การพัฒนาโมดุลตามหลักการของทฤษฎีคอนสตรัคติวิซึมเชิงสังคมและทฤษฎีการเรียนแบบผสมผสานเพื่อ เสริมสร้างการมีส่วนร่วมในการอ่านและความสามารถทางการอ่านภาษาอังกฤษของนักเรียนระดับมัธยมศึกษา



A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Program in English as an International Language


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A DEVELOPMENT OF THE SOCIAL CONSTRUCTIVISM BLENDED LEARNING MODULE FOR ENHANCING READING ENGAGEMENT AND ENGLISH READING ABILITY OF UPPER SECONDARY SCHOOL STUDENTS

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พรพิมล ศุขะวาที :การพัพนาโมดุลตามหลักการของทฤษฎีคอนสตรัคติวิึมชิิงสังคมและ ทฤษฎีการเรียนแบบผสมผสานเพื่อเสริมสร้างการมีส่วนร่วมในการอ่านและความสามารถ ทางการอ่านภาษาอังกฤษของนักเรียนระดับมัธยมศึกษา (A DEVELOPMENT OF THE SOCIAL CONSTRUCTIVISM BLENDED LEARNING MODULE FOR ENHANCING reading engagement and english reading ability of upper SECONDARY SCHOOL STUDENTS) อ. ที่ปรึกษา : ผศ. ตร. อากัสรา ชินวรรโณ, 264 หน้า.
 เรียนแบบผสมผสานเหื่อเริมสร้างการมีส่วนรัวมในการอ่านและควมมสมมารดทางการอ่านภาษาจังกฤษของนักเรียน


 แบบผสมผสาน
 มัธยม จำนวน 53 คน การทดลองให้ววลาทั้งสิ้น 12 ปัปดาห์ การเก็บข้อมูลใช้การรวบรวมเชิงคุมภาพและเชิงปริมาณ ผลการวิจัชพบว่า 1) คะแนนหลังการทดลองของนักเริยนที่มีควมมสมมารถการอ่นรรดับฮูงไม่แตกต่งงขกกคะแนนการ




 ดั้งเดิมที่แดกต่างกับบบื่อเรียนออนไลน์







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KEY WORD: SOCIAL CONSTRUCTIVISM / READING ENGAGEMENT/ BLENDED LEARNING / READING COMPREHENSION / READING ABILITY

PORNPIMOL SUKAVATEE : DEVELOPMENT OF THE SOCIAL CONSTRUCTIVISM BLENDED LEARNING MODULE FOR ENHANCING READING ENGAGEMENT AND ENGLISH READING ABILITY OF UPPER SECONDARY SCHOOL STUDENTS.

THESIS ADVISOR : ASST. PROF. APASARA CHINWONNO,PH.D., 264 pp.
The objectives of this study were to: 1) develop a reading instructional module, namely the Social Constructivism Blended Learning Module (SCBLM); 2) examine the effect of the Social Constructivism Blended Learning Module on Thai secondary students' reading ability; 3) investigate the effect of Social Constructivism Blended Learning Module on Thai secondary students' reading engagement;4) to investigate the relationship between students' reading engagement and their reading ability after taking Social Constructivism Blended Learning Module; and 5) explore students collaborative learning behavior while taking Social Constructivism Blended Learning Module. Fifty-three upper-secondary Grade $11^{\text {th }}$ students at Chulalongkorn University Demonstration Secondary School, were chosen as the sample group. The study was a single group design using qualitative and quantitative methods. It took 12 weeks for data collection.

The findings revealed that: 1) the high reading ability students did not significantly gain higher scores after taking the SCBLM; 2) the low reading ability students gained significantly higher scores after taking the SCBLM:3) the SCBLM had the significant positive effect on students' reading engagement; 4) there was a positive low correlation between students' reading abilityoand their reading engagement; and 5) there was an effect of the blended learning on students' collaborative learning behavior. The low reading ability students showed more of the social interaction online than the face-to-face learning. The study indicated that the SCBLM benefited the low reading ability students, improved their reading ability, and suited their diverse collaborative learning behavior.

Field of study: English as an International Language Academic year 2007


Advisor's signature.


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## CHAPTER I INTRODUCTION

### 1.1 Background of the Study

Reading is one of the most important communicative skills in any academic or professional field. It can greatly expand vocabulary, improve writing, and enhance general language competence. English reading competency is required in all levels of study and in many professions. Scholars in literacy fields have suggested that ESL/EFL readers can make greater progress and attain greater development in all academic areas with strengthened reading skills (Anderson,1999; Nagy \& Herman,1987; Krashen,1984; Grabe,1991; and Antepara,2003).

### 1.1.1. Statement of the Problems

Despite the known benefits of learning English and its increased prominence in the Thai educational curriculum, many Thai researchers have found the English reading ability of Thai students urgently need to be improved. Many studies have documented the significant problems of Thai students. Thai secondary students performed well on reading for literal comprehension, however, had difficulties in reading for interpretative and critical comprehension (Thammamongkol, 1970; Angwatanakul, 1992:158-161; cited in Nitsaisook, 2002). In addition, Thai secondary school students had difficulties in English reading comprehension particularly in sequencing, predicting and capturing the main idea ( Noomura, 1991 and Pornnimit, 1992 cited in Kuttiya, 2001). Mejang (2004) revealed in her study the outcomes of the National English Test (03) in 2000-2003 by the Commission of Higher Education. $50 \%$ of the test was dedicated to assessing reading ability and it was found that secondary school students achieved scores of only 32.40-39.87\%. Moreover, the information yielded that, among 200,000 secondary students, only 20,000-40,000 got a $50 \%$ of higher total score on the test.

At Chulalongkorn University Demonstration Secondary Schools, English reading is one of the language skills that the students need to improve. A number of studies which have investigated students’ English reading ability at Chulalongkorn University

Demonstration Secondary Schools stated that the students got the unsatisfactory English reading achievement scores and this seems to be crucial problem that English instructors should seek the appropriate solution (Tengamnuay, 1984; Hirun, 1990, Pleanboonlers and Hirun, 2007). Plianboonlers and Hirun (2007) stated in their study that Grade 12 CUD students gained unsatisfactory reading achievement in English. They had difficulties in comprehending the text, perceiving the main ideas, and identifying the conceptual meaning of the reading. This results in the boredom and the lack of interest and motivation to read in English. Therefore, the English instructors are required to find the efficient teaching reading methodology to help enhance reading ability in students and overcome the displeasure of reading English in students Improving Thai secondary students’ reading ability calls for the most crucial and urgent attention. To enter universities or workplaces, students are required to be competent in English reading. They must be able to read and comprehend English articles to expand on arguments and broaden their intellectual view. The importance of EFL reading is also stated as a national goal in the Basic Education Curriculum (2001), Thailand. In the standard F1.1 for foreign language learning goal, students should understand reading process, and be able to interpret messages derived from reading all kinds of written words from various media, then apply critically the know gained from the reading. To find the means to achieve the national goal needs the English instructors' attention.

Reflecting on the unsatisfactory test results of the Thai secondary students' reading ability; we should primarily consider the teaching methodology and learning process of English reading. It was found from previous research that most Thai teachers use direct translation methodology and provide few chances for students to work on reading tasks (Saragnam,1986; Aksaranugraha, 1989 cited in Kuttiya, 2001). The methodology of direct translation has also been implemented in the English reading instruction at Chulalongkorn University Demonstration Secondary School at the lower secondary level. This suggests that students do not have enough opportunity to read and practice on their own. Another reason might come from the students themselves. According to Nuttall (1996), such poor reading ability can be due to boredom and lack of enjoyment while reading. In other words, it is a vicious cycle. Students with limited reading ability read slowly, resulting in poor comprehension, and displeasure in reading. Moreover, this can affect student's reading engagement. Reading engagement refers to the motivated use of strategies and conceptual
knowledge whilst reading (Guthrie, 1996). Reading engagement is a merger of motivation and thoughtfulness. Engaged readers seek to understand text information. They enjoy learning and believe in their reading abilities.

Guthrie and Alao (1997) stated that reading engagement is strongly related to reading achievement. This statement is confirmed by the findings in the previous studies. The study yielded that the more U.S. students were engaged in their reading, the higher their achievement was (Campbell, Voelkl, \& Donahue, 1997). Guthrie, Schafer, \& Huang (2001) asserted that an engaged reader comprehends a text not merely because he or she can do it, but also because he or she is motivated to do it. Engaged readers can overcome obstacles to gain great achievement and become agents of their own reading growth.
1.1.2. The Importance of the Development of the Social Constructivism Blended Learning Module

Since the problems of English reading comprehension in Thai secondary students are crucial, this study aims to look for alternative solutions. The assumptions from the theories concerning the reading have been explored. The first theory considered is Reading Engagement. According to Guthrie (1997), engagement in reading should be promoted in classroom contexts by providing prominent knowledge goals, real-world connections to reading, meaningful choices to read, and interesting texts and furthered by teaching reading strategies. Therefore, this study attempted to manage the learning process which enhances students' reading engagement as well as their English reading ability in class.

To alter the reading instruction to build up the readers' competency, Fielding and Pearson (1994) suggested in their study that teachers should allocate a large amount of time to actual text reading, as well as provide explicit instruction in comprehension strategies and opportunities for peer interaction and collaborative learning so that students are able to exchange their responses with teachers and peers. The principles of Social Constructivism seem to support Fielding and Pearson’s suggestion about the alternative methods of English reading instruction. Social constructivism was developed by Lev Vygotsky in 1970’s. This theory consists of two main concepts of collaborative learning and scaffolding knowledge in the Zone of Proximal Development. Vygotsky (1978) stated that cognitive functions originate in, and must be explained as products of social interactions. He claimed that
learning was not merely the assimilation and accommodation of new knowledge by learners but it was also the process by which learners were integrated into a knowledge community. In other words knowledge is not simply constructed, but it is co-constructed. According to Bean (2000) in the Social Constructivists' dimension, reading is a social practice which occurs when readers interact with the text in a particular context or society.

Peer-scaffolding is a step towards independent use of the better reading. The focus is on small group work exercises including decoding, meaning-making, or co-constructing a response to a text. Wilson (2003) stated that working together on reading tasks can expand students' use of their roles, help them to become more effective decoders and users of text, more participatory makers of meaning and more aware readers of how authors manipulate text.

The Social Constructivist approach to reading offers tools and principles which can help teachers draw their students into energetic participation in text events as active participants. One of the prominent collaborative reading instructional models is Collaborative Strategic Reading (CSR) proposed by Klingner and Vaughn (2000). Collaborative Strategic Reading (CSR) is a reading comprehension practice that combines two instructional approaches: modified reciprocal teaching (Palincsar \& Brown, 1984), and, cooperative learning (Johnson \& Johnson, 1987). The CSR reading model comprises of four reading strategies: Preview before reading, Click and Clunks during reading, Get the Gist during reading, and Wrap Up after reading, consecutively.

The Social Constructivist's and Collaborative Strategic Reading Model suggest that if students work collaboratively on the reading comprehension in a working group, they can gain knowledge from social interaction. However, the social context for learning is nowadays transforming from a shared physical space to distances via cyberspace. The introduction and integration of computer teechnology in society has tremendously increased the opportunities for social interaction. The new environments introduce exciting potential for education, including new approaches to knowledge creation and new ways of learning. Interactivity involves synchronous and asynchronous discussions with other learners and tutors (Owston, 1997 cited in Wilson et al, 1999). The electronic tools which promote online collaborative learning are synchronous tools which enable real-time communication and collaboration at same time in different places and the asynchronous tools which enable
communication and collaboration over a period of time at different times in different places. These tools allow students to interact through discussion at each person's own convenience and own schedule. The evidence of their interaction is also capable of being recorded and archived.

In Thailand the importance in integrating technology in foreign language learning is mentioned as one of the national goal in the Basic Education Curriculum (2001). Standard F1.2 stated the goal that students should possess language communication skills and be able to apply technology for searching data, information, and idea exchange. Students should also be able to use technology to manage the learning process appropriately.

As for reading, computers are good tools for building online reading scaffolds that help teachers support weak or undeveloped skills. Students can focus on targeted aspects of reading as scaffolds motivate students by helping them progress faster and read at a higher level than they could previously.

Nevertheless, online learning alone is not without limitation or drawbacks; for example, the facelessness or the lack of verbal and facial cues, body language, technological breakdowns, and the lack of discipline of learners. Therefore, blended learning is suggested as a solution.

Blended learning is the label commonly used to describe the platform of the combination of two delivery modes: face-to-face classroom instruction and the online-based learning. Such design moves a significant part of the course online and, as a result, alters the use of classroom seat time. What sets a hybrid course apart from the more common use of technology as a course supplement, or add-on to an existing course, is its re-design as an objective to maximize the advantages of both face-to-face and virtual modes of instruction.

This provides the potential to dessen teachers' workloads, accommodate various learning styles, personalize students' experience, and require fewer hours of classroom time. (Murphy, 2002; Heinze and Procter,2004). Hence, this study attempted to apply blended learning as a solution to the drawbacks of the face-to-face only or the online only approaches for instruction.

This study aims to develop an instructional module, namely the Social Constructivism Blended Learning Module (SCBLM) which may lead to innovations into technology integration in the reading instruction for upper secondary students. The SCBLM,
grounded on the synergistic principles of the theories of Social Constructivism, Reading Engagement and Blended Learning, seeks to help enhance reading engagement and English reading ability in Thai secondary students. The SCBLM is suggested for the secondary schools which are equipped with Internet access and the multimedia and computer rooms. Since Chulalongkorn Demonstration Secondary School is one of those schools, it is appropriate to introduce the SCBLM as an alternate way of achieving these goals through a half-way meeting of classroom and a virtual learning.

### 1.2. Research Questions

This study attempts to answer the following research questions:
1.2.1. To what extent does the Social Constructivism Blended Learning Module improve Thai secondary school students' English reading ability?
1.2.1.1 Is the posttest score of high reading ability students significantly higher than the pretest score? If it is, what is its effect size?
1.2.1.2 Is the posttest score of low reading ability students significantly higher than the pretest score? If it is, what is its effect size?
1.2.2. To what extent does the Social Constructivism Blended Learning Module affect Thai secondary students' reading engagement?
1.2.3 Does any relationship between students' reading engagement and their reading ability exist after taking Social Constructivism Blended Learning Module?
1.2.4 To what extent does the Social Constructivism Blended Learning Module affect students' collaborative learning behavior? 9 ?

## 

The purposes of this study are:
1.3.1 To develop Social Constructivism Blended Learning Module
1.3.2 To examine the effect of the Social Constructivism Blended

Learning Module (SCBLM) on Thai secondary students' reading ability.
1.3.3 To investigate the effect of the Social Constructivism Blended Learning Module on Thai secondary students' reading engagement.
1.3.4 To investigate the relationship between students' reading engagement and their reading ability after taking the Social Constructivism Blended Learning Module.
1.3.5 To explore students’ collaborative learning behavior while taking the Social Constructivism Blended Learning Module.

### 1.4 Statement of Hypotheses

The hypotheses concerning the investigation of Thai secondary students' reading ability and reading engagement are:
1.4.1 The posttest mean score of the students' reading ability is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module.
1.4.1.1. The posttest mean score of high reading ability students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module.
1.4.1.2. The posttest mean score of low reading ability students is
significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module.
1.4.2. There is a significant relationship between students' reading engagement and their reading posttest mean scores.
1.5. Scope of the Study 19 ค月巴


Population in this study was 672 upper secondary students studying at Chulalongkorn University Demonstration Secondary school in 2007 academic year. The similar traits or characteristics among those students are identified. The curriculum of the school consists of Fundamental English and Computer Science courses. This means that when the students have equal fundamental opportunities to be exposed to English and computers. There are
five computer rooms at Chulalongkorn University Demonstration Secondary School and accessibility to all students is possible. The representative sample of the study included 53 Grade 11 students at Chulalongkorn University Demonstration School who took an English Reading course. The principle factors to consider regarding the characteristics of the population in this study are that students have enough background of English learning and familiarity with computers. Therefore, the sample of the study who shared the common characteristics mentioned above was able to represent the target population.

### 1.5.2 Research Design

This research employed the non-randomized pre-test post-test one group design. The students were assigned for the research into the ability groups according to the scores obtained from the pretest. Each group consisted of relatively the same number of students with high and low English reading ability. The high reading ability students refers to the $25 \%$ of students in class who achieved the highest scores on the test. On the other hand, the $25 \%$ of students who achieved the lowest scores are referred to as a low reading ability group. In the SCBLM class ( $n=53$ ), there were 17 students in the high reading ability group and 16 students in the low reading ability group. The students were then assigned into mixed ability, high-intermediate-low working groups. There were a total of ten subgroups in the study. As a result, in every group the low reading ability students had more capable peers to scaffold the new knowledge. This study aimed at promoting English reading ability and reading engagement in students. Reading rate was not explored in this study.

### 1.5.3. Type of Data 6 in data collected in research used both quantitative and quas <br> The data collected in this research used both quantitative and qualitative types.

 The variables for the quantitative data are:

Independent Variables: Social Constructivism Blended Learning Module.
Dependent Variables : Students’ English reading ability Students’ reading engagement

## Qualitative data: Student's reading engagement <br> Student's collaborative learning behavior

### 1.6. Assumptions of the Study

1.6.1. The students were assumed to be computer literate or had at least some basic knowledge of computer operation and were able to use the computer without anxiety.
1.6.2. The students were assumed to pay attention to do face-to-face and online task when they practiced and to be honest when they self-reported to all the research instruments.

### 1.7. Limitations of the Study

1.7.1 The limitation of the study concerns the sample size of population and the issue of generalizability. The present study had 53 students as sample. In terms of optimum sample size, at a $95 \%$ con level and $\pm 10 \%$ precision, the resulting sample size obtained from Yamane formula was 86 students from a population about 600 (Yamane, 1973). Therefore, the sample of 53 students in the study is subject to the limitation of a sufficient sample size of representing other groups of students. However, the number of 30 individuals was recommended in the experimental study (Fraenkel \& Wallen, 2000)
1.7.2. Since the study was conducted in a computer room and mainly used web-based instruction, the firewall could be challenging and the PCs might need to be configured while having class. There is also the case that the server is down in the online traffic; consequently, the learning process on the students' online communication can be interrupted. Thus, this study is subject to the limitation of controlling the technical problems.
1.7.3. The study was conducted during a semester/in which students took other regular English courses. This suggest that there could be an opportunity for students to practice reading English in other courses and this might affect their English reading ability. Therefore, this study is then subject to the limitation of controlling the impact of the regular teaching.

### 1.8. Definitions of Terms

1.8.1. Social Constructivism is a theory of which the fundamental concept is scaffolding, and working within the learner's Zone of Proximal Development (ZDP). In the study, students who study in an English reading course work collaboratively in mixed reading ability groups. The high reading ability students can help scaffold and co-construct comprehension in low reading ability students while studying under the Social Constructivism Blended Learning module.
1.8.2 Blended learning is an instruction method of the SCBLM with a blend of online and face-to-face learning. It combines the advantages of online learning which has the motivational effect of group learning and teacher support. In this study, students work collaboratively in a blended environment with two periods face-to-face in class and unlimited time of working online.
1.8.3 Collaborative Strategic Reading (CSR) refers to a reading instruction model proposed by Klingner and Vaughn (2000). The model comprises of four stages of learning: Preview, Click and Clunks, Get the Gist and Wrap Up. In the study, the CRS model is adapted and used in the SCBLM. During the Preview session, students discuss with the group about the learning topic on the SCBLM website to activate prior knowledge, predict what to read, then, share ideas of the group with the class. After that students read the story which is selected by the group, and note the words or expressions they are not familiar with as a "clunk" from the on the discussion board. The group members who know the meaning or who click with those clunks came to help the group to fix those clunks. This stage is referred as Click and Clunks. The following stage is Get the Gist. During this stage, students have to identify the most important idea and in a story by answering ten questions from the exercises which measure literal and interpretative level. At the end of this stage, students work collaboratively to accomplish the reading group task. The task type needs students to read beyond the lines and apply what they've read to a real world task. The last stage is

Wrap Up. During this stage, students work in a group to make a conclusion of the topic and the reading passage of the week. Students then discuss the advantages and disadvantages of the work on the task that week and share group work with the class. The feedback on the students' work is provided in the Wrap Up session.
1.8.4. Social Constructivism Blended Learning Module is the English reading instructional module which integrates the concepts of the Social Constructivism and the blended learning of the face-to-face and online learning. The Social Constructivism Blended Learning Module aims to promote English reading ability and reading engagement in Thai secondary students. The SCBLM has been constructed based on the principles of Social Constructivism including collaborative learning and scaffolding. Students are required to work in a mixed English reading ability group with five or six members in each group. The high reading ability students are expected to help scaffold comprehension in the low reading ability students while working collaboratively in a group. The SCBLM is launched in blended delivery modes of face-to-face and online based on the concepts of blended learning. The instruction procedures are adapted from the CSR which is proposed by Klingner and Vaughn (2000).The first stage of the instruction under the SCBLM is namely Preview which is conducted face-to-face. The second stage is namely Click and Clunks which takes place online. The third stage is Get the Gist which also takes place online. The final stage in the instruction is Wrap Up which takes place face-to-face in class.
1.8.5. English Reading ability refers to an ability which a student uses when interacting with written text in English. In the study, reading ability is indicated by the scores from CU-TEP test. The scores of the reading section from the CU-TEP pre-test are used to group the students in high, intermediate, and lowEnglish reading ability.

1.8.6 High English reading ability students refers to the students of percentile ranking from 75 and above according to the reading pre-test scores from the CU-TEP test.
1.8.7 Low English reading ability students refers to the students of percentile ranking of 25 and below according to the reading pre-test scores from the CU-TEP test.
1.8.8. Reading engagement is the joint function of motivation and the use of strategies which arise from the learning context of conceptual knowledge, student's autonomy, social interaction, authenticity of the reading texts and strategies instruction. For the conceptual knowledge, the SCBLM offers topics in which the students are interested so that they can make connections among concepts and seek for new knowledge. Then, students are provided choices of reading under the same topic as to promote student's autonomy. When working on the task, students interact with one another in a mixed ability group. Furthermore, the passages selected in the SCBLM are authentic texts so that the students feel related to the world they live when reading. Finally, the teacher directly teaches reading strategies which are: Preview, Click and Clunks, Get the Gist, and Wrap Up in class so that students feel competent to use strategies when they read. The assumption in the study is that students who studied under the Social Constructivism Blended Learning Module (SCBLM) in such learning context possessed the intrinsic motivation to read and know how to handle strategy-used.
1.8.9 Collaborative learning behavior refers to learning behavior in a collaborative group. Students work in a group face-to-face and online to accomplish the task under the SCBLM. As group members, they interact and help one another accomplish group goals, share resources, support and encourage each other's efforts to learn. Students should also be accountable for contributing his or her share of work and ideas. They were required group commitment and learn to evaluate their group productivity.
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### 1.9. Significance of the Study

A development of Social Constructivism Blended-Learning Module (SCBLM) could be one of the solutions to the unsatisfactory level of Thai High School students' English reading ability and increase reading engagement in students. Thus, the results of the study may contribute to pedagogical purpose in teaching and learning English literacy. This could direct teaching methodology to find the way to further develop reading competence in students.

