. Problem-based learning (PBL) enables learners to improve their problem-solving skills, presentation skills, IT skills, communication skills, critical skills. They need to be active in searching for necessary information for suitable sources and discuss the chosen issues with others. They will learn to work in teams, know how to give a presentation.

1.8.3 For the other researchers

The results can bring benefits to their professional work as they can explore further what PBL can do in the field of English teaching and learning.

1.9 Definitions of Terms

Problem-based learning a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem found in trigger material. The PBL format used in this study is a 7-step approach which comes from Maastricht University: Identify unfamiliar terms, Problem definition, Brainstorming, Analyzing the problem, Formulating issues, Self-study and Reporting. Problem-based learning (PBL) enables learners to improve their problem-solving skills, presentation skills, IT skills, communication skills, critical skills.

English speaking skills speaking is the delivery of language through the mouth. In this study, English speaking skills refer to the ability of technical college students to speak English in lower-intermediate level through the 7-step PBL course. All the topics used include food, nature disaster, teenager problem, punctuality, insects, recreation.

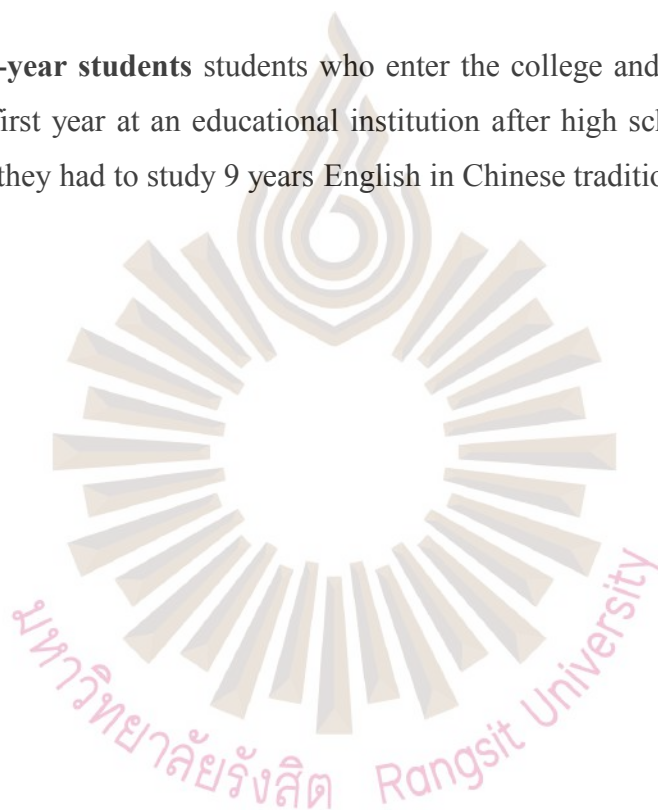
Chinese Higher Technical College a college which is specialized in technology and also teaching social subjects in eastern China. There are 10281 full time students and 1,835 part-time students in this college. It has 9 faculties, 44 majors and 2 joint majors with American high level technical college. It lasts 3 years educational period. It trains learners to be a technologist with sufficient social knowledge such as language, virtue and communication.

Effectiveness the capability of producing a desired result or the ability to produce desired output. In this study, effectiveness means that students can improve

their speaking skills which include pronunciation, coherence, fluency, grammatical usage and accuracy in the topics in the course.

Satisfaction a pleasant feeling that you got when you receive something you wanted, or when you have done something you wanted to do .in this study, satisfaction means students are satisfied with Course design, Teaching professionalism, and Classroom equipment.

First-year students students who enter the college and major in accounting major in the first year at an educational institution after high school. Before entering college level, they had to study 9 years English in Chinese traditional school.



Chapter 2

Literature Review

This chapter presents a review of the literature related to the study to gather principle concept in this area as well as the research has been done in this aspect. It provides the theoretical background to issues related to problem-based learning method. Theories of English teaching and speaking skills are also discussed in this chapter.

2.1 Problem-based Learning

Problem-based learning method is originated from the search for techniques that would enhance communication among learners (Stentoft, 2017). It adheres to dominant student-centered approach spearheaded by Harris (1921) and Dewey (1938) who strongly supported practical experience in learning. In PBL, Solving problems and reflecting on their experiences is learnt by students (Barrows and Tamblyn, 1980). Therefore, PBL is well suited to helping students become active learners because it situates learning in real-world problems and makes students responsible for their learning (Savery, 2015). It encourages learners to develop strategies and construct knowledge (Collins, 1989; Hmelo and Ferrari, 1997; Kolodner, 1996; Baharom, 2017)

2.1.1 Definition of PBL

Problem-based learning method is not only used in the science field but also in other disciplines although it started at a medical school (Dolmans, Michaelsen, Van & Vleuten, 2019). Levin (2001, p.2) states that several disciplines in colleges and universities have applied problem-based Learning (Bridges, 1992; Camp, 1996) Problem-based learning (PBL) has spread to other professions because it has been found to foster growth in many areas such as critical and analytical thinking, problem

solving skills, expertise in using information resources, ability to work cooperatively in groups and skills to communicate and in written form. This is because problem-based learning is modeled after a scientific experiment. First, students will get a problem and they have to work together in small groups to determine what this problem is all about before they try to look for the explanation to this phenomenon and come up with a good solution to it. PBL “offers an attractive to traditional education by shifting the focus of education from what faculty teach to what students learn” (White, 2001, p. 69). The instructor’s role shifts from giving a lecture to guide the learners through their own discovery without teaching them in the traditional sense” (Biley, 2001, p. 233). Ultimately, when students are provided opportunities to learn concepts in this way PBL Facilitators must believe that students are not empty thinkers to be filled with knowledge (Butler, 1999). Because students learn to solve problems on their own, they become better equipped to enter the professional community (Frederiksen, 1999). One primary reason PBL is considered effective is that it fosters high levels of student interactive engagement. Research suggests that classrooms that promote interactive engagement result in significantly higher levels of content comprehension and retention (e.g., Ahlfeldt, 2005; Redish & Steinberg, 1999).

According to Watkins, Carnell and Lodge (2007, pp. 4-5), effective learning occurs when learners drive the agenda, support one another and are not afraid of making mistakes. In addition, when the teacher is invisible, students learn better. Also, the teacher should not follow the plan blindly. Students should learn actively without fear of making mistakes or failures. This is along the line of Problem-based learning (PBL) because in PBL, a problem is used as a trigger, encouraging students to explore the issues related to it. And finally, they have got to decide what to do in this case. The teacher takes the role of a ‘facilitator’, being present to offer some guidance if necessary. He or she should not ‘teach’.

2.1.2 Why PBL?

There are several kinds of PBL methods which have been conducted by different universities, Firstly, Maastricht University is the father university in Europe to adopt PBL as the main principle of teaching and learning. According to its website, UM is a University which applies the problem-based learning approach in all its educational programs. Maastricht's newly established Faculty of Medicine was only the second in the world to adopt the problem-based learning method. Other Typical UM course revolves around so-called 'tutorial groups (Moust, Berkel& Schmidt 2005). A tutorial group usually consists of 14 to 16 students, meeting once or twice a week to discuss self-identified problems on the basis of cases or situations described in the course manual. Each tutorial meeting consists of two parts: a post-discussion, where problems which have been identified at the previous session are discussed on the basis of assigned literature and sometimes with additional library research, followed by a pre-discussion of topics to be discussed at the next meeting. The tutorial group is chaired by a student member, who is expected to structure the discussion and ensure that every member of the group is able to participate. The instructor plays only a limited role during tutorials. Tutors will monitor discussions, provide feedback, and, where needed, help students in identifying relevant problems.

At the heart of Maastricht's PBL philosophy is the idea that students are personally responsible for their own academic education. The 7 steps of approach PBL is used at Maastricht University. 1) Clarifying unfamiliar terms, 2) problem definition, 3) brainstorm, 4) analyzing the problem, 5) formulating learning issues, 6) self-study, and 7) reporting (Schmidt 1992; Camp, 1996)

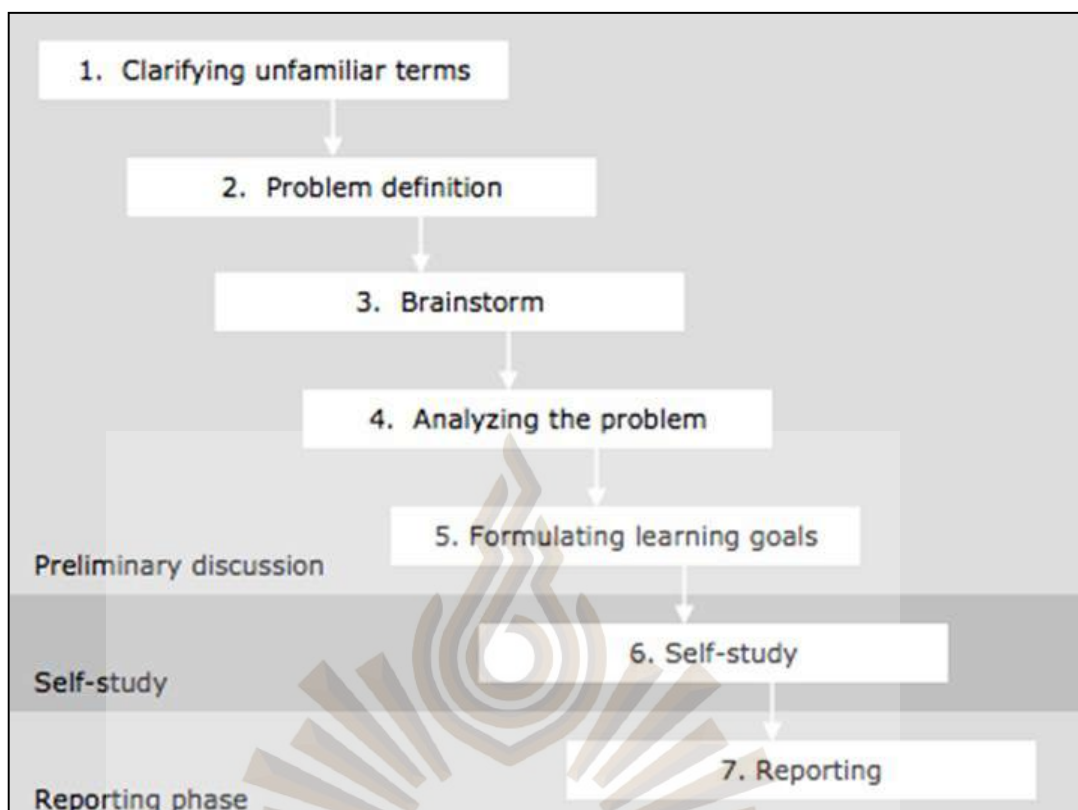


Figure 2.1 The Seven steps Approach of Problem-based Learning in Maastricht University

Source: Moust, Berkel & Schmidt, 2005

Another university, Singapore Temasek University used different 7 steps PBL in daily teaching. According to the Temasek University website (2019), problem-based Learning (PBL) is an innovative learning approach that goes beyond content knowledge and helps students to acquire learning, communication, problem-solving and teamwork skills. It has been one of TP's key pedagogies since 1998 when TP was the first polytechnic in Singapore to pioneer its use. For more than 20 years, PBL has been practiced all across TP and has helped students to develop abilities in independent study, self-reflection and problem-solving. TP employs a 7-stage PBL process where students work through a PBL problem in these stages using a thinking template known as FILA (an acronym for the categories of Facts, Ideas, Learning Issues and Action Plan).

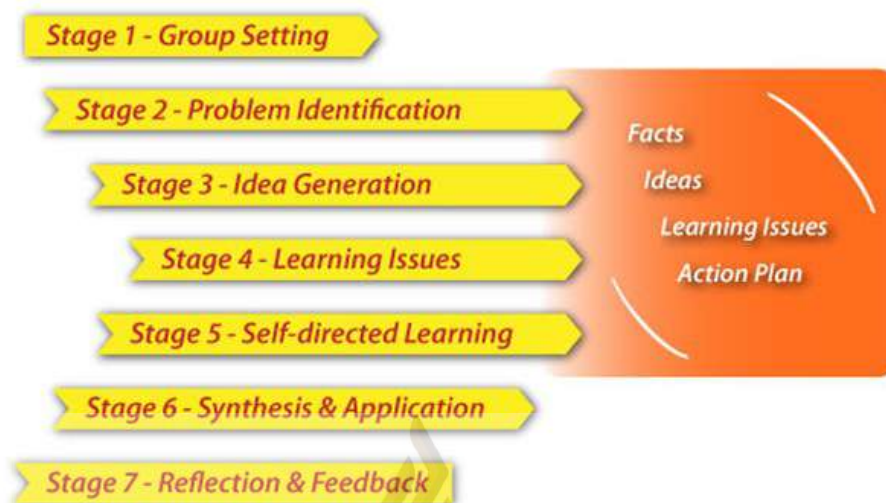


Figure 2.2 7 steps Problem-based learning in Singapore Temasek University

Source: Teo, & Wong, 2000

On the other hand, Erasmus University also uses PBL, EUC's approach to education is that of small-scale, interactive and intensive learning environments. Most of the first-year courses and some in year two and three follow a method of active learning called Problem Based Learning (PBL). In PBL, problems play a steering role in the learning process and are the driving force behind a student's self-study. In each tutorial session and the subsequent self-study, students follow a systematic procedure of dealing with 'the problems' through which students progress to maximize learning. For other courses, other forms of active learning such as project- or case-based learning, and seminars are used when they are more suitable for the course at hand. For all forms of active learning, working in groups of 12-15 students guided by a tutor, every student is expected to engage and contribute to the learning process. An active learning environment helps students to be independent and take ownership of their learning. This emphasis on self-directed learning demands discipline on the part of the students. For example, students will have to plan their self-study time, manage finding resources and learn to distinguish relevant resources from the trivial. At the same time, our active learning approach emphasises collaboration and interactive learning by means of arguing, discussing, and sharing knowledge. It can therefore be said that

education at EUC is not only aimed at knowledge and academic skills, but also at application, reflection and critical thinking.

There are several problems challenging Chinese students in learning the English language. Zhou (2004) demonstrate that Chinese students can read and write well but cannot speak English fluently. When Chinese students study English in China, there is a misunderstanding that the higher the scores they get in TOEFL, GRE or GEMT, the higher the skills they have in English (Wang& Lam, 2009). As soon as Chinese students arrive in the other countries., they find that the English they learned in China is far away from effective, especially for purpose of the communicating with other native English speakers.

Yew and Schmidt (2012) stated that Problem-based learning have plenty of advantages, which are demonstrated as follows:

- I. It encourages higher order critical thinking and de-emphasizes memorization.
- II. Learning is relevant to the real world.
- III. It increases motivation to learn in order to arrive at a solution.
- IV. It provides additional opportunities for students to work collaboratively and practice communication and social skills.
- V. Learning is student-centered. The instructor acts as a facilitator or learning coach.
- VI. Students learn how to learn.

According to this, Problem based learning is expected to change the Chinese students learning style, provide more opportunities to speak and think by students themselves. However, some management disadvantages are also illustrated by Landsberger (2011): more facilitator are needed as 1 for each 6 students is ideal.

2.1.3 Format of Problem-based Learning

PBL in a language classroom pays attention to both linguistic skills and technical skills (Neville & Britt, 2007). However, the language aspect is still the main focus (Curle & Wood, 2004). According to Neville & Britt (2007), a traditional lecture-based classroom uses problems as an assessment measure; whereas, in a PBL classroom, problems are used as the tools to enhance problem-solving schemata. Furthermore, PBL engages students in learning how-to-learn when they also study language and content (Mathews-Aydinli, 2007). Figure 1 demonstrated a conceptual framework of how PBL works in a language classroom (Abdul, 2013). At first, the teacher presents an ill-structured real-life problem to students as a trigger. Secondly, students who have gathered themselves into groups should act as stakeholders who own the problem. Teachers just act as facilitators, present the problem and guide the whole process of problem-solving. Answers should not be given to students because the answers are open-ended. As a result, within a self-directed and collaborative learning environment, students plan their own learning in order to solve the problem. They find out working ideas or possible solutions, identify available information related to the problem and learning issues, identify resources, assign tasks to various group members, gather and share information within the group, and finally choose the most viable solution before they present it to the class (Mathews- Aydinli, 2007; Torp & Sage, 2012)

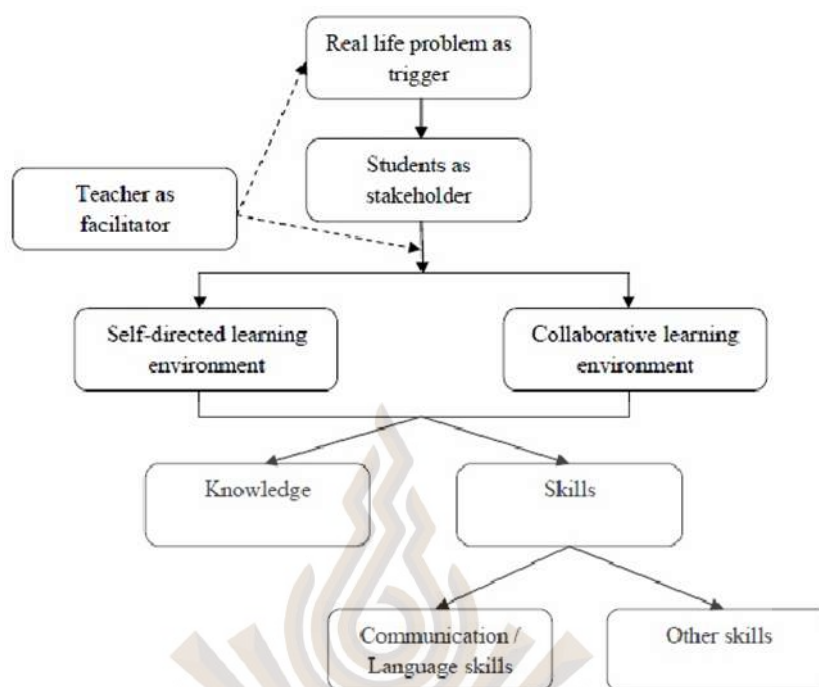


Figure 2.3 A Conceptual Framework of PBL in a Language Classroom

Source: Moust, et al., 2005

This problem-solving process allows students to construct new knowledge with deeper understanding and better retention of knowledge (Norman & Schmidt, 1992). Besides, this process helps to develop skills including self-directed learning skills, problem-solving skills, learning-to-learn skills, teamwork skills, management skills and language skills (Schmidt, 1992; Maudsley, Williams & Taylor, 2008). Moust et al. (2005) demonstrated that language learners are put in a real-world situation where they need to use the target language to get information, communicate information through speaking and writing, express and negotiate opinions, and finally present their solution in the forms of a written report and an oral presentation. Besides having plenty of opportunities to use the language for reading, listening, writing and speaking, they also learn vocabulary and grammar through the PBL process. In short, they tend to construct an understanding of the target language as it is used in a real-world context (Schmidt, 2007). Studies show that PBL has had positive impact in medical, engineering and mathematics classrooms that use English as a medium of instruction. For instance, Dehkordi & Heydarnejad (2008) in their study showed that

Nursing students attained higher knowledge levels through PBL than through the traditional lecture method. They showed more positive attitudes and higher learning motivation in a problem based learning environment.

2.1.4 Roles of the Teacher

An objective of Problem-based learning, is to switch the teacher's role from the traditional transmission-oriented role to an interactive tutor's role. This change is most prominent in the tutorial sections, and is usually referred to as a facilitator (Boud & Feletti 1991). The instructor's role in PBL is totally different from a traditional teacher. On the other hand, traditional teachers are often content experts and transmit as much information as they can to their learners, while PBL requires an another set of skills. Problem-based learning requires teachers to assume the role of a facilitator and to support learner to think the case specifics by the use of a guided discussion. The terms 'tutor' or 'coach' are often related to the teacher's role in this setting. Schmidt (2005) says "The instructor in the PBL setting acts as a facilitator in the discussion section and not as a book's knowledge expert who disseminates information". According to Kang (2007), a teacher's content expertise is not correlated to learner's learning in PBL method. On the contrary, effective questioning skills are more important to the implementation of the case study method than owning expert content knowledge. "The art of a case method instructor is to ask the proper questions at the appropriate time, offer feedback on answers, as well as maintain a discussion that opens up the meanings of the case" (Ellet, 2007, p. 11).

2.1.5 Roles of the Students

While students are given a problem, students assemble in small teams to find out the solution to it. They follow the 7-step of PBL. That means they are in control of their learning. The learners learn best when they are autonomous learners, actively engaged in their learning. They need to interact with their peers and regard themselves as successful learners (Watkins, 1993).