Even if some or all hypotheses are rejected in the study, the results of the study can provide some benefits to the teaching and learning EFL reading in some aspects. They are as follow:
1.9.1 A reading instructional module, namely the Social Constructivism Blended Learning Module (SCBLM) has been developed in the study. It was grounded on the Social Constructivist's principles as well as those of blended learning. The Collaborative Strategic Reading Model and Reading Engagement were also focused on in the module. Consequently, the study would, more or less, made contributions to those theories.
1.9.2 The results of the study provided an insight into the nature of use of technology such as a combination of online and face-to-face learning in the reading instruction. Students' reflection towards the instruction provided valuable information for any teachers who wish to integrate and maximize the use of technology in EFL reading instruction.

### 1.10. Overview of the study

There are five chapters in this dissertation.
Chapter one describes the rationale and the statement of the problem of 6
English reading skills learning and teaching in Thai contexts. As a result, the development of the Social Constructivism Blended Learning Module(SCBLM) has been proposed to be the solution. The research questions, statements of hypotheses, and objectives of the study are provided. The information concerning the
population, samples, and the variables in this study are also given. In addition, the definitions of terms and the significance of the study are also provided.

Chapter two includes a review of literature and research relevant to this study. Chapter three describes the research methodology of the study as well as the procedures of collecting and analyzing the data.

Chapter four presents the results of the findings.
Chapter five presents the summary of the study, discusses the findings, suggests the implications and recommendations for further research.


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## CHAPTER II

## LITERATURE REVIEW

### 2.1. Introduction

The framework of the Social Constructivism Blended Learning Module is based on a synergy of the basic theoretical concepts in the field of education. Those theories are: Social Constructivism, Collaborative Strategic Reading, Reading Engagement, and Blended Learning. The following studies are going to be discussed to gain an understanding of the Social Constructivism Blended Learning Module theoretical framework. In addition, some previous findings showed the reasons which explain why the SCBLM could enhance the EFL secondary students’ English Reading ability and build reading engagement in readers. Since the students in Thailand are in an EFL context, we should primarily discuss the nature of second language reading principles and the problems which might confront EFL learners while reading the English texts.

### 2.2. Second Language Reading

### 2.2.1. Aspects of L1 and L2 Reading

Although studies on L2 reading have expanded considerably, only recent studies have been given serious attention to the mechanisms governing knowledge that increase performance effectiveness. The newer theoretical ground, moreover, has evolved largely from implications derived from L1 studies. Although this was a logical point of departure, borrowed research paradigms do not seem capable of capturing the unique attributes of L 2 reading. Koda (2005) asserts that L1 and L2 reading differ fundamentally. L1 instruction emphasizes decoding to enable children to link print with oral vocabulary; whereas, L2 instruction focuses on linguistic foundation building. As indicated earlier, L1 reading assumes that information processing occurs in a single language; whereas L2 reading necessitates dual language involvement. For L2 reading, serious attention should be given to the special conditions associated with the 3 factors: prior literacy experience, limited linguistic sophistication, and dual language involvement (Koda,2005:8).

Anderson (1999:1) states that reading is an active fluent process which involves the reader and reading material in building meaning. Meaning does not reside on the
printed page nor is it only in the head of the reader. A synergy occurs in reading which combines the words on the printed page with reader's background knowledge and experiences. Readers move through the printed text with the specific purpose in mind to accomplish specific goals. In the ESL/EFL reading class, however, one great challenge is that even when students can read in their second language, much of their reading is not fluent. Students are not actively engaged with the text in a meaningful way. They may be moving through it one word at a time and not reaping the joy of reading.

The relationship between L1 and L2 reading has been investigated drawing on two hypotheses. The first is the linguistic interdependence hypothesis, which claims that L1 reading ability transfers to L 2 reading, i.e., there is always a relationship, hypothetically a correlation one, between L 1 and L 2 reading. The second is the linguistic threshold hypothesis, which claims that L1 reading ability transfers to L2 reading when learners' L2 proficiency is higher than the linguistic threshold, i.e., some basic linguistic ability is a prerequisite for the transfer to happen. Researchers, in general, have attempted to find out which hypothesis better explains the relationship between reading in one language and in another (Yamashita,2004).

The idea of capitalizing on students' L1 language proficiency and experience in the course of second language acquisition has theoretical support. According to Vygotsky (cited in Fung, Wilkinson and Moore, 1999) the foreign or second language acquisition process does not repeat the course of the first language acquisition, but is an analogous system that develops in a reverse direction. Each system complements the other and the two languages interact to the advantage of each. Success in learning a foreign language is contingent on a certain degree of maturity in the native language. A child can transfer to the new language the system of meanings he or she already possesses. The corollary of Vygotsky's argument is that the ability of meaning construction during the reading process is also transferable across languages, and the development of L1 and L2 reading abilities are complementary.

Goodman proposes that "the reading process is fundamentally the same in all languages except for minor degrees of differences" (p. 26 cited in Fung, Wilkinson and Moore, 1999), and L2 readers compensate for less well developed L2 skills by means of their L1 reading skills. This theory also suggests that L1 and L2 reading ability complements each other including some reading skills and strategies. Due to these characteristics of L1 and L2 reading, second language reading teachers could face many challenges in the classroom. Teaching students how to utilize the skills and knowledge
that they bring from their first language, developing vocabulary skills, improving reading comprehension, improving reading rate, teaching readers how to successfully manipulate the use of strategies and how to monitor their own improvement are some of the elements that a teacher must consider in preparing for and ESL/EFL reading class.

The Social Constructivism Blended Learning Module is another challenge for reading instruction. All similarities and differences of L1 and L2 reading is taken into consideration to help students learn how to read at maximum capacity.

### 2.2.2. $\quad$ Second Language Reading Process

Scarella \& Oxford (1992) use the analogy of a tapestry to describe the process of reading, learning to read. Various skills are used by the reader. It is difficult to find two readers who use identical reading skills and strategies to achieve reading compression. Understanding main ideas, making inferences, predicting outcomes, and guessing vocabulary from context are all reading skills that readers of English typically need to develop. Reading strategies utilized by the reader to accomplish these reading skills are separate threads interwoven by readers.

To have a concept of the process of how we read, we should pay attention to the models of the reading process. Then we can understand the way we read a text and comprehend it.

### 2.2.2.1. Models of the reading process

To understand the process of reading has been the focus of numerous studies. Models of how the printed word is understood have emerged from this research. These models can be divided into 3 categories: bottom-up models, top-down models and

2.2.2.1.1. Bottom-úp or data-driven models depend primarily on the information presented by the text. That information is processed from letter features to letters to words to meaning. Bottom-up models emphasize what is typically known as "lower level" reading process. Segalowiz, Poulsen\& Komoda (1991:17) indicate that these lower-level process consist of word recognition and include visual recognition of letter features, letter identification, the generation of grapheme-phoneme correspondences, utilization of orthographic redundancies such as regularities in letter sequences, the association of words to their semantic representations, possibly the
identification of basic syntactic structures within the portion of text currently being read, and with the generation of propositional units.
2.2.2.1.2. In contrast to bottom-up models, top-down models are diametrically opposed (Stanovich, 1980:34) to these lower-level processes. Top-down models all have in common a viewing of the fluent reader as being actively engaged in hypothesis testing as he proceeds through text. In top down models, the higher level processes direct the flow of information to lower processes. Segalowitz, Poulsen, and Komoda (1991:17) point out that this higher level is concerned primarily with integration of textual information and includes resolving ambiguities in the text, linking words with their co-referents, integrating propositional units across sentences, generating and updating schema or representation of the text as a whole, and integrating textual information with prior knowledge.
2.2.2.1.3. The models which are currently accepted as the most comprehensive description of the reading process are interactive models. This third type combines elements of both bottom-up and top-down models, assuming that a pattern is synthesized based on information provided simultaneously from several knowledge sources (Stanovich, 1980:35). Stanovich states that in interactive models, processes at any level can compensate for deficiencies at any other level. Higher processes can actually compensate for deficiencies in lower-level processes. Murtagh (1989:102) stresses that the best second language readers are those who can efficiently integrate both bottom-up and top-down processes. Grabe (1991) emphasizes two conceptions of interactive approaches. The first relates to the interaction that occurs between the reader and the text. This suggests that meaning does not simply reside in the text itself but that as readers interact with the text, their own background knowledge facilitates the task of comprehending. The second conception of interactive approaches relates to the interaction between bottom-up and top-down processes. Fluent readers involve both decoding and interpretation skills. With the research completed to date on the reading process in both first and second language reading we know that reading integrates several skills, strategies, and processes and is not a simple event to describe. Grabe (1991:378) points out the complexity of even defining reading by stating that "A description of reading has to account for the notions that fluent reading is rapid, purposeful, interactive, comprehending, flexible, and gradually developing."

Anderson (1999:3-4) suggests that an interactive model is the best description of what happens when one reads. Second language readers do some bottom-up when they
read, decoding unfamiliar vocabulary and they do some top-down when they read, anticipating what is coming next in the text, drawing on their previous experience.

Within the complex process of reading, six general component skills and knowledge areas have been identified as follows (Grabe,1991:379):

1. Automatic perceptual/identification skills-a virtually unconscious ability, ideally requiring little mental processing to recognize text, especially for word identification.
2. Vocabulary and syntactic knowledge, or a sound understanding of language structure and a large recognition of vocabulary.
3. Formal discourse structure (formal schemata), or understanding of how text are organized and how information is put together into various genres of text (e.g. a report, a letter, a narrative.)
4. Content and background knowledge (content schemata), or prior knowledge of text related information and a shared understanding of cultural information involved in the text.
5. Synthesis and evaluation skills and strategies or the ability to read and compare information from multiple sources, to think critically about what one reads, and to decide what information is relevant or useful for the purpose.
6. Metacognitive knowledge and skills monitoring, or an awareness of one's mental processes and the ability to reflect on what one is doing and the strategies one is employing while reading.

Anne Ediger (2001) explains the process of L2 reader. She states that when fluent readers read, they bring together all these components into a complex process. Exactly how they do it is something that is still the subject of discussion and research; however, we know that all these systems play a part in the process. Fluent readers recognize and get meaning from the words they see in print and use their knowledge of the structure of the language to begin to form a mental notion of the topic. They use the semantic and syntactic information from the text together with what they know from personal experience and knowledge of the topic to form hypotheses or predictions about what they are reading and what they are about to read. As they continue reading, they try to confirm or reject these predictions. If they are able to confirm their predictions, they read on. If not, they may reread the text, paying closer attention to the print and reformulating their predictions.

### 2.2.3. Second Language Reading Comprehension

Most foreign language reading specialists view reading as interactive. The reader interacts with the text to create meaning as the reader's mental processes work together at different levels (Bernhardt, 1986; Carrell, Devine \& Eskey, 1988; Rumelhart, 1977). The level of reader comprehension of the text is determined by how well the reader variables (interest level in the text, purpose for reading the text, knowledge of the topic, foreign language abilities, awareness of the reading process, and level of willingness to take risks) interact with the text variables (text type, structure, syntax, and vocabulary) (Hosenfeld, 1979).

Grabe and Stoller (2002:14) point out that reading for general comprehension is the most basic purpose of reading though it is actually more complex than commonly assumed, because reading for general comprehension "requires rapid and automatic processing of words, strong skills in informing a general meaning representation of main ideas, and efficient coordination of many processes under very limited time constraints". Reading skills can be described roughly as a cognitive ability which a person is able to use when interacting with written text (Urquhart and Weir, 1998:88). However, since there are a number of skills taxonomies, it can be difficult to grasp the whole picture of reading skills (Urquhart and Weir, 1998:90-91; Brown, 2001:307). Level of understanding is frequently merged in a discussion of a reader's ability to understand at certain levels. Reading researchers have frequently attempted to identify reading skills or abilities by giving subjects a series of passages, and asking questions intended to test different levels of understanding of passages. Thus, the ability to make inferences has been defined as the ability to answer a question relating to meanings not directly stated in the text (Alderson, 2000). Two researchers defined reading skills in Table 2.1.
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Table 2.1: Definition of Reading Skills


Such lists or taxonomies are seductive because they offer an apparently theoretically justified means of devising test tasks or items, and of isolating reading skills to be tested.

They also suggest the possibility of diagnosing a reader's problems, with a view to identifying remediation. They are potentially very powerful frameworks for test construction and will doubtless continue to be so used (Alderson,2000 : 11).

### 2.2.4. Related Literature in Second Language Reading

For many students of English as a second language, the acquisition of effective reading strategies is of primary importance. English has become the library or "link" language and a relatively good command of reading skills in

ESL is essential for students as the means of access to information.

Kim (1989) stated in his study that because the ESL learner has not developed full linguistic competence in the second language, he/she may find it difficult to participate in the psycholinguistic guessing game. The student may understand all the lexical items in the passage and yet may not understand the passage, because the syntactic rules of his native language differ from those of the second language and he therefore does not have adequate grammatical control of the language. However, ESL reader's literacy in his/her own language may help to a certain extent as he is able to transfer the more mechanical aspects of reading automatically to reading in a new language.

Yorio (1971) believes that a degree of proficiency in the target language is required for the ESL student to read fluently. Interference from the native language may also hinder the student's progress. He points out one problem of the ESL learner which is that the prediction of future cues is restricted by his imperfect knowledge of the language; moreover, because he has to recall unfamiliar cues, his memory span is very short; he therefore easily forgets the cues that he has already stored. Conceptual abilities and background knowledge are important in reading acquisition for an ESL learner. A student who is not able to draw on his conceptual experience may not be able to comprehend what he is reading. For example, a history student may be at a loss when he reads a highly scientific passage on the electron microscope. Coady (1979) believes that background knowledge is an important variable. He states that students with a Western
background of some kind seem to learn English faster on the average than those without such a background.

The schemata theory could explain one of L2 reader's problems. As Carrell and Eisterhold (1983:80) point out, "one of the most obvious reasons why a particular content schema may fail to exist for a reader is that the schema is culturally specific and is not part of a particular reader's cultural background." It is thought that readers' cultures can affect everything from the way readers view reading itself, the content and formal schemata they hold, right down to their understanding of individual concepts. Some key concepts may be absent in the schemata of some non-native readers or they may carry alternative interpretations. The concept of "full moon", for instance, in Europe is linked to schemata that include horror stories and madness, whereas in Japan it activates schemata for beauty and moon-viewing. Some alternates may be attitudinal. A gun, for instance, activates both shared schemata on the nature of guns and culturally distinct attitudinal attachments to those schemata (Wallace 1992:35-6).

When faced with such unfamiliar topics, some students may overcompensate for absent schemata by reading in a slow, text-bound manner; other students may overcompensate by wild guessing (Carrell 1988a:101). Both strategies inevitably result in comprehension difficulties. Research by Johnson (in Carrell and Eisterhold 1983:80) suggested that a text on a familiar topic is better recalled than a similar text on an unfamiliar topic.

There have been a number of related studies of English reading conducted in Thailand. The vocabulary-focused research of Chinarat (2001), the strategy-focused research of Mekprayoon (2001)d Chanklin (2001) Kaewkongmuang (2001) Jariyarangsiroge (2002) Leetim (2001), the learner-focused research of Tanthanis (2002) Adunyarittigun (2002), and the instructor-focused research of Amatashewin (2000). Most of the research focused on strategies for learning to help enhance reading comprehension or reading ability of learners. Most of the findings of the research reported a significantly better change and higher post scores. Still, English reading remains a crucial issue to be focused on due to all the evidence that indicates the persistent low percentage of mean scores in the standardized testing both nationally and internationally.

According to the findings of the research mentioned above, we can see that the teachers, as researchers, continue the investigation on how we can help students learn to
read better in English. Alternative approaches or reading instruction have been brought into consideration and put into action, but still we should keep looking for other methods to enhance student's reading ability, since there remains room for improvement.

Despite the fact that a number of researchers have investigated Thai student's reading, few have investigated the aspects of technology incorporated into reading instruction. So, it is worthwhile to probe in detail and do research into this area, as the results of the study may shed light on finding new ways to improve English reading ability in Thai secondary students and to increase mean posttest scores as stated in the first hypothesis of the study.

### 2.3. Reading Engagement

Engagement in reading refers to fusion of strategy-use, internal motivation, and knowledge use for learning from text. Engagement depends upon a complex mix of intrinsic and extrinsic factors. Intrinsic motivation includes curiosity, aesthetic involvement, challenge, feelings of competence, and enjoyment. Extrinsic motivations include compliance, recognition, and grades (Guthrie, McGough, Bennett, \& Rice, 1996). However, intrinsically motivated students tend to persist longer, work harder, actively apply strategies, and retain key information more consistently (Guthrie, McGough, et al., 1996; Guthrie, Van Meter, et al., 1996; Malone, 1981; Piaget, 1951; Shulman \& Keislar, 1966).

Engaged readers have developed positive attitudes towards reading, and their interest in reading and motivation to read is strong. They think that reading is a valuable activity, one that provides them with a source of pleasure and knowledge. Verhoeven and Snow, (2001) stated in their study that effective engagement during the acquisition of literacy is only likely if joy is part of that experience. Engaged readers are motivated, strategic, knowledgeable, and socially interactive. Guthrie et al.(1996) assert that engaged readers are motivated to read for a variety of personal goals. They are strategic in using multiple approaches to comprehend. They use knowledge actively to construct new understanding from text. And they interact socially in their approach to literacy. Engaged readers are decision makers whose enjoyment as well as their language and cognition play a role in their reading practices. Thus, engagement is essential to successful reading. Children who are beginning to read must be engaged in the material they are trying to read and in the process of learning. Excellent readers possessing
advanced comprehension skills read more effectively if they are interested and confident of their ability to succeed. Every teacher knows that engaging children in reading includes building their confidence and arousing their interest, enthusiasm, and desire. Successful reading teachers help children think of themselves as readers from the first day of instruction. Research suggests that students can actually be taught to value and enjoy reading. Just as recognition skills are built over time and models of strategic action are constructed through guidance and practice, patterns of positive feeling are established over time in the affective systems (Meyer and Rose,2004; Guthrie et al,2003). According to previous studies, one factor that has an entangled relationship with reading achievement is student's engagement in reading. The findings confirm that engagement and reading achievement are synergistic (Campbell, Voelkl and Donahue,1997; Kirsch et al, 2002; Guthrie et al, 2001).

Guthrie (2003) suggests that classroom context can promote engaged reading. Some teaching practices are well known for their efficiency at fostering students’ engagement in reading (Burns, 1998; Ivey, 1999). Research and practice suggest that a number of factors affect the development of intrinsic motivation in a school setting: the level of challenge offered by tasks and materials; the quality and timing of feedback to students about their work; the supports and scaffolds available to learners; students' interest in tasks and content; and the nature of the learning context.

Guthrie and Davis (2003) have developed a model of engagement through classroom practice aimed at motivating struggling readers in lower secondary education. Struggling readers need both motivational and cognitive support. Motivational support is increased through real-world interaction, interesting texts, autonomy and collaboration with peers. Cognitive competence is increased by the teaching of reading strategy for substantial amount of time. However, direct strategy instruction is powerful when this is provided, together with motivationar support. Together with the suggestion of Fredricksen (2000), positive emotions could expand experience whether by giving more attention to an activity that has triggered interest or by re-engaging with an enjoyable activity.

### 2.3.1. Classroom Context for Promoting Reading Engagement

According to Guthrie (2000), to manage the learning process to promote the growth of reading engagement, teachers should consider the following components:
2.3.1.1. Knowledge Goal or Conceptual Knowledge. Teachers should provide texts of which students have interests in topics or authors. Teachers should also teach understanding through conceptual themes about enduring and important concepts versus pursuing trivial, isolated facts and help students embrace challenge and risk-taking in reading to learn.
2.3.1.2. Real World Interaction. The main role of real-world interaction is to evoke intrinsically motivated behaviors. Students are alert, attentive, and excited in the presence of a real-world object. These intrinsically motivated behaviors create the occasion for active learning and the acquisition of relevant knowledge. The real world connection establishes a purpose for reading that is personally significant and meaningful. It may pique students' curiosities for reading and sense of wonder about their observations. Finally, it fosters students' creating of personal goals for reading and learning concepts via question asking.
2.3.1.3. Autonomy Support. Autonomy support is linked to the condition of students discovering interesting texts through self-selected reading. When students are supported in choosing from a wide selection of texts, sustained reading and measured achievement increase (Morrow, 1996). Choice is motivating because it offers students the control. Children seek to be in command of their environment, rather than being manipulated by powerful others. This need for self- direction can be met in reading instruction through well-designed choices.
2.3.1.4. Collaboration with Peers. This refers to the social discourse among students in a learning community that enables them to see perspectives and to construct knowledge socially from text. Many teachers use collaboration to activate and maintain students' intrinsic motivation and mastery goal orientation. Teachers believe that social collaboration in the classroom will increase interest in the content of learning (Hootstein, 1995; Zahorik, 1996) and maintain active learning over an extended period (Nolen \& Nicholls, 1994). As students integrate their diverse information, they form higher order principles in the topic. Furthermore, students can collaboratively learn from texts and exercise autonomy by choosing who to work with on specific learning tasks and how to distribute their expertise. Teachers also believe that collaboration disposes students to read more independently in the future (Morrow, 1996; Guthrie \& Wigfield, 2000).
2.3.1.5. Strategy instruction. Guthrie and Cox (2001) describe the benefit of embedding direct strategy instruction in a context of inquiry. They report a successful
teacher who helped students identify the qualities of information books that make them helpful, such as the tables of contents, indexes, captions, and diagrams. The teacher provided direct instruction in gaining the main idea from paragraphs. She taught summarizing by modeling how to locate topic sentences and supporting information.

### 2.3.2. Related Literature of Reading Engagement

Recent research in reading states the importance of engagement as one of the potential factors of conceptual learning in the reading (Alexander \& Fox, 2004; Guthrie \& Wigfield, 2000 cited in Perencevich, 2004). The concept of reading engagement has been explored to define and measure this multifaceted construct (Fredericks, Blumenfield, \&Paris, 2004). Positive results of reading engagement being fostered by the classroom context model of Guthrie and Wigfield (2000) were attained from previous research studies. Guthrie, Wigfield, Barbosa et al, (2004); Guthrie, Wigfield, \& Von Secker, (2000) have identified several teacher practices that appear to optimize engagement in reading, particularly when implemented in concert with one another. The practices include the emphasis on learning and knowledge goals, the provision of realworld interactions connected to reading topics, the comprehension strategy instruction using interesting information and literary texts, the support for student autonomy, and the support for student collaboration. Guthrie et al.(2007) yielded the findings of students’ internal motivations including: the interest, the perceived control, the self-efficacy, the involvement, and the collaboration by interviewing the fourth grade students.

Reading achievement is believed to be associated with student's engagement in reading. The findings from previous research revealed that engagement and reading achievement were synergistic (Campbell, Voelkl and Donahue, 1997; Kirsch et al, 2002; Guthrie et al, 2001). Engaged readers have developed positive attitudes towards reading, and their interest in reading and motivation to read is strong. Student engagement is an important and well-documented predictor of academic achievement in general, as well as in specific subject areas including reading (Fredricks, Blumenfeld, \& Paris, 2004; Guthrie \& Wigfield, 2000).

### 2.3.3. The Importance of Integrating Reading Engagement in the SCBLM

In this study, reading engagement is promoted in the students by arranging the instructional context according to five components suggested by Guthrie et al.(1996.) For the knowledge goal or the conceptual knowledge, the students were provided the topics
of the reading in accordance with their interest in topics. Then the students' autonomy was supported by letting them have the opportunity to select the story to read with the group. There were three stories as choices provided under each topic. The real world interaction was promoted by providing the hand-on activities which concerned real world objects or issues. Moreover, the social interaction was supported by letting the students work with the group to discuss and work on the reading task. Finally, the reading strategies were directly taught so that the students regarded themselves as more competent strategy users. Based on the assumptions of the theory of Reading Engagement, students were supposed to increase their engagement in such classroom context.

To sum up, it is teacher's role in this study to provide such context, identify a knowledge goal and announce it, provide a brief real-world experience related to the goal, make multiple other resources available, give students some choice about the subtopics and texts for learning, teach cognitive strategies that empower students to succeed in reading these texts, assure social collaboration for learning and align evaluation of student work with the instructional context.

Based on the literature review, it could be said that Reading Engagement was strongly related to reading achievement. Therefore, the second hypothesis of the study was set and tested whether the students increased the reading engagement or not. It was interesting to observe the relationship between students’ reading engagement and their English reading ability.

### 2.4. Social Constructivism Theory

Social constructivism was introduced by Lev Vygotsky. Social constructivism is a variety of cognitive constructivism that emphasizes the collaborative nature of much learning. Vygotsky approached development differently from Piaget. Piaget believed that cognitive development consists of four main periods of cognitive growth: sensorimotor, preoperational, concrete operations, and formal operations (Saettler, 331). Vygotsky believed that development is a process that should be analyzed, instead of a product to be obtained. According to Vygotsky, the development process that begins at birth and continues until death is too complex to be defined by stages (Driscoll, 1994; Hausfather, 1996). Vygotsky $(1962,1978)$ believed that this life-long process of development was dependent on social interaction and social learning actually leads to
cognitive development. Learning was not simply the assimilation and accommodation of new knowledge by learners; it was the process by which learners were integrated into a knowledge community. Piaget observed young children participating in egocentric speech in their preoperational stage; he believed it was a phase that disappeared once the child reached the stage of concrete operations. In contrast, Vygotsky viewed this egocentric speech as a transition from social speech to internalized thoughts (Driscoll, 1994).

Thus, Vygotsky believed that thought and language could not exist without each other. To Vygotsky (1978), every function in the child's cultural development appears twice: first, on the social level and, later on, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals.

There are some researchers in many content areas of education adopting Social Constructivism in their studies. In the business field :Doolittle E. P.Camp G. William(1999 ); science and mathematics: McGinnis,R\& Watanabe,T (1996); sociology: Schnettler, B (2002). The findings favor the implementation of the Social Constructivism in a way that it benefits the learning outcomes.
2.4.1. Collaborative Learning, Scaffolding Process and the Zone of Proximal Development (ZPD)

Two terminologies which have their home in Social Constructivism are significantly and unavoidably mentioned: collaborative learning and scaffolding process in the Zone of Proximal Development.

Collaborative learning is based on different epistemological assumptions. Matthews (1996:101) captured the essence of the philosophical underpinning of collaborative learning. He stated that collaborative learning occurred when students and faculty work together to create knowledge and make meaning together. In cooperative and collaborative learning students generally work together in groups of two or more. Collaborative learning involves students working together in some way to aid their learning. There are a number of models of collaborative learning and these raise issues
and concerns for both the teacher and student as well as for course designers and administration (Goodsell, A. S., Maher, M. R., and Tinto, V., Eds, 1992).

Collaborative learning methods require students to develop teamwork skills and to see individual learning as essentially related to the success of group learning. The collaborative learning methods often require teachers to break students into smaller groups to work together to achieve shared learning goals. The optimal size for group learning is four or five people (Barkley,E,Cross,P,\& Major,C,2005) . Like the environment, the instructional design of material to be learned would be structured to promote and encourage student interaction and collaboration. Collaborative learning, then, is a structured learning activity that addresses major concerns related to improving student learning. It involves student actively, thereby, putting into practice the predominant conclusion from a half-century of research on cognitive development. Collaborative learning also provides several outcomes for learners:

1. Collaborative learning prepares students for careers by providing them with opportunities to learn the team work skills valued by employers.
2. It helps students appreciate multiple perspectives and develop skills to collaboratively address the common problems facing a diverse society.
3. It engages all students by valuing the perspective each student can contribute from his or her personal academic and life experience (Barkley,E,Cross,P,\& Major,C,2005)

There are also a number of experimental studies and implemented systems available in the literature to emphasize the effectiveness of collaboration. An experiment on "Constructive Interaction" by Naomi Miyake (1986) confirms that in the learning process the bulk of "Constructive Criticisms" occur while learning in collaboration. The experiment showed that about $80 \%$ of self-critiquing or reflection took place during collaborative learning compared to $20 \%$ which took place when students were learning alone. Self-critiquing is one of the major contributors to the effectiveness of collaborative learning. This experiment showed that the learners might have missed the opportunity for better understanding if they had not collaborated. Misconceptions in peers could be put to effective use when an appropriate peer is found to handle the misconceptions. Durfee et al. (Durfee, Lesser, \& Corkill1989) showed that the performance of a network of problem
solving agents is better when there is some inconsistency among the knowledge of each agent. Thus a set of non-overlapping misconceptions among collaborating peers could be put to effective use in collaborative learning. Collaboration experience can also facilitate planning and problem solving. Blaye et al. (Blaye et al. 1990,Blaye1989) showed that children who had previously worked as collaborative pairs on the task of planning and problem solving were twice as successful as children who had had the same amount of experience working alone. The group work or team work is the essential of collaborative learning.

Smith (1996:74-76 cited in Barkley,E,Cross,P,\& Major,C, 2005 ) indicates 5 elements for a successful collaborative learning group.

1. Positive interdependence: The success of individuals is linked to the success of the group; individuals succeed to the extent that group succeeds.
2. Promotive interaction: Students are expected to actively help and support one another.
3. Individual and group accountability: The group is held accountable for achieving its goals. Each member is accountable for contributing his or her share of the work.
4. Development of teamwork skills: students are required to learn academic subject matter (task work) and also to learn interpersonal and small group skills required to function as part of the group.
5. Group processing: Students should learn to evaluate their group productivity. They need to describe what member actions are helpful and unhelpful, and to make decisions on what to continue and to change.

Another issue we are going to focus on as another concept of Social Constructivism proposed by Vygotsky is the Zone of Proximal Development (ZDP) and a scaffolding process which occurs during the process of collaboration. Zone of Proximal Development (ZDP) and a scaffolding process is another social constructivist concept. One essential tenet in Vygotsky's theory is the notion of the existence of what he called the "zone of proximal development". Zone of proximal development is the difference between the child's capacity to solve problems on his own, and his capacity to solve them with assistance. In other words, the actual developmental level refers to all the functions
and activities that a child can perform on his own, independent of help from anyone else. On the other hand, the zone of proximal development includes all the functions and activities that a child or a learner can perform only with the assistance of someone else. The person in this scaffolding process, providing non-intrusive intervention, could be an adult (parent, teacher, caretaker, language instructor) or another peer who has already mastered that particular function.

According to Vygotsky (1978), an essential feature of learning is that it awakens a variety of internal developmental processes that are able to operate only when the child is in the action of interacting with people in his environment and in cooperation with his peers. When it comes to language learning, the authenticity of the environment and the affinity between its participants are essential elements to make the learner feel part of this environment. These elements are rarely predominant in conventional classrooms.

In 1976 Wood, Bruner and Ross invent the term scaffolding to describe tutorial interaction between an adult and a child. The metaphor was used to explore the nature of aid provided by an adult for children learning how to carry out a task they could not perform alone. Burner's ideas of spiral curriculum and scaffolding are related.

The goal of social enculturation is for the learner to internalize processes that are modeled. Once the processes are internalized the learner then becomes self-reliant. This process is known as a process of scaffolding. Learning support and then fading defines the role of more capable peers or teachers in collaborative learning. Hence, scaffolding is a metaphoric term to call a process occurs in the Zone of Proximal Development. The process of gradual reduction of support is called fading. Fading support provides student with feedback about his or her proficiency level of a specific task. The main objective of scaffolding is to adjust the task complexity for the learner to match his or her level of performance. In the long run, the objective is to remove all support systems when the learner is ready to think on his or her own. Scaffolding is not a static, predetermined instructional condition. Rather, the degree of scaffolding changes with the abilities of the learner, the goals of instruction and the complexities of the task.

Traditionally, scaffolding occurred through personal interaction between students and instructors. However, scaffolding is also being integrated into electronic learning environments (Marin, R.,2004).

As for language learning, scaffolding provides contextual supports for meaning through the use of simplified language, teacher modeling, visuals and graphics, cooperative learning and hands-on learning" (Ovando, Collier, \& Combs, 2003, p. 345). Three types of scaffolding have been identified as being especially effective for second language learners.

1. Simplifying the language: The teacher can simplify the language by shortening selections, speaking in the present tense, and avoiding the use of idioms.
2. Asking for completion, not generation: The teacher can have students choose answers from a list or complete a partially finished outline or paragraph.
3. Using visuals: The teacher can present information and ask for students to respond through the use of graphic organizers, tables, charts, outlines, and graphs.

A teacher's scaffolding of language difficulty provides the next step of learning to learners with ease. In this case, active student involvement is the key to success.

### 2.4.2. The Integration of Social Constructivism in Instruction

Traditionally, schools have not promoted environments in which the students play an active role in their own education as well as their peers. Vygotsky's theory, however, requires the teacher and students to play untraditional roles as they collaborate with each other. Instead of a teacher dictating her meaning to students for future recitation, a teacher should collaborate with her students in order to create meaning in ways that students can make their own (Hausfather, 1996). Learning becomes a reciprocal experience for the students and teacher. The physical classroom, based on Vygotsky's theory, would provide clustered desks or tables and work space for peer instruction, collaboration, and small group instruction. Like the environment, the instructional design of materials to be learned would be structured to promote and encourage student interaction and collaboration. Thus the classroom becomes a community of learning.

Because Vygotsky asserts that cognitive change occurs within the zone of proximal development, instruction would be designed to reach a developmental level that is just above the student's current developmental level. Vygotsky proclaims, "learning which is oriented toward developmental levels that have already been reached is ineffective from the view point of the child's overall development. It does not aim for a new stage of the developmental process but rather lags behind this process" (Vygotsky, 1978).

Appropriation is necessary for cognitive development within the zone of proximal development. Individuals participating in peer collaboration or guided teacher instruction must share the same focus in order to access the zone of proximal development. Furthermore, it is essential that the partners be on different developmental levels and the higher level partner be aware of the lower's level. If this does not occur, or if one partner dominates, the interaction is less successful (Driscoll, 1994; Hausfather, 1996).

### 2.4.3. The Integration of Social Constructivism in Reading Instruction

Scaffolding and reciprocal teaching are effective strategies to access the zone of proximal development. Scaffolding requires the teacher to provide students with the opportunity to extend their current skills and knowledge. The teacher must engage students' interest, simplify tasks so they are manageable, and motivate students to pursue the instructional goal. Reciprocal teaching or questioning method allows for the creation of a dialogue between students and teachers. A study conducted by Brown and Palincsar (1989), demonstrated the Vygotskian approach with reciprocal teaching methods in their successful program to teach reading strategies. The teacher and students alternated turns leading small group discussions on a reading. After modeling four reading strategies, students began to assume the teaching role. Results of this study showed significant gains over other instructional strategies (Driscoll, 1994; Hausfather, 1996). 6$\}$

### 2.4.3.1 Collaborative Reading Instruction

Collaborative reading instruction has been implemented by many researchers and instructors to teach both L1 and L2 reading, and other content areas. Palincsar and Brown (1984) have applied Vygotsky's theories about dialogue and scaffolding to classroom instruction. They reasoned that if the natural dialogue that occurs outside of school between a child and adult is so powerful for promoting learning,
it ought to promote learning in school as well. In particular, they were interested in the planning and self-regulation such dialogue might foster in learners as well as the insights teachers might gain about their students' thinking processes as they engage in learning tasks. In addition, dialogue among students might be especially effective for encouraging collaborative problem solving. Their classroom research revealed increased selfregulation in classrooms where, subsequent to training, dialogue became a natural activity. Within a joint dialogue, teachers modeled thinking strategies effectively, apparently in part because students felt free to express uncertainty, ask questions, and share their knowledge without fear of criticism. The students gave the teachers clues, so to speak, as to the kind of learning they were ready for. For example, one student interrupted her teacher when she did not understand something the teacher was reading. The teacher took this opportunity to model a clarifying strategy. It also would have been appropriate to have asked other students to model the process. In a number of classrooms, students freely discussed what they knew about topics, thus revealing persistent misconceptions. Such revelations do not always happen in more traditional classrooms. Furthermore, teachers helped students change their misconceptions through continued dialogue.

One particular application was in reading comprehension for students identified as poor readers. The researchers proposed that poor readers have had impoverished experiences with reading for meaning in school and concluded that they might learn comprehension strategies through dialogue. To encourage joint responsibility for dialogue, they asked students to take increasing responsibility for leading discussion, to act as the teacher. This turn-taking is called reciprocal teaching. The four comprehension strategies that are stressed are: predicting, question generating, summarizing, and clarifying. The "teacher" leads dialogue about the text. Predicting activates students' prior knowledge about the text and helps them make connections between new information and what they already know, and gives them a purpose for reading. Students also learn to generate questions themselves rather than responding only to teacher's questions. Students collaborate to accomplish summarizing, which encourages them to integrate what they have learned. Clarifying promotes comprehension monitoring.

Students share their uncertainties about unfamiliar vocabulary, confusing text passages, and difficult concepts. Reciprocal teaching has been successful, but only when teachers believe the underlying assumption that collaboration among teachers and
students to construct meaning, solve problems, and so forth, leads to higher quality learning. Believing this is only a beginning. Engaging in true dialogue requires practice for both teachers and students. However, the principles of collaborative dialogue and scaffolding for purposes of self-regulated learning ought to be effective across many content areas.

### 2.4.3.2 Collaborative Strategic Reading (CSR)

Klingner and Vaughn introduced Collaborative Strategic Reading (CSR). CSR is a reading comprehension practice that combines two instructional elements: (a) modified reciprocal teaching (Palincsar \& Brown, 1984), and (b) cooperative learning (Johnson \& Johnson, 1987) or student pairing. In reciprocal teaching, teachers and students take turns leading a dialogue concerning key features of text through summarizing, questioning, clarifying, and predicting. Reciprocal teaching was developed with the intention of aiding students having difficulty with reading comprehension. Palincsar and Brown found that seventh graders with poor reading comprehension skills achieved sizable gains through use of the reciprocal teaching method. More recent studies using reciprocal teaching have found it to be effective with struggling middle school and high school readers (Alfassi, 1998; Lysynchuk, Pressley, \& Vye, 1990). Klingner and Vaughn (1996) originally designed ESR by combining modified reciprocal teaching with cooperative learning. Through a number of research trials, CSR has been refined and currently consists of four comprehension strategies that students apply before, during, and after reading in small cooperative groups. These reading strategies are:
Strategy 1 Preview (before reading)
Students preview the entire passage before they read each section through the video clips or theimages related to the topic. The goals of previewing are for students to learn as much about the passage as they can in a brief period of time, to activate their background knowledge about the topic, and to help them make predictions about what they will learn. Previewing serves to motivate students' interest in the topic and to engage them in active reading from the onset.
Strategy 2 Click and clunk (during reading)
Students "click and clunk" while reading each section of the passage. The goal of clicking and clunking is to teach students to monitor their reading comprehension and to identify when they have breakdowns in understanding. "Clicks" refer to portions of the text that make sense to the reader. "Clunk" is when the comprehension breaks down. For
example, when students do not know the meaning of a word, it is a clunk. Clicking and clunking is designed to teach students to pay attention to when they are understanding or failing to understand what they are reading. Students know that they will be asked this question and are alert to identify clunks during reading. After students identify clunks, the group will use "fix-up" strategies to figure out the clunks. For example: reread the sentence with the clunk and the sentences before or after the clunk looking for clues, look for a prefix or suffix in the word or break the word apart and look for smaller words they know.

## Strategy 3 Get the gist (during reading)

Students learn to "get the gist" by identifying the most important idea in a story. The goal of getting the gist is to teach students to re-state the most important point as a way of making sure they have understood what they have read.

## Strategy 4 Wrap up (after reading)

Students learn to wrap up by answers about what they have learned and by reviewing key ideas. The goals are to improve students' knowledge, understanding, and memory of what was read. The questions will ask about important information in the passage students have just read. The best way to teach wrap up is to ask questions that involve higher-level thinking skills, rather than literal recall.

CSR has also been combined with other approaches to address the range of skills needed for reading competence in middle school and high school. In a study of 60 sixthgrade middle school students with varied reading levels in inclusive classrooms, a multicomponent reading intervention was used to address the range of reading needs ตypamaxphepooลงกรณมมหาวทยาลย

### 2.4.4 Related literature of Social Constructivism

In Thailand there are two studies relating to collaborative learning. Pootrakul, (1985) conducted the experimental research on the peer-tutoring group and self-teaching methods. The sample consisted of Mathayomsuksa Five ( $11^{\text {th }}$ grade) students at Rajadumri School. The students were divided into two groups: an experimental group and a control group; and the former group was taught under the peer-tutoring method
while the latter was taught under the self-study method for six weeks for two periods a week. The test was constructed by the researcher and examined by specialists and the thesis advisor. The level of difficulty and power of discrimination were evaluated, and achievement test scores were analyzed and statistically tested to see if there was any difference between the mean scores of the two groups. Findings indicate that the reading comprehension tests' scores of students, including both good and poor students, taught by peer-tutoring are higher than those taught by self-study. Mejang (2004) conducted research on collaborative reading. The instruction model of the research focused on teaching 5 reading strategies: making connection, predicting, clarifying, questioning and summarizing. The instructional processes involved 4 steps: introducing the strategy, building an understanding, applying the strategy and wrapping up. Throughout these processes, students worked collaboratively in group discussions in which they expressed their ideas about the texts and the strategies while the teacher acted as a facilitator providing guidance and support. The findings indicate that the gain scores were significantly higher at .01 level of significance. Hence, the concepts of Social Constructivism and Collaborative Strategic Reading are linked to the SCBLM of the study.

### 2.4.5. Importance of Integrating the Social Constructivism in the SCBLM

In this study, students must not only learn to work together, but they must also be held responsible for their group members' learning as well as their own. Students share their uncertainties about unfamiliar vocabulary, confusing text passages, and difficult concepts. They should help one another, with a teacher as facilitator, scaffold knowledge in the Zone of Proximal Development. Clarifying promotes comprehension monitoring. While working collaboratively, they learn from each other and comprehend better the text. Social interaction and collaboration increases interest in the content of learning and maintain active learning over an extended period. When the students are assigned to do a reading group task in an SCBLM class, they integrate their diverse information and form higher order principles on the topic. Students can, furthermore, collaboratively learn from texts and specific learning tasks and know how to distribute their expertise. By sharing reflections on their own reading processes in a group, readers learn from each other's processes and appropriate new strategies. It is believed that collaboration encourages students to read more independently in the future.

Based on the literature review, it could be said that Social Constructivism can effectively improve student's reading ability. Thus, the first hypothesis of the study was set and tested whether the SCBLM in which Social Constructivism was integrated could confirm the results from the previous studies or not.

### 2.5 Blended Learning

Blended learning is the label commonly used to describe courses that combine face-to-face classroom instruction with online-based learning in a way that moves a significant part of the course online and, as a result, alters the way classroom seat time is used. What sets a hybrid course apart from the more common use of technology as a course supplement, or add-on to an existing course, is that it is redesigned to maximize the advantages of both face-to-face and virtual modes of instruction. For example, activities in which students previously engaged in a classroom or laboratory, such as quizzes or pre-lab assignments, are done online instead. This substitution has the potential to lessen faculty and teaching assistant workloads, accommodate various learning styles, personalize students’ experience, and require fewer hours of classroom time. (Murphy,2002) .

Barr and Tagg (1995) suggest that in this era, instructors should think less about delivering instruction and more about producing learning in student-centered environments. The need is for a commitment to create an ideal learning environment for students and employing new pedagogies and technologies where appropriation is an important element.

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Face-to-face or traditional learning possesses certain characteristics: The teacher is the authority and usually talks more than the student. The learning is conducted with the whole class participating and sometimes group study. The lessons are usually conducted according to the study program and the existing curriculum. The learning takes place within the classroom and the school. The teacher manages the structure of the lesson and the division of time. The discussions in traditional classrooms where vocal students can dominate and discussions may be superficial, spontaneous, and limited, can frustrate those students with a more introverted personality (Rovai,Jordan, 2004).

### 2.5.2. Online Learning

Online education is the shift from providing exclusively traditional classroom instruction to reaching out to students by delivering courses at a distance using technology. Online learning is any learning experience or environment that relies upon the Internet/WWW as the primary delivery mode of communication and presentation. It is also learning via educational material that is presented on a computer via an intranet or the Internet.

Distance education is already a pervasive element especially of higher education and it continues to rapidly expand. Research, however, suggests that online courses are not suitable for all types of students and faculty. Collins (1999) noted that students and teachers react to new educational technologies with varied emotions, ranging from enthusiasm to disabling fear. Abrahamson (1998) reported that distance education required students who were self-regulated and independent. Marino (2000) also discovered that some students experienced difficulty adjusting to the structure of online courses, managing their time in such environments, and maintaining self-motivation. The text-based computer-mediated communication (CMC) that is used by Internet-based elearning systems for discussion board and email discourse is a powerful tool for group communication and cooperative learning that promotes a level of reflective interaction that is often lacking in a face-to-face, teacher-centered classroom. However, the reduced non-verbal social cues in CMC, such as the absence of facial expressions and voice inflections, can generate misunderstandings that adversely affect learning.

Sikora and Carroll (2002) reported that online higher education students tend to be less satisfied with totally online courses when compared to traditional courses. Fully online courses also experienced higher attrition rates (Carr, 2000). However, Hara and Kling (2001:68), conducting a study of online courses, found that feelings of isolation were ancimportant stress factor for online students, but not the primary factor as frequentlymentioned in the professional literature. Rather, "Students reported confusion, anxiety, and frustration due to the perceived lack of prompt or clear feedback from the instructor, and from ambiguous instructions on the course website and in e-mail messages from the instructor". Thus, it may be the reason that some online courses suffer more dropouts.