2.1.6 How PBL can Improve Students?

The benefits of PBL in language learning are various. It is widely accepted that utilizing problem solving activity promotes construction of useful knowledge, develop reasoning strategies and effective self-directed learning strategies, increase motivation for learning, and become effective collaborators (Hmelo and Ferrari, 1997). The details are as follows:

2.1.6.1 Improvement of Speaking Skills

There are four skills which learners need to master when they learn a language. Those four skills include listening, speaking reading and writing which are called the four “language skills.” To group them further, according to a number of experts listening and reading are “receptive skills’ because the language users just decode the message (Nunan, 1995; Bergil, 2016). However, the other two “speaking” and “writing” are considered much harder skills because the language users need to produce the language itself in ways that others can understand them. Of the four language skills, speaking seems literally to be the most important and hardest skill to master. According to (Schneider,2020), “speaking requires a command of speech production sub-skills like vocabulary retrieval, choice of grammatical patterns”. Usually, when a new language must be spoken, it demands so many skills on the part of the learner. They have to make the conversation flow, while at the same time, they need to produce understandable utterances (Rivers, 2018). Panther (2002) says there are many factors that inhibit the improvement of speaking. The first is inhibition. Students are usually worried about making mistakes, fearful of criticism, or simply shy. They must try to save their faces in not to produce anything funny. Second, there is nothing to say. Students have no enthusiasm to express themselves. Due to low motivation, low or uneven participation emerges. Only one participant can talk at a time because of large classes and the tendency of some learners to dominate, while others speak very little or not at all. Fourth, the mother-tongue use slows speakers down as they need to go over and over looking for their vocabulary they need. Or, many may resort to using the mother tongue because it is easier and because learners feel less pressured to deliver the utterances.

1) Definitions of Speaking

Definitions have been given by a number of experts. Look at the following table where the definitions are presented in order of the years.

Table 2.1 Definitions of Speaking

Name of the Expert	Meaning of Speaking
Wilson (2005)	Speaking is development of the relationship between the speaker and the listener.
Nunan (1995)	Speaking is the ability to express oneself in the situation, or the activity to report acts, or situation in precise words or fluently.
Cameron (2001, p. 40).	Speaking is making people understand the speaker's feeling and ideas
Thornbury (2005, p. 20)	Speaking is a real-life activity to carry out the speaker's idea to interact with his/her listeners.
Kayi (2006, p.1)	Speaking is the process of building and sharing meaning through the use of verbal and non-verbal in a variety of contexts.
Bygate (2015)	Speaking skill is the ability in using oral language to explore ideas, intentions, thoughts and feelings to other people as a way to make the message clearly delivered and well understood by the listener.
Boonkit (2009)	Speaking is one of the four macro skills to be developed as a means of effective communication in both first and second language learning contexts

From the viewpoints of the above-mentioned experts, they all believe that speaking is an important skill that is used to convey meaning between the listener and the speaker, the topics of which are related to real life.

2) What Makes Speaking Manageable?

There is a range of factors that can make learning a language easy.

2.1) Technology

Technology is a necessity in today's world, and it pervades the classroom where each and every single student has an electronic gadget for use. The newest technologies allow us to try things in physical and virtual classrooms that were not possible before. Teachers can integrate technology into the classroom in multiple ways to enhance the educational goals. However, when "most schools are still operating in the ideas of the Industrial Age", students will not feel happy because they may not be able to study without the use of technology. In fact, schools should cater to the needs of modern kids or "digital learners" and how they learn (Kelly, McCain and Jukes, 2009, p.13, p.37). It will make speaking easy. Teachers should develop instructional approaches that incorporate digital, online, multimedia experiences into learning activities and re-sources.

2.2) Relationship

Successful teachers are those who have the ability to maximize the speaking potential of all students and make it easy in their classes. Developing positive relationships between a teacher and students is a fundamental aspect of quality teaching and student learning. There is something really special when you walk into a classroom and see a sea full of smiling happy faces (Cox, 2011). From this, we know that as a teacher, building a good relationship with students is important. But how? First, we need to take care of our students' physical and mental health. Also, it is vital to make friends with your students outside of class, i.e. enjoy lunch together. Building a good relationship with students is the role of the teacher (Mason, 2017). O'Rourke and Cooper (2010) found in a study of 312 primary-aged students that happiness in the classroom for young children came from a sense of friendship, belonging, and optimism.

3) What Makes Speaking Difficult?

For non-native speakers, learning a new language is difficult because they have to learn a new system of communication both in terms of its structure and vocabulary. Speaking is even more difficult because it involves pronunciation and accent.

3.1) Structure

Chomsky suggests that the first language is firmly registered in our head (Nunan, 1995, pp.39-40). This is true when students learn a new language with a different structure from their mother tongue. The system of writing is also different.

3.2) Vocabulary

Lessard-Clouston (2013) stated that sometimes when you're speaking English, you may think of a sentence in advance, however, you're ignoring several important lexical resources. Then, it becomes a challenge to express what you're thinking. The solution is to study more vocabularies. While there's a good method and a not-so-good method to study new words, the not-so-good way is to read lists of words and meanings and try to remember them.

Abebe and Davidson (2012) found that a good way is to study vocabulary in "families." The context will support the necessary and useful vocabulary for it. For instance, imagine you're in an airport. Do you know the words for everything you see? (luggage, check-in desk, travel agency, flight attendant, boarding pass). If not, look for the words you don't know in a dictionary. Now think about what kind of conversations you might have in an airport such as looking for the departure gate, missing a flight, responding to immigration officers' questions.

3.3) Pronunciation

Neri, Cucchiarini, Strik, & Boves, (2002) demonstrated that English words can be difficult to pronounce – and when speaking English, you have to consider not only the pronunciation of the individual words, but also the connection between the words in the sentence. There's also the "rhythm" and intonation of the sentence to consider – and sometimes your mouth gets confused. Neri, Mich, Gerosa, & Giuliani (2008) found that the more you listen to English, the more your pronunciation will naturally get closer and closer to native pronunciation. A good way

to practice is to get an audio sample with transcript. Listen to one or two sentences (while reading the transcript), then pause the audio and try to repeat the sentences exactly as the person said them. Practicing pronunciation like this will help you improve very fast.

4) Skills Developed by Problem-based Learning (PBL)

Although PBL is not intentionally used to improve speaking skills in the sense of the field of English teaching. The use of PBL can help to combine both the linguistic system with the meaning they want to express. Thus, it is convinced that PBL requires students to convey the intended meaning in the linguistic structure. Not only that, the other skills necessary for the expression of ideas are also called for. The following list shows the areas where students will be engaged in when they are studying with PBL Approach.

4.1) Cooperation

As we all know, different students have different personalities. Each is an individual. Some like to work alone, while others like to work in teams. However, in a class of mixed abilities, working in teams provide positive results. Cooperative learning, as opposed to competition in class, is a teaching method emphasizing the success of the group rather than the success of the individual. Students are arranged in small groups in such a way that each group mixes most able students with less able ones. Achievement of a task within a group of individuals is the best (Musserotte, 2017). Through cooperation, they can improve their personal skills and teamwork abilities. The teacher can just be a facilitator. An active class atmosphere comes from cooperation, not competition. At the same time, an active class atmosphere will help students learn with happiness. Wattanachai (2014) begs the teachers not to separate knowledge from ethics and morality. Students should be taught to support one another. He proposes three education reform goals: 1) Teachers must love their students and vice versa; 2) Students must be kind and generous to their classmates; they are not to compete against one another but to compete with themselves with the goal to be better. Thus, the better students must teach friends who are weaker in the study and 3) Teachers must create activities in which students have to work together so they can appreciate the value of unity.

4.2) Discussion

Kayi-Aydar (2015) states after a content-based lesson, a discussion can be held for various reasons. Several scholars have supported the importance of argumentation in discussions concerning socio-scientific issues in science education (Zeidler and Keefer, 2003) and of involving students in decision-making. providing students with opportunities to take an active part in the societal debate and to relate their own lives to the community (Ratcliffe and Grace, 2003). Meanwhile, several scholars have highlighted the development of students' abilities to think critically and make thoughtful decisions (Erduran, Simon & Osborne, 2004) and the learning of scientific skills and knowledge as important (McNeill, 2010).

4.3) Brainstorming

On a given topic, students can produce ideas in a limited time. The good characteristic of brainstorming is that the students are not criticized for their ideas so students will be open to sharing new ideas. Based on Richards (1990) brainstorming can develop the learners cognitive skill and contribute them to produce opinions. In his investigation Richards revealed that learners who were instructed in brainstorming strategy were more effective in making classifying opinions than others. The study by Alkhatib (2012) highlighted the effect of brainstorming on the problem solving of the L2 learners.

4.4) Critical thinking

Critical thinking is the thoughtful, deliberate process of deciding whether you should reject, accept or reserve judgment about a specific idea. It is also an assessment of your confidence in the idea itself. Using CT whenever you solve a problem, take an action, make a decision, or decide what to believe (Ennis, 2018). This skill is believed to be an important skill of the 21st Century. This should be promoted in the classroom. According to Beyer (1997, p.5, p.11), students think carefully when they consider the subjects or issues worthwhile, meaningful and useful. When PBL claims to get students to think critically, that is because students are stimulated by the problem that is relevant and significant for them. Thus, a PBL classroom offers opportunities to apply and practice high-order thinking skills they need to improve. Besides, the teacher can intervene when students need support and encouragement.

4.5) Motivation

PBL not only develops teamwork skills, but also enhances student motivation, which is one of other significant aspects to success in the contemporary world. PBL enhances student motivation by introducing meaningful activities and developing positive student perceptions of the PBL strategy. Learners who take part in these activities which are meaningful to them become more interested and motivated to finish tasks, even if the tasks are challenging and difficult (Morrison, 2015). Most importantly, after being engaged in a PBL environment, learners feel like they have “learned how to learn” (Morrison, 2015). Therefore, PBL can increase student motivation by increasing learner engagement.

4.6) Creativity

Not only does PBL require higher levels of critical thinking, but it also requires higher levels of creativity to solve the problem (Kelley, 2014, p. 19). In PBL, as the students go through the process of the 7 steps, they have to find the best solution to the problem and this is where creativity is needed. In fact, these activities do not have a single best answer or one correct solution. When students are exposed to activities that do not have strict right or wrong answers, they are able to think of creative answers instead of searching for the single right answer.

4.7) Satisfaction

Students' satisfaction as a short term attitude, resulting from an evaluation of a students' educational experiences. It is a positive antecedent of student loyalty and is the result and outcome of an educational system. Weerasinghe (2017) defines student satisfaction as students' disposition by subjective evaluation of educational outcomes and experience. Therefore, student satisfaction can be defined as a function of relative level of experiences and perceived performance about educational service during the study period. By considering all, students' satisfaction can be defined as a short-term attitude resulting from an evaluation of students' educational experience, services and facilities.

2.2 Theories of English Language Teaching and Learning

This section will display the different theories and approaches in English language teaching and learning.

2.2.1 Theories

In general, language theories guide a teacher to select an approach to the teaching of any new language (Ramírez, 2014). In English, there are some theories that most teachers like to follow. They are Grammar Translation Method, Constructivism and Project-based learning.

2.2.1.1 Behaviorism

Constructivism is a hypothesis of discovering that has established in both way of thinking and psychology. The basic center of constructivism is that students effectively build their very own insight and importance from their encounters (Fosnot, 1996; Steffe and Gale, 1995). This center has roots that reach out back through numerous years and numerous savants, including Dewey (1938), Philosophically, this embodiment depends on an epistemology that burdens subjectivism and relativism, the idea that while reality may exist separate as a matter of fact, it must be known through understanding, bringing about an actually extraordinary reality. Von Glasersfeld (1984) proposed three basic epistemological principles of constructivism to which a fourth has been included light of ongoing compositions.

2.2.1.2 Constructivism

Constructivism theory was first proposed by Piaget as a learning philosophy or a learning theory. Constructivist-based learning theory puts emphasis on student-centered idea, while teachers transform from the imparter and indoctrinator of knowledge into conductors who promote students to learn knowledge construction. It is believed that learners do not acquire knowledge directly from teachers, but do it by means of meaning construction in virtue of relevant learning resources and social

environment background. Context, collaboration, conversation and meaning construction are the four major attributes of learning environment (Matta & Kern,1989) , as shown in Fig. 2.7.

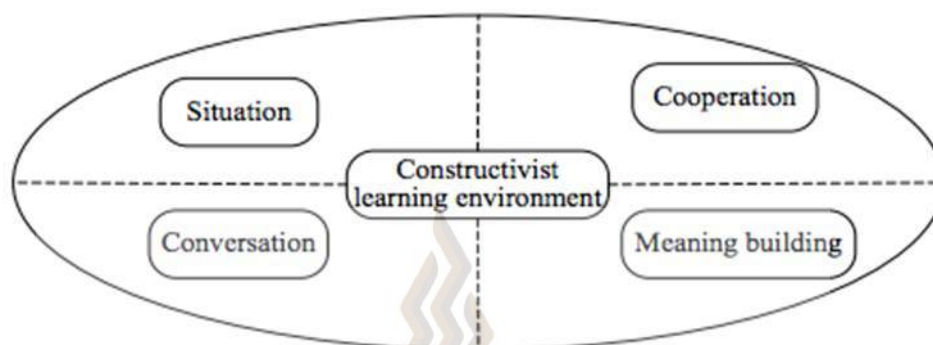


Figure 2.4 Constructivist learning situation of the four major attributes

Source: Hein, 1991

Constructivism theory argues that, to advance the innovation of the instruction models, teachers need to design and create a good learning environment for students to stimulate their enthusiasm for learning knowledge. Not only that, it sets a higher requirement for the teaching environment. The traditional instruction models have fallen short of what's needed for constructivism theory, while the advent and the development of multimedia computer make it possible to realize the constructivism theory. The computer assisted instruction system based on constructivism can provide real scenarios, typical cases, and build a good learning environment by which to promote learners' knowledge cognition and construction. The design of constructivist learning environment model is shown in Fig. 2.8 (Zhang, 2013).



Figure 2.5 Constructivist learning environment model

Source: Hein, 1991

2.2.1.3 Teacher-Centered Learning and Student-Centered Learning

Student-centered learning is a learning and teaching method with the instruction delivered to students in the classroom (Hsieh et al., 2015). Student-centered approach aims to encourage students to study independently and autonomously (Seitz, 2009). Student-centered approach based on Constructivism in which students learn the meaning and knowledge from the new knowledge synthesized guided by prior experience (Hickman, 2010).

Student-centered learning is primarily aimed at focusing on students' interests (Confer, 2001). In a student-centered classroom, students have the option on what they want to learn. They are allowed to select their own way to study and evaluate their achievement (Arman, 2018). Student-centered approach addresses students' different needs in studying (Brouwer, & Meeuwisse, 2019). Students learn problem solving skill and critical thinking skill in a student-centered classroom, while they are encouraged to collaborate with others and control what they want to do (Ali, 2019).

On the other hand, Teacher-centered is a teaching method in which the teacher is in charge of learning and students' knowledge comes from the teachers' transmission. Students focus on the teacher and follow what the teacher teaches. As a result, students are passively receiving knowledge. In a teacher-centered classroom, students study and do assignments alone without any collaboration and communication. This is in contrast with the student-centered classroom, the teacher-centered classroom makes students passive and learn with little interest and low

motivation because they are not allowed to create their own knowledge (Knowles, 1975, pp. 19-24)

2.2.2 Approach

This section will display different approaches in English learning and teaching.

2.2.2.1 Grammar Translation Method

The Grammar Translation Method (GTM) is a traditional teaching method which was used to teach language. It mainly focuses on the form of writing instead of the oral form. The faculty of psychology approach designed this method which was very useful between 18th and 19th century. It contended that "mental discipline was essential for strengthening the powers of the mind" (Brown, 2009) The way to do this was through learning classical literature of the Greeks and Romans.

Richards and Rodgers (2001) stated that this method use of mother tongue to teach, vocabulary items are taught in the form of lists, most of time spent explaining the grammar. Practice pay closely attention to exercises translating sentences or texts from mother tongue to the target language and vice versa.

Surprisingly, you will find that the Grammar Translation Method was still use in some country language classroom during the 1990's. Probably, that's because it owns some advantages. It is demonstrated by different experts as follows:

Table 2.2 The Strength of Grammar Translation Method

Name	Strength
Chang (2011)	Translation is the easiest and shortest way of explaining meaning of words and phrases.
Mart (2011).	Learners have no difficulties in understanding the lesson as they are carried out in the mother tongue.
Assalahi (2013)	It is a labor-saving method as the teacher carries out everything in the mother tongue.

On the other hand, there are several weaknesses about grammar translation method. The analysis is offered by the following experts:

Table 2.3 The weaknesses of Grammar Translation Method

Name	Weaknesses
Celce-Murcia (2014).	Overemphasis on translation can never emancipate the learners from dependence on the first language.
Kim (2015)	In the Grammar-Translation Method, the texts are mostly taken from literary works. The language learned often doesn't meet the practical needs of the learners.
Aqel (2013).	Memorizing grammar rules and bilingual word lists do not motivate students to actively communicate in the target language.

In conclusion, Richards and Rodgers (2001) stated that In spite of these merits and demerits of grammar translation method, it is still practiced in many second language acquisition countries.

2.2.2.2 Communicative Approach

Communicative language teaching (CLT) was known as the Communicative Approach. It focuses on interaction as both the final goal of learning a language and the method. Although plenty of criticisms it is still to be popular,

especially in Europe, where constructivist views on language learning and education in general dominate academic discourse. Although the ‘Communicative Language Teaching’ is not so much a method on its own as it is an approach.

2.2.2.3 Task-based Learning

In recent years, task-based language learning (TBLL), also known as task-based language teaching (TBLT) or task-based instruction (TBI), has grown steadily in popularity.

- What is a task?

A task is a piece of work undertaken for oneself or for others, freely or for some rewards (Long, 1985, p.89).

A task is an activity which enhances the learner’s own experiences as important contributing elements to classroom learning. (Nunan, 2015, p.14)

A task enables learners to manipulate and practice specific features of language with real meanings. (Ellis, 2003, p.16)

There are also both strengths and weaknesses of this method as follows:

Table 2.4 The Strengths and Weaknesses of Communicative Approach

Strengths	Weaknesses
Communicative approach is much more pupil-orientated, because it is based on pupils’ needs and interests.(Willis, 1996)	It pays insufficient attention to the context in which teaching and learning take place (Carless,2002)
It seeks to use authentic resources. And that is more interesting and motivating for children.(Thomas, 2010)	The Communicative Approach often seems to be interpreted as: “if the teacher understands the student we have good communication” but native speakers of the target language can have great difficulty understanding students.(Willis, D. & Willis, J., 2001)

Table 2.4 The Strengths and Weaknesses of Communicative Approach (Cont.)

Strengths	Weaknesses
Children acquire grammar rules as a necessity to speak so is more proficient and efficient.(Robison, 2011)	Another disadvantage is that the CLT approach focuses on fluency but not accuracy. The approach does not focus on error reduction but instead creates a situation where learners are left using their own devices to solve their communication problems. Thus they may produce incoherent, grammatically incorrect sentences.(Harden, 2000)

In conclusion, task based language learning was developed by using real world educational environmental observations about how people actually acquire a second language. Using genuine, every-day, and common errands as the vehicle for teaching language that can applied to the students' life, a task-based lesson can be extremely beneficial in building up a strong foundation for fluency in a second language.

2.2.2.4 Project-based Learning VS Problem-based Learning

Project based learning (PBL) is a model that organizes learning around projects (Thomas, 2000). According to the definitions found in PBL books of teachers, projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999).

As a practical learning theory, the meaning of PBL is embodied in its practical application (Hosseinzadeh & Hesamzadeh, 2012). However, in the process of practical application, some researchers, teachers and students cannot fully understand the essence of PBL, but can only achieve similarity. PBL has five criterions in its application and implementation process, which are centrality, driving issues, constructive investigation, autonomy and reality (Thomas, 2000).

Problem-based learning method is originated from the search for techniques that would enhance communication among learners. It adheres to dominant student-centered approach spearheaded by Harris (1921) and Dewey (1938) who strongly supported practical experience in learning. In PBL, Solving problems and reflecting on their experiences is learnt by students (Barrows and Tamblyn, 1980). Therefore, PBL is well suited to helping students become active learners because it situates learning in real-world problems and makes students responsible for their learning.

Project-based learning expects a completed project initiated by students at the end the teacher acts as a facilitator to give feedback on the work while problem based learning uses a real-life problem to start the lesson. Students have to go to small groups to find out the solutions to the problem, the teacher acts as an observer of the students' small group activities, presentations and written reports are expected at the end as the product of the group work.

Project-based learning is similar to problem-based learning, the difference is that project-based learning starts with a project in each group of students but problem-based learning uses a problem to trigger thinking arrive at solutions to the problem.

2.3 Skills in English

When we learn a language, there are four skills that we need for complete communication. When we learn our native language, we usually learn to listen first, then to speak, then to read, and finally to write. These are called the four “language skills” (Hinkel, 2005)

2.3.1 Listening Skills

Listening is a receptive language skill which learners usually find the most difficult. This often is because they feel under unnecessary pressure to understand

every word. The listener has to get oriented to the listening portion and be all ears. The listener is also required to be attentive (Gonzalez, 2000).