### 2.5.2.1. Supportive Online-Tools for Collaborative Learning.

The introduction and integration of computer technology in society has tremendously increased the opportunities for social interaction. Therefore, the social context for learning is transforming as well. Collaboration and peer instruction was once only possible in shared physical space, but now learning relationships can now be formed from distances through cyberspace. Computer technology is a cultural tool that students can use to mediate and internalize their learning. Recent research suggests that changing the learning contexts with technology is a powerful learning activity (Crawford, 1996). The Twentieth Century has seen the advent of unprecedented change in the area of information technology including collaboration between students and faculty, simulated environments, electronic books, digital libraries and virtual universities with a global presence. The new environments introduce exciting potential for education, including new approaches to knowledge creation and new ways of learning. Interactivity, while a feature of these offerings, involves synchronous and asynchronous discussions with other learners and tutors using e-mail (Owston, 1997). The electronic tools which promote online collaborative learning are as follows:

## Synchronous Tools

Synchronous tools enable real-time communication and collaboration in a "same time-different place" mode. These tools allow people to connect at a single point in time, at the same time. Synchronous tools possess the advantage of being able to engage people instantly and at the same point in time. The primary drawback of synchronous tools is that, by definition, they require same-time participation -different time zones and conflicting schedules can create communication challenges. In addition, they tend to be costly and may require significant bandwidth to be efficient (Ashley, 2003). From the figure below, synchronous tools are identified as follow:

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Figure 2.1: Types of Synchronous Tools

| Tool | Useful for | Drawbacks |
| :--- | :--- | :--- |
| Audio <br> conferencing | Discussions and dialogue | Cost, especially when international <br> participation is involved |
| Web conferencing | Sharing presentations and information | Cost, bandwidth; may also require <br> audio conferencing to be useful |
| Video <br> conferencing | In-depth discussions with higher- <br> touch interactions | Cost, limited availability of video <br> conferencing systems |
| Chat | Information sharing of low- <br> complexity issues | Usually requires typing, "lower <br> touch" experience |
| Instant messaging | Ad hoc quick communications | All users must use compatible system, <br> usually best for 1:1 interactions |
| White boarding | Co-development of ideas | Cost, bandwidth; may also require <br> audio conferencing to be useful |
| Application <br> sharing | Co-development of documents | Cost, bandwidth; may also require <br> audio conferencing to be useful |

Asynchronous Tools
Asynchronous tools enable communication and collaboration over a period of time through a "different time-different place" mode. These tools allow people to connect together at each person's own convenience and own schedule. Asynchronous tools are useful for sustaining dialogue and collaboration over a period of time and providing people with resources and information that are instantly accessible, day or night. Asynchronous tools possess the advantage of being able to involve people from multiple time zones. In addition, asynchronous tools are helpful in capturing the history of the interactions of a group, allowing for collective knowledge to be more easily shared and distributed. The primary drawback of asynchronous technologies is that they require some discipline to use when used for ongoing communities of practice and they may feel "impersonal" to those who prefer higher-touch synchronous technologies (Ashley, 2003). From the table below, asynchronous tools are identified as follows:

Figure 2.2: Types of asynchronous tools

| Tool | Useful for | Drawbacks |
| :---: | :---: | :---: |
| Discussion boards | Dialogue that takes place over a period of time | May take longer to arrive at decisions or conclusions |
| Web logs (Blogs) | Sharing ideas and comments | May take longer to arrive at decisions or conclusions |
| $\begin{aligned} & \text { Messaging (e- } \\ & \text { mail) } \end{aligned}$ | One-to-one or one-to-many communications | May be misused as a "collaboration tool" and become overwhelming |
| Streaming audio | Communicating or teaching | Static and typically does not provide option to answer questions or expand on ideas |
| Streaming video | Communicating or teaching | Static and typically does not provide option to answer questions or expand on ideas |
| Narrated slideshows | Communicating or teaching | Static and typically does not provide option to answer questions or expand on ideas |
| "Learning objects" (Webbased training) | Teaching and training | Typically does not provide option to answer questions or expand on ideas in detail |
| Document <br> libraries | Managing resources <br> ถถาบันวิทยง | Version control can be an issue unless check-in / check-out functionality is enabled |
| Databases | Managing information and knowledge | Requires clear definition and skillful administration $\qquad$ |
| Web books? | Teaching and training | Not dynamic and may lose interest of users |
| Surveys and polls | Capturing information and trends | Requires clear definition and ongoing coordination |
| Shared Calendars | Coordinating activities | System compatibility |
| Web site links | Providing resources and references | May become outdated and "broken" |

The social and academic benefits of this type of interactivity have been well documented (Jones, 1999). Collaborative learning is not a new topic. Cerratto and Belisle (1995) state the idea of computer supported collaborative learning within the context of flexible delivery techniques associated with distance education (McDonald and Postle, 1999). With these newer technologies, however, some of the responsibility for knowledge building is shifted to the students, and in particular with activities requiring collaboration. It is important to reflect on the manner in which the mutual engagement of students in a co-operative vein to solve a problem re-positioning the tutor's role from that of the authority figure and source of all information to one of facilitator and resource guide (Koschman, 1996). This move reinforces the importance of peer interaction for cognitive development (Piaget, 1985) and more significantly can be interpreted from within the emergent paradigm of constructivism with its emphasis on the social context in which learning occurs. Online supported collaborative learning allows students to interact asynchronously through discussion lists which are capable of archiving the products of their interaction. This in turn leads to the creation of new and shared understandings about the topic under study.

Computers are also good tools for building reading scaffolds that help teachers support weak or undeveloped skills. Students can then focus on targeted aspects of reading. Scaffolds motivate students by helping them progress faster and read at a higher level than they could without help. They take many forms; the examples provided here are drawn from electronic books, most of which offer a wide range of supports for learners with varied styles and needs. These scaffolds enable young readers to read like an expert by supporting decoding, background knowledge, and vocabulary skills. Working with electronic books seems to lead young readers to engage more than with printed books.

The impact of the new computing and communication technologies on many aspects of modern life has been dramatic, in no other place more so than in the field of education. We cannot deny that online learning offers many benefits to students that traditional classroom instruction has not been able to offer before, such as time saved traveling, flexible scheduling, course material available to students anytime, anywhere, or the increased interaction with classmates via electronic communication tool like e-mail or chat.

However, $100 \%$ online instruction is not without limitation. For example, it can be too unstructured or sometimes students lose sense of where they are in the discussions over long periods of time or they might become overloaded with information. Therefore, blended learning may point to a way of learning for this century.

### 2.5.3 Concepts of Blended Learning

Blended learning is a flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact. The result is potentially a more robust educational experience than either traditional or fully online learning can offer (Colis and Moonen, 2001).

According to Graham, Allen, and Ure (2003), there are 3 commonly known and mentioned types of Blended Learning:

The first is a combination of instructional modalities or delivery media (Bersin \& Associates, 2003; Orey, 2002a, 2002b; Singh \& Reed, 2001; Thomson, 2002).

The second is a combination of various instructional methods (Driscoll, 2002; House, 2002; Rossett, 2002)

The third is a combination of online and face-to-face instruction (Reay, 2001; Rooney, 2003; Sands, 2002; Ward \& LaBranche, 2003; Young, 2002)

The first two positions above reflect the debate on the influences of media versus method on learning (Clark, 1983, 1994a, 1994b; Kozma, 1991, 1994). Both of these positions suffer the problem that they define blended learning so broadly that there encompass virtually all learning systems. One would be hard pressed to find any learning system that did not involve multiple instructional methods and multiple delivery media. Consequently, defining blended learning in either of these does not get at the essence of what blended learning is. According to the authors, the third position more accurately reflects the historical emergence of blended learning systems.

Voos (2003) suggested that it is unlikely that the blendedness makes the difference in such courses, but rather the fundamental reconsideration of course design in
light of new instructional and media choices and the learning strengths and limitations of each. Joyce Neff (1998), a professor of writing, found that teaching a blended course had profound effects on her teaching. Heinze and Procter (2004) introduce the model of time to be spent on online learning in a blended approach.


Figure 2.3 Concepts of Blended Learning
From this model, it is evident that time allocation for both face-to-face and online learning can be flexible.

### 2.5.4. Blended Learning Design

In the study of Carmen (2002, Cited in Yoon and Lim, 2007), the five key ingredients of blended learning design were suggested. It was stated that blended learning theory should integrate both tradition and modern instructional design approaches. At the core of this integration should be the utilization of the instructional principles of cognitivism and constructivism, as well as performance technology solutions. The five keys ingredients of the blended learning process were listed as: live eyents (real-time or two way ${ }^{9}$ communication), self-paced learning, collaboration, assessment, and performance support materials. Technologies, multimedia, reusable learning materials, and electronic or printed texts should be used to handle each key ingredient. It was also recommended that exceptionally efficient and effective live instructors be given special recognition.

### 2.5.5. Related Literature of Blended Learning

Muianga (2004) introduced blended online and face-to-face learning to the Faculty of Education at Eduardo Mondlane University (EMU) in Mozambique. The main objective of its implementation was to explore the use of a course management system (CMS) within a flexible, student-centred teaching and learning strategy. The author selected two courses, developed an implementation plan, and designed blended versions of the courses which replaced much of the face-to-face contact teaching with online contact via a course management system. The findings identified institutional challenges, and offered recommended solutions to provide the human and technological infrastructure needed for effective implementation of a CMS across the university.

Keith Hopper(2001), Assistant Professor in the Department of Humanities and Technical Communication at Southern Polytechnic State University in Georgia, believes in the virtues of hybrid or "internet-supported" learning. He believes that a blend of online and face-to-face elements creates a learning experience more effective than either approach on its own. The instructor views the absence of face-to-face interaction as a "substantial instructional challenge."

Rovai and Jordan (2004) conducted a causal-comparative study to examine the relationship of sense of community between traditional classroom, blended, and fully online higher education learning environments. The findings suggest that blended courses produce a stronger sense of community among students than either traditional or fully online courses.


In Thailand, Chantanarungpak's (2005) study yielded positive results. The findings indicated that the fifth grade students who received WBI blended learning with a cooperative learning model gained statistical difference of the mathematic achievement scores at the 05 level and showed a high level of satisfaction with blended dearning.

### 2.5.6. Importance of Integrating the Blended Learning in the SCBLM

In this study, the teaching and learning of English reading was based on two delivery modes: face-to-face in an actual classroom and online according to the concept of Blended Learning. The students worked in groups in the class and had opportunity to meet the instructor and peers in person. Then they collaborated to solve reading group tasks online by means of synchronous and asynchronous tools.

The other strong point of blended learning in the study was that it suited the various learning styles of students. For example, some students were auditory, so they enjoyed listening to the dialogue while working and did not voice their opinions much in the class. However, when those students worked together via computer, they sometimes expressed more of their opinions via the tools like webblog, webboard or chatroom.

Based on the literature review, it was interesting to investigate the advantages of the blended learning in the SCBLM in the Thai secondary school context since there was no such context in the previous studies. It was also interesting to explore student's reading ability after implementing the SCBLM in the reading instruction. Therefore, the first hypothesis was set to test the extent of effects of the blended learning on Thai secondary school students. From results in the previous studies, it can be concluded that the blended learning yield benefits in the pedagogical field.

All reading materials on the SCBLM Website were advantageous for pacing and attendance due to 24 hour accessibility. Students could do the reading when they wanted at their own pace and they could work together on the reading task from any location.

Reading materials online and the tasks were able to be customized and adapted to students as users while printed classroom materials came in a "one size fits all" format. Blended Learning attempted to increase reading ability in students because it provided them with co-construct knowledge, both face-to-face and online. It also aimed to increase reading engagement in students by providing interesting choices of reading and texts.

There are a number of sūpportive reasons to the use of the Social Constructivism Blended Learning Module in class with secondary school students with the objective of promoting English reading ability. By the nature of the module consisting of online and face-to-face learning, it could serve as an answer to all the demands of teaching and learning.

The pedagogical richness of blended learning including online sources and condensed coaching in a traditional classroom could meet the needs of the students. The social interaction can help students to construct new knowledge. Students are able to interact with their peers even when they are at home as well as in class. Finally, students feel free to take more time to read. Therefore, the Social Constructivism Blended

Learning Module could improve pedagogy, increase accessibility, and flexibility. All the records of this study were archived in online database.

### 2.6. Chapter Summary

The underlying assumptions of the theoretical framework of the Social Constructivism Blended Learning Module have been discussed. Those theories are Social Constructivism, CSR, and Blended Learning. Moreover, the second language reading assumptions have also been outlined, including what they are composed of and what other researchers have found in their studies.

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## CHAPTER III

## RESEARCH METHODOLOGY

### 3.1 Introduction

This study uses one group pretest-posttest design and aims at investigating students' English reading ability and their reading engagement. The stages of developing the Social Constructivism Blended Learning Module (SCBLM) are reported. In this chapter, the details regarding population and samples are described. Then, the stages of research instruments construction, validation and revision are reported in detail. The chapter also includes the results from the pilot study, data collection and data analysis.

### 3.2 Research Design

The study was conducted using the pretest and posttest quasi-experimental design (Issac \& Michael, 1981) to compare students’ English reading ability before and after using the Social Constructivism Blended Learning Module (SCBLM) as a treatment. In this study, the research was conducted in a school setting where students study in the fixed classroom, it was unlikely that each student could be randomly selected and assigned to control and experiment group. Then, it was more feasible to implement the quasi-experimental design, which provides reasonable control over most sources of invalidity (McMillan \& Schumacher, 1997).

Table 3.1 illustrates the research design of this study: O represents dependent variable which is student's reading ability while X represents independent variable which is the Social Constructivism Blended Learning Module.


|  | Pre-test | Treatment | Post-test |
| :---: | :---: | :---: | :---: |
| SCBLM | $\mathrm{O}_{1}$ | $\mathrm{X}_{1}$ | $\mathrm{O}_{2}$ |

Students’ reading engagement was investigated as well during and after the SCBLM implementation. Both qualitative and quantitative research methods were used in the study. A mixed research design is believed, in this study, to provide stronger
evidence for a conclusion through convergence and corroboration of findings. Moreover, the mixed-methods can add insights and understanding (Johnson and Christensen, 2004)

### 3.3 Population and Sample

### 3.3.1 Population and setting

The population of this study is 672 upper secondary students at Chulalongkorn University Secondary Demonstration School in 2007 academic year. The students' age range was $16-18,364$ males and 308 females. Students at the upper secondary level major in various subject matters: science, mathematics, languages and sociology. The school curriculum consists of Fundamental English and Computer Science. This means all the students have equal fundamental opportunities to be exposed to English and computers. In other words, it was assumed that the students have background of computer and English literacy. There are five multimedia and computer rooms with flexible time of accessibility at Chulalongkorn University Demonstration Secondary School for students. Therefore, they have the advantages of Internet for communication, data and information search.

### 3.3.2 Sample

The sample was 53 Grade 11 students who studied at Chulalongkorn University Demonstration Secondary School in the 2007 academic year. The participants were selected by means of purposive sampling based on the classes assigned for the researcher by Foreign Language Department, Chulalongkorn University Demonstration Secondary School. According to Yamane (1973), the optimum sample size should be at a $95 \%$ con level and $\pm 10 \%$ precision. The sample size suggested by Yamane formula should be 86 students from a population about 600. Therefore, the sample of 53 students has some limitations in terms of generalizability to other groups of students. However, all the students’ education background was conformed under the same school curriculum. Therefore, the sample of the study shares similar traits of characteristics with the population in terms of familiarity to the computer use, background of English learning under the school curriculum. As a result, the sample of the study can represent the population. Moreover, the number of 30 individuals was recommended in the experimental study (Fraenkel \& Wallen, 2000).

The experiment was carried out in an English Reading course, Eng 42221. They majored in mathematics, languages and sociology. They possessed fundamental computer literacy and shared the same background of years of studying English. All the students had computers at home. From a survey question asking the students about the Internet used at home prior to the experiment, only $7.5 \%$ of 53 students replied not having reliable or hi-speed Internet. In this case, they could have Internet access on campus. There were the five rooms which were equipped with the Internet-based computers. The rooms were: a multimedia room, a self-study room and three computer rooms.

When asking about student's background of computer use, students replied of having practiced all kinds of activities on computers using such as MS office, e-mail and instant messaging, playing online games, searching information or downloading free music software and video clips, etc. None of them had the experience of web-based or online learning.

In this study, the students were pre-tested with the CU-TEP test. The CU-TEP test is an English proficiency test developed by Chulalongkorn University. CU-TEP test suits wide range of test takers from secondary students to doctoral students. Secondary school students who would like to study for a bachelor's degree in an international program at Chulalongkorn University need to take the CU-TEP test. Chulalongkorn University Demonstration Secondary School arranges the CU-TEP test session for upper secondary students who are willing to take the test every year. Therefore, CU-TEP test was appropriate to use in the pretest in the study. Since the study focused on English reading ability, 60 items of the reading session in CU-TEP were administered to pre-test the students. The scores were sorted from the highest to the lowest respectively in order to place the students into high and low English reading ability groups.

A percentile ranking was used to assign the students into high-mid-low English reading ability. Percentile rank from $75^{\circ}$ and above was the high English reading ability group with the scores of 22 and above. A percentile rank from 25 and below was the low English reading ability group with the scores of 15 and below. Consequently, there were 17 students in the high reading ability group and 16 students in the low ability group. The Figure 3.1 illustrates the classification English reading groups from pretest results.

Figure 3.1: The Classification of English Reading Groups from Pretest Results

> Pretest results
> $\mathrm{N}=53$
> $\bar{X}=20$
> $\mathrm{SD}=6.85$


Then, the students were assigned into ten mixed ability groups with equivalent numbers of five or six group members. The mean comparison between groups was calculated. In order to check the basic assumptions of normal distribution, KolmogorovSmirnov and Shapiro-Wilk were calculated by using SPSS. Shapiro-Wilk ( $\mathrm{n} \leq 50$ ) showed that the scores of students in each of the ten groups yielded normal distribution and equal variance (See Appendix N). As a result, one-way ANOVA was used to compare mean differences. The ANOVA value indicated that there was no significant difference between the mean scores at $\leq .05$ among the ten groups (See Appendix N).

The Based on Mean value calculated by the Levene Statistic was 1.918 and the significant value was .075 which was higher than 0.05 . This value showed that the variance among the ten subgroups were not significantly different before the experiment (Brown and Forsythe, 1974).

According to the statistical analysis, there was no significant difference among the ten subgroups of mixed reading ability. The Sample selection process is illustrated in ${ }^{\text {remen} 32 ~}$ ลถาบนวทยบรการ
จุฬาลงกรณ์มหาวิทยาลัย

Figure 3.2: Procedures for Sample Selection


### 3.4. Research Instruments

### 3.4.1 CU-TEP test

3.4.2 Reading Engagement Questionnaire and the validation
3.4.3 Students' Portfolio and the validation
3.4.4 Semi-Structured Interview Questions and the validation
3.4.5 Teacher's Observation Field Note and the validation

### 3.4.5.1. Web Logs

### 3.4.5.2. Video transcripts

Research instruments of the study were constructed based on the Social Constructivism Theory, Blended Learning, the CSR Model, and the Model of Reading Engagement. There were two types of research instruments used in this study: a standardized English reading test of CU-TEP test and instruments developed by the researcher.

### 3.4.1 The CU-TEP test

The CU-TEP test is an English proficiency test developed by Chulalongkorn University to assess the ability of the students who would like to study for a bachelor's degree in an international program, a master's degree, or a doctoral degree at Chulalongkorn University. The total score of the test is 120 . All test items are in the multiple-choice format. The test consists of 3 parts: Listening, reading and writing. In this study, only the scores obtained from the reading part were used in the pretest and posttest. The KR 20 of the pretest and the posttest is 897 . The reading took 70 minutes for 60 items, measuring ability to identify main ideas and details, to guess meanings from context clues, to interpret and to infer. The texts are semi-academic articles. The total score of the CU-TEP reading part test was 60 . No points were deducted for the wrong answer.

The research instruments which were developed as follows.

### 3.4.2 Student's Reading Engagement Questionnaire

The Students’ Reading Engagement Questionnaire for the study was used to investigate the effect of the Social Constructivism Blended Learning Module on students' reading engagement. In addition, the data was used to investigate the
relationship between students' reading engagement and their reading ability after studying under the Social Constructivism Blended Learning Module.

The Students' Reading Engagement Questionnaire was administered two times. The first time was after the second unit of learning, or week 5, and the second time of distribution was at the end of the experiment in week 11.

The questionnaire used closed-end question types in four Likert scales. It consisted of 2 main parts. The first part asked about the students' personal information. In the second part, students self-assessed to what extent the SCBLM could foster the reading engagement in them and whether they had a positive attitude toward SCBLM or not.

Engagement in reading refers to the fusion of strategy use, internal motivation, and the use of prior knowledge to learn from the text. Intrinsic motivation includes curiosity, aesthetic involvement, challenge, feelings of competence, and enjoyment. Engaged readers are motivated, strategic, knowledgeable, and socially interactive (Guthrie et al.,1996).

Guthrie and Davis (2003) suggested a model of engagement through classroom practice which motivated struggling readers in lower secondary education. Struggling readers need both motivational and cognitive support. Motivational support is increased through real-world interaction, interesting texts, autonomy and collaboration with peers. Cognitive competence is increased by the teaching of reading strategy for substantial amounts of time.

A set of twenty two questionnaire items were designed according to the Model of Reading Engagement Classroom Context (Guthrie and Davis, 2003).

The questionnaire items from 1 to 4 measured student's the interest in content and the level the new knowledge constructed through interacting with the reading in SCBLM. The questionnaire items from 5 to 8 had an objective to investigate students' level of the intrinsic motivation in the reading when they interact with the texts or hands-on activities which concerned real world objects or issues. Questionnaire items 9 to 12 measured students' intrinsic motivation when the opportunity of self-selected reading was provided. The objectives of the questionnaire items 13-16 were to observe students' intrinsic motivation when working on the reading with the group. Questionnaire items 17-20 were used to observe students’ strategy know-how after the instructions of the strategies. Finally, the items 21 and 22 aimed at investigating the attitude of the students toward the

SCBLM in a holistic picture. The overall responses of the questionnaire were interpreted statistically to reflect the degree of reading engagement in students.

The rating criteria were: $4=$ Very high, $3=$ High, $2=$ Low and $1=$ Very low. The constructs and the measured objectives of the Reading Engagement Questionnaire are illustrated in Figure 3.3.

Figure 3.3: Constructs, Objectives and Questionnaire Items.


Figure 3.3: Constructs, Objectives and Questionnaire Items (Continued)

| Questionnaire Constructs <br> (Guthrie and Davis, 2003) | Measured Objectives | Questionnaire items |
| :---: | :---: | :---: |
| Real world interaction <br> The real world connection establishes a purpose for reading that is personally significant and meaningful. | Students have intrinsic motivation to read when interacting with the texts or hands-on activities which concern real world objects or issues. | 9. The reading in the SCBLM is meaningful and related to the real world. |
|  |  | 10. The meaningful texts establish a personally significant purpose for reading to me. |
|  |  | 11. I enjoy reading the texts that reflect the real world. |
|  |  | 12. I feel more motivated to read the authentic texts than fiction. |
| Collaboration with peers <br> The social discourse among students in a learning community that enables them to see perspectives and to construct knowledge socially from the text. It is believed that social collaboration in the classroom increases interest in the content of learning. | Students have intrinsic motivation to read when they have an opportunity to work on the reading with the group. | 13. I enjoy working with group members on the reading task. |
|  |  | 14. I see the importance of achieving the team goal in accomplishing the reading task. |
|  |  | 15. I enjoy exchanging ideas with group members about what we read. |
|  | $\begin{aligned} & \text { 1นวิทยปริ } \\ & \text { เรณ์ } \end{aligned}$ | 16. I feel more motivated to read when I discuss the stories with the group members. |

Figure 3.3: Constructs, Objectives and Questionnaire items (Continued)

| Questionnaire Constructs (Guthrie and Davis, 2003) | Measured Objectives | Questionnaire items |
| :---: | :---: | :---: |
| Strategy instruction <br> The explicit teaching of behaviors that enable students to acquire relevant knowledge from text. | Students are self-perceived as competent in using strategies to read. | 17. I think learning reading strategies helps improve my English reading. |
|  |  | 18. I think learning reading strategies in class is useful. |
|  |  | 19. I use the reading strategies that I learned when I read texts in English. |
|  |  | 20. I read more fluently in English when I use reading strategies. |
| Attitude toward the SCBLM <br> Attitudes involving the | Student's attitude toward the SCBLM | 21. The SCBLM makes me enjoy English reading. |
| language learning situation underlie motivation. <br> (Gardner,1985) |  | 22. The SCBLM motivates me to read more in English. |

3.4.2.1 The validation of Student's Reading Engagement Questionnaire

The Reading engagement questionnaire was structured in four Likert scales. It was validated by five experts to ensure the content validity. In the questionnaire there were 22 items. The result from each item was calculated based on Index of Item Objective Congruence (IOC) criteria. Items scoring higher than 0.75 were reserved and those scoring lower than 0.75 were modified. (See Appendix F)

The questionnaire items were calculated by Item Congruence Index, and the value obtained for each item was higher than 0.75 except item 1 and item 11 which was 0.6 . The IOC Index of the total questionnaire was 0.91 . Therefore, the items 1 and 11 need to be revised in terms of appropriate language used. The modification was about the word choice and translation. In the item 1, the original sentence, "I like the texts I select and
thus I want to search more information of those topics," was then modified into "I'm so interested in the topics I selected from the SCBLM that I seek more information of those topics."

In terms of the translation, item 11 was modified as follows: "I enjoy reading more the non-fiction texts that reflect the real world." with Thai translation, "ฉันสนุกมากขึ้นเมื่อ ได้อ่านเรื่องที่สะท้อนความเป็นจริงในโลก" The translation was adjusted to "ฉันสนุกมากขึ้นเมื่อได้อ่าน เรื่องจริงที่สะท้อนโลกของความเป็นจริง"

There were some other comments from the experts that were taken into consideration for the minor details of the questionnaire items. In the item 2 , the original sentence, "I understand more the knowledge in which I'm interested when I read the topics in the SCBLM" was then modified into "The topics in the SCBLM allow me to understand more concepts of the content areas of my interest."

In terms of construct validity, the experts were asked to rate the jumbled questionnaire items according to their constructs. The results from the experts' rating were calculated with the Pearson Product Moment, then the confidence intervals on Pearson's correlation the confidence intervals and the difference between correlations were computed by using Fisher's z'. After that the values of the Fisher's z' in the confidence interval were then converted back to Pearson's r's by using the z table (http//faculty.vassar.edu/lowry/tabs.html\#fisher). The correlation between expert-raters was .995 , which was a high positive correlation among raters and the constructs of the questionnaire.

### 3.4.3 Students' Reading Portfolio

The reading portfolio was used to monitor students' progress in reading and their reading engagement. Students used the portfolio to collect the reading task of each unit. The portfolio also required students to reflect their feelings and their thoughts which were not easily observed by the researcher. At the end of each unit, week after week, students were asked to complete the portfolio. The portfolio consisted of four parts (See Appendix $J)$.

Part I: Students were asked to complete their personal information and the details of the study unit: the date, title of the chosen topic of the week, time spent on reading task.

Part II: The second part was for the reading task display. After finishing the group task, each member of the group collected their work in the portfolio.

Part III: Students were asked to assess their feelings and thoughts toward the reading in the SCBLM. Students were required to reflect their feelings about the reading text and tasks of that week as well as the process in achieving that task. This part of the portfolio investigated reading engagement in depth. The question items in the third part of the portfolio were based on the Reading Engagement Classroom Model. Students’ intrinsic motivation including curiosity, involvement, feelings of competence, and enjoyment was observed.

Part IV: Students were asked to write what they plan to do to improve their reading ability and rectify their shortcomings.

### 3.4.3.1 The validation of Student's Reading Portfolio

After the construction of the student's reading portfolio, it was validated by five experts to ensure the content validity. The suggestions of the experts were based on the objective measurement, the content and the organization of the portfolio.

For the organization of the portfolio, the experts all agreed that the ideas and design were organized logically. The ideas were written in order of importance. However, one of the experts suggested that more space for the task display should be provided.

In terms of the content and the objectives to be measured, the IOC Index results obtained were not less than 0.75 for each item. The IOC Index of the total portfolio was 0.94 . Nonetheless, the experts suggested that open-ended questions for students to express their opinion should be added. For example:

This week I have accessed SCBLM to read the passages $\qquad$ times.

It was suggested to investigate the reasons by adding the question to find the reason why:

I accessed the SCBLM (often/ not so often) because. $\qquad$ ข้าพเจ้าเข้าไปอ่านเรื่องอ่านในเว็บ $S C B L M$ นี้. $\qquad$ ครั้งในสัปดาห์นี้ สาเหตุที่เข้า (บ่อย / ไม่บ่อย) เนื่องจาก $\qquad$
In terms of the appropriateness of language and the translation, the translation of some statements was recommended to be revised. The statements were as follows:
"The title of the reading selected by my group" with the translation in Thai "เรื่องที่ กลุ่มของฉันเลือกอ่านได้หัวข้อนี้" was changed to "หัวข้อเรื่องที่อ่านที่กลุ่มฉันเลือก"
"Whenever I got stuck with unfamiliar words in the text, the strategies I used to help me read the text this week were. $\qquad$
"เวลาที่ฉันไม่เข้าใจความหมายความเรื่องที่อ่าน ฉันใช้กลยุทธ์ช่วยตอนอ่าน อาทิตย์นี้ฉันใช้วิธี. " was altered to "เวลาที่ฉันไม่เข้าใจความหมายของคำศัพท์ที่ฉันไม่คุ้นเคยในเรื่อง กลยุทธ์ที่ฉันใช้เพื่อช่วยให้ฉันอ่าน เรื่องได้ในสัปดาห์นี้คือ..."

### 3.4.4 The Semi-Structured Interview

The semi-structured interview questions consist of six open-ended items (See Appendix K). It was used to investigate students’ reading engagement and their attitude toward the reading in the Social Constructivism Blended Learning Module. Ten randomly selected students were asked questions about their attitude and if reading behavior has changed after studying under SCBLM. The interviews were conducted two times. The first time was after the second unit of Social Constructivism Blended Learning Module. The second time took place after the last unit in the Social Constructivism Blended Learning Module.

### 3.4.4.1 The validation of Semi-Structured Interview Questions

The semi-structured interview questions consist of six questions. The questions were validated by five experts to ensure the content validity. The suggestions of the experts were based on the objective measurement, the content and the ideas. All the close-ended questions were suggested to be changed to open-ended questions. There were three of them.
Q1- "Do you think the topics in the Social Constructivism Blended Learning Module are interesting?" was altered to "In which of the topics and passages of the SCBLM are you interested? Do you seek more information about those topics? If yes, in what way? Please feel free to answer "none" if you are interested in none of those topics."
Q4- "Do you like working on reading tasks in a group? Do you think it helps you read better? Why?" was changed to "How do you feel toward working on the reading and the task with your group? How does the group work affect your reading?"

Two research tools that were used to triangulate data with the Teacher's Observation Field Note. They were as follows.

### 3.4.5. Teacher’s Observation Field Note

The Teacher's Observation Field Note as a research tool in the study was used to observe the collaborative learning behavior of students. The observation was implemented four times in two learning units: the second unit and the last unit. The field note was composed of four parts.

Part I: Preview: The field note was used to observe collaborative behavior face-to-face in class during the preview activities. The frequency of their comments contributed and the quality of the comments during face-to-face discussion were investigated.

Part II: Click and Clunks: The field note was used to observe collaborative behavior online during the click and clunks activities. The frequency of their comments contributed and the quality of the comments online in the discussion board were investigated

Part III: Get the Gist: The field note was used to observe collaborative behavior online in the reading group task. The frequency of their comments contributed and the quality of the comments online in the discussion board and chat rooms were investigated

Part IV: Wrap Up: The field note was used to observe collaborative behavior face-to-face in class during the wrap up activities. The frequency of their comments contributed and the quality of the comments during face-to-face discussion were investigated.

The data from the teacher's observation field note helped increase understanding of the interpersonal relationship of group members who interact overtly, covertly, face to


### 3.4.5.1 The validation of Teacher's Observation Field Note 6$\}$

The Teacher's Observation Field Note was validated by five experts to ensure the content validity. The suggestions of the experts were based on the objective measurement, the content and the organization of the ideas.

In terms of the organization of the field note, the experts all agreed that the ideas and design were organized logically. The ideas were written in order of importance. However, one item needed to be revised according to the experts’ suggestion. It was "Group members relatively contributed the ideas and accessed equally among members
the SCBLM website." The experts suggested in the same direction that the contribution and the website access should be separated into different items. Therefore, this item was revised into two statements: "The group members contributed relatively the same amount of ideas that were relevant to the topic of discussion and the assignment." And "The group members accessed the SCBLM website equally when they worked on the task."

As for the objectives, all items were all agreed to be able to measure the social interaction, the quality of ideas and comments in the working group according to the Social Constructivism principles.

In terms of the appropriateness of language, some statements and word choices were recommended to be revised. They were as follows: When thinking about information, the group clearly demonstrates divergent thinking and works toward a deeper understanding of the task. The expert suggested that the word divergent thinking may not lead to a deeper understanding of the task. I, therefore, revised the statement into "When thinking about information, the group shared different ideas and sources that led toward a deeper understanding of the task. In addition, the word choices of degree like "adequate", "highly" or "frequently" were suggested to avoid using because they were elusive terms that were hard to measure.

The evidence for the Teacher's Observation Field Note was collected from two resources: face-to-face in the video transcriptions and online in student's web logs on the discussion board.

### 3.4.5.2. Video Transcripts (Face-to-face)

The data obtained from video recordings was used as evidence for the Teacher's Observation Field Note in the face-to-face learning. It was used to observe the students' collaborative learning behavior and their engagement in the task while studying under the Social Constructivism Blended Learning Module in face-face context during preview and wrap up sessions. One of the representative mixed reading ability groups was randomly selected to be a recording sample as a representative group.

The recording was carried out four times. The first recording was carried out during the preview session of the second unit of the instruction, the second time occurred during the wrap up session of the second unit, the third one was taped during the preview session of the last unit of instruction and the fourth recording was for the wrap up session of the last unit.

### 3.4.5.3. Web Logs (Online)

The web logs on the discussion board on the SCBLM website feature were used as evidence for the online observation. They were used to observe the behavior of students collaborating on the task online while studying under the Social Constructivism Blended Learning Module. On the website, students read then worked together or discussed in groups synchronously and asynchronously. Students’ collaborative learning behavior and their engagement in the task online was observed in the click and clunks and get the gist session. One of the representative mixed reading ability groups was randomly selected to be a sample of the observation. Students' records on web logs were observed to triangulate the observation field note.

The research instruments of the study are illustrated in Figure 3.4.

Figure 3.4: Research Instruments


Figure 3.4: Research Instruments (Continued)

| Instruments | Objectives | Time of distribution | Data analysis |
| :---: | :---: | :---: | :---: |
| 3.4.2 Reading Engagement Questionnaire | - To investigate the effect of Social Constructivism Blended Learning Module on secondary students’ reading engagement <br> - To investigate the relationship between students' reading engagement and their reading ability after studying under the Social Constructivism Blended Learning Module | Week 5 and week 11 | Mean, SD and coefficient of variation of questionnaire items were calculated. <br> -Correlation coefficient was calculated between individual total scores of reading engagement questionnaire and posttest scores |
| 3.4.3 Students' <br> Portfolio | To investigate the effect of the Social Constructivism Blended Learning Module on secondary students' reading engagement | After each unit lesson | Student's self-report of the intrinsic motivation and their use of strategies were transcribed, coded, and analyzed qualitatively. |
| 3.4.4 Semi- <br> Structured Interview Questions | To investigate the effect of the Social Constructivism Blended Learning Module on secondary students' reading engagement | Students of high and low ability were randomly selected to answer the interview questions: 10 students in week 5 and the other 10 in week 11 | Student's report of the intrinsic motivation and their use of strategies were transcribed, coded, and analyzed qualitatively |

Figure 3.4: Research Instruments (Continued)

| Instruments | Objectives | Time of distribution | Data analysis |
| :--- | :--- | :--- | :--- |
| $\begin{array}{l}\text { 3.4.5 Teacher's } \\ \text { Observation Field } \\ \text { Note }\end{array}$ | $\begin{array}{l}\text { To investigate the } \\ \text { students' } \\ \text { collaborative } \\ \text { learning behavior } \\ \text { and their engagement } \\ \text { in the task while } \\ \text { studying under the } \\ \text { Social } \\ \text { Constructivism } \\ \text { Blended Learning } \\ \text { Module in both } \\ \text { face-to-face and } \\ \text { online context. }\end{array}$ | $\begin{array}{l}\text { During the } \\ \text { instruction of week } \\ 5, \text { and week 11 }\end{array}$ | $\begin{array}{l}\text { Students' } \\ \text { collaborative } \\ \text { learning behavior } \\ \text { and students' } \\ \text { engagement } \\ \text { in the task both } \\ \text { face-to-face and } \\ \text { online, the quality of } \\ \text { comments and } \\ \text { quality of reading }\end{array}$ |
| tasks were |  |  |  |\(\left.] \begin{array}{l}transcribed, <br>

coded, and analyzed <br>
qualitatively\end{array}\right\}\)

The study was divided into two main phảses.
Phase 1 The development of the Social Constructivism Blended Learning Module.
Phase 2 Theimplementation of the Social Constructivism Blended Learning Module.

Phase I The development of the Social Constructivism Blended Learning Module.

### 3.5.1 Theoretical Framework of the SCBLM

### 3.5.1.1 Social Constructivism

3.5.1.2 Collaborative Strategic Reading (CSR)
3.5.1.3 Blended Learning
3.5.1.4 Reading Engagement
3.5.1.5 Second Language Reading Comprehension
3.5.2 The SCBLM Components
3.5.2.1 Topics and content of the SCBLM
3.5.2.2 The SCBLM Instruction
3.5.3 The Instructional Materials
3.5.3.1 The instruction manual and the lesson plans
3.5.3.1.1 The instruction manual and the validation
3.5.3.1.2 The lesson plans and the validation

### 3.5.3.2 The SCBLM website and the validation

3.5.4 Pilot Study
3.5.5 Revision

Phase II The implementation of the Social Constructivism Blended Learning Module
3.5.6 Main Study

### 3.6 Data Collection

3.7 Data Analysis

Phase I The development of the Social Constructivism Blended Learning Module.

### 3.5.1 Theoretical Framework of the SCBLM

The theoretical framework of the SCBLM has been explored insightfully to gain a better understanding of the basic concepts. The related documents of the following theories were studied and digested.
3.5.1.1 Social Constructivism

The basic concepts of cthe Social Constructivism, namely collaborative learning and scaffolding process, were explored. Social Constructivism is based on the following assumptions: language and the conceptual schemes which are transmitted by means of ${ }^{9}$ language are essentially social phenomena. Knowledge is not simply constructed, but it is co-constructed (Vygotsky, 1978).

### 3.5.1.2 Collaborative Strategic Reading (CSR)

The related documents of the reading model, namely Collaborative Strategic Reading (CSR), were studied. The instruction model of the CSR is based on the assumption of collaborative learning and knowledge scaffolding when students work in a
group. The four strategies of the CSR, preview, click and clunks, get the gist and wrap up, were explored in detail for an in depth understanding.

Preview is a strategy used beforehand to activate prior knowledge and predict what is going to be read. Then the strategy of click and clunks is used to solve the unknown vocabulary and expression with the group. After that, students learn to "get the gist" by identifying the most important idea and important points in a story as a way of making sure they have understood what they have read. Finally, the wrap up is used by asking and answering questions about what the students have read and by reviewing key ideas.

### 3.5.1.3 Blended Learning

The basic concepts of the Bended Learning and the related documents were studied and digested. The hybrid platform of the face-to-face and the online delivery modes was investigated. The wide range of use of hybrid learning such as pedagogy, access to knowledge, and social interaction was explored. Blended learning is a method that can extend classroom interaction between students and instructors via synchronous and asynchronous tools (Chung and Davis, 1995)

### 3.5.1.4 Reading Engagement

The concepts of the Reading Engagement and the related documents were studied. The concepts of the Blended Learning underlying a merger of the intrinsic motivation and the strategies know-how were explored insightfully. The related documents which indicated potential causal relations between Reading Engagement and reading outcomes were investigated. Engaged reading can be fostered when the instruction includes conceptual knowledge, real worlddinteraction, collaboration support, autonomy support, and strategy instruction (Guthrie et al., 1996).


### 3.5.1.5 Second Language Reading Comprehension

The concepts of Second Language Reading Comprehension were explored. The models of reading process which were bottom-up, top-down and interactive models were studied. Then, the related documents of second language reading comprehension were studied. An understanding from this stage provided insights to the theory underlying reading acquisition.

The thorough study of the basic concepts of the grounded principles led to the solid ground of a development of the Social Constructivism Blended Learning Module.

### 3.5.2 The SCBLM Components

The components and the instructional procedure of the SCBLM are described as follows.

### 3.5.2.1 Topics and content of the SCBLM

The Social Constructivism Blended Learning Module (SCBLM) is composed of twelve unit lessons which are organized in topical units. All the topics arose from a survey inventory, carried out at Chulalongkorn University Demonstration Secondary School. The respondents were 131 secondary students of Mattayomsuksa 5, or grade 11, in the 2006 academic year. The survey explored the topics in which students were interested to read in English. In the SCBLM, each topical unit includes a preview activity, click and clunks task, three reading stories with two post-reading exercises for each story and the reading group task.

The content of the module consists of reading passages which were adapted from a variety of authentic sources which are magazines, newspaper, manual, websites or books. The readability of the selected texts was determined by using Flesch-Kincaid formula. The Flesch/Flesch-Kincaid Readability measurements are designed to indicate how difficult a reading passage is to understand. Readability measures are primarily based on factors such as the number of words in the sentences and the number of letters or syllables per word (i.e., as a reflection of word frequency). Two of the most commonly used measures are the Flesch Reading Ease formula and the Flesch-Kincaid Grade Level: Flesch Reading Ease- The output of the Flesch Reading Ease formula is a number from 0 to 100 , with a higher score indicating easier reading. The average document has a Flesch Reading Ease scores between 60-70. The scope and sequences of the SCBLM are illustrated in Figure 3.5. 9 ? 60 c 9 c

Figure 3．5：The SCBLM Scope and Sequences

| 1 Entertainmente <br> 7．Preview <br> W Click and Clunks <br> Fi．Story 1 From Hollywood to Bollywood <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Fi．Story 2 Go！Hip－Hop Go！ <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Q．Story 3 Manga <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> E Reading Group Task | 2 <br> Tr Preview <br> Elick and Clunks <br> Atory 1 Thai Gamers and Online Games <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> P1 Story 2 Virtual Reality <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> PI Story 3 video Game Industry <br> Q Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> EReading Group Task |
| :---: | :---: |
| ${ }^{3}$ Sports ${ }^{-1}$ <br> Preview <br> 電 Click and Clunks <br> Q Story 1 Muay Thai <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Btory 2 Extreme sport <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Btory 3 World Cup <br> Story 3 Exercise 1 <br> （3）Story 3 Exercise 2 <br> Q Reading Group Task | Travel ${ }^{2}$ Preview <br> ．Cilick and Clunks <br> E．story 1 Ecotourism <br> ［3）story 1 Excercise 1 <br> Story 1 Exercise 2 story 2 Jet Lag Story2 Exercise 1 <br> E story 2 Exercise 2 <br> 园 story 3 Unseen Thailand <br> E Story 3 Exercise 1 <br> M Story 3 Exercise 2 <br> 业 Reading Group Task |
| 5 <br> Fashione <br> Preview <br> 晋 Click and Clunks <br> © Story 1 Fashion Icon <br> Story 1 Exercise 1 <br> Story 1 Exercise2 <br> 분 Story 2 Bangkok＿fastion <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> B Stoy 3 A Schoor Uniform is in <br> －3 Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 衤 Reading Group Task | ${ }^{6}$ Hothties antitisure © <br> Preview <br> E Click and Clunks <br> B．Story 1 How To Bird Watch <br> Story 1 Exercise 1 <br> Story 1 Exercise2 $\sim$ <br> －i．Story 2 How to Fill Your Free Jime With Useful <br> Story 2 Exercise 1 <br> －Story 2 Exercise 2 <br> Bi story 3 How to Hike \＄atey？ <br> E）Story 3 Execcise 1 <br> Story 3 Exercise 2 <br> 䍡 Reading Group Task |

Figure 3．5：The SCBLM Scope and Sequences（continued）

| ${ }^{7}$ Science and Technology © <br> 9．Preview <br> W Click and Clunks <br> T．Story 1Robot <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Q．Story 2 Diet Soda <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> B．Story 3 Global Warming <br> TH Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Reading Group Task | ${ }^{8}$ Trchitecture and Decoratione <br> 国 Preview <br> 恶 Click and Clunks <br> Q Story 1 Ban Thai <br> Wiory 1 Exercise 1 <br> Wiolory 1 Exercise 2 <br> 분 Story 2 Decorating With Style <br> atory 2 Exercise 1 <br> 㱟 Story 2 Exercise 2 <br> 国 Story 3 Feng Shui <br> －Story 3 Exercise 1 <br> －Story 3 Exercise 2 <br> ＊Reading Group Task |
| :---: | :---: |
| ${ }^{9}$ Food and Cuisine（ ${ }^{( }$ <br> P．Preview <br> 压 Click and Clunks <br> Story 1 ice cream <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> ［3．Story 2 Thai Food <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> －1．Story 3 Junk Food <br> 困 Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Reading Group Task | ${ }^{10}$ Astrology and Supernatural Phenomena <br> B．Preview <br> 鹿 Click and Clunks <br> R．Story 1 The Year of The Pig <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> ［7．Story 2 The Bermuda Triangle <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> R Story 3 Tsunami Ghost <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Keading Group Task |
| 11 animale <br> Preview <br> Click and Clunks <br> ．Story 1 Endangered Animals <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br>  <br> Story 2 Exereise 1 Story 2 Exercise 2 <br> ตew etion $ร ถ$ <br> R．Story 3 Extra－Sensory Cats <br> Story 3 Exercise 2 <br> 䍡 Reading Group Task | 12 Bulturec <br> Preview <br> Click and Clunks <br> 4 Story 1 Chinese New Year <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Q story 2 Intemational Dining Etiquette <br> Story 2 Exercise 0 <br> Story 2 Exercise 2 <br> ［7 Story 3 Cultural Taboos <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 軍 Reading Group Task |

### 3.5.2.2 The SCBLM Instruction

The SCBLM instruction took place in the actual class face-to-face, in a multimedia room. The learning environment of the room was designed to create social interaction. The room was equipped with 60 multimedia network computers and one LCD projector in front of the class. After the face-to-face session, the students felt free to work at their own pace online.