2.3.2 Reading skills

Reading is a learning skill. It helps you improve all parts of the English language – vocabulary, spelling, grammar, and writing. It helps to develop language intuition in the corrected form. Then the brain imitates them, producing similar sentences to express the desired meaning. Using skimming or scanning technique to read quickly is highly effective. While reading underlining of key words is a must. Reading Skills help the students grasp the content and draw conclusions. The students should also make it a point to familiarize themselves with the jargons and new words by making reading a habit be it reading newspapers, articles, books, magazines etc. (Nuttall, 1996).

2.3.3 Writing Skills

Writing provides a learner with physical evidence of his achievements and he can measure his improvement. It helps to consolidate their grasp of vocabulary and structure, and complements the other language skills. It helps to understand the text and write compositions. It can foster the learner's ability to summarize and to use the language freely (Kellogg, 2008). To write flawless language one should excel in the Writing Skills with the help of various methods. Importance should be given to composition and creative writing. One should also focus on coherence and cohesiveness when it comes to writing a language.

2.3.4 Speaking Skills

Language is a tool for communication. We communicate with others, to express our ideas, and to know others' ideas as well. We must take into account that the level of language input (listening) must be higher than the level of language production. In primary schools elocution and recitation are main sources to master the

sounds, rhythms, and intonation of the English language through simple reproduction. The manifestations of the language in games and pair work activities are encouraging source to learn to speak the language. (Kayi, 2012)

2.4 Assessment of Speaking Skills

There are plenty of rubrics for speaking examination, for example IELTS, TOFEL, CUTEF. They focus on different Items.

2.4.1 The Speaking Rubric for IELTS

According Cambridge assessment, The rubric for IELTS speaking is divided into 4 items, 1: Fluency & Coherence; 2: Lexical Resource; 3: Grammatical Range and Accuracy; 4: Pronunciation. The bands range from 0 to 9, according to students speaking abilities, details are shown as follows:

Firstly, Fluency & Coherence, Low-scoring responses in fluency and coherence are characterized by slowness formulating sentences. In a lot of cases, this happens because the student has to put a lot of effort towards making grammar and vocabulary choices. High-scoring responses in fluency and coherence are characterized by their use of a “normal” speed.

Band	Fluency and coherence	Lexical resource	Grammatical range and accuracy	Pronunciation
9	<ul style="list-style-type: none"> speaks fluently with only rare repetition or self-correction; any hesitation is content-related rather than to find words or grammar speaks coherently with fully appropriate cohesive features develops topics fully and appropriately 	<ul style="list-style-type: none"> uses vocabulary with full flexibility and precision in all topics uses idiomatic language naturally and accurately 	<ul style="list-style-type: none"> uses a full range of structures naturally and appropriately produces consistently accurate structures apart from 'slips' characteristic of native speaker speech 	<ul style="list-style-type: none"> uses a full range of pronunciation features with precision and subtlety sustains flexible use of features throughout is effortless to understand
8	<ul style="list-style-type: none"> speaks fluently with only occasional repetition or self-correction; any hesitation is content-related and only rarely to search for language develops topics coherently and appropriately 	<ul style="list-style-type: none"> uses a wide vocabulary resource readily and flexibly to convey precise meaning uses less common and idiomatic vocabulary skilfully, with occasional inaccuracies uses paraphrase effectively as required 	<ul style="list-style-type: none"> uses a wide range of structures flexibly produces a majority of error-free sentences with only very occasional inaccuracies or basic/non-systematic errors 	<ul style="list-style-type: none"> uses a wide range of pronunciation features sustains flexible use of features, with only occasional lapses is easy to understand throughout; L1 accent has minimal effect on intelligibility
7	<ul style="list-style-type: none"> speaks at length without noticeable effort or loss of coherence may demonstrate language-related hesitation at times, or some repetition and/or self-correction uses a range of connectives and discourse markers with some flexibility 	<ul style="list-style-type: none"> uses vocabulary resource flexibly to discuss a variety of topics uses some less common and idiomatic vocabulary and shows some awareness of style and collocation, with some inappropriate choices uses paraphrase effectively 	<ul style="list-style-type: none"> uses a range of complex structures with some flexibility frequently produces error-free sentences, though some grammatical mistakes persist 	<ul style="list-style-type: none"> shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8
6	<ul style="list-style-type: none"> is willing to speak at length, though may lose coherence at times due to occasional repetition, self-correction or hesitation uses a range of connectives and discourse markers but not always appropriately 	<ul style="list-style-type: none"> has a wide enough vocabulary to discuss topics at length and make meaning clear in spite of inaccuracies generally paraphrases successfully 	<ul style="list-style-type: none"> uses a mix of simple and complex structures, but with limited flexibility may make frequent mistakes with complex constructions, though these rarely cause comprehension problems 	<ul style="list-style-type: none"> uses a range of pronunciation features with mixed control shows some effective use of features but this is not sustained mispronunciation of individual words or sounds reduces clarity at times
5	<ul style="list-style-type: none"> usually maintains flow of speech but uses repetition, self-correction and/or slow speech to keep going may over-use certain connectives and discourse markers produces simple speech fluently, but more complex communication causes fluency problems 	<ul style="list-style-type: none"> manages to talk about familiar and unfamiliar topics but uses vocabulary with limited flexibility attempts to use paraphrase but with mixed success 	<ul style="list-style-type: none"> produces basic sentence forms with reasonable accuracy uses a limited range of more complex structures, but these usually contain errors and may cause some comprehension problems 	<ul style="list-style-type: none"> shows all the positive features of Band 4 and some, but not all, of the positive features of Band 6
4	<ul style="list-style-type: none"> cannot respond without noticeable pauses and may speak slowly, with frequent repetition and self-correction links basic sentences but with repetitive use of simple connectives and some breakdowns in coherence 	<ul style="list-style-type: none"> is able to talk about familiar topics but can only convey basic meaning on unfamiliar topics and makes frequent errors in word choice rarely attempts paraphrase 	<ul style="list-style-type: none"> produces basic sentence forms and some correct simple sentences but subordinate structures are rare errors are frequent and may lead to misunderstanding 	<ul style="list-style-type: none"> uses a limited range of pronunciation features attempts to control features but lapses are frequent mispronunciations are frequent and cause some difficulty for the listener
3	<ul style="list-style-type: none"> speaks with long pauses has limited ability to link simple sentences gives only simple responses and is frequently unable to convey basic message 	<ul style="list-style-type: none"> uses simple vocabulary to convey personal information has insufficient vocabulary for less familiar topics 	<ul style="list-style-type: none"> attempts basic sentence forms but with limited success, or relies on apparently memorised utterances makes numerous errors except in memorised expressions 	<ul style="list-style-type: none"> shows some of the features of Band 2 and some, but not all, of the positive features of Band 4
2	<ul style="list-style-type: none"> pauses lengthily before most words little communication possible 	<ul style="list-style-type: none"> only produces isolated words or memorised utterances 	<ul style="list-style-type: none"> cannot produce basic sentence forms 	<ul style="list-style-type: none"> speech is often unintelligible
1	<ul style="list-style-type: none"> no communication possible 			
0	<ul style="list-style-type: none"> no reliable language does not attend 			

Figure 2.6 The IELTS Rubric for Speaking

Source: Papageorgiou, Hsieh, Tannenbaum, & Cheng, 2019

Secondly, Lexical Resource, this scoring category measures vocabulary. Students is going to be assessed on your ability to choose words appropriately (in the right context) and accurately (with the correct meaning). IELTS Speaking rewards

test-takers with large vocabularies indirectly in Fluency & Coherence—but it rewards them directly in Lexical Resource.

Thirdly, Grammatical Range and Accuracy, grammar will also be assessed on the Speaking exam. Students' grammatical score range is not simply based on avoidance of grammatical mistakes. It's true that limiting errors is important. On the other hand, students can only reach a very high Speaking band score if you can also demonstrate that you have mastered complex sentence structures, verb tenses, and other advanced grammatical features.

Finally, Pronunciation, For most students, this is a very difficult category in which to make improvements, especially if students only have a short time to prepare before the exam. On the other hand, it can be worthwhile to focus on pronunciation if students' speech is very difficult for English speakers to understand.

2.3.2 The Speaking Rubric for TOEFL

The official TOEFL Speaking rubrics for the Independent tasks rubrics is scored on the basis of three components:

- 1) Delivery: how clearly and intelligibly you speak (this includes pronunciation, flow, intonation, and pacing)
- 2) Language use: how well you use grammar and vocabulary to express yourself
- 3) Topic development: how coherently you construct your response by connecting thoughts and elaborating on ideas

Each raw Speaking score is accompanied by a general description of what that particular score indicates about the speaker's overall English ability. In addition, each of the three rubric components contains its own descriptions for the four score levels (excluding a score of 0, which simply means that the speaker didn't respond or spoke about a topic unrelated to the prompt). The table shows following:

Table 2.5 General Description about Different Speaking Band in TOFEL

Score	Description
4	The response fulfills the demands of the task, with at most minor lapses in completeness. It is highly intelligible and exhibits sustained, coherent discourse.
3	The response addresses the task appropriately but may fall short of being fully developed. It is generally intelligible and coherent, with some fluidity of expression, though it exhibits some noticeable lapses in the expression of ideas.
2	The response addresses the task, but development of the topic is limited. It contains intelligible speech, although problems with delivery and/ or overall coherence occur; meaning may be obscured in places.
1	The response is very limited in content and/ or coherence or is only minimally connected to the task, or speech is largely unintelligible.
0	Speaker makes no attempt to respond OR response is unrelated to the topic.

Source: Esfandiari, & Noor, 2018

2.3.3 The Speaking Rubric for Cambridge Test

The feature of the Cambridge ESOL speaking tests is the authenticity of test content and tasks, as well as authenticity of the candidate's interaction with that content (Bachman, 1990). A concern for authenticity in the Cambridge ESOL exams can be seen in the fact that particular attention is given during the design stage to using tasks which reflect real-world usage, i.e. the target language-use domain, and are relevant to the contexts and purposes for use of the candidates.

As well as informing speaking test format and task design, the underlying construct of spoken language ability also shapes the choice and definition of assessment criteria, which cover Grammar/Vocabulary, Discourse Management, Pronunciation, and Interactive Communication. The use of both analytical and global

criteria enables a focus on overall discourse performance as well as on specific features such as lexical range, grammatical accuracy and phonological control. Throughout the test candidates are assessed on their own individual performance and not in relation to each other. They are awarded marks by two examiners: the assessor and the interlocutor. The assessor awards marks by applying performance descriptors from the analytical assessment scales for four criteria: • Grammar and Vocabulary • Discourse Management • Pronunciation • Interactive Communication.

In this study, IELTS speaking rubric was used . There are four items in the speaking's rubric which are fluency and coherence, lexical resource, grammatical range and accuracy as well as pronunciation. There are 7 bands in this rubric which are from Band 3 to Band 9.

2.5 Related Researches

This section will display several related studies about the problem-based learning.

There are a number of related studies on the problem-based learning. A study conducted by Cui (2016) entitled 'An empirical study of problem-based learning of English in China. The purpose of the study was to examine the impact of problem-based learning on 9th grade Chinese students' performance on writing, speaking and self-efficacy in learning English. This study was conducted in Qingdao No.2 high school in Shandong province, Chins. The findings show that students using this method tend to improve a lot in writing, speaking and self-efficacy in learning English.

Strobel and Van (2009) analysed a number of meta-analyses on the effectiveness of PBL and found that PBL is more effective than traditional approaches when the measurement of learning outcomes focused on long-term knowledge retention, performance or skill-based assessment and mixed knowledge and skills. It was only when the focus was on short-term knowledge acquisition and retention that

PBL appeared less effective. PBL therefore appears to be a superior and effective strategy to “train competent and skilled practitioners and to promote long-term retention of knowledge and skills acquired during the learning experience.

Alfi (2015) carried out a research entitled ‘Improving the students’ speaking skills through Problem-based Learning for grade seven students.’ The aim of this research is to improve the students’ speaking skills by using PBL for the grade 7 learners. The data were collected by teacher’s observation, semi-structured interviews as well as pre-post tests, quantitative and qualitative data were used in this study. As a result, the finding brought good improvement to students’ speaking skills. Student’s vocabulary abilities improved at the same time they also produced less mispronunciation.

Liu (2013) carried out a research on “A study of applying of Problem-based Learning to improve pupils’ spoken English”. The purpose of this research is to use PBL on students’ language ability of the speaking, the author chose two parallel nature classes 90 students from a primary school in Anshan Liaoning province of China for an experiment, which lasted for 4 months in 2011. In the experiment class, the teacher taught English with PBL while the same teacher in the control class used the traditional teaching method to teaching English. The oral exam was given once a month to testify in spoken English whether there was significant different between two classes. The data collection from questionnaires and interviews testify whether PBL in English teaching improve students’ English learning and language competence.

Another study conducted by McNatt (2019). Its title is ‘Enhancing public speaking confidence, skills, and performance: An T experiment of service-learning.’ This study used Demographic questionnaire, pre-post tests to support. The participants were a total of 263 EFL college students from six different Chinese universities. They are asked assemble in seven of a group randomly as well as do some projects. The results highlighted prior EPS course experience, gender, and academic major as factors that may impact the existence. This demonstrated that all the participant improve their speaking ability.

Many researches have focused on using problem-based learning. These studies revealed that all the participants improved significantly in English speaking skills using PBL approaches.

2.6 Conclusion

In conclusion, speaking plays a very significant role in our daily life, people use speaking to complete basic communication, if somebody is a good speaker, he/she is attracted by a decent job. However, sometimes speaking is not easy, especially in China. Chinese students all have one common weakness. They can obtain a high score in examination, however, they can not do well in speaking, after they came to an English speaking country they cannot communicate well with others. Although there are many teaching methods in the whole world, most of Chinese teaching style was traditional method and grammar translation method, teacher stood in the front of the classroom, gave lectures to all the students and students wrote down some notes on their notebooks. Problem-based learning method provides students with plenty of speaking opportunities in which students can speak a lot. Learners not only become good critical thinkers, but also enhance student's participation. Because a small-group discussion can be especially beneficial — ideally. Each student will get chances to participate. But regardless of group size, problem-based learning promotes long-term knowledge retention by encouraging students to discuss — and answer questions about — new concepts as they're learning them. Teamwork and cooperation can make everything easy, Successful completion of a problem-based learning challenge hinges on interaction and communication, meaning students should also build transferable skills based on teamwork and collaboration. Instead of memorizing facts, they get chances to present their ideas to a group, defending and revising them when needed. What's more, this should help them understand a group dynamic. Depending on a given student, this can involve developing listening skills and a sense of responsibility when completing one's tasks. Chinese students lack chance to speak, to voice, to work together and affect mutually.

Chapter 3

Research Methodology

This chapter explains the study's research methodology; how the study is designed, research site, population, sampling technique, research instruments as well as data collection and data analysis, validity of the instruments.

3.1 Research Design

This study employed a mixed-methods approach. Mixed methods research is the type of research that combines the principal approaches of qualitative and quantitative research (Guise, 2017). The aim of this study is to collect both types of data: one is the Pre/Post test scores and the scores from the satisfaction survey. Qualitative data comes from the semi-structured interviews. Mixed methods research offers an alternative methodology for researchers to use to address complex issues in a way that is more comprehensive than could be achieved by either purely qualitative or quantitative research (Andrew and Halcomb, 2012; Simons and Lathlean, 2010).

The mixed-methods approach has some advantages. According to PCMH (Jackson, 2013), mixed methods are especially useful in understanding contradictions between quantitative results and qualitative findings. It reflects participants' points of view based on the participants' experiences, and reflect the way individuals naturally collect information. According to Cibangu (2012), qualitative research is useful for ethnography, discourse analysis, case study, open-ended interview, participant observation, counseling, therapy, grounded theory, biography, comparative method, introspection, casuistry, focus group, literary criticism, meditation practice and historical research. Viswambharan and Priya (2016) state that qualitative research describes and interprets issues or phenomena systematically from the point of view of the individual or population being studied and to generate new concepts and theories.

Rasovska (2008) found that mixed methods research offers significant opportunities for researchers to gain a deeper understanding of complex health issues than would otherwise be possible via the use of either quantitative or qualitative data on its own. Researchers who use mixed methods, however, should carefully plan their research from a qualitative, quantitative and mixed methods perspective.

The procedures collecting, analysis data and discussion is explained by a research design (Jackson, 2013) The choice of research design can be summed up as expressed by Moore (2016, p.4) in the following paragraph.

“Quantitative studies use mathematical models and statistics for analysis, providing numerical results that are considered more objective. The results of qualitative research describe relationships, providing answers such as satisfactory, good, or excellent relationship. Qualitative research studies do not quantify the relationship”.

In this study, there were quantitative and qualitative data. From quantitative data, the researcher used pre-test and post-test's scores to find out the students' achievement of speaking as well as the scores from the satisfaction survey.

In the research, in the beginning, the students participated in the pre-text. Then the researcher implemented PBL method to the students. After the teaching and learning tasks, the students had the post-text. From the test results, it was analyzed by paired sample T-test whether the speaking skills had been improved. Finally, students' satisfaction was collected through questionnaires, The second type of data came from semi-structured interview of which the content was analyzed in themes. All these instruments needed to go through the step of Item Objective Congruence (IOC) by 3 experts. The two types of data set were reviewed and compared to answer the research questions as shown in the table below:

Table 3.1 Research Design

Research step	Participants	Organization/people involved
1. Design of Pre-post Test Design	The researcher	3 Experts for IOC
2. Questionnaire Design	The researcher	3 Experts for IOC
3. Questionnaire and Pre-post-test Improvement	The researcher	—
4. Questionnaires and Pre-post Tests Distributed to Targeted Samples	One group of 40 students	40 students from Chinese technical college 2 native speaker committee
3. Semi-Structured Interviews	6 students of 40 students (15%)	6 students from 40 students in Chinese technical college
4. Data Analysis	1.Pre-post Test Scores 2.Questionnaires 3.Semi-structured Interviews	1.Mean and S.D 2.Paired sample T-test 3.Content analysis

3.2 Research Site

The research was conducted in one of the public Chinese technology colleges in Hefei, China. All the students are taught English by Chinese. The English learning outcome of that college is that every students can speak English in their daily life. The first year students in this school who all have learned English for 9 years, so they can speak easy English by themselves, which makes it interesting to learn English speaking. First year is the very significant period to study English speaking. Therefore, the researcher chose the first year Chinese students for the purpose of study.

3.3 Population

The population in this study comes from Hefei Technical College. There were 86 classes in the first year level, The total number was 2503 students whose ages range between 18-19 years old with mixed gender and mixed abilities. The sample of the study was one of the 86 classes.

3.4 Sampling Technique

There are 86 classes in the first year level, only one class of the first year level was selected as sample group. So a convenience sampling technique was used to cull 1 class which is 40 students in accounting major from large population.

3.5 Research Instruments

3 instruments were used in this study. Some were used to collect quantitative data and others qualitative data. The instruments for this study are discussed below.

3.5.1 The Pre-Post test

In this research, the researcher used pre-test and post-test as the main instrument. The pre-post test consisted of 2 sections, the first section is answering the several personal questions in English. the other section is asking question about certain topic, which is appropriate for 18-19 year old Chinese college students. It includes 5 points. The topics covered daily life, nature, habit, science and recreation. The topic is based on the books The practical English book 1, Chinese higher education press. In total 5 points for Pre-post tests, section A spends 1 minutes and section B spends 14 minutes, in total 15 minutes for each students. All student's points come from rubric. Rubric is followed by IELTS speaking rubric (British council, IDP: IELTS Australia and Cambridge English Language Assessment). Rubric ranges from point 0 to point 9. Details are following:

- 1) Section A covered students' personal information:
 - 1.1) What's your name ?
 - 1.2) What's your student's ID number ?
 - 1.3) Where are you from?
 - 1.4) What's your hobbies?
 - 1.5) Do you like English?

- 2) Section B Answer the Question According Following Topics:
 - 2.1) Healthy food
 - a). *What is healthy food?*
 - b). *How can healthy food help people?*
 - c). *How you plan your diet in a healthy way?*
 - 2.2) Nature disasters
 - 2.3) Teenager problems
 - 2.4) The concept and time and punctuality
 - 2.5) Insects
 - 2.6) Holiday and celebration

- 3) There are four parts to the IELTS marks scheme:
 - 3.1) Fluency and Coherence
 - 3.2) Lexical Resource
 - 3.3) Grammatical Range and Accuracy
 - 3.4) Pronunciation

3.5.2 The Questionnaire

The questionnaire created by researcher was administered to find out whether students were satisfied with teacher's teaching using PBL. It had 10 statements using five-point 'Likert Scale' ranging from 'Strongly agree' to 'Strongly disagree'. The 1-5 Likert scale. Value 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, and 1= Strongly Disagree. On the other hand, the respondents' rating categories were as follows: very low=1.00-1.49, low= 1.50-2.49, medium= 2.50-3.49, high= 3.50-4.49,

very high= 4.50- 5.00 (Best, 1981). The 10 statements used in questionnaire were based on Butt's (2010) study on 'A study examining the students satisfaction in higher education'. The category of statements in the instrument was divided into: 1) school's facility, 2) teachers expertise and role, 3) teaching methodology, 4) teaching material. The questionnaire for this study was designed into 3 sections of the main factors affecting the students' satisfaction. They were 1) course design, 2) teaching professionalism, 3) Classroom equipment.