The theories of Social Constructivism, CSR, Blended learning and the reading engagement were integrated and synergized in the instruction. There were four stages of the instruction: Preview, Click and Clunks, Get the Gist and Wrap Up. The Preview session was conducted face-to-face in class since the students needed to prepare and make an agreement among group members about the reading topic and group task before continue self-pacing to work online. The teacher also needed to teach reading strategies face-to-face so that the students could ask for a further explanation when they encountered the unclear understanding. As a result, students thought they were equipped with the strategies and felt ready for reading activities online. For the Click and Clunks and Get the Gist, students were required to work online. All the reading passages and online communication tools as discussion board, chatroom, were available at all time for students on the SCBLM website. Therefore, the students could read and work on the task at any time and from anywhere. Wrap Up was conducted face-to-face in class to close the learning unit session so that the students could present the group task to class and make a conclusion of the topic together. During the Wrap Up, students could reflect the self- and group performance. Teacher also needed to provide feedback for the students face-to-face in the Wrap Up session and answer the questions from students if there were any. The reading instructional steps of the SCBLM were presented in Figure 3.6.
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Figure 3.6: The Instructional Procedure of the SCBLM

| Delivery Modes | Instructional Procedure |
| :---: | :--- |
| Face-to- Face | $\begin{array}{l}\text { 1. Students voted for the topic to read. } \\ \text { 2. Preview } \\ \text { In Preview session, students watched the } \\ \text { clips or images concerning the topic of the } \\ \text { week. Then they discussed the topic to activate } \\ \text { prior knowledge and predict what they were } \\ \text { going to read. }\end{array}$ |
| 3. The group chose one of the three stories |  |$\}$| under topic to read and work on with group |
| :--- |
| members. |
| 4. The teacher taught reading strategies to |
| students. In this study, the strategies referred to |
| the four strategies of CSR; preview, click and |
| clunks, get the gist and wrap up. One strategy |
| was taught at a time. |


| Face-to-Face | 8.Wrap Up <br> In Wrap Up session, students worked in groups <br> to make a conclusion of the topic and the |
| :--- | :--- |
|  | reading passage of the week. <br> Students then discussed the advantages and <br> disadvantages of the work on the task that |
|  | week and they present group work in class. <br> 9. The teacher provided the feedback on the |
|  | students' work. |

In summary, the SCBLM principles and its instructional components showed the pertinent traits under the framework of Social Constructivism, CSR, Blended Learning, and the Reading Engagement. The SCBLM principles and instructional components are illustrated in Figure 3.7.


Figure 3.7: The SCBLM Principles and Instructional Components


The mode of teaching via the SCBLM can be summarized as presented in Figure

## 3.8.

Figure 3.8: The instructional model of Social Constructivism Blended Learning Module (SCBLM)


The instructional materials in this study consist of the instructional manuals, the lesson plans and SCBLM website (See Appendix A, B and C).

The instructional manual and the lesson plans were constructed to provide detail and guidelines for any instructor who would like to use this instructional module. After that the SCBLM website was constructed to be included as teaching materials.
3.5.3.1 The instructional manual and the lesson plans

### 3.5.3.1.1 The Instructional Manual

The manual included information regarding rationale, instructional materials, activities, teacher's role, students' role, assessment and evaluation, learning environment, and other suggestions which were useful for the implementation of the SCBLM instructional model (See Appendix A). After the manual construction, it was validated by five experts.
3.5.3.1.1.1 The verification of the instructional manual's effectiveness.

The instructional manual was validated by five experts concerning the rationale, theoretical framework, components, instructional procedure and assessment and evaluation. The scores in table 3.1 were shown in grade level.

Table 3.2: The Validation of the Instructional Manual

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
|  | Expert A | Expert B | Expert C | Expert D | Expert E | Total |
|  |  |  |  |  |  |  |
| 1. Rationale | 3.5 | 3.25 | 1.5 | 3.25 | 4.0 | 3.1 |
| 2. Theoretical framework | 3.25 | 2.75 | 1.5 | 3 | 3.75 | 2.85 |
| 3. Components | 3.66 | 3 | 1.0 | 3 | 4.0 | 2.93 |
| 4. Instructional procedure | 3.33 | 1.66 | 1.8 | 2.5 | 4.0 | 2.65 |
| 5. Assessment and Evaluation | 3.2 | 1.8 | 1.6 | 2.6 | 4.0 | 2.64 |

Note: Grade 3.50-4.00=very good, 2.50-3.49=good, 1.50-2.49=fair, 1.00-1.49=poor


In table 3.4, the results from the experts represented the average grade of all items between 2.64 to 3.1. This implied that the instructional manual was at a "good" level.

However, the experts gave some comments on adapting the manual and revising some features.

Expert A suggested that the number of students and their reading ability in each group work should be identified in the manual according to the CSR and ZDP framework. It was recommended to state more clearly when to assess students' reading meaning and when they should do reading exercises in the instruction.

Expert B suggested that the description of instructional procedure should be written more in detail to show the relationship of the activities both online and face-toface according to the theoretical framework. The exact moment to assess the reading was questioned as well. It was recommended to state the definite time of doing reading exercises.

Expert C commented on the form of the instructional manual. For example, the headings needed to be more user-friendly and the sections could be more "eye-catching". In the front section, a table of contents and preface should be added to help the teachers understand how to use the manual. In the body section, a summary section to wrap-up the information, where necessary, should be added as the conceptual framework was quite complex.

It was recommended that the lesson plan should be included in the instructional manual and make reference to each step while explaining the integration. By reading the instructions, the instructors should be able to perform the main tasks without consulting an outside party. Actually, the lesson plans were already constructed, but they went separately from the manual to different experts to validate. Therefore, the expert might not have gotten a clear picture of the manual. The experts also recommended identifying the types of questions being asked in exercise items. However, this was already included in the lesson plans. As a result, when the manual was revised, the specification of the items was stated both in the manual and the lesson plans.

Expert D suggested that the idea of ZPD and scaffoiding incorporated in onlinelearning should be identified more in detail. How collaborative learning was supported on-line should be explained more clearly. The expert recommended that the text selection for the right level was an issue that the researcher should aware of.

Expert E was satisfied with the work and provided minor corrections of the language in the manual. Expert E validated both the instructional manual and the lesson plans. Therefore, it was possible that this provided a clearer picture of the work.

### 3.5.3.1.2 The Lesson Plans

The instructional manual included three lesson plans with detailed information of activities and procedures used in classroom. The lesson plans of the three unit lessons were "Unit 1 Entertainment, Unit 2 Computer games and Unit 3 Sports." Each lesson plan consisted of the title of a unit, objectives, reading materials, time
allocated, and activities. After the lesson plans’ construction, they were validated by five experts.

### 3.5.3.1.2.1 The verification of the effectiveness of lesson plans

The lesson plans of three units: Unit 1 Entertainment, Unit 2 Computer games and Unit 3 Sports, were validated by five experts. The overall plan was focused. The instructional procedures incorporated the four steps of teaching: Preview, click and clunks, get the gist and wrap up. The scores in table 3.3 are shown by grade level.

Table 3.3: The Validation of the Lesson Plans

|  | Expert E | Expert F | Expert G | Expert H | Expert I | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Overall | 3.71 | 3.57 | 2.57 | 1.57 | 3.71 | 3.02 |
| 2. Preview | 3.75 | 3.5 | 2.5 | 2 | 3.75 | 3.1 |
| 3. Click and Clunks | 3.75 | 3.25 | 2.25 | 2 | 3.75 | 3.0 |
| 4. Get the gist | 3.75 | 3.75 | 2 | 2 | 3.75 | 3.05 |
| 5. Wrap up | 4.0 | 3.5 | 2.25 | 2 | 3.75 | 3.1 |

Note: Grade 3.50-4.00=very good, 2.50-3.49=good, 1.50-2.49=fair, 1.00-1.49=poor

In table 3.5, the results from the experts represented the average grade of all items between 3.0 to 3.1. This implied that the lesson plans were at "good" level. However, the experts gave some comments to adapt the plans and to revise some features.

Expert E, F and I were satisfied with the large variety of activities in the lesson plans. They stated that the instructional procedure was appropriate and clear. However, the experts suggested that more details of activity's instruction should be provided in the plans for others to use more easily.

Expert G commented on the format and the language use in the plans. Some minor grammatical errors were suggested to be rewritten. It was recommended to reconsider some items of the reading exercises. For example, double negative questions were suggested to be avoided. The expert also asked to indicate the duration of time allotted for each stage of the activities and provide more details of the teacher's role in the plans.

Expert H suggested that the wording should be more consistent; the words "topics" and "themes", for instance. The expert asked the researcher to provide more details in the instructions to define more clearly the roles of the students and the teachers during the activities. The expert recommended that cues of reading group task activities should be clear to students and the researcher should make sure that the students would be able to accomplish the task. The expert added that the researcher should be aware of gender bias in the text selection.

All the suggestions and comments of the experts were taken into consideration. The instructional manual and the lesson plans were then revised according the suggestions.

### 3.5.3.2 The SCBLM Website

The Social Constructivism Blended Learning Module was designed to provide extensive opportunities for communication via both online interaction and the face-toface classroom environment. To promote the hybrid learning environment, a SCBLM website was used to manage shared events both inside and outside class community.

The LMS tool as Moodle (Modular Object-Oriented Dynamic Learning Environment ) was used in SCBLM learning to support the online learning as well as face-to-face instruction. The Moodle software package was designed based on pedagogical principles to help educators create effective online learning communities. It has a large and diverse user community with over 330,000 registered users, speaking over 70 languages in 196 countries. Moodle was adopted and customized for the SCBLM website in this study. Moodle is popular as it provides educators with tools that allow them to build collaborative online environments for their classes. The features of Moodle which provide a great collaborative online environment include forums, chat, document sharing, messaging, etc. Moodle allows a wide range of resources including any kind of text-based or html-formatted documents, and multimedia resources.

### 3.5.3.2.1 The Features of the SCBLM Website

The SCBLM website's design was based on the assumptions of the Social Constructivist, CSR, and the Blended Learning. The URL is www.ntell.culi.chula.ac.th/moodle/moodle. The features of the SCBLM website are as follows.
3.5.3.2.1 Login permission is needed to track all user interactions in the community. The login page is presented in Figure 3.9.

Figure 3.9: The Login Page of the SCBLM Website

3.4.3.2.2 There were 12 topics of reading on the front page of SCBLM:

Entertainment, Computer games, Sports, Travel, Fashion, Hobbies and leisure, Science and Technology, Architecture \& Decoration, Food and Restaurant, Astrology and Supernatural Phenomena, Animals, and Cultures. The SCBLM page is illustrated in Figure 3.10.
สถาบันวิทยบริการ


Figure 3.10: SCBLM Front Page

3.5.3.2.3 There are three reading passages under each topic. The htmlformatted resource is used to create the activities' pages like "Preview", and the three passages of reading. The html page allows a wide range of resources; graphics, video clips or audio, for instance. The sample is shown in Figure 3.11.

Figure 3.11: Sample of a topical unit of reading

3.5.3.2.4 The SCBLM website serves to develop and manage a cyber community. An individual or a group can come and interact with the community
engaging in asynchronous discussions in forums or interact with each other synchronously in chat rooms. The samples are provided in Figure 3.12 and 3.13.

Figure 3.12: Sample of Asynchronous Tools or Forums in Click and Clunks


Figure 3.13: Samples of Synchronous or Chatrooms and Asynchronous Tools as
Discussion boards in Reading group task
Re: GROUP 5
by
Saturday, 30 June
Long time ago in one of the great city of up without love from anyone.

3.5.3.2.5 The "hot potatoes" features of Moodle allow the teacher to design and set quizzes, including multiple choice, true-false, and short answer questions.

These questions are kept in a categorized database. Quizzes can allow multiple attempts depending on the instructor's design. Each attempt is automatically marked and provides immediate feedback and shows correct answers.

Figure 3.14: Sample of Hot Potatoes Features in Reading Exercises Task.

3.5.3.2.6 The SCBLM website automatically tracks log reports of each student's work. The teacher knows when students have completed an assignment and how much time they spent on the website. The teacher sets deadlines or timeframes for the assignments, and restricts access to tasks sessions once the deadline has passed. The samples are illustrated in Figure 3.15

Figure 3.15: Sample of Outline Reports of a Student


Figure 3.15: Sample of Outline Reports of a Student (Continue)

3.4.3.1.7 Students can contact the teacher at anytime via two channels: The contact information with an e-mail and the IM. The samples are illustrated in Figure 3.16.

Figure 3.16: Samples of Contact Channels on SCBLM Website


The SCBLM website was validated by five experts to be revised before launching. The aspects of the website to be considered were: The design of the website
including the features of the interface and navigation, the content and the format of the site, the technical elements, the feedback, and the credibility of the site.

Two of the experts provided suggestions during the process of website development. Hence, only three experts provided suggestions by responding to the checklist as follow. The scores in table 3.4 are shown by grade level.

## Table 3.4: The Validation of the SCBLM Website

|  | Expert J | Expert K | Expert L | Total |
| :--- | :---: | :---: | :---: | :--- |
| 1. Design of SCBLM website | 3.14 | 3.85 | 3.14 | 3.37 |
| 2. The content of the website | 3 | 3.71 | 2.85 | 3.18 |
| 3. Technical elements | 3 | 3.5 | 2.5 | 3 |
| 4. Feedback | 3 | 4 | 3 | 3.33 |
| 5. Credibility | 3 | 4 | 4 | 3.66 |

Note: Grade 3.50-4.00=very good, 2.50-3.49=good, 1.50-2.49=fair, 1.00-1.49=poor

In table 3.3, the results from the experts represented the average grade of all items between 3.0 to 3.66. This implied that the SCBLM website was at "good" and at some points of the credibility at a "very good" level. However, the experts gave some comments to revise some features of the website.

Expert J suggested that there should be messages of greetings, announcements, or instructions added on the website. Therefore, an html page of introduction and SCBLM guidelines were provided as links on the first page.

Expert $K$ and $L$ suggested that there were some/orphan links to be updated. Actually those links mentioned were the links of one of the video clips resource websites. After they met the demands of the ICT of Thailand, the orphan links would then work properly. Expert L also suggested that there should be more graphics or pictures related to each reading passage to help relieve eyestrain when the text is long. Therefore, additional images or graphics were added on some reading texts.

Experts M and N didn't rate the checklist; however, they provided useful suggestions to revise some details of the webpage. Expert M suggested that the cues on
the activities should be stated clearly on every page. The usability of the web page was crucial. The expert N recommended avoiding too much information on the first page and suggested not to put any constantly moving elements because this would distract the users. After considering all advice from the experts, the SCBLM website was revised before launching.

### 3.5.4 Pilot Study

The Pilot of the instruction and research instruments was carried out in this stage. To confirm the effectiveness of the instruction and research instruments of the SCBLM, it was first piloted. The period of the pilot phase lasted for three weeks prior to the main study. Seventeen grade 11 students at Chulalongkorn University Demonstration Secondary School were randomly selected as the sample. The pilot students were of mixed ability according to their reading test scores from the previous semester in 2006. The group of students worked under the SCBLM in groups. The pilot units were "Unit 1 Entertainment", "Unit 2 Computer Games" and "Unit 3 Sports." The students received the treatment for the whole three weeks.

### 3.5.4.1 The Pilot Results of the Instruction

After piloting the SCBLM instructional process, the number of treatment errors was reduced because the unforeseen problems revealed. The pilot results could help predict the forthcoming technical problems. Students have never been exposed to webbased or blended learning; therefore, they needed some time to understand and be capable of following the instruction.

After the pilot study, the directions and the explanation to the students were considered for revision in the face-to-face session. Although the explanation was clearly typed on the SCBLM website, students sometimes got confused about what to do in the next steps. They still needed thorough face-to-face verbal cues to get a better understanding of the task they had to accomplish.
3.5.4.2 The pilot Results of the Questionnaire, Portfolio and Semistructured Interview

There were no major problems found in the pilot phase of those tools. Students could follow the instructions and were able to rate the questionnaire and complete the portfolio. Their response served the objectives measured. Regarding
interview questions, students provided positive responses to the SCBLM. Only two students out of seventeen reported that they were not interested in the topics they read but they were still content because they had choices under such topics.

According to the pilot study results, the reliability values of the questionnaire were calculated by Cronbach’s alpha coefficient ( $\alpha$ ). The alpha coefficient values were 0.879 (See Appendix G). Alpha values greater than 0.7 are considered acceptable (Nunnally, 1978).

### 3.5.4.3 The Pilot Results of the SCBLM Website

The problems found in the pilot study were mostly the language of the directions on the SCBLM website. The cues and directions on the SCBLM website were in English. Students took some time to understand what they had to do. Therefore, the cues and directions on the site were revised to non-complex sentences, then provided the detail of each task as thoroughly as possible. After interviewing the students as users in the pilot study, more graphics and images were put in the design. The students suggested that this would attract them more to read.

### 3.5.4.4 The Pilot Results of the Teacher Observation Field Note

Teacher's Observation Field Note was given to another English teacher to rate and to foretell the difficulties of its use. The training and orientation for other raters of Teacher’s Observation Field Note was suggested to avoid confusion while rating.

### 3.5.6 Revision of Instruction Materials and Research Instruments

The instructional materials and research instruments were revised after the pilot study. The directions and cues were rewritten in simple English. The revision was in agreement with the results obtained from the pilot study.

It can be concluded that the SCBLM was shaped up into a version with quality before being implemented in the main study. The supporting reasons were as follows. First, the SCBLM components: the SCBLM instructional manual and lesson plans and the SCBLM website were verified the effectiveness by the experts in language curriculum and instruction and the experts in the technology fields. This includes the rationale, theoretical framework, content, instructional procedure and assessment and evaluation of the SCBLM. Secondly, the instructional procedures of the SCBLM were tested in the pilot study prior to the main study to explore the problems in the instruction.

Based on the results of the pilot study, feedback from students, the experts' validation, and suggestions from the experts, the revised version of the SCBLM was ready to be launched for the main study.

Phase 2 The implementation of the SCBLM

### 3.5.7 Main study

The duration of the experiment was 12 weeks with 2 periods of 50 minutes for face-to-face sessions and no time limit for online sessions.

### 3.5.7.1 Pretest

Of the CU-TEP test, only the reading session was administered to the participants. The scores of the participants were used to place the students in high and low reading ability groups. The KR 20 of the test was .897.

### 3.5.7.2 Carry out the Experiment

During the treatment, the Social Constructivism Blended Learning Module was taught to the group of participants for 12 weeks. Students worked in the mixed reading ability groups. The instruction was arranged into two delivery modes: face-toface and online. The subgroups of mixed ability were taught reading instruction unit by unit via SCBLM. After the orientation, the researcher as a teacher had the students vote for the topic of the week to read. The series of units of the instruction arose from the votes of students each week. The vote was done prior to the beginning of the following topics. The votes of the first unit were for the topic of entertainment (49.05\%), the votes for the second topic to read were for fashion $(39.62 \%$, then, the third to fifth were sports ( $43.39 \%$ ), travel ( $60.37 \%$ ) and animals ( $50.94 \%$ ), respectively.

After the class got the topic of the week, the teacher had the students watch the clips, graphics or images in the preview session of the dearning units. Then the students discussed the topic in working groups of five or six mixed ability members. At this stage, sometimes, the teacher had to intervene to initiate the discussion because the students had gotten used to keeping silent in class and they did not know where to begin. The information from the groups was shared in class and it helped activate prior knowledge and predict the coming reading of the selected topic. After that, the members decided in groups to select one of the three reading passages to read and work on. During the
preview session, teacher taught reading strategies in the class. In this study, the strategies referred to the four strategies of CSR; preview, click and clunks, get the gist and wrap up.

At the end of the face-to-face preview session, the students were assigned to do the click and clunks task with the group on the discussion board. The students noted unfamiliar words or expressions, then, together with group members helped fix those words referred as "clunks". After that, the students worked on ten itemed reading exercises. The questions measured the literal level of what was on the actual page of reading and the interpretative level of what to read between the lines. In the next step, the students worked collaboratively in an asynchronous forum or a synchronous chatroom to accomplish the reading group task. The task type needed students to read beyond the lines and apply what they've read to the real world task. Both the click and clunks task and reading group task were online activities. The task process and product were monitored by the instructor. If any problems occurred, students could ask the teacher via instant message on the SCBLM website or e-mail the teacher at anytime.

The final face-to-face session of each learning unit was the so-called wrap up session. In the wrap up session, students worked in groups to make a conclusion of the topic and the reading passage of the week. A sample of the reading passages is in Appendix B. A teacher also provided feedback of the tasks to the groups. Students then discussed the advantages and disadvantages of the work on the task that week and they presented group work in class. After the wrap up session finished, students were asked to reflect on their thoughts toward the learning unit in the reading portfolio. Students reflected on both their process of working and the outcomes obtained.

The instruction was repeated for the whole five unit lessons. Teacher collected the portfolio at the end of each unit lesson. During the preview and wrap up sessions of the second unit and the last unit, a representative group was video recorded to observe their collaborative learning behavior face-to-fáce, whereby, the click and clunks and reading group task on SCBLM were archived to observe their collaborative learning behavior online. Teacher used the observation field note to record the observation of the information from those sessions as well.

Reading Engagement Questionnaires of the same set were administered two times in week 5 and 11. Students rated their level of reading engagement on the four Likert scaled questionnaire.

Twenty students of high and low reading ability were randomly selected to have an interview with the teacher to observe the along-the-way reading engagement and the
attitude toward the SCBLM as a whole. The interview was carried out two times. Ten students were called for the first interview in week 5 and the other ten students after the treatment in week 11. The teacher used the data obtained from the questionnaire, the portfolio and the interview to confirm the triangulation of the growth of reading engagement in participants.

The information from video recordings and web logs were for the Teacher Observation Field Note. The data was collected from a representative group to observe their collaborative learning behavior of mixed ability group. The experiment lasted 12 weeks for two 50 minute periods each.

### 3.5.7.3 Posttest

In week 12 the experimental group was post-tested with the CU-TEP test. The reading section of the posttest consisted of a similar number of items as in the pretest. Time allotment, scoring method and characteristics of the setting were the same as in the pretest.

### 3.6 Data collection

The data collection was conducted during twelve weeks. Each week of the instruction included two periods of face-to-face learning and the online reading task assignment with unlimited time in one week. The pretest was administered at the beginning of the course and the posttest at the end. The orientation was carried out prior to the main study. Samples were divided into groups of high-low reading ability according to the pretest scores. Despite the mixed reading ability of high-mid-low, only students of high andblow ability were investigated in the study. The data collection is illustrated in Figure 16

Figure 16: Data Collection

## Before the implementation

- Instruction manual evaluation form and lesson plan evaluation form along with the research proposal were distributed to five experts.
- Suggestions from experts formed the basis for adjusting the lesson plan.


## Week 1

- At the beginning of the study, CU-TEP test was administered to students. Only the results of reading assessment section were counted.
- Orientation to the Social Constructivism Blended Learning Module


## Week 2-7

- Students studied 2 periods of face-to-face delivery mode of English reading instruction and no time limited online learning one unit lesson/two weeks.
- Data from the website of a representative group were observed and analyzed. Website access and the quality of comments online and quality of reading task were transcribed, coded, and analyzed qualitatively after the second learning unit.
- Students evaluated themselves, adjusted their goals every week, and kept records of their progress in the Reading Portfolio. Student's self-report of the intrinsic motivation and their use of strategies were transcribed, coded, and analyzed qualitatively.
- Pre Reading Engagement Questionnaire was administered to students
- The teacher recorded the students' collaborative behavior both face-to-face and online from a representative group of students during the second learning unit in the Teacher's Observation Field Note. The quality of comments and quality of reading task were transcribed, coded, and analyzed qualitatively.
- Ten students of both high reading and low reading ability were randomly selected to go through an interview in week 5 to investigate the reading engagement while studying under the SCBLM.
- In week 5, the video recording of the representative groups was used to observe collaborativê learning behavior of a representative group of students face-to-face in class.
Week 8-11
- Students studied 2 periods of face-to-face delivery mode of English reading instruction and non-time limited online learning one unit lesson/two weeks.
- Data from the website of a representative group were observed and analyzed. Website access and the quality of comments online and quality of reading task were transcribed, coded, and analyzed qualitatively after the last learning unit.
- Students evaluated themselves, adjusted their goals every week, and kept records of their progress in the Reading Portfolio. Student's self-report of the intrinsic motivation and their use of strategies were transcribed, coded, and analyzed qualitatively.
- The teacher recorded the students' collaborative learning behavior both face-toface and online from a representative group of participants during the last learning unit in the teacher's observation field note. The quality of comments and quality of reading task were transcribed, coded, and analyzed qualitatively.
- Ten students of both high reading and low reading ability were randomly selected to go through the interview in week 11 after the treatment to investigate the reading engagement while studying under the SCBLM.
- The video recording of the representative groups was used to observe collaborative learning behavior of a representative group of students face-to-face in class.
- Reading engagement questionnaire was administered to the fifty-three students after the treatment.


## Week 12

- CU-TEP posttest was administered to the students.


### 3.7 Data Analysis

The analysis for both quantitative and qualitative data is presented in this section. Each research question guided the data analysis needed to process the information as follows.
3.7.1 Data analysis for research question 1

Research Question 1 To what extent does the Social Constructivism Blended Learning Module improve Thai secondary school students' English reading ability?
1.1. Is the posttest score of high reading ability students significantly different from the pretest score? If it is, what is its effect size?
1.2 Is the posttest score of low reading ability students significantly different from the pretest score? If it is, what is its effect size?

For the first research question, pre- and post- English reading comprehension test scores of high- and low-reading ability were calculated by using dependent t-test. The
effect sizes of the pre-and posttests of the experimental group were calculated from Cohen's d formula from the t -tests. The interpretation of the effect size indicated the magnitude of the effect of a treatment (Social Constructivism Blended Learning Module) on dependent variables (English reading ability and reading engagement): $\mathrm{d}=0.2-0.4$ as small, $\mathrm{d}=0.5-0.7$ as medium and $\mathrm{d}=>0.8$ as large.
(http://web.uccs.edulbecker/Psy590/es.htm/Overview)

### 3.7.2 Data analysis for research questions 2

Research Question 2 To what extent does the Social Constructivism Blended Learning Module affect Thai secondary students' reading engagement?

The Students' Reading Engagement Questionnaires were analyzed to find Mean and SD of the questionnaire items. Coefficient of variation of each item was calculated to measure how extreme the variation of values was in a distribution, compared to the mean of the distribution: the standard deviation divided by the mean. Values of coefficient of variation which were close to the mean of each questionnaire item were analyzed to confirm the growth of reading engagement in students.

Student's self-report of reading engagement from reading engagement portfolio which concerned five aspects of reading engagement learning context: knowledge goal, real world interaction, autonomy support, collaborative learning, strategies instruction was transcribed, coded, and analyzed qualitatively.

The data from two-time interviews with twenty randomly selected participants of both high reading and low reading ability were transcribed, coded, and analyzed qualitatively.
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### 3.7.3 Data analysis for research questions 3

Research Question 3 Does any relationship between students' reading engagement and their reading ability exist after taking Social Constructivism Blended Learning Module?

The relationship between students' reading engagement and their reading posttest scores was investigated. Correlation coefficient between students' individual total scores of reading engagement questionnaire and their posttest scores was calculated with Pearson Product's Moment.

### 3.7.4 Data analysis for research questions 4

Research Question 4 To what extent does the Social Constructivism Blended Learning Module affect students' collaborative learning behavior?

Students' data from the web logs, students’ collaborative learning behavior, and the quality of comments online and quality of reading task were transcribed, coded, and analyzed qualitatively. Group work dynamic, the engagement in doing group tasks and social interaction via electronic synchronous and asynchronous tools were observed and analyzed, transcribed and coded qualitatively.

Students’ performance of collaborative learning behavior both face-to-face and online in the Teacher's Observation Field Note was transcribed, coded, and analyzed qualitatively. Group work dynamic, balance of workload, the engagement in doing group tasks and social interaction both online and face-to-face, the working skills of finding and analyzing information, and the quality of task were observed and analyzed, transcribed and coded qualitatively.

Data of students' collaborative learning behavior and the group work dynamic, the engagement in doing group tasks and social interaction face-to-face in class obtained from video recording of the representative groups were transcribed, coded, and analyzed qualitatively.

### 3.8. Chapter Summary

The research was conducted using the pretest-posttest single group experimental design. The samples of the study were 53 secondary students at Chulalongkorn University Demonstration Secondary Séhool. The samples were assigned into high and low reading ability according to pretest scores. The experiment was conducted for 12 weeks. The reading comprehension scores were compared before and after implementing the SCBLM as treatment. Six types of research instruments were used to collect data. The mean scores of pretest and posttest were compared to investigate the effects of the SCBLM. The quantitative data were perceived and analyzed from the questionnaire and the qualitative data were analyzed from the SCBLM website, reading engagement portfolio, Teacher's Observation Field Note, video recording and semi-structured interview.

## CHAPTER IV

## FINDINGS

### 4.1 Introduction

This chapter presents the findings of the main study according to the research questions and hypotheses posed in chapter one. The quantitative and qualitative findings of this study were used for answering these questions. The findings were investigated based on students’ reading ability and their reading engagement after studying under the Social Constructivism Blended Learning Module (SCBLM) approach. This chapter consists of four parts.

The first part deals with the effects of the SCBLM on students' English reading ability. The pretest and posttest scores' analysis of high and low reading ability students are presented. This part addresses research question one.

The second part shows the effects of the SCBLM on students' reading engagement. The quantitative and qualitative analysis of the questionnaires, portfolios and interviews are presented to answer research question two.

In part three, the results from parts one and two were used to find the relationship of students' reading ability and their reading engagement. This part answers research question three.

Finally, the fourth part presents a qualitative analysis of students' collaborative learning behavior to respond to research question four.
4.2. Sample Selection for Hypotheses Testing
Fifty-three secondary students in Grade 11 at Chulalongkorn University Demonstration Secondary School who studied in the 2007 academic year were the sample of the study. The number of the students varied for each hypothesis. The sample selection for hypotheses testing is described as follows.

Hypothesis 1: The posttest mean score of the students' reading ability is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module. ( $\mathrm{N}=53$ )
1.1: The posttest mean score of high reading ability students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module. ( $\mathrm{N}=17$ )
1.2: The posttest mean score of low reading ability students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module. ( $\mathrm{N}=16$ )

Fifty-three students were asked to take a pretest at the beginning of the semester. The scores obtained from the reading section in the CU-TEP test were used to assign the students into high, intermediate and low English reading proficiency subgroups. The high reading ability students refers to the $25 \%$ of students in class who achieved the highest scores on the test. The $25 \%$ of students who achieved the lowest scores are referred to as the low reading ability group. In the SCBLM class ( $\mathrm{n}=53$ ), there were 17 students in the high reading ability group and 16 students in the low reading ability group. At the end of the experiment, all fifty-three students took the posttest to determine improvement of reading comprehension after studying under the SCBLM.

Hypothesis 2: There is a significant relationship between students' reading engagement and the reading posttest mean scores. $(\mathrm{N}=53)$

Fifty-three students were asked to rate the Students' Reading Engagement Questionnaire two times: pre-questionnaire in week 5, and post-questionnaire in week 11 $(\mathrm{N}=53)$. The same number of students was also asked to complete the Reading Portfolio at the end of every lesson unit for the qualitative data. $(\mathrm{N}=53)$

As for the semi-structured interview, ten students consisting of five high reading ability and five low ability students were interviewed in week 5 . After that, another ten students of five high reading ability and five low ability students were asked for an interview in week 11. There were twenty students in total.( $\mathrm{N}=20$ )

The posttest scores of fifty-three students and the individual mean score of the post-questionnaire were calculated with the Pearson Product Moment to investigate the relationship between reading posttest scores and reading engagement.

In the study, an effect of the Social Constructivism Blended Learning Module on the student's collaborative learning behavior was also investigated, face-to-face and online.( $\mathrm{N}=5$ )

A representative group of the ten mixed ability groups was randomly selected so that their collaborative learning behavior could be observed. The English language ability of the ten mixed subgroups is not statistically different when tested with ANOVA ( $\mathrm{p}>.05$ ) (See Appendix N). The five group members consisted of two high ability students, one intermediate student and two low ability students. Students were video recorded during face-to-face learning and the web logs were archived for the observation in week 5 and week 11.

The sample selection for hypotheses testing is illustrated in Figure 4.1.

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Figure 4.1: Sample Selection for Hypotheses Testing
Hypothesis 1 -Research Question 1


Hypothesis 2 - Research Question 2 and 3


The Reading Engagement Questionnaire was collected in week 5 and week 11.


Twenty students were interviewed: ten in Week 5 and the other ten in Week 11.


## Research Question 4

A representative mixed ability group was video recorded during face-to-face learning and the web logs were archived during online learning for the observation in week 5 and week 11.


In the following section, the analysis and the findings are outlined according to each research question as follows:

### 4.3. EFL Reading Ability

Research question 1: To what extent does the Social Constructivism Blended Learning Module improve Thai secondary school students’ English reading ability?
1.1 Is the posttest mean score of high reading ability students significantly higher than the pretest mean score? If it is, what is its effect size?
1.2. Is the posttest mean score of low reading ability students significantly higher than the pretest mean score? If it is, what is its effect size?

## Hypotheses 1

The posttest mean score of the students' reading ability is significantly higher than the pretest mean score after taking the Social Constructivism Blended Learning Module.
1.1. The posttest mean score of high reading ability students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module.
1.2.2. The posttest mean score of low reading ability students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module.

In testing hypothesis 1, pre- and post- English reading comprehension test scores were calculated by using dependent t-test. The results are illustrated in Table 4.1.
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Table 4.1: A Comparison of the Pre- and Post-test Reading Scores of Students

|  | N | $\bar{X}$ | S.D. | t | $\begin{aligned} & \text { Sig. (2- } \\ & \text { tailed) } \end{aligned}$ | Mean difference | d |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High reading ability students |  |  |  |  |  |  |  |
| Pretest | 17 | 27.41 | 5.82 | 1.91 | . 074 | -2.71 | . 43 |
| Posttest | 24.70 |  |  |  |  |  |  |
| Low reading ability students |  |  |  |  |  |  |  |
| Pretest | 16 | 13.00 | 4.90 | -3.05 | .008* | 3.75 | . 61 |
| Posttest |  | $16.75$ |  |  |  |  |  |
| TOTAL |  |  |  |  |  |  |  |
| Pretest | 53 |  |  | -. 789 | . 434 | . 584 | 0.108 |
| Posttest |  |  |  |  |  |  |  |

The results from table 4.1 indicate that there were no statistical differences between the pretest and posttest mean scores of the students who received the SCBLM instruction. ( $\mathrm{p}>.05$ ). The mean score of the pretest and post-test had no statistical difference despite the obtained value of mean difference at .584 points. This indicates that students in the SCBLM class did not show significant improvement in reading outcomes after studying under the SCBLM. Therefore, hypothesis 1 "The posttest mean score of students is significantly higher than the pretest mean scores after taking the Social Constructivism Blended Learning Module." is rejected. $\sim$

To answer Research question 1.1, "Is the posttest mean score of high reading ability students significantly higher than the pretest mean score? If it is, what is its effect size?"

The improvement which students gained after the 12 weeks of studying under the SCBLM was investigated. The pre- and post- English reading comprehension test scores of high reading ability students was calculated by using dependent t -test.

The results indicate that there were no statistical differences between pretest and posttest mean scores of the high reading ability students ( $\mathrm{p}>.05$ ). The mean score of the pretest and post-test had no statistical difference despite the obtained number of mean
difference at -2.71 points. This indicates that the high reading ability students did not show significant improvement in reading outcomes after studying under the SCBLM. Therefore, hypothesis 1.1 "The posttest mean score of high reading ability students is significantly higher than the pretest mean scores after studying under Social Constructivism Blended Learning Module." is rejected.

The effect size was calculated to see to what extent the SCBLM produced the expected effect on participants in the high reading ability group. The values of the effect size were used for interpretation in terms of the correlation between an effect (in the study- the SCBLM) and the dependent variable (in the study-the reading ability). The effect size value obtained for the high reading ability group was .43 which was a small effect.

To answer Research question 1.2 "Is the posttest score of low reading ability students significantly higher than the pretest score? If it is, what is its effect size?" the reading ability pre- and posttest scores of the low English reading ability participants were examined.

The results reveal that the low English reading ability students performed significantly better on the post-test than the pretest ( $\mathrm{p}<.05$ ). The mean score of the posttest was 3.75 points higher than the pre-test mean score. It could be concluded that the SCBLM significantly improved the English reading ability of the low reading ability students. Therefore, hypothesis 1.2 "The posttest mean score of low reading ability students is significantly higher than the pretest mean scores after studying under the Social Constructivism Blended Learning Module." was accepted. Regarding the effect size, the value obtained for the low reading ability group was 0.61 , which was the medium effect.

In conclusion, to answer research question 1, the significant differences in the English reading ability of students were examined after studying under the Social Constructivism Blended Learning Module (SCBLM). The findings indicate that there was no statistical difference in students who took SCBLM. Even though the mean score increased, it was not at a significant level. Regarding research question 1.1 there was also no significant difference of the reading ability in high reading ability students; however when the hypothesis 1.2 was tested, the statistical mean difference was found in the low reading ability students. In summary, the SCBLM improved the reading ability of the low reading ability students, but not the in all the students who took SCBLM and not in the high reading ability students.

### 4.4 Students' Reading Engagement

Research question 2: To what extent does the Social Constructivism Blended Learning Module affect Thai secondary students’ reading engagement?

To respond to research question 2 , the findings from both quantitative and qualitative data were reported in support of the theory of the reading engagement and five constructs of classroom context for enhancing reading engagement.

Engaged reading is motivated, strategic, knowledge driven, and socially interactive; it is influenced by the kinds of classroom practices students experience (Guthrie \& Cox, 2001). According to Guthrie and Cox, to manage the learning process to promote the growth of reading engagement, teachers should consider the following components:

1. Conceptual knowledge. Students showed an interest in topics that they read about and make connections among concepts.
2. Autonomy Support. Students showed the intrinsic motivation to read when the opportunity of group-selected reading was provided.
3. Real world interaction. Students showed the intrinsic motivation to read when they interacted with the texts or the hands-on activities which concerned real world objects or issues.
4. Social interaction. Students showed the intrinsic motivation when they socially interacted with the group while discussing and working on the task.
5. Strategy-used. Students felt they were competent to use strategies when they read.

Therefore, the following analysis was outlined according to the five components of the classroom context which promote reading engagement. The data from the Reading Engagement Questionnaire, Reading Portfolios, and semi-structured interview was analyzed then used to support these components: Conceptual Knowledge, Autonomy Support, Real World Interaction, Social Interaction and Strategy-Used.

### 4.4.1. Conceptual Knowledge

Three research instruments were used to investigate at what level the students were interested in the topics they read, made connections among concepts and sought new knowledge about that topic. The analysis was sequenced according to the
instruments: Reading Engagement Questionnaire, Reading Portfolios, and semistructured interview, respectively.
4.4.1.1 Quantitative analysis from the Reading Engagement Questionnaire

The Students' Reading Engagement Questionnaire was administered twice. The pre-questionnaire was in week 5, and the second time of distribution of the same questionnaire was at the end of the experiment in week 11. The questionnaire used closed-end question types for 22 items in four Likert scales. The results from prequestionnaire and post-questionnaire were calculated by Pearson Product Moment to investigate the relationship between results of the two sets of questionnaires. The value obtained was .69 , meaning that there was no significant difference between the two sets of questionnaires ( $\mathrm{p}>.05$ ) (See Appendix $\bar{U}$ ). As a result, only results from data from the post-questionnaire was analyzed to find mean and SD of the questionnaire items.

The formula of Best and Kahn (1993) was used to interpret the interval length of the four-scaled questionnaire which was calculated so that the questionnaire can be interpreted comprehensively and constantly. The range of 0.75 between each interval was used to interpret the mean score. $1.00-1.75=$ very low, 1.76-2.5=low, 2.56-3.25=high, $3.25-4.00=$ very high.

In the Reading Engagement Questionnaire, items 1 to 4 were constructed to explore the conceptual knowledge or the knowledge goal of students. The findings are displayed in Table 4.2.

Table 4.2: Conceptual Knowledge
Questionnaire items

| 1. I'm interested in the topics I selected from the SCBLM and |
| :--- |
| I seek more information of those topics. |
| 2. The topics to read in the SCBLM allow me to understand |
| more concepts of the content areas of my interest. |


| 3. I feel more motivated to read because the topics in the |
| :--- |


| SCBLM are interesting. |
| :--- |


| 4. I enjoy the new knowledge I get in each selected topic in |
| :--- |
| the SCBLM. |

The results indicated that the students felt a high level of improvement in the aspect of conceptual knowledge. Students revealed that the topics of the reading in the SCBLM were interesting and that made them enjoy the new knowledge they received (item3, $\bar{X}=2.96$ and $4, \bar{X}=3.09$ ). It was confirmed from the results that the students' views were broadened and they sought for more information on the topics they selected. They also understood more of the concepts in the content areas of their interest (item $1, \bar{X}=3.013$ and $2, \bar{X}=3.09$ ).

The results were then supported by the qualitative analysis of the Reading Portfolio and semi-structured interview.

### 4.3.1.2. Qualitative Analysis from Reading Portfolio

The reading portfolio was used to monitor students' progress in reading and their reading engagement. The analysis of the portfolio was used to generate more insights for research question 2. Students' responses were tallied according to the components. Then, the frequency of distributions was reported in percentage. There were five portfolios of five unit lessons. The first question in part III investigated the students' view toward the conceptual knowledge. In other words, the question asked the students to reflect their interest toward the topics that they read.

Q1. Please reflect your thoughts toward the reading topic and the story you have read with your group this week. Say what you have gained from the reading. If you seek for more information about such topic, please describe how and when you will do the search.

The frequency of the response is illustrated in figure 4.2.

Figure 4.2: Students' Responses toward Conceptual Knowledge

| 9 Week 3 |  |  | - | Week 5 | - | Week 7 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 Entertainment |  |  | Unit 5 Fashion |  |  | Unit 4 Travel |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |
| $\begin{gathered} 49 \\ (92.4 \%) \end{gathered}$ | $\begin{gathered} 3 \\ (5.66 \%) \end{gathered}$ | $\begin{gathered} 1 \\ (1.88 \%) \end{gathered}$ | $\begin{gathered} 44 \\ (83.01 \%) \end{gathered}$ | $\begin{gathered} 8 \\ (15.09 \%) \end{gathered}$ | $\begin{gathered} 1 \\ (1.88 \%) \end{gathered}$ | $\begin{gathered} 51 \\ (96.22 \%) \end{gathered}$ | $\begin{gathered} 2 \\ (3.77 \%) \end{gathered}$ | 0 |


| Week 9 |  |  | Week 11 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 3 Sports |  |  | Unit 11 Animals |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |
| $\begin{gathered} 51 \\ (96.22 \%) \end{gathered}$ | $\begin{gathered} 2 \\ \text { (3.77\%) } \end{gathered}$ | 0 | $\begin{gathered} 50 \\ (94.33 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 2 \\ (3.77 \%) \end{gathered}$ | $\begin{gathered} 1 \\ (1.88 \%) \end{gathered}$ |

From figure 4.2, most of the students were interested in the topics they read, and made connections among concepts and sought new knowledge about that topic. Most of them were satisfied with the topics they selected. They understood the topics because they had the background knowledge of the topics so they were able to get the concept in the reading well. Although, some of the students did not know about the topics prior to their reading, they thought the new knowledge from the reading was interesting enough and provided a positive view to learn. A number of students stated that the topics of reading were already in a content area in which they were interested.

Therefore, they felt positive about knowing more about those topics and searched for more information, particularly on the Internet. The sample of students' answers is as follows.
"I have background knowledge of the topics which helps me understand
better the reading. Those topics also provide new interesting knowledge for me.
"After reading, I search more information of those topics mostly on the Internet."
"The content of those topics compliment what I'm already interested in."
On the other hand, most of negative responses resulted from a lack of interest in the reading. They did not find the topics interesting enough, especially the topics which required a specific interest, "Fashion," for instance. Some of the students were not interested in such topics so they didn't enjoy the reading very much. The sample of responses was as follows.
"I'm not interested at all in the topic like fashion and I see no importance to learn things of those topics."
Some of the students expressed unsure feelings about the topics.
"I have mixed feelings. I like the topics but the reading passages are not interesting enough."
The following evidence of students’ views toward the conceptual knowledge was from the semi-structured interview.

### 4.4.1.2. Qualitative Analysis from Semi-structured Interview

The semi-structured interview was used to investigate students' reading engagement and their attitude toward the reading in the Social Constructivism Blended Learning Module. Twenty randomly selected students were asked questions about their attitude and if their reading behavior has changed after studying under the SCBLM. The interviews were conducted two times. The first interview was conducted to investigate ten randomly selected students, five of high reading ability and another five of low reading ability. The first interview took place in week 5 . Then, the second interview was conducted to investigate a group of another ten students consisting of five high reading ability students and five low reading ability students in week 11 . The first question asked students about the conceptual knowledge. In other words, the question asked the students to reveal what they thought about the topics of the reading in the SCBLM.
Q1. "In which of the topics and passages of the SCBLM are you interested? Do you seek more information about those topics? If yes, in what way?" "Please feel free to answer "none" if none of the topics are interesting to you."

Student's responses were tallied for the frequency and percentage of the opinions

Figure 4.3: The Frequency and Percentage of the Opinions of High Reading Ability and Low Reading Ability Students on the Conceptual Knowledge


From the figure 4.3, the students gave three types of response: positive, negative, and neutral. A qualitative in-depth analysis is provided with the sample of the responses.