3.5.3 The Semi-Structured Interviews

An advantage of surveys over interviews is that survey requires less time investment per respondent than do interview" (Keenan & Teijingen, 2014, p17). The research interview is a purposeful conversation between two or more people, requiring the interviewer to establish rapport, to ask concise and unambiguous questions to which the interview is willing to respond, and listen attentively (Barbara & Benjamin, 2006). Semi-structured interview refers to "Predetermined questions, but order can be muddled base upon the interviewer's perception of what seems most appropriate. Question wording can be changed and explanation given; inappropriate questions for a particular interview can be omitted , or additional ones included"(Bista, 2016). According to Brinkmann and Kyale (2005), after the analysis of semi-structured interviews, the researcher would have a list of themes and possibly some key questions were covered.

To supplement the largely quantitative questionnaire, semi-structured interviews were conducted as a means of collecting qualitative data. The researcher designed three open-ended questions to interview. Each student and each interview took 10-20 minutes. A semi-structured interview "face-to-face" interview was conducted, followed by interview notes and tape-recording. The researcher concentrated on the structured interview as a tool in this study to enable the researcher to probe further into the experiences of participants and get deeper insight of the phenomenon. The researcher's view here accords closely with the views of Babbie (2004) who highlights the strength of using such tool in terms of flexibility in

structuring the questions either to dig into the earlier answer or redirect person's attention to an area more relevant to our inquiry. The entire interview was tape-recorded so that even if the researcher got something wrong or forgot an important detail, it could be retrieved from the tape. It was also done for the purpose of enhancing reliability as viewed by Creswell (2007, p.209) "Reliability can be enhanced if the researcher obtains detailed field notes by employing a good quality tape for recording and by transcribing the tape. The opened-end question is following :

The questions for Semi-Structured Interviews:

Question 1 is 'How do you feel about the class?'

Question 2 is ' What area do you think you have improved in your English?'

Question 3 is 'What other skills do you think you have improved besides English?'

3.5.4 The Teaching Plan

In total, the course were taught in 15 weeks, Each lesson lasted for 150 minutes. Using problem-based learning methods to teach. There were 6 problems for students, each problem lasting 2 weeks. The topics included in daily life, nature, habit, science and recreation. All the theme came from the practical English book 1, Chinese higher education press.

Rationale: students in Accounting Major should be trained in modern teaching techniques, especially ones that promote English speaking skills, critical thinking, which is required skill for basic communication and 21st Century, which sees a lot of radical changes in teaching and learning. Thus, it is important to create this in our students, who wish to be a sociable accountant in their future jobs.

Objectives :

- 1): To improve students' English speaking skills through PBL method.
- 2): To provide students with direct experience in teaching and learning management.

Participants : 40 students and 2 staff totaling 42 people

Responsible unit : 2019 Accounting Major Hefei Technical College

Date of operation: 3 September 2019- 14 January 2020 every Tuesday from 8:00-10:30

Location : Room 201, Building G, Hefei technical college.

Problem Topics Covered

- 1) Health food
- 2) Nature disasters
- 3) Teenager problems
- 4) Time and punctuality
- 5) Insects
- 6) Holiday and celebration

Date and activities

Table 3.2 Teaching Date and Activities Schedule

Month	Date	Activity
		Pretest
1	3/Sept/2019	Introduce PBL steps Lecture 1: Introduce PBL 7 steps
	10/Sept/2019	Problem1: When Food Becomes Enemy!
	17/Sept/2019	Reporting : Problem1: When Food Becomes Enemy! Homework 1: Reflection
	22/Oct/2019	Problem2: Punished by Nature?
2	29/Oct/2019	Reporting : Problem2: Punished by Nature? Homework 2: Reflection
	5/Nov/2019	Problem3: Anything for Beauty?

Table 3.2 Teaching Date and Activities Schedule (Cont.)

Month	Date	Activity
	12/Nov/2019	Reporting :Problem3:Anything for Beauty? Homework 3: Reflection
	19/Nov/2019	Problem4:Lost in airport?
3	26/Nov /2019	Reporting :Problem4:Lost in airport? Homework 4: Reflection
	3/Dec/2019	Problem5:Is that poisonous Butterfly?
	10/Dec/2019	Reporting :Problem5:Is that poisonous Butterfly? Homework 5: Refelction
	17/Dec/2019	Problem6:Yoko's Holiday
4	24/Dec/2019	Reporting :Problem6:Yoko's Holiday? Homework 6: Reflection
	7/Jan/2020	Seminar on PBL Lecture 2: Summary & Reflection on PBL
	14/Jan/2020	Post-test

Expected outcomes:

- 1) Students improve their English speaking skills by PBL method.
- 2) Students are provided with direct experience in teaching and learning management.

3.6 Data Analysis

This section will display data analysis of three instruments , which are the pre-post tests, the questionnaire and the semi-structured interviews

3.6.1 The Pre-Post Tests

To find out whether the student improve their English speaking skills by using PBL teaching method. Two sections were used in pre-post test with 40

participant in Chinese technical college. The point comes from rubric (Cambridge IELTS speaking rubric). The data collected through per-post tests were analyzed using descriptive statistic such as. Mean, and standard deviation using computer program. Paired sample T-test will identify whether the students improve or not.

3.6.2 The Questionnaire

To find out whether the student were satisfied with teacher's teaching and their performance by using PBL teaching method., a set of questionnaires comprising of 10 statements were used with 40 participants. The data collected through the questionnaires were analyzed using descriptive statistic such as frequency, mean, and standard deviation using a computer program. According to Best (1981), the respondents' rating categories were as follows:

Table 3.3 Scores for Finding Level of Students' Satisfactory

Level	Very high	High	Medium	Low	Very low
Mean score	4.50-5.00	3.50-4.49	2.50-3.49	1.50-2.49	1.00-1.49

Source: Best, 1981

Therefore, in this study, the level of students' satisfaction must higher than 3.50, which means students were satisfied with PBL treatment.

3.6.3 The Semi-Structured Interviews

Data analysis is the next challenging process for qualitative researchers. Once the researcher collected enough relevant information on the issue at hand, the next task is preparing and organizing the data for analysis. This study used content analysis. It means the researcher analyzed the texts in details by looking at the ideas expressed by

the interviewees. Ideas were categorized into themes and the themes that denoted the same were grouped together factor. The researcher analysis the participants' interview information, did the analysis to find the reasons and collect the detail about whether the students were satisfied with teacher's teaching by using PBL teaching method.

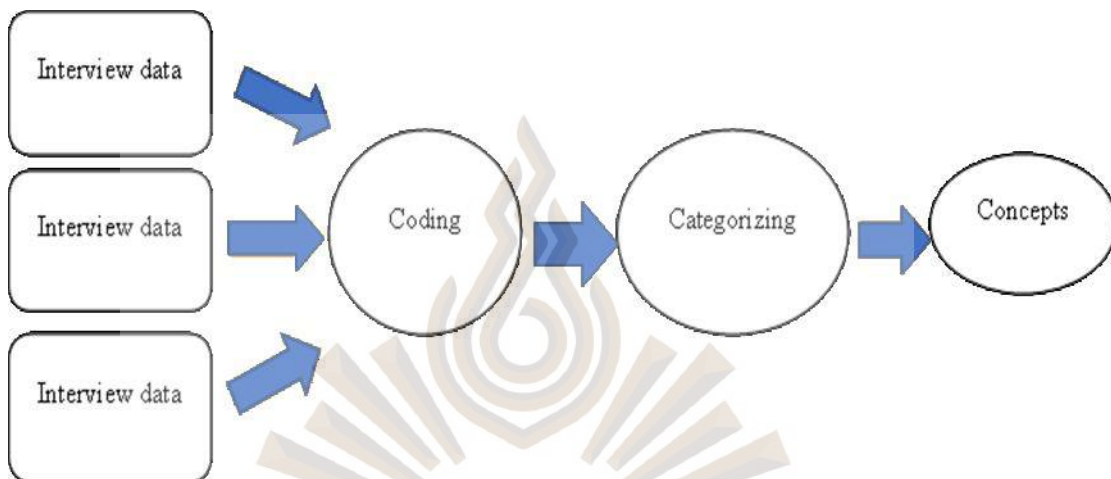


Figure 3.1 Three Cs of Data Analysis: Coding, Categorizing, Concepts

The data collected from international students' interview data was analyzed by using a coding system the three Cs: Coding, Categorizing and Concept (Lichtman, 2013). "The process of selecting the central or category, systematically relating to other categories, validating those relationships and filling in categories that need further refinement and development" Example, interviewee 1 said: I was very happy in this course. The Lecturer is very innovative and humorous. I think the lecturer should use more approaches to avoid being bored.

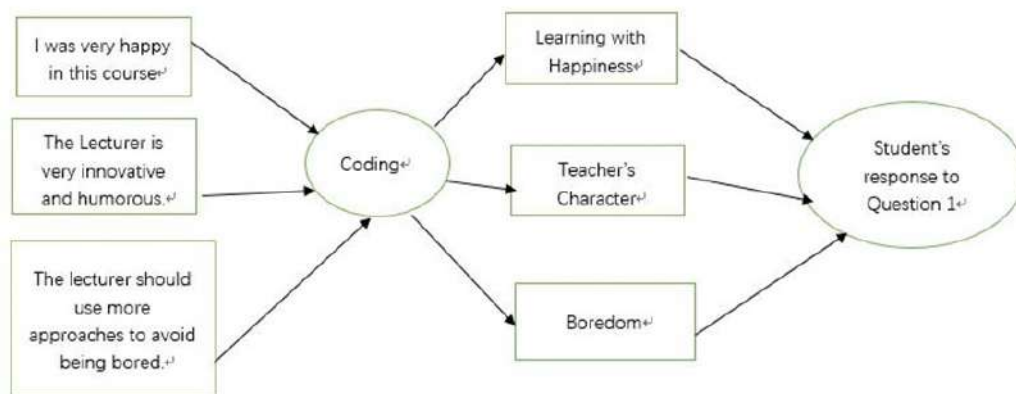


Figure 3.2 Example of the Three Cs Step

3.7 Validity of the Instruments

3.7.1 The Pre-Post Tests

The pre-post test was submitted to one Rangsit University professor and two English teachers to assess the content validity of the test using the index of item-objective congruence measure (IOC). The validity score of the pre-post test was 0.85.

3.7.2 The questionnaire:

The content validation was carried out by three experts, from Rangsit University. Index of the “Item Objective Congruence” (IOC) was computed for the survey questionnaire and the semi-structured interview questions. Index of Item Objective Congruence (IOC) (Turner & Carlson, 2003) points of congruence were rated. IOC scores reached the high level of value 0.95 and 1.

The IOC points in calculations provided into three scales of rating for consistency and congruencies of the items. All experts had to choose only one answer as the given mark from these three alternatives of choices:

+1: If experts definite feeling that an item is a measure of an objective.

0: If experts undecided about whether the item is a measure of an objective.

-1: If experts definite feeling that an item is not a measure of an objective.

Total points for each item must have the consistency value equal to or above 0.67 to +1 (Turner & Carlson, 2003).

The formula for calculating the $IOC = \frac{r}{n}$

Where; IOC=Item Objective Congruence

r= Sum of the scores of individual experts

n= Number of experts

It was also examined by 3 experts for the IOC analysis which ranges from +1 to -1. The total marks of each item from all experts produced out different outcomes. For example, if the total marks were equal to two (2). It is possible that by 2 of them select one point (2 x 1), and 1 of them select the zero points (1 x 0). Therefore, the outcome was: $2+0 = 2$ points. Moreover, then, such 2 points had to be divided by total experts which were 3, then the outcome of such item will be $(2/3) = 0.67$. However, the idea to examine the IOC regarding consistency as validity must not lower than 0.50.

Before the Validity, this questionnaire had 10 statements. After examined by 3 experts for the IOC analysis, the validity score of the questionnaire was 0.95. (The IOC for the questionnaire and semi-structured interview is attached in appendix F).

3.8 Ethical Considerations

“Data collection should be ethical and it should respect individuals and sites. Obtaining permission before starting to collect data is not only a part of informed consent process but is also an ethical practice. Protecting the anonymity of individuals by assigning numbers to returned instruments and keeping the identity of individuals confidential offer privacy” (Creswell, 2007, p.171). To ensure that the study was conducted in an ethical manner, the researcher obtained approval from different

stakeholders and protected the identity of all the participants both the questionnaire respondents and the interviewees. In order to protect privacy of all involved parties, certain steps were used

3.8.1 Approval

The researcher got one approval letter from the Dean of the English College in China, consent letters from the concerned course leaders and the participants before carrying out the study.

3.8.2 Anonymity of participants

Anonymity of the research participants and the confidentiality of their views were strictly followed by the researcher. The confidentiality of the participant's opinions and their identities were maintained through the use of the number system



Chapter 4

Findings

This chapter deals with analysis of the results to reveal 1) whether the problem-based learning method enhanced students' speaking skills; and 2) whether the students were satisfied with English teaching. The quantitative data were collected by the pre-post tests, the questionnaire and the qualitative data were obtained from semi-structured interviews to gather responses from the volunteer students about PBL in the class at Hefei Technical College. Different research analysis methods were used to interpret the different types of data. The pre-post tests were analyzed by sample paired T-test. The mean score and S.D were used to analyze the questionnaire's data. The qualitative data were content analyzed by the researcher into the themes that emerged. The data were also reviewed by the class teacher, who agreed with the emerging themes. The themes were reported to indicate the level of satisfaction of the students.

The chapter covers the data analysis of the instruments used in the study as follows:

4.1 Analysis of the Pre-Post Test Results

The first objective of the study was to find out whether the problem-based learning method could enhance students' speaking skills of the first year students at Hefei Technical College. A comparative statistics was done using sample paired t-test by comparing the pretest and the posttest scores in terms of mean, standard deviation and significant value. The inferential statistics t-test with $p < 0.05$ level of significance, mean and standard deviation were used to interpret the results.

4.4.1 The Scores of The Pre – Post Test from Three Teachers

The scores of the pre-post test from 3 teachers and the final scores were presented below in Tables 4.1 and 4.2. These three teachers used IELTS speaking's rubric focusing on four aspects (Fluency and Coherence, Lexical resource, Grammatical range and Accuracy and Pronunciation) to assess students' speaking level. In Table 4.1, the majority of students got band 4 and band 5, which indicated that the students are in a low ability of English speaking skills.,

Table 4.1 Individual Students' Pre Test Scores From Three Teachers

The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
1	7	6	7	7
2	5	6	5	5
3	6	6	6	6
4	5	5	5	5
5	4	4	4	4
6	6	5	6	6
7	3	4	3	3
8	5	5	5	5
9	4	4	4	4
10	6	6	6	6
11	5	5	5	5
12	6	7	6	6

Table 4.1 Individual Students' Pre Test Scores From Three Teachers (Cont.)

The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
13	5	5	4	5
14	5	5	5	5
15	4	5	4	4
16	6	6	7	6
17	4	5	4	4
18	6	6	6	6
19	6	5	6	6
20	4	5	4	4
21	4	4	4	4
22	5	5	5	5
23	4	4	5	4
24	3	4	3	3
25	4	4	4	4
26	6	5	6	6
27	5	5	5	5
28	5	4	5	5
29	4	4	4	4

Table 4.1 Individual Students' Pre Test Scores From Three Teachers (Cont.)

The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
30	6	6	5	6
31	5	6	5	5
32	7	7	7	7
33	4	5	4	4
34	6	4	6	5
35	5	5	5	5
36	4	4	4	4
37	4	5	4	4
38	4	4	5	4
39	6	7	6	6
40	6	7	6	6

The following Table demonstrated the post-tests' scores of each students. It is easily figured out that students got band 6 and band 7.

Table 4.2 Individual Students' Post Test Scores from Three Teachers (Cont.)

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
1	8	8	8	8
2	7	8	8	8
3	7	7	7	7
4	6	6	7	6
5	6	7	6	6
6	7	7	7	7
7	6	6	6	6
8	6	7	7	7
9	6	6	6	6
10	7	7	7	7
11	6	6	6	6
12	7	7	7	7
13	6	6	6	6
14	6	6	6	6
15	5	6	6	6
16	7	7	8	7
17	6	6	6	6

Table 4.2 Individual Students' Post Test Scores from Three Teachers (Cont.)

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
18	7	8	7	7
19	7	6	7	7
20	5	5	5	5
21	6	6	6	6
22	7	7	7	7
23	6	6	6	6
24	5	6	6	6
25	6	6	6	6
26	7	7	7	7
27	6	7	7	7
28	7	7	7	7
29	5	5	5	5
30	7	7	7	7
31	6	6	6	6
32	8	8	8	8
33	6	6	6	6
34	8	8	8	8

Table 4.2 Individual Students' Post Test Scores from Three Teachers (Cont.)

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
35	7	7	7	7
36	5	6	6	6
37	5	6	5	5
38	5	6	5	5
39	8	7	7	7
40	8	7	7	8

4.1.2 Individual Student Performance Analysis

The scores of the pre-test and the post-test of the sample group were presented below in Table 4.3. It was evident that the performances of the students were remarkably higher in the post test scores than the pre-test scores. The scores of the pre-test ranged from 3 to 7 with only two participants scoring 7 and only two participants scoring 3. The post-test scores were remarkably higher with a maximum score of 8 and a minimum of 5 with only 4 participants scoring 5 and only 4 participants scoring 8. Every participant showed a notable improvement in the post-test score as shown in the table below.

Table 4.3 Individual Student's Test Scores in The Two Test.

The Scores of Pre-post Tests in English Speaking (Final)			
Student ID	Pre-test	Post-test	Difference
1	7	8	1
2	5	8	3
3	6	7	1
4	5	6	1
5	4	6	2
6	6	7	1
7	3	6	3
8	5	7	2
9	4	6	2
10	6	7	1
11	5	6	1
12	6	7	1
13	5	6	1
14	5	6	1
15	4	6	2
16	6	7	1
17	4	6	2

Table 4.3 Individual Student's Test Scores in The Two Test. (Cont.)

The Scores of Pre-post Tests in English Speaking (Final)			
Student ID	Pre-test	Post-test	Difference
18	6	7	1
19	6	7	1
20	4	5	1
21	4	6	2
22	5	7	2
23	4	6	2
24	3	6	3
25	4	6	2
26	6	7	1
27	5	7	2
28	5	7	2
29	4	5	1
30	6	7	1
31	5	6	1
32	7	8	1
33	4	6	2
34	5	8	3

Table 4.3 Individual Student's Test Scores in The Two Test. (Cont.)

The Scores of Pre-post Tests in English Speaking (Final)			
Student ID	Pre-test	Post-test	Difference
35	5	7	2
36	4	6	2
37	4	5	1
38	4	5	1
39	6	7	1
40	6	7	1

Table 4.3 above showed the scores of the individual students for the two tests and their differences. Students 2,7,24 and 34 improved the most by 3 scores. The majority of the participants performed well in the post-test showing higher scores. 4 students improved by 3 points, 14 students improved by 2 points, and 22 students improved by 1 point.

4.1.3 Pre-test and Post-test Comparison within the Group

The pre-test and the post-test scores of the group were analyzed using mean and standard deviation. Table 4.4 below showed the result of the pre-test and post-test comparison in terms of mean, standard deviation and significance value (p). Table 4.4 shows the Paired samples T-test of pre-test and the post-test results within the sample group.

Table 4.4 Comparison of the Pre-test and Post-test Results Significance

Paired Sample T-test							
		Mean	Student Number	Std. Deviation	t	df	Sig (1tailed)
Pair	Pretest	4.95	40	1.011	-14.470	39	0.001
	Posttest	6.05	40	0.816			

value (p) : < 0.05—Significant

Table 4.4 above shows the results of the pre-test and the post test comparison in terms of the mean, standard deviation and significance value (p). The result showed the the mean score in the pre-test was 4.95 and the standard deviation was 1.011. In the post-test, the mean score was 6.5 ,which was 1.55 higher than the pre-test resulting in the significance value (p) 0.01 which indicated that there was a statistically significant increase in the scores of the students in the post-test after the treatment of the problem-based learning approach. The standard deviation was 0.816 in the post test. n the regard to the students' post-test scores higher than that of the pre-test, all participants performed well in this context and fulfilled their goals in speaking achievement since all of their scores in the post-test were higher than those in the pre-test. Since the probability (p) values or the Sig. (2-tailed) was lower than (0.005), it could be assumed that there was a significant difference between the pre-and post-test. It was also demonstrated that the mean differences in the group after the treatment of problem-based learning approach were significantly higher than those before the treatment.

Table 4.5 The Percentage of Student's Scores in Each IELTS Band in the Pre Test

The Percentage in Each Score in the Pre Test							
Band	3	4	5	6	7	8	Total
Pretest	5% (2s)	32.5% (13s)	30%(12s)	27.5%(11s)	5% (2s)	0% (0s)	100%(40s)
Postest	0% (0s)	0% (0s)	10% (4s)	45% (18s)	35%(14s)	10% (4s)	100%(40s)

Table 4.5 above was an extensive explanation of Table 4.3. It is an explanation of the pre test results of the students. 5% (2 students) got 3; 32.5% (13 students) got 4 and 30% (12 students) got 5; 27.5% (11students) got 6, ultimately 5% (2 students) got 7. On the other hand, 10% (4 students) get 5 in the post-test; 18 students (45%) got 6 ; 14 students (35%) got 7, finally 10%(4 students) got 8. Obviously, students had a great improvement in the posttest. It demonstrated that more students scored in Bands 6,7 and 8.

Pre-post tests' data revealed that all the students achieved higher scores and made a great progress after the Problem-based learning treatment. It also indicated that problem-based learning is an effective teaching method to enhance students' English speaking skill.

4.1.4 The Comparison of Students' Improvements of the Pre-post Tests in Different Items

The pre test scores were assessed by IELTS speaking rubric. There are four items in the speaking's rubric which are fluency and coherence, lexical resource, grammatical range and accuracy as well as pronunciation. There are 7 bands in this

rubric which are from Band 3 to Band 9. Table 4.6 demonstrated the students' scores of the pre test in different bands of the different criterion.

Table 4.6 Students' Pretest Scores in Different Bands of Criterion

Criterion	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8	Band 9	Total
Fluency and Coherence	3	15	12	8	2	0	0	40
Lexical Resource	6	18	11	4	1	0	0	40
Grammatical Range and Accuracy	4	19	10	6	1	0	0	40
Pronunciation	3	14	14	7	2	0	0	49

On the other hand, the following table showed the students' post test scores in different bands of the different criterion.

Table 4.7 Students' Posttest Scores in Different Bands of Criterion

Items	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8	Band 9	Total
Fluency and Coherence	0	0	5	17	17	1	0	40
Lexical Resource	0	0	6	16	15	3	0	40
Grammatical Range and Accuracy	3	20	10	5	2	0	0	40
Pronunciation	0	4	14	16	4	2	0	40

From Tables 4.6 and 4.7. It showed that students improved speaking skill in different aspects. First of all, in the pretest, 3 students got 3 in fluency and coherence and only 2 students got 7 in this aspect while in posttest, while in the posttest, most students (34 persons) improved this aspect from Band 4 to Band 7. This means they could speak fluently without noticeable efforts, with a variety of vocabulary and good pronunciation. However, the grammatical usage and accuracy aspect still needed improvement.

It proved that problem-based learning can help students improved their speaking skill in different items, which were fluency and coherence; lexical resource; pronunciation, the data showed problem-based learning could not help students improve their grammatical usage much.

4.2 Analysis of the Questionnaire Data

The second objective of this study was to find the level of satisfaction of the students in the study. The 10 survey items of the questionnaire using the five point Likert scale were prepared and administered to the sample group at the end of the study. The survey questionnaire focused on the level of satisfaction of the students in the study. Table 4.6 illustrated the results of the students' levels of satisfaction based on Butt (2010). The questionnaire was divided into three components: A) Opinion on course design (Items 1,2,3,4), B) Opinion on the lecturer's teaching professionalism (Items 5,6,7) and C) Opinion on classroom equipment (Items 8,9,10).

Table 4.8 The Mean and The Level of Students' Satisfactory

NO.		Mean	S.D	Interpretation
A	Opinion on course design			
2	This course opens to questions and discussion.	4.95	0.615	Highest
3	This course is approachable and willing to help me.	4.68	0.649	Highest
1	This course is well-prepared and organized.	4.58	0.703	Highest
	In total	4.73	0.656	Highest
B	Opinion on the lecturer's teaching professionalism			
4	The lecturer treats all students with respects.	4.98	0.598	Highest
5	The lecturer makes class interesting and meaningful for me.	4.95	0.603	Highest
6	The lecturer uses reasonable, useful and fair assessment methods.	4.78	0.733	Highest
7	The lecturer uses a variety of methods and instructional materials to enhance student learning.	4.30	0.683	High
	In total	4.75	0.654	Highest
C	Opinion on classroom equipments			
9	The classroom is well-kept and pleasant to spend time in.	4.95	0.745	Highest
10	I feel satisfied with the safe physical environment of the class.	4.61	0.799	Highest
8	Classroom equipment is in good condition.	4.03	0.689	High
	In total	4.53	0.744	Highest
	Questionnaire Average	4.67	0.684	Highest

It is evident from Table 4.6 that in the first component of the student's opinion questionnaire, 'opinion on course design' almost all the students strongly agreed with all the statements. The total mean was 4.73 (SD=0.656). The highest mean was 4.95 (SD=0.615) for the one statement '*This course opens to questions and*

discussion.' Because this course was taught by problem-based learning approach. There are many topics for students to discuss. The lowest mean was 4.58 (SD=0.703) for the one statement is that *'This course is well-prepared and organized.'* However, the total score of 4.73 (SD=0.656) which indicated that satisfaction was very high.

In the second component of the student's opinion questionnaire, 'opinion on lecturer's teaching professionalism' students strongly agreed with 3 statements and agreed with 1 statement in this part. The total mean was 4.75 (SD=0.654), the highest mean was 4.95 (SD=0.603) for one statement *'The lecturer makes class interesting and meaningful for me.'* The lowest mean was 4.30(SD=0.683) for one statement *'The lecturer uses a variety of methods and instructional materials to enhance student learning.'*

For the last component of the opinion questionnaire 'opinion on classroom equipment' all the students strongly agreed with the two statements and agreed with one statement. The total mean was 4.53 (SD=0.744). The highest 4.95 (SD=0.745) for one statement *'The classroom is well-kept and pleasant to spend time in.'* The lowest mean was 4.03 (SD=0.689) for the statement *'Classroom equipment is in good condition.'*

The total mean for all the components (course design, lecturer's teaching professionalism and classroom equipment) was 4.67 (SD=0.684) as shown in Table 4.6. This indicated that the level of students' satisfaction of the treatment of problem based learning approach falls in the strongly agreed category on the Likert scale. This means students in the sample group had positive opinions towards problem based learning approach teaching treatment. The mean of the questionnaire data was 4.67(SD=0.684) which means all the students were satisfied with the problem based learning course and teacher's teaching.

One sample T-test was used to analyze students' satisfaction, the details were shown as follow;

Table 4.9 Analysis of Questionnaire by Using One Sample T-test

One sample T-test						
Item	Validity samples	MIN	MAX	MEAN	SD	Sig
1	30	3.00	5.00	4.58	0.703	0.0005
2	30	3.00	5.00	4.68	0.615	0.0005
3	30	4.00	5.00	4.95	0.649	0.0005
4	30	4.00	5.00	4.98	0.598	0.0005
5	30	4.00	5.00	4.95	0.603	0.0005
6	30	3.00	5.00	4.78	0.733	0.0005
7	30	3.00	5.00	4.30	0.683	0.0005
8	30	1.00	5.00	4.03	0.689	0.0005
9	30	3.00	5.00	4.97	0.745	0.0005
10	30	3.00	5.00	4.61	0.799	0.0005

In this questionnaire, item 4 got the highest mean (4.98 SD= 0.598) which is 'The lecturer treats all students with respects.' In contrast, item 8 got the lowest mean (4.03 SD= 0.689) which is 'Classroom equipment is in good condition.' On the other hand, all the significance P-value are 0.0005.

4.3 The Analysis of Semi Structured interviews

The third instrument of this study was semi-structured interviews. This instrument was used to identify the level of the students' satisfaction, which was the second objective of this study. The three interview questions were sent to the volunteering students. The data were reviewed by the class teacher.

Question 1 is 'How do you feel about the class?'

Question 2 is 'What area do you think you have improved in your English?'

Question 3 is ‘*What other skills do you think you have improved besides English?*’

4.3.1 Students’ Responses from Question 1

The first question of the semi-structured interview is ‘How do you feel about the class?’ The following table demonstrates themes and frequencies of the students’ responses to this question.

Table 4.9 Themes and Frequency of Semi-Structured Interview’s the First Question

No.	Themes	Frequencies
1	Learning with happiness	5
2	The good quality of the lesson	5
3	The good characteristic of the lecturer	3
4	Classroom’s limitation	2
5	slightly boring	1

This section shows the five themes of the responses. This table shows that the ‘learning with happiness’ factor was the strongest factor that students talked about most in the interview. The weakest factor is ‘slightly boring’ because some of the students thought the course was taught by the only one teaching method which was problem-based learning. They preferred more variety.

4.3.1.1 Learning with happiness

The data showed that students felt happy to study English according to the class atmosphere. Many students thought that if they studied in a very joyful and relaxing atmosphere, they would learn more dynamically.

- 1) I found this course is very interesting and attractive. (Student 1)
- 2) I never learn a language in this innovative way, this is a new way of

language teaching and learning (Student 2)

3) I have never ever experienced this way of learning. (Student 3)

4) This course is very interesting and made me feel relaxed. I can learn a lot in this relaxing atmosphere. (Student 4)

5) This course is useful for me and the teaching way is very unique. This teacher's teaching way is totally differ from the other English teacher I have met.(Student 6)

4.3.1.2 The good characteristic of the lecturer

The data showed that a good teacher will motivate students to study a subject, when students like the teacher, he/she will be willing to listen teacher's words. then teaching is going to be more effective.

1) Teacher respects all the classmates and treats us very fairly. (Student 5)

2) The lecturer is very kind and humorous, he shared a lot of experiences with us.(Student 2)

3) The lecturer is very humorous, kind and innovative. I have never ever experienced this way of learning. (Student 3)

4.3.1.3 The good quality of the lessons

The data that showed students were satisfied with the course design, the lessons, the way of teaching. If the students feel satisfied with this factor, they will learn a lot from the course.

1) Personally, this unique teaching way makes my very dynamic to learn English language.(Student 6)

2) This course is very useful, in this course I widen my horizon. I knew different cultures in different countries from several topics.(Student 5)

3) I experienced the different atmosphere than my previous English classroom. I have learned a lot from it. (Student 1)

4) In the beginning, I'm very confused. But after a topic, I totally realized I have learnt many things from the problem. (Student 4)

4.3.1.4 Slightly boring

This theme demonstrated that a person felt only one kind of teaching method made him/her feel bored, he/she could not feel the sense of freshness. Look at the following responses

1) The course is meaningful to me, but anyway it always used one teaching method. It revealed that it was slightly boring. (Student 2)

4.3.1.5 Classroom's limitation

This data showed that when the lecturer taught in this classroom, students may feel some disadvantages of the classroom condition and some equipment. The responses are as follows:

1) The bad thing is the formulation of the classroom; sometimes, it limited our communication. And the school internet is very slow. (Student 3)

2) I suggest that the teacher should move the classroom to outside because our college's classroom limited a lot of things! (Student 6)

4.3.2 Students' Responses from Question 2

The second question of the semi-structured interview is 'What do you think you have improved in your English?' The following table demonstrates themes and frequency of this question.

Table 4.10 Themes and Frequencies of Semi-Structured Interview's the Second Question.

No.	Themes	Frequencies
1	English speaking skill	6
2	English writing skill	3
3	English listening skill	2
4	English reading skill	1
5	English vocabulary	1
6	Motivation	1

This section showed how the responses were categorized into the six themes. This table shown the ‘English speaking skill’ factor was the strongest factor that was students talked most in the interview. Because students delivered a presentation in every lesson, they were accustomed to making a speech.

4.3.2.1 English listening skill

The data showed that the students thought they have improved their listening skill after this course.

1) My listening skill has also been improved I listened to different perspectives while watching presentation. (Student 3)

2) Most importantly, my listening and speaking skills have been magically improved. (Student 5)

4.3.2.2 English reading skill

Only one student said he/she has improved their reading skill after this course.

1) I also think my reading skill has been improved, I searched different article resources on the Internet, and picked up the most important one. (Student 3)

4.3.2.3 English writing skill

The data showed that the students thought they have improved their writing skill after this course.

1) I wrote papers many times every lesson (Student 4)

2) My English writing skill has been improved also. I wrote papers on different topics.(Student 6)

3) We produced many writing papers of the presentations. I think my writing skill has been also improved.(Student 1)

4.3.2.4 English speaking skill

The data showed that the students thought they have improved their speaking skill after this course.

1) My spoken English has been improved a lot. Because we did a lot of presentations in the daily classroom. (Student 1)

2) I have improved my speaking skills, I say very confidently that I can make a public speech in anyplace anytime.(Student 6)

3) In my four skills, I found that my speaking skills was going to be strongly improved.(Student 2)

4) Mostly, my speaking skill has been improved, Because in every session, we are gonna prepared our English presentation. (Student 3)

5) My English output skills (speaking & writing skill) improved through this course.(Student 4)

6) Most importantly, my speaking skills have been magically improved. (Student 5)

4.3.2.5 English vocabulary

One student thought he/she has expanded their English vocabulary after this course.

1) After this course, I found that my vocabulary range has been expanded(Student 5)

4.3.2.6 Motivation

One students thought he/she has been motivated by this way of teaching.

1) I am very glad that my interest of learning English has been activated, as saying goes, interest is the best teacher. If my learning motivation has been improved, after that my English four skills are going to be improved. (Student 3)

4.3.3 Students' Responses from Question 3

The third question of the semi-structured interview is 'What do you think you have improved in other skills?' The following table demonstrates themes and frequency of this question.

Table 4.11 Themes and Frequencies of Semi-Structured Interview's the Third Question.

No.	Themes	Frequencies
1	Microsoft skill	5
2	Cooperative skill	3
3	Communicative skill	3
4	Critical thinking	2
5	Research skill	2

This section showed how the responses were categorized into the five themes. This table shown the 'Microsoft skill' factor was the strongest factor that was students talked most in the interview. The weakest factor is the global perspective.

4.3.3.1 Microsoft skill

This data showed that the most students thought they improved in Microsoft skill, because every lesson they need to prepare the slide work and writing paper. Sometimes, they need to analyze the data by excel.

- 1) It improved my Microsoft skills. (Students 1, 3, 4, 5)
- 2) I know many functions of Word/powerpoint/excel after this course (Student 6)
- 3) I am able to make beautiful PPT. (Student 2)

4.3.3.2 Critical thinking

This data demonstrated that students thought they changed their thoughts which became more critical.

- 1) My mindset has changed, I became more critical, innovative and thoughtful. (Student 1)
- 2) It also developed my critical thinking and communication skill in the analyzing problem's part. (Student 5)

4.3.3.3 Communicative skill

This data demonstrated that students thought they improved their communicative skill after this course.

1) It has improved my ability of cooperation, communication skills. Now I can cooperate with all my partners as well as communicate well with all the classmates. (Student 4)

2) I communicate with all my classmates and my group members as soon as possible. (Student 6)

3) This course totally improved my communicative skills, I think that I can get along with my peer, I can arrange the learning meeting, at the same time, I also hosted the presentation in the classroom. (Student 2)

4.3.3.4 Research skill

This data showed that students thought that improved their research skill after this course.

1) The teacher taught us how to decide a paper according to different topics, I searched a lot articles online and cited them into my paper to support my learning as well as consolidate my learning process. (Student 6)

2) I study how to research. My research skill was totally improved. (student 3)

4.3.3.5 Cooperative skill

This data showed that students thought that improved their research skill after this course.

1) It proves that I have improved my cooperative skill. I help my friends to study, also my friends helps me to study. (Student 6)

2) Now I can cooperate with all my partners as well as communicate well with all the classmates. (Student 4)

The semi-structured interviews revealed that students improved five skills which are not related to English skills which are Microsoft skill, critical thinking, communicative skill, cooperative skill and research skill

The findings from each research instrument were demonstrated in the following mind-map.

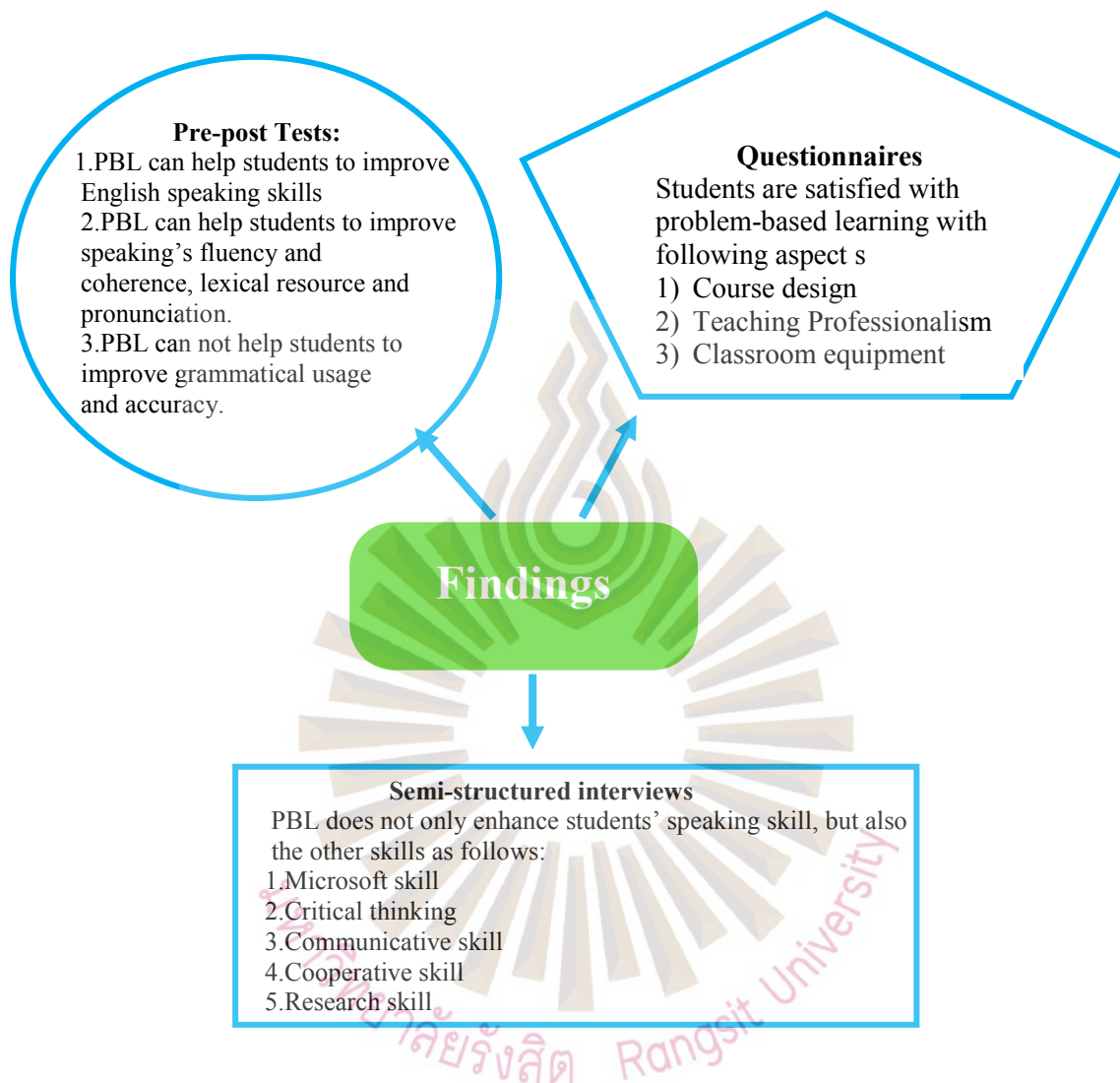


Figure 4.1 Research Findings of Each Research Instrument

This showed that the students did not only improve their cognitive knowledge but also other necessary skills of the twenty-first century. In addition, students were satisfied with this teaching approach. That was PBL could also help students to feel relaxed and ready to learn when the affective domain was treated right.

Chapter 5

Conclusion

This chapter presents the conclusion from the results of the data analysis, discussion of the findings followed by recommendations for practice and future studies. This chapter was presented in the following order:

5.1 Conclusion

5.2 Discussion

5.3 Recommendation

5.1 Conclusion

This study had two objectives, the first objective was whether the problem-based learning method enhance students' speaking skills; the second objective was whether the students were satisfied with English teaching while their performance. Both qualitative and quantitative were used to achieve these two research objectives. The following conclusions were drawn from the finding of each instrument's data.

5.1.1 Responses to Objective 1

The first objective of the study was to investigate the effectiveness of problem-based learning method enhance students' speaking skills. The finding emerged from the pre-post tests.

The pre-post test consisted of 2 sections. Firstly, the several personal questions were asked in English. Secondly, students answered the question about certain topic such as natural disaster, insects, teenager's problem, holiday and so on. All student's points came from IELTS rubric.

The rubric was divided into four items, fluency and coherence, lexical resource, grammatical usage and accuracy as well as pronunciation. The finding illustrated that problem-based learning improved students' English speaking skills from different aspects, such as fluency and coherence, lexical resource, pronunciation. However, the finding also showed that problem-based learning can not improve students' grammatical usage and accuracy very effectively.

A comparative statistical analysis using paired sample t-test was done within the group. The mean of the pretest and posttest of the pre-test and post-test were 4.95 (SD=1.011) and 6.50 (SD=0.816) respectively as shown in Table 4.4. It was found that the posttest scores were higher than the pretest scores. The research was conducted in a traditional classroom where the furniture (students' seats) was fixed.

5.1.2 Responses to Objective 2

The second objective of the study was to find the level of satisfaction students in the study. This finding is based on questionnaires and semi-structure interviews.

A questionnaire was designed on 10 statements which is divided into 3 parts, the opinion on course designing, the opinion on teaching professionalism and the opinion on classroom equipment.

The analysis showed the mean and SD of each questionnaire item. The highest factor was the opinion on teaching professionalism with (\bar{x}) 4.75 (SD=0.647), while the lowest factor was the opinion on classroom equipments with the (\bar{x}) 4.53 (SD=0.744). At the same time, the opinion on course designing is also satisfied by students with the (\bar{x}) 4.73 (SD=0.656). But researcher found that two lowest items in questionnaire were. 1). The lecturer uses a variety of methods and instructional materials to enhance student learning, with (\bar{x}) 4.30 (SD=0.683); 2). Classroom equipment is in good condition, with (\bar{x}) 4.03 (SD=0.689)

On one hand, the research was conducted in a traditional classroom, thus, the classroom's layout limited the students' communication. On the other hand, the lecturer only used problem-based learning to teaching the class, students may feel disengaged while learning. Above all, according to the data, the researcher found out that students were satisfied with problem-based learning. They are also satisfied with the teaching professionalism, course designing, and classroom equipment.

Meanwhile, the interviewees included students from 6 volunteer students. A face-to-face interview was conducted for each interviewee. The data from each interviewee was analyzed and interpreted using the content analysis technique. There were 3 questions in the interview, the participants did not only talk about their own satisfaction on PBL but also shared their own opinions in interviews with the researcher.

The first question was 'How do you feel about the class?' Six factors (Table 4.9) in order of significance were as follow: 1) Learning with happiness, 2) The good quality of lesson, 3) The good characteristic of lecturer, 5) Classroom's limitation, 6) Boredom.

The second question was 'What do you think you have improved in your English?' Six factors (Table 4.10) in order of significance were as follow: 1) English speaking skill, 2) English writing skill, 3) English listening skill, 4) English reading skill, 5) English vocabulary, 6) Motivation.

The third question was 'What do you think you have improved your other skills?' Five factors in order of significance were as follow: 1) Microsoft skill, 2) Critical thinking, 3) Communicative skill, 4), Cooperative skill, 5), Research skill.

In conclusion, the students were satisfied with problem-based learning methods in course design, the lecturer's teaching professionalism and classroom equipment. Students not only can improve English skills but the other twenty-first century's skills.

5.2 Discussion

This section discusses responses to research question.

- 1) Question one: Would problem-based learning method enhance students' speaking skills?
- 2) Question two: Would the students be satisfied with PBL teaching?

5.2.1 Discussion of the Students' skill improvement

'Would problem-based learning method enhance students' speaking skills?'

The first finding was that problem-based learning improve students' speaking skill in many aspects. This finding is consistent with Cui (2016), Ansarian (2016), Strobel and van Barneveld (2009) and Alfi (2015) showed problem-based learning can help students' speaking in China. Strobel and van Barneveld (2009) analysed a number of meta-analyses on the effectiveness of PBL and found that PBL is more effective than traditional approaches when the measurement of learning outcomes focused on long-term knowledge retention, performance or skill-based assessment and mixed knowledge and skills. Alfi (2015) carried out a research entitled 'Improving the students' speaking skills through Problem-based Learning for grade seven students. As a result, the finding brought good improvement to students' speaking skills. Student's vocabulary abilities improved at the same time they also produced less mispronunciation. Nunan (2015) stated that an excellent Non-English speaker should speak with high fluency and good pronunciation. Therefore, in this study, PBL enhanced students' speaking with fluency and coherence because they prepared plenty of presentations in daily classroom; secondly, students improved their lexical resource since they have studied many vocabularies from the problem; thirdly, students pronunciation skill also has been improved a lot. But students' grammatical usage and accuracy did not improve remarkably.

5.2.1.1 The Improvement of Speaking Skills

The finding was that problem-based learning enhanced first year college students' English speaking skills was consistent with Norzaini (2012) who

demonstrated that problem-based learning developed students' speaking skill by studying with the problem. The finding was also similar to Khotimah (2016) views that the use of problem-based learning can help students develop their speaking skills. The students were very successfully improved in speaking skills in pretest and posttest. The students showed the positive changes or improvements on aspects of English speaking, such as coherence, vocabularies, oral communication and the motivation of speaking,. It was also consistent with Binnendijk (2014), who stated that problem-based learning is a teaching and learning method in which mainly focus on learning with the problem, it supports many opportunities to student to develop their speaking skill when learning with the problem.

5.2.1.2 Combining PBL with Other Teaching Methods

The finding also demonstrated that problem-based learning could not improve grammatical usage and accuracy remarkably. Gustin (2018) suggested that combining problem-based learning with lecture-based learning can promote students' deep learning approaches, students can obtain more knowledge from this combination and integration. On the other hand, Tortorella (2018) also illustrated that combining traditional teaching methods and PBL for teaching may more effective than use PBL method only. In order to avoid being tedious in classroom, teacher can not only use problem-based learning to teach but combine other teaching methods. Hu (2019) stated that the combination of the flipped classroom and PBL teaching approach could be a better option over the traditional lecture-based classroom in teaching and learning. At the same time, Alnowaiser (2017) demonstrated that the effect of combining team-based learning and problem-based learning upon the students' perception toward problem based learning was more positive. It is a successful and interesting educational method.

5.2.1.3 The Improvement of Other Skills

At the same time, the students were not only improving English speaking but also other 21st century's skills, which was consistent with Fatin (2017) who stated that problem-based learning method successfully ensuring an active, integrated and constructive learning process for students that will be a key for 21st

century skill's learning; Margaret (2018) found that PBL is an innovative approach to learn plenty of strategies which are critical for success in the twenty-first century. Students drive their own learning through inquiry and work cooperatively to research. Megan (2015) viewed that student-centered method contributes to improve students' abilities not only in speaking skill but also other skills. When students allowed to solve the problem, they can have many opportunities to make progress. At this moment, teaching and learning must be done 'active learning' and 'self-directed learning' (Phang, Yusof, Aziz, Nawi & Musa, 2017). When students are provided opportunities to learn concepts in this way PBL Facilitators must believe that students are not empty thinkers to be filled with knowledge (Butler, 1999, p. 136).

Problem-based learning supported a student-centered learning way, to make students study in cooperation and communication. (Norman & Schmidt, 1992) In the process of problem learning, there was a vigorous and joyful learning atmosphere in the course, furthermore, students were fond of working together, which made them develop the abilities in making presentations, Microsoft skills, critical thinking, finding the resources, research skills, communication, cooperation and so on. Students were also satisfied with lecturer's teaching professionalism. However, the finding also showed that the traditional classroom formulation limited PBL's teaching and learning

The data from the pre-post tests indicated that could be enhanced speaking skills, However, PBL also enhance other English skills such as reading skills, listening skills, writing skills and vocabulary and twenty-first century skills such as Microsoft skills, research skills, communication skills, cooperative skills and critical thinking.

The following figure is about PBL factors enhancing English skills.

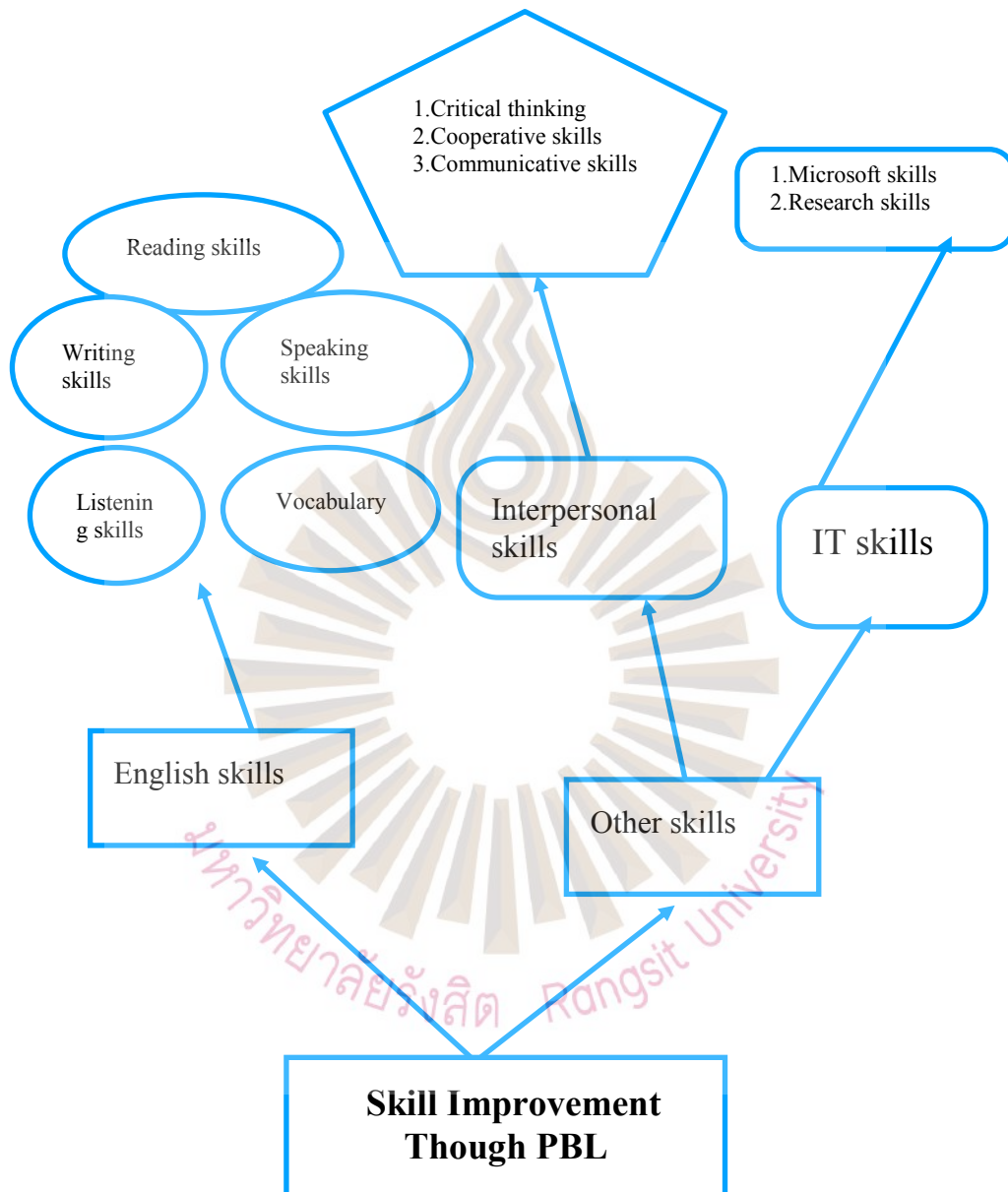


Figure 5.1 Factors Emerging from PBL Comprehensive English Course

5.2.2 Responses the Research Question 2

‘Would the students be satisfied with PBL teaching?’

The finding of the study showed that students were satisfied with problem-based learning method.

5.2.2.1 Teachers’ Character

The findings also showed that students were most satisfied with lecturer’s teaching professionalism. Teacher’s personality and character are very important to students, teacher should be kind and fair to all. (Boud & Feletti 1991; Ellet, 2007, p. 11; Rodolfo, 2015) Loganseth (2019) Remedios (2008) found that a good teacher makes students feel relaxed to get more knowledge from the class. If the question is “What type of teachers do students want?”, it is clear that the teachers who only teach in class or who believe that they have the knowledge to impart do not fit in. In the digital era, knowledge comes from various sources and the teachers are no longer knowledge providers. They must be coaches, facilitators, and mentors at the same time. Savekpan (2019) can sum up all the ideas about qualified teachers in one sentence. “Good teachers must show a desire for student development, endurance, versatile, love, organizing, and positive thinking.” Panich (BangkokBizNews, 2016) emphasizes that “professionalism is not enough. They must do more. First, love for students, Second, find ways to support them.” This is obvious that desirable human qualities in the teachers are much more important than the knowledge they have. The children want to be treated with warmth, support, and encouragement. Similarly, Promkarn (2019, pp.96-109) mentions 10 characteristics of 21st Century teachers in schools with international students which embody teacher spirituality. First and foremost, the teacher needs to have the abilities to manage classes with teaching skills and specialized learning management. The ability to use technology is a requirement for teachers in this century. Adaptability and communication skills as well as cross-cultural understanding help in the interaction with students, while the teacher is expected to be a good role model as always. (Wolff, Wagner, Poznanski, Schiller & Santen, 2015)

5.2.2.2 Relationship

There is something really special when you walk into a classroom and see a sea full of smiling happy faces (Cox, 2011). From this, we know that as a teacher, building a good relationship with students is important. But how? First, we need to take care of our students' physical and mental health. Also, it is vital to make friends with your students outside of class, i.e. enjoy lunch together. Building a good relationship with students is the role of the teacher (Mason, 2017). O'Rourke and Cooper (2010) found in a study of 312 primary-aged students that happiness in the classroom for young children comes from a sense of friendship, belonging, and optimism. In addition, cooperative learning is a teaching method where students of mixed levels of ability are arranged into groups and rewarded according to the group's success, rather than the success of an individual member.

5.2.2.3 Cooperation

Cooperative learning is expected to give students experience in working together when group members struggle to accomplish the demands of the task one another in learning (Gillies, 2016, p. 40). This method consists of structuring the classroom so that all the students work in teams with a purpose to fulfill the objective of helping other students. The students are the ones to choose the topics they consider most relevant and each student works on one of them. When group members work together as a team, they tend to support rather than competing with one another. A pressure of having to show who is the best will not be the only goal for them to learn.

5.2.2.4 Technology

Teachers can integrate technology into the classroom in multiple ways to enhance the educational goals. However, when “most schools are still operating in the ideas of the Industrial Age”, students will not feel happy because they may not be able to study without the use of technology. In fact, schools should cater to the needs of modern kids or “digital learners” and how they learn (Kelly et al., 2009, p.13, p. 37). Teachers should develop instructional approaches that incorporate digital, online, multimedia experiences into learning activities and resources.

5.2.2.5 Learning Environment

Despite the advantages of PBL, students felt the classroom limited the PBL's teaching and learning. Classroom seats were fixed students could not form group easily. In addition, WIFI facilities were slow in this college. The Chinese traditional lecture room limited the group chatting and team work, for this kind of inconvenience, students may work ineffectively. A positive learning environment is that learner feel a sense of belonging, trust others as well as feel encouraged to solve the problems, take risks and face the challenges (Bucholz & Sheffler, 2009). Thus, problem-based learning should conduct in a modern classroom, which made students feel more confident and joyful.

The following figure is about factors influencing students' satisfaction.

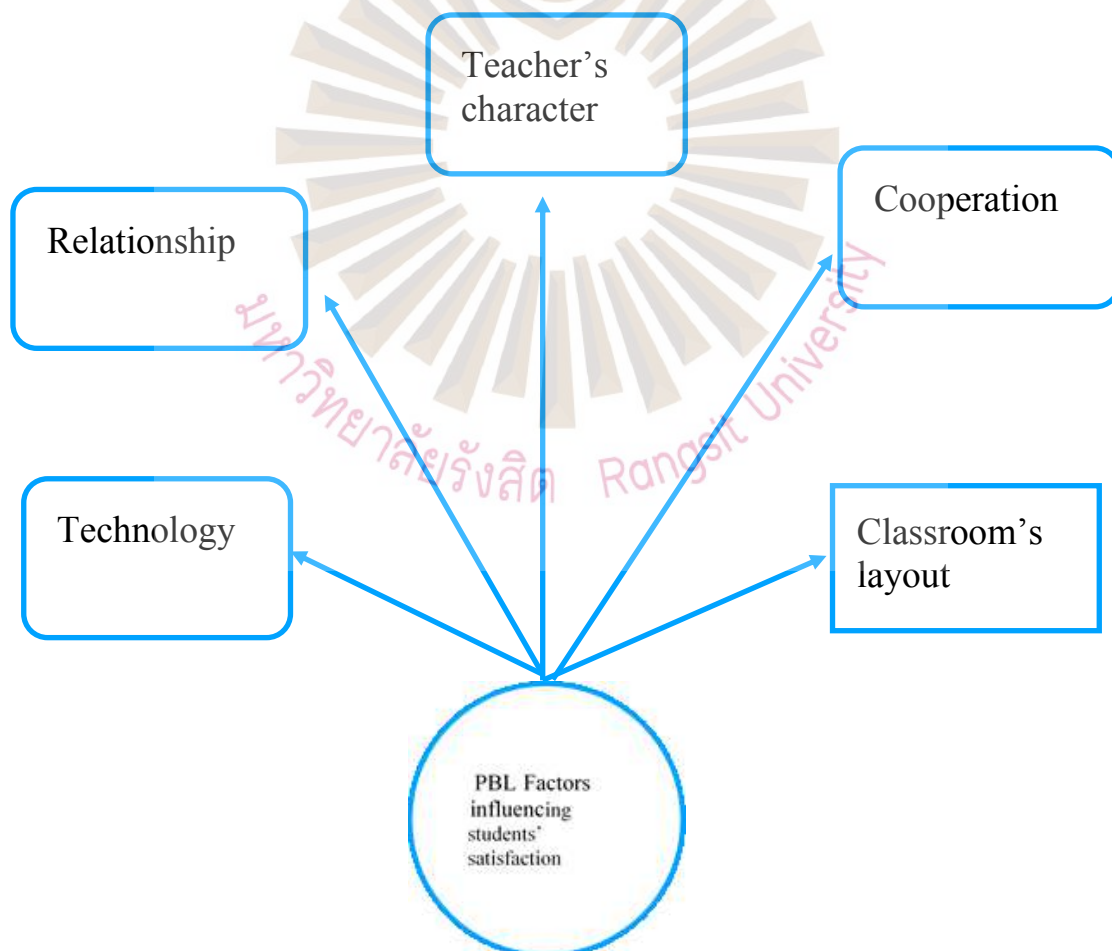


Figure 5.2 Factors Influencing Students' satisfaction

5.3 Recommendation

The present study found out that the implementation of problem-based learning method enhanced the first year college students' speaking skills and also students were satisfied with problem-based learning method, based on the two findings, the following recommendations were made.

5.3.1 Recommendations for Implementation

- 1) Teachers may encourage students to work in team, inspire them to speak confidently, help each other and think critically.
- 2) The study can serve as reference for teachers who try to apply problem-based learning method in teaching other English skill, for example, reading skill, listening skill and writing skill.
- 3) The study can also be used as reference for future researcher who conducts the similar research.
- 4) It is important to pay attention to the role of teacher and students in the class. Students mostly are motivated to learn more when they have more opportunities to share their opinions in the class. A modern learning environment should be created to motivate students to conduct their knowledge.
- 5) Problem-based learning method can be not only applied in college or university but also elementary, secondary and high school.
- 6) The effective use of problem-based learning method needs problem to be high quality in organization. When problems are designed, students' interests and abilities should be taken into consideration in the beginning.
- 7) Problem-based learning should combine with other teaching method to teach in order to enhance more knowledge and avoid tedious atmosphere.
- 8) The study recommends that the use of problem-based learning requires a strong support from the participants, teachers, parents and school principal.

5.3.2 Recommendations for Future Researches

According to two finding of the study, the researcher would like to recommend the future research as follows:

1) Future research should use problem-based learning to teach students in various subjects.

2) Future research should focus on using problem-based learning to teach large number of students.



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APPENDICES





APPENDIX A
REQUEST FOR SCHOOL'S PERMISSION



4800/910
The President,
Liu Liang Hefei Technology College,
Anhui, China

Suryadhup teachers College
15 August, 2019

Subject: Request for Permission to Collect Data by a Rangsit University M.Ed. Thesis Student at Your College

Dear Madam,

The Faculty of Education for the M. Ed. Program in Bilingual Education would like to request the permission for an M. Ed. (Bilingual Education) candidate to collect data at your college in China from 23 August, 2019–10 January 2019. The details of the candidate are shown below:

Name: WEI HAN

Title: Implementing Problem-based Learning in a Vocational English Class: an Investigative Study

I truly hope that you will grant permission to the student to collect his research data. Thank you for your kind consideration.

Sincerely yours,

Assistant Professor Anchalee Chayanuvat, Ed.D.
Dean of Faculty of Education
Rangsit University
Muang-Ake, Paholyothin Road
Lakhok, Pathumtani 12000 THAILAND

Tel: +662-997-2222 ext 1257, 1276

Fax: +662-997-2222 ext 1277

Cell Phone: +668-01-255-7983

灵山县青云中学文件

关于批准泰国 Rangsit University 的 孙雪霞同学在我校进行硕士毕业 论文数据收集的文件

近日，收到国际高校来函，请求在我校进行一项毕业论文数据研究以及收集的工作。

鉴于其研究的对象是我校初一年级的 22 班，研究主要围绕学生的写作进行，经学校主要科目教师、班主任、学生以及学生家长的允许，特应允泰国 Rangsit University 的孙雪霞同学于 4 月 10 日至 5 月 10 日在我校进行其硕士毕业论文研究数据的收集工作。

特此批准！



灵山县青云中学

校长处

2020 年 3 月 10 日

The image features a large, faint watermark of the Rangsit University logo in the background. The logo consists of a stylized flame or sunburst at the top, a circular emblem in the center, and a semi-circular arrangement of rays at the bottom. The text 'มหาวิทยาลัยรังสิต Rangsit University' is written in a semi-circle below the rays.

APPENDIX B
LETTERS OF INVITATION FOR THREE IOC EXPERTS



Memorandum

STC/4800/908

15 August 2019

Ref: Invitation for you to be our IOC (Item Objective Congruence) expert

Dear Dr. Jaladis Khanthap,

Our student, WEI Han, who is studying in the second year of M-Ed (Bilingual Education Program) has now completed his Thesis Proposal Defense on 3 August 2019. The research title is "Implementing Problem-based Learning in a Vocational English Class: An Investigative Study". Currently, he is in the middle of the instrument design phase and has come up with three instruments for his study, namely:

- 1) Pre-Post Tests
- 2) Satisfaction Questionnaire
- 3) Semi-Structure Interview Questions

Thus, I would like to invite you to be our IOC (Item Objective Congruence) expert in assessing the validity of the instruments. The package has been attached herewith.

I truly appreciate your kind support in this matter and hope that you will accept my invitation.

Sincerely yours,

Anchalee Chayanuvat

(Assistant Professor Dr. Anchalee Chayanuvat)
Dean of Suryadhep Teachers College
Rangsit Universit



Memorandum

STC/4800/907

15 August 2019

Ref: Invitation for you to be our IOC (Item Objective Congruence) expert

Dear Dr. Pramook Chusorn,

Our student, WEI Han, who is studying in the second year of M-Ed (Bilingual Education Program) has now completed his Thesis Proposal Defense on 3 August 2019. The research title is "Implementing Problem-based Learning in a Vocational English Class: An Investigative Study". Currently, he is in the middle of the instrument design phase and has come up with three instruments for his study, namely:

- 1) Pre-Post Tests
- 2) Satisfaction Questionnaire
- 3) Semi-Structure Interview Questions

Thus, I would like to invite you to be our IOC (Item Objective Congruence) expert in assessing the validity of the instruments. The package has been attached herewith.

I truly appreciate your kind support in this matter and hope that you will accept my invitation.

Sincerely yours,

(Assistant Professor Dr. Anchalee Chayanuvat)
Dean of Suryadhep Teachers College
Rangsit University



Memorandum

STC/4800/909

15 August 2019

Ref: Invitation for you to be our IOC (Item Objective Congruence) expert

Dear Assistant Professor Lina You,

Our student, WEI Han, who is studying in the second year of M-Ed (Bilingual Education Program) has now completed his Thesis Proposal Defense on 3 August 2019. The research title is "Implementing Problem-based Learning in a Vocational English Class: An Investigative Study". Currently, he is in the middle of the instrument design phase and has come up with three instruments for his study, namely:

- 1) Pre-Post Tests
- 2) Satisfaction Questionnaire
- 3) Semi-Structure Interview Questions

Thus, I would like to invite you to be our IOC (Item Objective Congruence) expert in assessing the validity of the instruments. The package has been attached herewith.

I truly appreciate your kind support in this matter and hope that you will accept my invitation.

Sincerely yours,

(Assistant Professor Dr. Anchalee Chayanuvat)
Dean of Suryadhep Teachers College
Rangsit University

APPENDIX C
PRE-POST TEST



Hefei Technical College (HTC)
Accounting Major English Pre-Test

Time:15 minutes grade: 10 (%)

Student ID _____ grade _____

Direction: This test is divided into 2 parts, first part is an oral interview about personal information, while the other part is asking & answer. 15 minutes in total.

Part 1 interview

A) This part of the test begins with asking some personal information and teacher checks your identification.

- 1). What is your name ? Could you spell your name?
- 2). What is your student's ID number?
- 3). What is your hobby?
- 4). Do you like English?
- 5). How long do you study English everyday?

Part 2 Answer Questions (10%)

B) Please pick the topic and answer following questions.(10%)

1) Healthy Food

- 6) What is your favorite food?
- 7) What is healthy food in your mind?
- 8) What is unhealthy food in your mind?
- 9) How would you design your three meals that making you healthy?
- 10) Lucy is trying to lose weight, could you give her some suggestions?

2) Natural Disaster

11) How many types of natural disaster can you name? Which is the worst in your opinion?

Think of three natural disasters. What can you do to stay safe during and after those natural disasters?

12) One:

13) Two:

14) Three:

15) Have you ever experienced a natural disaster? Tell me about it.

3) Insects

16) Do you like insects?

17) How many types of insects do you know? Please tell their names.

18) Tell me about the insect that is most scary for you.

19) How can we protect us from the dangerous insects brought?

20) If you got this poison, what would you do?



Hefei Technical College (HTC)
 Accounting Major English Post-Test
 Time:15 minutes grade: 10 (%)
 Student ID _____ grade _____

Direction: This test is divided into 2 parts, first part is an oral interview about personal information, while the other part is asking & answer. 15 minutes in total.

Part 1 interview

A) This part of the test begins with asking some personal information and teacher checks your identification.

- 1). What is your name ? Could you spell your name?
- 2). What is your student's ID number?
- 3). What is your hobby?
- 4). Do you like English?
- 5). How long do you study English everyday?

Part 2 Answer Questions (10%)

B) Please pick the topic and answer following questions.(10%)

- 1) Teenagers problem
- 6) What would you do if your teenage son or daughter got a tattoo ?
- 7) What type of punishment did your parents use when you were a teenager?
- 8) What can you do to keep your teenager away from drugs and alcohol?
- 9) Should teenagers work? Why or why not?
- 10) What is the best advice you could give to a teenager growing up in this culture?

2) holiday

- 11) Did you enjoy your last vacation?
- 12) Did you have a part-time job during the holidays?
- 13) Did you have any bad experience?
- 14) Did you study during the holiday? If so, what did you study?
- 15) If your boss ask you to do extra work on your holiday, what do you do?

3.Punctuality

- 16) Do you think it is important for an individual to be on time?
- 17) How do you feel when others are late?
- 18) How often are you late?
- 19) Give an example of a situation in which you should not be late?
- 20) For people who are always late what are your suggestions for them ?



APPENDIX D
IOC FOR THE PRE-POST TEST



Item PRE-POST TESTS by 3 Experts

Part	Items	Expert 1	Expert 2	Expert 3	Average	Remarks
1	What is your name ? Could you spell your name?	+1	+1	+1	1	Accepted
1	What is your student's ID number?	+1	+1	0	0.67	Accepted
1	What is your hobby?	+1	+1	+1	1	Accepted
1	Do you like English?	+1	+1	+1	1	Accepted
1	How long do you study English everyday?	+1	+1	0	0.67	Accepted
2	What is your favorite food?	+1	+1	+1	1	Accepted
2	What is healthy food in your mind?	+1	+1	0	0.67	Accepted
2	What is unhealthy food in your mind?	+1	+1	0	0.67	Accepted
2	How would you design your three meals that making you healthy?	+1	+1	+1	1	Accepted
2	Lucy is trying to lose weight, could you give her some suggestions?	+1	+1	0	0.67	Accepted
2	How many types of natural disaster can you name? Which is the worst in your option ?	+1	+1	+1	1	Accepted
2	Think of three natural disasters. What can you do to stay safe during and after those natural disasters?	+1	+1	+1	1	Accepted
2	Have you ever experienced a natural disaster? Tell me about it.	+1	+1	+1	1	Accepted
2	Do you like insects?	+1	+1	+1	1	Accepted

Part	Items	Expert 1	Expert 2	Expert 3	Average	Remarks
2	How many types insects do you know? Please tell their name.	+1	+1	+1	1	Accepted
2	Tell me about the insect that is most scary for you.	+1	+1	+1	1	Accepted
2	How can we protect us from the dangerous insects bring?	+1	+1	+1	1	Accepted
2	If you got this poison, what would you do ?	+1	+1	+1	1	Accepted
1	What is your name ? Could you spell your name?	+1	+1	+1	1	Accepted
1	What is your student's ID number?	+1	+1	0	0.67	Accepted
1	What is your hobby?	+1	+1	+1	1	Accepted
1	Do you like English?	+1	+1	+1	1	Accepted
1	How long do you study English everyday?	+1	+1	0	0.67	Accepted
2	What would you do if your teenage son or daughter got a tattoo ?	+1	+1	0	0.67	Accepted
2	WhaWhat type of punishment did your parents use when you were a teenager?	+1	+1	+1	1	Accepted
2	What can you do to keep your teenager away from drugs and alcohol?	+1	+1	+1	1	Accepted
2	Should teenagers work? Why or why not?	+1	+1	+1	1	Accepted
2	What is the best advice you could give to a teenager growing up in this culture?	+1	+1	+1	1	Accepted
2	Did you enjoy your last vacation?	+1	+1	+1	1	Accepted

Part	Items	Expert 1	Expert 2	Expert 3	Average	Remarks
2	Did you have a part-time job during the holidays?	+1	+1	+1	1	Accepted
2	Did you have any bad experience?	+1	+1	+1	1	Accepted
2	Did you study during the holiday? If so, what did you study?	+1	+1	+1	1	Accepted
2	If your boss ask you to do extra work on your holiday, what do you do?	+1	+1	0	0.67	Accepted
2	Do you think it is important for an individual to be on time?	+1	+1	+1	1	Accepted
2	How do you feel when others are late?	+1	+1	+1	1	Accepted
2	How often are you late?	+1	+1	+1	1	Accepted
2	Give an example of a situation in which you should not be late?	+1	+1	+1	1	Accepted
2	For people who are always late what are your suggestions for them ?	+1	+1	+1	1	Accepted

The image features a large, faint watermark of the Rangsit University logo in the background. The logo consists of a stylized flame or sunburst shape at the top, with a circular base containing radiating lines. Below the logo, the text 'มหาวิทยาลัยรังสิต Rangsit University' is written in a semi-circle.

APPENDIX E
ITEM OBJECTIVE CONGRUENCE FOR STRUCTURED
INTERVIEW QUESTIONS

มหาวิทยาลัยรังสิต Rangsit University

Item Objective Congruence for Structured Interview by the Expert

1. +1: The expert is sure that the items is clearly matching the learning objectives.

2. 0: The expert does known whether the item can match the learning objectives.

3. -1: The experts thinks that the items is not matching the learning objectives (Rovinelli & Hambleton ,1977).

Questions	Expert 1	Expert 2	Expert 3	IOC Average	Congruence
Question 1	+1	+1	+1	+1	Accepted
Question 2	0	+1	+1	0.67	Accepted
Question 3	+1	+1	+1	+1	Accepted
Question 4	+1	+1	+0	0.67	Accepted
Question 5	+1	+1	+1	+1	Accepted

APPENDIX F
IOC FOR THE QUESTIONNAIRE



Item Questionnaire by 3 Experts

Evaluation questions	Expert				
	Expert 1	Expert 2	Expert 3	Average	Remarks
This course is well-prepared and organized.	+1	+1	+1	1	Accepted
This course opens to questions and discussion.	+1	+1	0	0.67	Accepted
This course is approachable and willing to help me.	+1	+1	+1	1	Accepted
The lecturer treats all students with respects.	+1	+1	0	0.67	Accepted
The lecturer makes class interesting and meaningful for me.	+1	+1	+1	1	Accepted
The lecturer uses reasonable, useful and fair assessment methods.	+1	+1	0	0.67	Accepted
The lecturer uses a variety of methods and instructional materials to enhance student learning.	+1	+1	+1	1	Accepted
Classroom equipment is in good condition.	+1	+1	+1	1	Accepted
The classroom is well-kept and pleasant to spend time in.	+1	+1	0	0.67	Accepted
I feel satisfied with the safe physical environment of the class.	+1	+1	+1	1	Accepted



APPENDIX G
SEMI-STRUCTURED INTERVIEW

มหาวิทยาลัยรังสิต Rangsit University

Semi-Structured Question

- a): How do you feel about my class?
- b): What area do you think you have improve in English ?
- c): What do you think you have improved other skills besides English?



The image features a large, faint watermark of the Rangsit University logo in the background. The logo consists of a central flame-like symbol above a semi-circular arrangement of radiating lines, with the university's name in Thai and English below it.

APPENDIX H
IOC FOR THE SEMI-STRUCTURED INTERVIEW

มหาวิทยาลัยรังสิต Rangsit University

**Item Objective Congruence (IOC)
for the Semi-Structured Interviews by
3 Experts**

Statement	Rating by Experts			IOC Average	Remarks
	Expert 1	Expert 2	Expert 3		
How do you feel my class?	+1	+1	+1	+1	Accepted
What area do you think you have improved in English?	+1	+1	+1	+1	Accepted
What do you think you have improved other skills besides English?	+1	+1	+1	+1	Accepted





ICU-308 COMPREHENSIVE ENGLISH FOR APPLICATION

ACTIVE LEARNING

Problem-based Learning (PBL)



**General English Education Department of English
Hefei Technology College 9/2019**

About the course

Course title Comprehensive English for Applications

Introduction about Problem-based learning

Problem-based learning (PBL) is a [student-centered pedagogy](#) in which students learn about a subject through the experience of solving an open-ended problem found in trigger material. The PBL process does not focus on [problem solving](#) with a defined solution, but it allows for the development of other desirable skills and attributes. This includes knowledge acquisition, enhanced group collaboration and communication. The PBL process was developed for medical education and has since been broadened in applications for other programs of learning. The process allows for learners to develop skills used for their future practice. It enhances critical appraisal, literature retrieval and encourages ongoing learning within a team environment.

In its essence, PBL involves seven steps that you follow in groups of 10 to 20 students. The seven steps are:

1. Clarify unfamiliar terms and make sure everyone understands the problem
2. identify the questions that need to be answered to shed light on the case (problem definition)
3. brainstorm what the group already knows and identify potential solutions (brainstorm)
4. analyze and structure the results of the brainstorming session (analyze the problem)
5. formulate learning objectives for the knowledge that is still lacking (formulate learning issue)

6. do independent study, individually or in smaller groups: read articles or books, follow practicals or attend lectures to gain the required knowledge(self-directed learning)

7. discuss the findings(report to the class)

Advantages of problem-based learning include:

- Encourages higher order critical thinking and de-emphasizes memorization.
- Learning is relevant to the real world.
- Increases motivation to learn in order to arrive at a solution.
- Provides additional opportunities for students to work collaboratively and practice communication and social skills.
- Learning is student-centered. The instructor acts as a facilitator or learning coach.
- Students learn how to learn.

Course Number ICU-308

Students 1st year, school of Accounting
(Applied Accounting)

Number of Groups 2 (about 20 students per group)

Facilitators and Class Time (Small Groups)

Groups 1-2 mainly Accounting students

Thursday 09.00-10.50 am

Group 1---Room 505 Mr Wei Han

Group 2---Room 408 Mr Dahua Wang

Course Description

A practical basic college English course with an aim to further develop four essential skills- listening, speaking, reading and writing, training in the use of resources towards improving abilities necessary for communicative purpose based on selected theme-based materials; preparation for authentic academic discourse, with speaking and writing development exercise.

Rationale : students in accounting major should be trained in modern teaching techniques, especially ones that promote English speaking skills, critical thinking, which is required skill for basic communication and 21st Century, which sees a lot of radical changes in teaching and learning. Thus, it is important to create this in our students, who wish to be a sociable accountant in their future jobs. In total, the course will be taught in 15 weeks, Each lesson lasts for 150 minutes. Using problem-based learning methods to teach. There are 6 problems for students, each problem lasts for 2 weeks. The topics include in daily life, nature, habit, science and recreation. All the theme comes from the practical English book 1, Chinese higher education press.

Objectives :

- 1): To activate students' prior knowledge of English through the use of English in general topic
- 2): To develop fluency and accuracy that is necessary for basic communication in English
- 3): To encourage students to enjoy self-directed and life long learning
- 4): To further practice English that is appropriate with context

Lecturer: Mr. Wei Han./ Mr. Dahua Wang
 Participants : 40 students and 2 staff totaling 42 people

Responsible unit : 2019 accounting major
 Hefei technical college

Date of operation: 3 September 2019- 14 January 2020 every Tuesday
 from 8:00-10:30

Problem Topics Covered

1. Health food
2. Nature disaster
3. Teenager problem
4. The concept and time and punctuality
5. Insects
6. Holiday and celebration

Content

Week	Date	Activity
1	3/Sept/2019	<u>Introduce PBL steps</u> Pre-test. LECTURE ONE: Introduce PBL 7 steps Reporting
	10/Sept/2019	<u>1-6 steps</u> Problem1: When Food Becomes Enemy!
	17/Sept/2019	<u>PBL step 7-Reporting</u> Problem1: When Food Becomes Enemy! Homework 1: Poster
	22/Oct/2019	<u>1-6 steps</u> Problem2: Punished by Nature?
	29/Oct/2019	<u>PBL step 7-Reporting</u> Problem2: Punished by Nature? Homework 2: Reflection

Week	Date	Activity
	5/Nov/2019	<u>1-6 steps</u> Problem3:Anything for Beauty?
	12/Nov/2019	<u>PBL step 7-Reporting</u> Problem3:Anything for Beauty? Homework 3: Interview Report
	19/Nov/2019	<u>1-6 steps</u> Problem4:Lost in airport?
	26/Nov /2019	<u>PBL step 7-Reporting</u> Problem4:Lost in airport! Homework 4: Reflection
	3/Dec/2019	<u>1-6 steps</u> Problem5:Is that poisonous Butterfly?
	10/Dec/2019	<u>PBL step 7-Reporting</u> Problem5:Is that poisonous Butterfly? Homework 5: Essay Writing on Insects
	17/Dec/2019	<u>1-6 steps</u> Problem6:Yoko's Holiday
	24/Dec/2019	<u>PBL step 7-Reporting</u> Problem6:Is that poisonous Butterfly? Homework 5: Poster
	7/Jan/2020	<u>Reflection</u> LECTURE TWO: Summary & reflection on PBL
	14/Jan/2020	Post-test

Measures of Achievement

1.Attendance Evaluation **14 points**

1.1 Participation 14 points

2.Product Evaluation **50 points**

2.1 Pre-test and Post-test 25 points

2.2 Individual and Reports/ Homework Assignments 25 points

3.Process Evaluation **36 points**

3.1 Student skill evaluation by group facilitators 12 points

3.2 Group process evaluation by group facilitators 12 points

3.3 Peer evaluation 12 points

TOTAL **100 points**

Rules for Homework Assignments

- Late homework will not be admitted.
- Hand in assignments to your teachers.
- When you get your homework back, please do the corrections in order to improve your English ability but there are no marks for corrections.

**Part A: Facilitator Evaluation, Group Process and Peer Evaluation
(36%)**

Week		Facilitator Evaluation	Group Process	Peer Evaluation	
1	Lecture 1				
2	Problem 1:	2	2	2	
3	Problem 2 :	2	2	2	
4	Problem 3 :	2	2	2	
5	Problem 4 :	2	2	2	
6	Problem 5 :	2	2	2	
7	Problem 6 :	2	2	2	
8	Lecture 2				
TOTAL		12	12	12	36 points

Part B: Individual and Reports/ homework assignment (25%)

Assignments	points
Problem 1: Poster	8
Problem 2: Reflection	2
Problem 3: Interview Report	3
Problem 4: Reflection	2
Problem 5: Essay Writing on Insects	2
Problem 6: Poster	8
TOTAL	25

LECTURE ONE

DATE:3/Sept/2019 TOPIC : Pre-test & Greeting & Introduce PBL

Lecture: Mr. Wei Han Participant: 40 accounting major students

After this lecture, students will be able to:

- a) Knowledge Objectives: understand what is problem-based learning method
- b) Skill Objective: collaborate one topic with peers by using PBL

Focus and difficulties: Teach students how to use PBL

Teaching method: Problem-based learning method

Teaching aids: multimedia/ blackboard/ pre-test

Procedure :

	Stage/ Activity	Objective Purpose(s)	Inter- Action	Procedure
1	Greeting&lead-in	To warm the class and get familiar with students	T-Ss	<ol style="list-style-type: none"> 1) introduce myself 2) Introduce the course 3) Ask several student's to introduce themselves.
2	Listening Music	<ol style="list-style-type: none"> 1.To relax the students 2.To make a good atmosphere for next learning step 	T-Ss	<ol style="list-style-type: none"> 1.Play a song 2.Ask some question about the song
3	Teacher's Presentation about PBL	To let students know what PBL is	T-Ss	<ol style="list-style-type: none"> 1. Introduce different steps in PBL
4	Student's Presentation about PBL	<p>To cultivate Ss' ability of cooperative-learning</p> <p>To verify whether Ss master PBL steps</p>	Ss-T	<ol style="list-style-type: none"> 1. Ask Ss to learn by PBL using sample problem.
8	Pre-test	1.To examine the ability of speaking based on their previous English ability	———	One Chinese teacher and two native speaker as a committee to examine the student's abilities according to IELTS speaking rubric.

LECTURE TWO

DATE: 7/Jan/2020 TOPIC : Reflection

Lecture: Mr. Wei Han Participant: 40 accounting major students

After this lecture, students will be able to:

- a) Knowledge Objectives: give perspective on Problem-based learning
- b) Skill Objective: present their own reflection on PBL

Focus and difficulties: To give opinion on what do you think using PBL

Teaching method: Problem-based learning method

Teaching aids: multimedia/ blackboard

Procedure :

	Stage/ Activity	Objective Purpose(s)	Inter- Action	Procedure
1	Greeting&lead-in	To warn the class and lead to the topic as well as stimulate students think by themselves.	T-Ss	<ol style="list-style-type: none"> 1) Using two picture to compare the different learning style Introduce the course 2) Ask students give reflection on using PBL

	Stage/ Activity	Objective Purpose(s)	Inter- Action	Procedure
2	Writing and feedback	Write back their own reflection on PBL	Ss-T	Ask Ss to write reflection
3	Student's Reflection presenting	1.give perspectives on what they learnt	T-Ss	1.Students present their reflection group by group
4	Summary	1.Summary all the things on PBL	T-Ss	Teacher summary all the things on PBL and appreciate Ss can insist on learning.

The logo of Rangsit University is a circular emblem. At the top is a stylized flame or sunburst. Below it is a ring of radiating lines. The text 'มหาวิทยาลัยรังสิต Rangsit University' is written in a semi-circle at the bottom of the emblem.

APPENDIX J
PROBLEMS

มหาวิทยาลัยรังสิต Rangsit University

Sample problem

The embarrassed moment

Eric and his friend went to India for traveling, he enjoyed spicy curry splendid museum and fabulous traditional clothes in this mysterious country.

When they arrived in India, a native Indian, Hussian gave a warm welcome and passed a bunch local flowers to him. He was joyful but he received it with his left hand. Hussian became very angry at once, he left quickly. So far Eric doesn't know what happened. He thought that moment is the most embarrassing in his life.



LOST IN AIRPORT

One group of adults like traveling together, They are closed friends. One day the guider asked them to assemble in airport at right time to take a flight to Korea at 2 a. m. Half of the members were there at 10 p.m, but another half didn't turn up at 10 p.m.They waited and waited, Until midnight they could not wait anymore because they had to check in. Another group turned up at 2 a.m at the airport .They could not do anything. They sat down and cried because they don't have money to buy an extra air ticket.



Yoko 's holiday



Yoko is a staff member in a Japanese company, He worked very hard. Christmas is coming next week, he wanted to stay home with his family but his boss asked him to play golf with him. He has no choice but to go with his boss. His wife always complains that he doesn't care about her and their son. Now she wants to divorce with Yoko.

The Mysterious Butterflies



Poisonous butterfly , from south America is one of the most dangerous and attractive butterflies with poison. Because of the poison, they love flying in the forest. At the same time, they smell like an luxurious perfume,

One day, Teddy went to forest and he was attracted by this butterfly at once, and he thought it was a common butterfly, After that Teddy was out of breath and dead. The cause of his death is still mysterious.

Toy-ting is the only daughter in the family. She can do whatever she wants because she is pampered by her family. About food, she would enjoy drinking coke instead of plain water. The family go to a fast food restaurant every weekend in order to spend sometime together. Toy-ting's favorite food is fried chicken, pizza and hamburgers. She also likes to eat Mama instant noodles and potato chips before going to bed. Toy-ting's family believe their child is cute. She is a big-sized girl, weighing 50 kilos at the age of 10 years old. However, one day after their regular medical check-up, the doctor told the family that there was something wrong with Toy-ting.



MIRROR..MIRRO..TELL ME WHO IS THE MOST
BEAUTIFUL WOMEN IN THE WORLD

Mod's Story

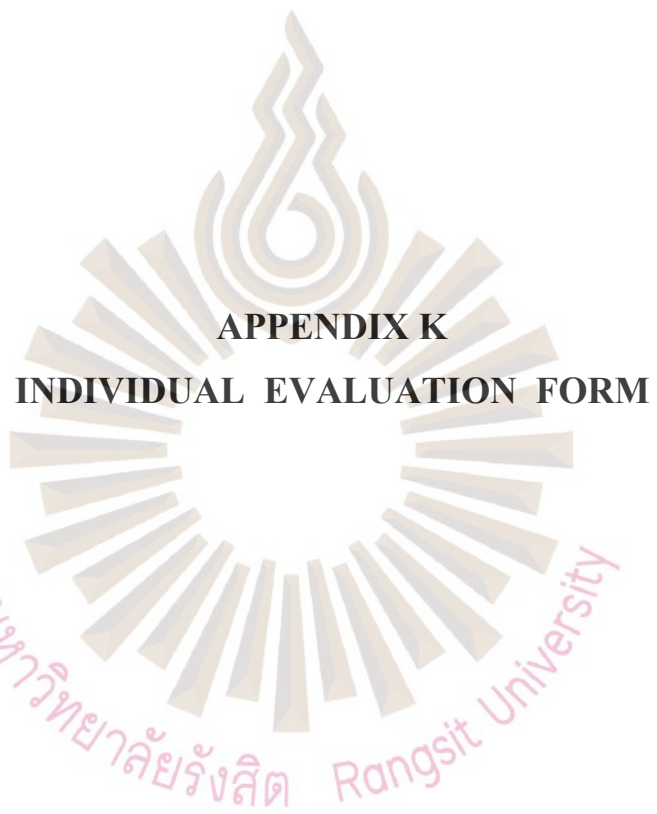
Mod loves tongue jewelry. One day, she went to see a quack doctor at Kao-sarn Road for tongue-piercing. There were many types of barbells to choose from. She chose to wear short- stemmed barbells at the middle of her tongue. A few weeks later she went back to the same place and had her left shoulder tattooed with a heart. All Mod's teenage friends said that they wanted to do the same as Mod but Mod does not know how she is going to tell her parents about her tongue jewelry and her tattoo. They won't like it. A few days later, Mod had an unusually high fever and immediately her father decided to send her to the hospital.



STRANGE HAPPENINGS!

The world has had a lot of earthquakes so far. Many lives were killed and houses destroyed. In 2004 and 2005 many natural disasters happened in Thailand. One of the worst was the Tsunami that damaged six southern provinces in the morning of 26 December 2005. Later, more earthquakes struck. Last year, Nargis, a very strong storm, killed sixty thousands Burmese victims. In May 2008, a strong earthquake struck Sichuan province of China, killing and injuring a large number of people. This year, 2010, it seems the world is getting hotter and hotter. It does not rain when it should. Many areas have been very dry. Scientists say, "We are in great danger."





APPENDIX K

INDIVIDUAL EVALUATION FORM

มหาวิทยาลัยรังสิต Rangsit University

Individual Evaluation Form

Course: _____ . Name: _____ Date: ___ / ___ / _____

Problem _____

Topic of Evaluation	1	2	3	4
PBL skills	Not understanding	Little understanding	Fair	Full understanding
Group skills and participation	-Not paying attention -quiet	Little attention	Good cooperation with peers	-Very active -attentive -supporting others well
Communication skills	Quiet	Little talk	Talk but cannot explain passive concept	-Good proceeding -explain direct to the passive concept
Preparation and SD	Little/ no preparation	Little information	Well-prepared but cannot synthesise information	-Good preparation - Good synthesis of the problem
Overall	To be improved	Fair	Good	Very good



APPENDIX L
EVALUATION FORM OF THE GROUP

Evaluation Form of the Group

Course: _____.

Group: _____

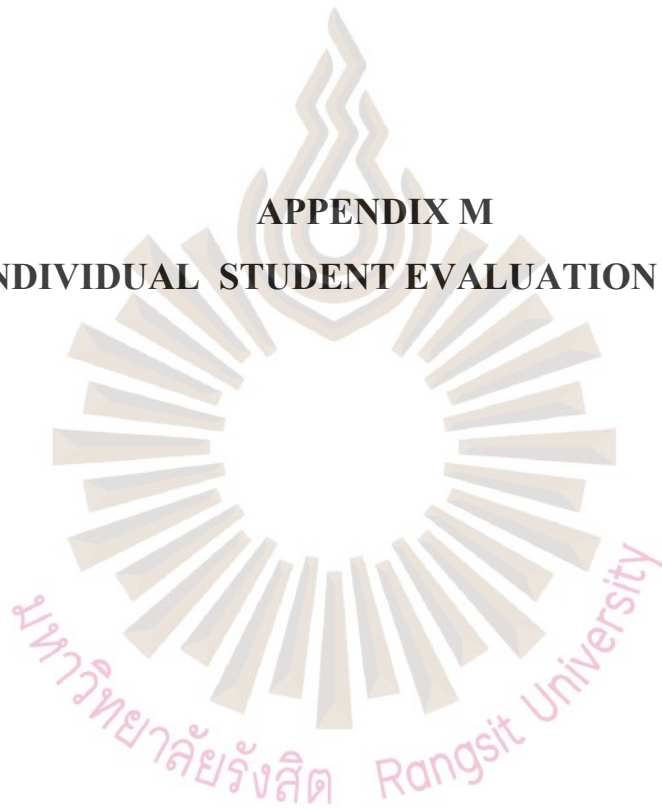
Date: ___/___/_____

Problem _____

Name of the Facilitator: _____

Topic of Evaluation	1	2	3	4
1.Process	-Boring -No one talked -Very quite	Little opinion sharing	More discussion but still little	Very active friendly atmosphere
Working in group and management	No preparation and little commitment	Not enough preparation	Sharing ideas	-Sharing ideas -Good discussion and communicative well
Steps and the thinking process	No reasons to support ideas	Little effort to support are one another but little	Supporting one another quite good	-Full participation -Good brainstorming -Good discussion
Overall	To be improved	Fair	Good	Very good

APPENDIX M
INDIVIDUAL STUDENT EVALUATION FORM



Individual Student Evaluation Form

Facilitator: _____ Subject/Course : _____ . Group _____

Year _____ Semester 1/2019. Date: ___ / ___ / _____

Write down 1,2,3 or 4 based on your evaluation:

1: To be improved 2: Fair 3: Good 4: Very Good

Students name	1	2	3	4	5	6	7	8	9	10
PBL Learning Skills										
Group Process and Participation										
Preparation and Self-directed learning										
Communicative Skill										
Overall										
Additional comments										

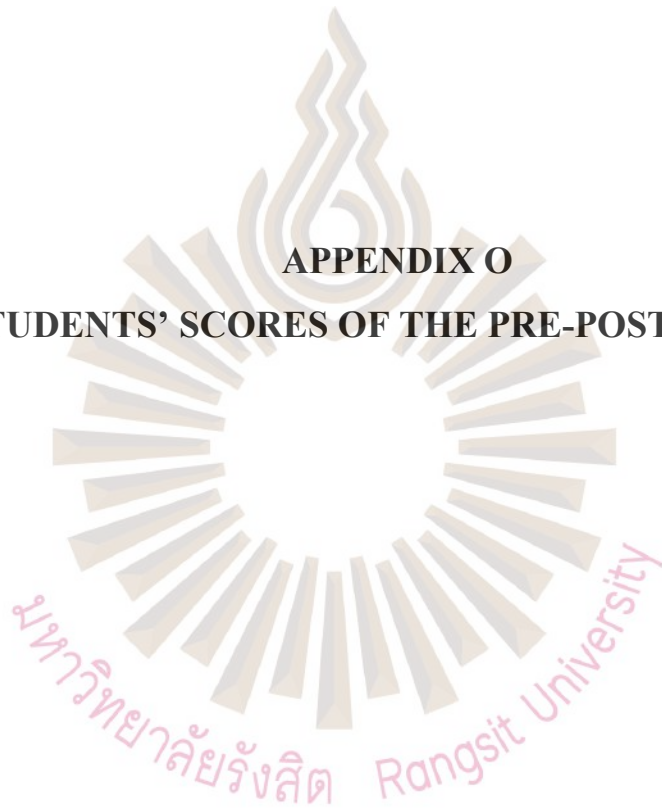




APPENDIX N

PEER EVALUATION FORM

APPENDIX O
STUDENTS' SCORES OF THE PRE-POST TESTS



The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
1	7	6	7	7
2	5	6	5	5
3	6	6	6	6
4	5	5	5	5
5	4	4	4	4
6	6	5	6	6
7	3	4	3	3
8	5	5	5	5
9	4	4	4	4
10	6	6	6	6
11	5	5	5	5
12	6	7	6	6
13	5	5	4	5
14	5	5	5	5

The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
15	4	5	4	4
16	6	6	7	6
17	4	5	4	4
18	6	6	6	6
19	6	5	6	6
20	4	5	4	4
21	4	4	4	4
22	5	5	5	5
23	4	4	5	4
24	3	4	3	3
25	4	4	4	4
26	6	5	6	6
27	5	5	5	5
28	5	4	5	5

The Scores of The Pre Test in English Speaking				
Student	Teacher 1	Teacher2	Teacher3	Average
29	4	4	4	4
30	6	6	5	6
31	5	6	5	5
32	7	7	7	7
33	4	5	4	4
34	6	4	6	5
35	5	5	5	5
36	4	4	4	4
37	4	5	4	4
38	4	4	5	4
39	6	7	6	6
40	6	7	6	6

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
1	8	8	8	8
2	7	8	8	8
3	7	7	7	7
4	6	6	7	6
5	6	7	6	6
6	7	7	7	7
7	6	6	6	6
8	6	7	7	7
9	6	6	6	6
10	7	7	7	7
11	6	6	6	6
12	7	7	7	7
13	6	6	6	6
14	6	6	6	6

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
15	5	6	6	6
16	7	7	8	7
17	6	6	6	6
18	7	8	7	7
19	7	6	7	7
20	5	5	5	5
21	6	6	6	6
22	7	7	7	7
23	6	6	6	6
24	5	6	6	6
25	6	6	6	6
26	7	7	7	7
27	6	7	7	7
28	7	7	7	7

The Scores of Post Tests in English Speaking				
Student ID	Teacher 1	Teacher 2	Teacher 3	Final
29	5	5	5	5
30	7	7	7	7
31	6	6	6	6
32	8	8	8	8
33	6	6	6	6
34	8	8	8	8
35	7	7	7	7
36	5	6	6	6
37	5	6	5	5
38	5	6	5	5
39	8	7	7	7
40	8	7	7	8

The image features a large, faint watermark of the Rangsit University logo in the background. The logo consists of a central sunburst design with a flame-like shape at the top, surrounded by a circular arrangement of rays. Below the sunburst, the university's name is written in Thai script and English.

APPENDIX P
RUBRIC OF THE PRE-POST TESTS

มหาวิทยาลัยรังสิต Rangsit University

SPEAKING: Band Descriptors (public version)

Band	Fluency and coherence	Lexical resource	Grammatical range and accuracy	Pronunciation
9	<ul style="list-style-type: none"> speaks fluently with only rare repetition or self-correction; any hesitation is content-related rather than to find words or grammar speaks coherently with fully appropriate cohesive features develops topics fully and appropriately 	<ul style="list-style-type: none"> uses vocabulary with full flexibility and precision in all topics uses idiomatic language naturally and accurately 	<ul style="list-style-type: none"> uses a full range of structures naturally and appropriately produces consistently accurate structures apart from 'slips' characteristic of native speaker speech 	<ul style="list-style-type: none"> uses a full range of pronunciation features with precision and subtlety sustains flexible use of features throughout is effortless to understand
8	<ul style="list-style-type: none"> speaks fluently with only occasional repetition or self-correction; hesitation is usually content-related and only rarely to search for language develops topics coherently and appropriately 	<ul style="list-style-type: none"> uses a wide vocabulary resource readily and flexibly to convey precise meaning uses less common and idiomatic vocabulary skilfully, with occasional inaccuracies uses paraphrase effectively as required 	<ul style="list-style-type: none"> uses a wide range of structures flexibly produces a majority of error-free sentences with only very occasional inaccuracies or basic/complex-systematic errors 	<ul style="list-style-type: none"> uses a wide range of pronunciation features sustains flexible use of features, with only occasional lapses is easy to understand throughout; L1 accent has minimal effect on intelligibility
7	<ul style="list-style-type: none"> speaks at length without noticeable effort or loss of coherence may demonstrate language-related hesitation at times, or some repetition and/or self-correction uses a range of connectives and discourse markers with some flexibility 	<ul style="list-style-type: none"> uses vocabulary resource flexibly to discuss a variety of topics uses some less common and idiomatic vocabulary and shows some awareness of style and collocation, with some inappropriate choices uses paraphrase effectively 	<ul style="list-style-type: none"> uses a range of complex structures with some flexibility frequently produces error-free sentences, though some grammatical mistakes persist 	<ul style="list-style-type: none"> shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8
6	<ul style="list-style-type: none"> is willing to speak at length, though may lose coherence at times due to occasional repetition, self-correction or hesitation uses a range of connectives and discourse markers but not always appropriately 	<ul style="list-style-type: none"> has a wide enough vocabulary to discuss topics at length and make meaning clear in spite of inaccuracies generally paraphrases successfully 	<ul style="list-style-type: none"> uses a mix of simple and complex structures, but with limited flexibility may make frequent mistakes with complex structures though these rarely cause comprehension problems 	<ul style="list-style-type: none"> uses a range of pronunciation features with mixed control shows some effective use of features but this is not sustained can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times
5	<ul style="list-style-type: none"> usually maintains flow of speech but uses repetition, self-correction and/or slow speech to keep going may over-use certain connectives and discourse markers produces simple speech fluently, but more complex communication causes fluency problems 	<ul style="list-style-type: none"> manages to talk about familiar and unfamiliar topics but uses vocabulary with limited flexibility attempts to use paraphrase but with mixed success 	<ul style="list-style-type: none"> produces basic sentence forms with reasonable accuracy uses a limited range of more complex structures, but these usually contain errors and may cause some comprehension problems 	<ul style="list-style-type: none"> shows all the positive features of Band 4 and some, but not all, of the positive features of Band 6
4	<ul style="list-style-type: none"> cannot respond without noticeable pauses and may speak slowly, with frequent repetition and self-correction links basic sentences but with repetitive use of simple connectives and some breakdowns in coherence 	<ul style="list-style-type: none"> is able to talk about familiar topics but can only convey basic meaning on unfamiliar topics and makes frequent errors of word choice rarely attempts paraphrase 	<ul style="list-style-type: none"> produces basic sentence forms and some correct simple sentences but subordinate structures are rare errors are frequent and may lead to misunderstanding 	<ul style="list-style-type: none"> uses a limited range of pronunciation features attempts to control features but lapses are frequent mispronunciations are frequent and cause some difficulty for the listener
3	<ul style="list-style-type: none"> speaks with long pauses has limited ability to link simple sentences gives only simple responses and is frequently unable to convey basic message 	<ul style="list-style-type: none"> uses simple vocabulary to convey personal information has insufficient vocabulary for less familiar topics 	<ul style="list-style-type: none"> attempts basic sentence forms but with limited success, or relies on apparently memorised utterances makes numerous errors except in memorised expressions 	<ul style="list-style-type: none"> shows some of the features of Band 2 and some, but not all, of the positive features of Band 4
2	<ul style="list-style-type: none"> pauses lengthy before most words little communication possible 	<ul style="list-style-type: none"> only produces isolated words or memorised utterances 	<ul style="list-style-type: none"> cannot produce basic sentence forms 	<ul style="list-style-type: none"> Speech is often unintelligible
1	<ul style="list-style-type: none"> no communication possible no raisable language 			
0	<ul style="list-style-type: none"> does not attend 			

Biography

Name	Han Wei
Date of birth	June 29, 1996
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