The students of both the high and low reading ability groups stated some positive response that they enjoyed reading most of the topics of the SCBLM. The most preferred topics of high reading ability students were those that related to teen culture. For example, the passages under the topic of "Entertainment" which were "Go! Hip-Hop Go!" or "Manga." The students also showed interest in particular topics which were related to their personal tastes, "Travel," "Sports," "Animals," or "Fashion," for instance.
"In the topic "Fashion, I enjoy reading the passage about the school uniforms very much. I've learned a lot from the texts about what other students in the world wear. I felt that I related to the story because it was an issue of my age"
"I like most of the topics, particularly "Sports." I love soccer, I watch the games, and I play. Therefore, I can read the passage of "World Cup" with ease because I already have background knowledge about it!"
Most of students stated that they searched for information about the topics of their interest.
"When I'm interested in the topics or reading passages such as sports, I usually search to read more on the Internet."

Nonetheless, one student of a high reading ability group reported his negative response toward the topics of reading in the SCBLM. He stated he preferred reading fiction, particularly fantasy. He found the topics uninteresting for him.
"Those topics are uninteresting and useless for me. I don't go for fashion, entertainment, or sports. I don't travel a lot. One topic that attracted me a little is "Animals" because I like to know about endangered animals."
The low reading ability students reported mixed feelings about the topics. They stated that they would enjoy them more if they could understand all the passages in the story.
"Of course, of course, all the topics are interesting to me but I don't get a $100 \%$ understanding. I wish I could understand everything in the story and enjoy it more. Anyway, it's good to have friends who help explain."
It can be concluded from the data obtained from the Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview that conceptual
knowledge or knowledge goal was highly perceived. In the study, students with high interest valued the domain of the content area of the topics and their interest grew by seeking for more information on those topics. In the study, students self-reported that the topics of the reading in the SCBLM were interesting and that made them enjoy the new knowledge they received. It was confirmed from the results that the students’ views were broadened and they sought more information on the topics they selected. They also better understood the concepts of the content areas of their interest. However, there was evidence that not all the students were interested in the topics. Some of the negative responses stated a lack of interest in the reading.

The second component of the classroom context to enhance reading engagement concerned the choice of reading or autonomy support.

### 4.4.2. Autonomy Support

In the study, after choosing the topic, students decided with the group to select one of the three stories under the same topic to read, then work together. Three research instruments were implemented to investigate insightfully the intrinsic motivation of the students when they had opportunity to select their own reading text.
The first analysis was the quantitative analysis from the questionnaire.

### 4.4.2.1 Quantitative analysis from the Reading Engagement Questionnaire

In the Reading Engagement Questionnaire, items 5 to 8 were constructed to examine the intrinsic motivation of the students when they were provided autonomy support. The findings are illustrated in Table 4.3.

| Table 4.3: Autonomy Support |
| :--- |
| Questionnaire items |
| 5. I feel satisfied when the teacher lets me choose the |
| texts to read on my own |
| 6. I'm provided enough choices of reading in the SCBLM |
| 7. I enjoy discovering interesting texts through <br> self-selected reading |
| 8. Choices of reading in the SCBLM motivate me to read <br> more. |

From Table 4.3, students showed intrinsic motivation at high value when they got autonomy support from the SCBLM classroom context. The students showed the satisfaction of having opportunity to select their own reading and thought that enough choices of reading were provided in the SCBLM (item $5, \bar{x}=3.07$ and $6, \bar{x}=3.09$ ). They revealed that they enjoyed the reading and felt motivated to read on the condition of discovering interesting texts through self-selected reading. (item $7, \bar{x}=3.15$ and 8 , $\bar{x}=3.11$ ). However, it was remarkable that the CV in item 7 had higher percentages (22.53\%) than other items. The percentage of the CV indicated the dispersion of the mean score in the item. This represented less consistency of the mean score, meaning that students' responses varied.

The results were supported by a qualitative analysis of the Reading Portfolio and semi-structured interview.

### 4.4.2.2. Qualitative Analysis from Reading Portfolio

The second question in the Reading Portfolio investigated students' intrinsic motivation and enjoyment of the reading when choice was provided.
Q2: Please describe your feelings toward the reading passage that you chose with your group this week. Say whether you are satisfied or unsatisfied with the three choices this week.

Students' responses are represented in frequency and percentage in Figure 4.4.
Figure 4.4: Students' Responses toward Autonomy Support ( $\mathrm{N}=53$ )

| Week 3 |  |  | Week 5 |  |  | Week 7 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 Entertainment |  |  | Unit 5 Fashion |  |  | Unit 4 Travel |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |
| $\begin{gathered} 46 \\ (86.79 \%) \end{gathered}$ | $\begin{gathered} 5 \\ (9.43 \%) \end{gathered}$ | $(3.77 \%)$ | $\begin{array}{\|c\|} \hline 45^{\circ} \\ \hline(84.9 \%) \\ \hline \end{array}$ | (13.2\%) | $\begin{gathered} 1 \\ (1.88 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 52 \\ (98.11 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (1.88 \%) \end{gathered}$ | 0 |
| 9 Week 9 |  |  | Week 11 |  |  |  |  |  |
| Unit 3 Sports |  |  | Unit 11 Animals |  |  |  |  |  |
| Positive response | Negative response | Unsure <br> response | Positive response | Negative response | Unsure response |  |  |  |
| $\begin{gathered} 41 \\ (77.35 \%) \end{gathered}$ | $\begin{gathered} 12 \\ (22.64 \%) \end{gathered}$ | 0 | $\begin{gathered} 43 \\ (81.13 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (15.09 \%) \end{gathered}$ | $\begin{gathered} 2 \\ (3.77 \%) \end{gathered}$ |  |  |  |

The students were likely to have intrinsic motivation to read when they had opportunity to select their own reading in the group. They thought they were provided enough choice of reading. Moreover, they wanted to know more what the reading was about when they selected their own reading in their groups. The following statement demonstrates positive responses of the students.
"I'm satisfied that I can select the reading myself and enough choices are provided for me. Moreover, when I can choose my own reading, I spend more time on reading with interest."

However, some students expressed dissatisfaction when they could not get the passages they wanted to read since they lost the vote to the majority. Therefore, they did not feel motivated enough to read and they thought that there were too few texts to choose from. The sample of responses is presented as follows.
"I don't agree with the choice of my group. Therefore, I'm not interested in that reading.

For those students who were unsure, they stated that:
"I'm not sure if I always like to choose the reading. Sometimes, it's better if the teacher assigns the texts to read to the group."
The students' view toward autonomy support from the portfolio was triangulated with qualitative data from the semi-structured interview.

### 4.4.2.2. Qualitative Analysis from Semi-structured Interview

The second question of the interview aimed to investigate students’ intrinsic motivation to read when they were in the autonomy support classroom context.
Q2: "In your opinion, does choosing the passage to read in your group make any difference than the reading being assigned by the teacher?
Student's responses were tallied for the frequency and percentage of the opinions as shown in Figure 4.5.

9

Figure 4.5: The Frequency and Percentage of the Opinions of High Reading Ability and Low Reading Ability Students on the Autonomy Support

| Students | Autonomy Support |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High Reading Ability Students$(\mathrm{N}=10)$ | Week 5 |  |  | Week 11 |  |  |
|  | Unit 5 Fashion |  |  | Unit 11 Animal |  |  |
|  | Positive response | Negative response | Neutral | Positive response | Negative response | Neutral |
|  | $\begin{gathered} 4 \\ (80 \% \end{gathered}$ | $\begin{gathered} 1 \\ (20 \%) \end{gathered}$ |  | $\begin{gathered} 4 \\ (80 \%) \end{gathered}$ |  | $\begin{gathered} 1 \\ (20 \%) \end{gathered}$ |
| Low Reading Ability Students $(\mathrm{N}=10)$ | 4 (80\%) | (20\%) |  | $\begin{gathered} 4 \\ (80 \%) \end{gathered}$ | $\begin{gathered} 1 \\ (20 \%) \end{gathered}$ |  |

The qualitative analysis is provided with the sample of the responses.
Regarding the autonomy support, most of both high and low reading ability students stated the positive response that they were satisfied with the opportunity of topic and text selecting. This made them feel certain of having the right texts that matched their interest.
"It's nice that the teacher let the students choose their reading passages.
So, I feel sure that I would like what I read."
"I think I enjoy reading more when I can choose the reading on my own."
Nevertheless, some of the students of both high and low reading ability preferred that the teacher chose texts for them to read. The reasons provided were varied. One stated that he had difficulty in making a decision. Another revealed that he felt more confident about the reading if the teacher chose for him. Another one was shy; therefore, he did not want to argue with the group members about what to choose.
"I'm confused any time the teacher let me choose the stories to read with the group. I can't make a decision at once when there are too many choices."
"I'd like the teacher to choose the reading passage for us. This is because I need to feel sure that the texts are right for me."

One of the students stated that whether the teacher or students chose the passages for the reading made no difference for her. She revealed that sometimes she lost the vote and didn't get what she wanted to read as well. She said she would read anything.
"Whoever chooses the reading is alright for me since sometimes I lost the vote and didn't read what I wanted. Anyway I don't mind reading any texts."

In sum, the findings from Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview indicated that students were satisfied with the autonomy support in the SCBLM. They preferred to choose their own reading with the group, and valued such choices highly. Students for whom choice was important had ways of ensuring they had opportunities to make choices. Interestingly, however, it was found that many of the students thought that teachers made better reading choices for them, and they did not have a strong desire to choose what they read. Moreover, some students expressed that they preferred both making their choices, as well as trusting the teachers for choosing the reading for them.

The third component of the classroom context to promote reading engagement concerned the reading texts which were related to real world objects or issues.

### 4.4.3. The analysis of the "Real World Interaction"

In the study, the reading passages in the SCBLM were all authentic texts from various sources: Internet, magazines, newspapers, etc. Three research instruments were used to examine insightfully the students' intrinsic motivation to read when they were provided the texts or hands-on activities which concerned real world objects or issues. The quantitative analysis from the questionnaire is as follows.


### 4.4.3.1 Quantitative analysis from the Reading Engagement Questionnaire

In the Reading Engagement Questionnaire, items 9 to 12 were constructed to examine the intrinsic motivation of the students when they were provided real world texts. The findings are illustrated in Table 4.4.

Table 4.4: Real World Interaction

| Questionnaire items | $\bar{x}$ | S.D. | CV <br> $(100 \%)$ |
| :--- | :---: | :---: | :---: |
| 9. The reading in the SCBLM is meaningful and related <br> to the real world. | 3.22 | .54 | 16.77 |
| 10. The meaningful texts establish a personally <br> meaningful purpose for reading to me. | 3.18 | .55 | 17.29 |
| 11. I enjoy reading the non-fiction texts that reflect the <br> world where I live. | 2.86 | .62 | 21.67 |
| 12. I feel more motivated to read when the text is <br> authentic. | 2.9 | .56 | 19.31 |

In terms of students' view toward real world interaction, they agreed that the reading in the SCBLM is meaningful and related to the real world (Item 9, $\bar{x}=3.22$ ). Moreover, they felt motivated and enjoyed reading the authentic texts or hands-on activities which concern real world objects or issues. Then, they read with meaningful purpose (Item 10, $\bar{x}=3.18,11, \bar{x}=2.86,12, \bar{x}=2.9$ ). However, the information from items 11 and 12 were interesting because the mean of the items were relatively low compared to the other two items under the same component. Furthermore, the CV showed a relatively high value of percentage (Item $11=21.67 \%$, Item $12=19.31 \%$ ). This was interpreted that the students' answers for items 11 and 12 varied in terms of preference in authentic text reading.

The results were then supported by a qualitative analysis of the Reading Portfolio and semi-structured interview.
4.4.3.2. Qualitative Analysis from Reading Portfolio

The third question in the Reading Portfolio investigated students' intrinsic motivation and enjoyment in reading the passages which were related to real world issues.

Q3: Please reflect on your thoughts toward the reading passage that you read with your group this week. Describe whether the authentic passage you read this week provides a meaningful purpose of reading to you or not.
Students' responses are represented in frequency and percentage in Figure 4.6.

Figure 4.6: Students' Responses toward Real World Interaction (N=53)

| Week 3 |  |  | Week 5 |  |  | Week 7 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 Entertainment |  |  | Unit 5 Fashion |  |  | Unit 4 Travel |  |  |
| Positive response | Negative response | Unsure <br> response | Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |
| $\begin{gathered} 33 \\ (62.26 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 17 \\ (32.07 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 3 \\ (5.66 \%) \end{gathered}$ | $\begin{gathered} 33 \\ (62.26 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 20 \\ (37.73 \%) \\ \hline \end{gathered}$ | 0 | $\begin{gathered} 46 \\ (86.79 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 7 \\ \text { (13.2\%) } \\ \hline \end{gathered}$ | 0 |
| Week 9 |  |  | Week 11 |  |  |  |  |  |
| Unit 3 Sports |  |  | Unit 11 Animals |  |  |  |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |  |  |  |
| $\begin{gathered} 41 \\ (77.35 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 12 \\ (22.64 \%) \\ \hline \end{gathered}$ |  | $\begin{gathered} 37 \\ (69.81 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 12 \\ (22.64 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 4 \\ (7.54 \%) \\ \hline \end{gathered}$ |  |  |  |

Most of the students had intrinsic motivation to read when they interacted with the texts or hands-on activities which concerned real world objects or issues. Most of them enjoyed reading the texts that they felt related to their real life. They thought they learned new things from the texts and those things were interesting enough to discuss with their friends. When they felt the texts interested them, they seemed to spend more time on the reading. The sample statements are as follows.
"It's interesting to learn new things from the reading which concern real
life. When I read the real world texts that I feel I can relate to and want to
know more about the issues, I spend more time on reading"
"I can use the new knowledge I've learned from the authentic text to
discuss with others." $19198 \cap 9$ el
However, some of the students didn't see how the texts related to their actual life. In addition, they preferred to read fiction like short stories or tales. Some of them found that the authentic texts were too difficult to understand in terms of language. The sample of responses is presented as follows.

> "Usually, I prefer reading fiction to non-fiction."
> "Authentic texts seemed to be too difficult for me in terms of language."
"It's good to know about the issue; however, I see no reasons why we read about it."

The students' view toward real world interaction from the portfolio was supported by qualitative data from the semi-structured interview.

### 4.4.3.3. Qualitative Analysis from Semi-structured Interview

The third question of the interview investigated students' intrinsic motivation to read the texts or hands-on activities which concerned real world objects or issues.
Q3: "Do you think that the passages you read in SCBLM can relate to your everyday life? Which do you enjoy reading more between fiction and non-fiction? Please provide the reasons."

Student's responses were tallied for the frequency and percentage of the opinions as shown in Figure 4.7.

Figure 4.7: The Frequency and Percentage of the Opinions of High Reading Ability and Low Reading Ability Students on Real World Interaction


The qualitative analysis is provided with the sample of the responses.
In terms of real world interaction, most of the students of both high and low reading ability groups agreed that they preferred reading the texts which concerned real world objects or issues. They stated that such texts were worth reading because they provide useful knowledge. Moreover, the up-to-date issues broadened their views toward
the world. Or at least, they could elicit what they learned from the reading to socially discuss with others.
"Well, I prefer reading about the issues that were related to our everyday life. I think we get the useful knowledge from such texts. For example, I like cats a lot. When I read "Extrasensory Cats," in "Animals," I was thrilled to learn more about them in a different way from what I know."

However, the same student who disliked the topics of reading confirmed his preference of fiction reading. He barely read anything which concerned real life. Essentially, he enjoyed more using his imagination while reading.
"I don't read news, I don't read articles. I always spend my time reading fantasy fiction, Harry Potter, for instance. Anyway, if it's a long fiction, I don't read it. Short humor is another type of reading that I enjoy in English."

One of the students reported that she was aware that the topics and reading passages provided useful information and new knowledge. She enjoyed some of the topics but, according to her, some authentic texts contained too difficult vocabulary.
"I think that I get some knowledge from the real world texts. However, some of them were too difficult to understand in terms of language."
In summary, the results from Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview indicated that students enjoyed reading the texts that related to the real world although some of them preferred fiction or found the authentic texts were too difficult to understand in terms of language. With the texts that reflect the world they live, they read with meaningful purpose.

The fourth component of the classroom context to enhance reading engagement was social interaction and collaboration.

## 

Social interaction was promoted in the SCBLM class. Students had to work in a mixed ability group to discuss the topic of reading on the Preview, work on the unfamiliar vocabulary together in the Click and Clunk stage, and at the end they had to work together on the reading group task on the discussion board or in a chatroom. The Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview were used to collect data and investigate students’ intrinsic motivation to read when they socially interacted with the group while discussing and working on the task.

### 4.4.4.1 Quantitative analysis from the Reading Engagement Questionnaire

In the Reading Engagement Questionnaire, items 13 to 16 were constructed to examine the intrinsic motivation of the students when they socially interacted with the group while discussing and working on the task.

The findings are illustrated in Table 4.5.

Table 4.5: Social Interaction

| Questionnaire items | $\bar{x}$ | S.D. | CV <br> $(100 \%)$ |
| :--- | :---: | :---: | :---: | :---: |
| 13. I enjoy working with group members on reading <br> task. | 3.0 | .65 | 21.66 |
| 14. I see the importance of achieving team goal in <br> accomplishing the reading task. | 3.13 | .55 | 16.6 |
| 15. I enjoy exchanging ideas with group members <br> about what we read. | 3.0 | .48 | 16 |
| 16. I feel more motivated to read when I read and <br> discuss with the group members. | 2.84 | .53 | 18.66 |

It was shown from the findings that social collaboration in the classroom brought about an interest in the content of the learning. Students enjoyed working with group members in every reading task and were aware of accomplishing the team goal when doing the reading task at a high level (item13, $\bar{x}=3.0$ and $14, \bar{x}=3.13$ ). Students seemed to enjoy exchanging ideas with group members about the reading and tended to possess a high level of motivation when reading and discussing with the group members (item 15, $\bar{x}=3.0$ and $16, \bar{x}=2.84$ ). Regarding the percentage of CV 's, the dispersion of students in Item $13(21.66 \%)$ was larger than in the other three items. This suggests that students' answers varied in terms of the enjoyment of group work.

The qualitative data from the Reading Portfolio and semi-structured interview was analyzed to get insights about social interaction.

### 4.3.4.2. Qualitative Analysis from Reading Portfolio

The fourth question in the Reading Portfolio investigated students’ intrinsic motivation and enjoyment in reading the passages when they socially interacted with the group to read and work on the task.
Q4: Please reflect on your thoughts toward the reading group task that you worked on with this group this week. Describe how you feel toward the text that you read and the
product of the group task (quality, ideas, etc.). Then evaluate the collaboration in achieving the task among your group members (helpfulness, helplessness, contribution of ideas, etc.)

Students' responses are represented in frequency and percentage in Figure 4.8.

Figure 4.8: Students' Responses toward Social Interaction ( $\mathrm{N}=53$ )

| Week 3 |  |  | Week 5 |  |  | Week 7 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 Entertainment |  |  | Unit 5 Fashion |  |  | Unit 4 Travel |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure <br> response | Positive response | Negative <br> response | Unsure response |
| $\begin{gathered} 46 \\ (86.79 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 7 \\ (13.2 \%) \end{gathered}$ |  | $\begin{gathered} 43 \\ (81.13 \%) \end{gathered}$ | $\begin{gathered} 10 \\ (18.86 \%) \end{gathered}$ | $0$ | $\begin{gathered} 48 \\ (90.5 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 5 \\ (9.43 \%) \\ \hline \end{gathered}$ | 0 |
| Week 9 \% |  |  |  |  |  |  |  |  |
| Unit 3 Sports |  |  | Unit 11 Animals |  |  |  |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response |  |  |  |
| $\begin{gathered} 47 \\ (88.67 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 6 \\ (11.32 \%) \\ \hline \end{gathered}$ | 0 | $\begin{gathered} 43 \\ (81.13 \%) \end{gathered}$ | $\begin{gathered} 10 \\ (18.86 \%) \\ \hline \end{gathered}$ | 0 |  |  |  |

As for the social interaction, most of the students had intrinsic motivation to read when they socially interacted with the group while discussing and working on the task. They thought that every member including themselves committed to the task and cooperated well to accomplish it. They enjoyed discussing and working with their peers. Finally, they were satisfied with the outcome of the task. The sample of responses is provided in the following statements.
"I think the group members co-operate very well to accomplish the task and I learn more from friends during the discussion."
" I enjoy working with the group and I think I commit a lot to group discussion and group work."
Nonetheless, some of the students reported an unsatisfactory view toward the working group. Mostly, they thought that other members in their groups did not commit enough and did not share their ideas with the group. They believed this resulted in unsatisfactory outcomes of the task. Furthermore, some of the students blamed
themselves and said that they did not have time to contribute much to the group. The sample of responses is provided as follows.
"Not all the group members share their ideas during the discussion."
"I don't have time and don't contribute enough to the group."
The qualitative analysis is provided with the sample of the responses.
Then qualitative data from the semi-structured interview was used to support the findings from the portfolio.

### 4.4.4.3. Qualitative Analysis from Semi-structured Interview

The third question of the interview investigated students' intrinsic motivation when they socially interacted with the group to read and work on the task. Q4:"Are you satisfied to read and work on task with your group? Does the group work affect your reading? "Please elaborate on your answer."

Student's responses were tallied for the frequency and percentage of the opinions as shown in Figure 4.9.

Figure 4.9: The Frequency and Percentage of the Opinions of High Reading Ability and Low Reading Ability Students on the Social Interaction

| Students | Social Interaction |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Week 5 |  |  | Week 11 |  |  |
|  | Unit 5 Fashion |  |  | Unit 11 Animal |  |  |
|  | Positive response | Negative response | Neutral | Positive response | Negative response | Neutral |
| High Reading Ability Students $(\mathrm{N}=10)$ <br> Low Reading Ability Students $(\mathrm{N}=10)$ |  |  |  | 3 $(60 \%)$ 0 5 $(100 \%)$ | $\begin{gathered} 2 \\ (40 \%) \end{gathered}$ |  |

The qualitative analysis is provided with the sample of the responses.
In the study, students had to work in their group at every stage. They worked face-to-face in the Preview and Wrap Up sessions, and online in the Click and Clunks and Get the Gist stages. The results from the interviews showed that all students of low reading ability reported a positive view towards group work with their peers on the
reading task. They enjoyed working with the group, discussing, and solving the unknown words or expressions together. They stated that they felt more confident to read with the help of their group members.
"I like working with the group because when someone got stuck with any part of the reading, the others would come to help."
"I understand more when I read and work with friends than reading on my own. When we discuss the reading, I get more meaning of the texts."
"It's fun to work with friends. I think it's improved my reading since I have to read many, many times before working on the group task."

Most of the students in the high reading ability group stated their satisfaction with working in groups as well.
"It's fun to discuss the passages we read with friends. I think it helps my understanding because I have to search for more information about that topic before working on the group task with friends."

There were some of the students of high reading ability reported a negative response to the working group. They didn't think the group members were committed enough to provide valuable ideas and share with the group. Moreover, they had to tell the members of low ability what to do in every step. They complained that the group members did not work at the same pace. For example, they had to wait too long for others' replies on the asynchronous tools like the discussion board. They also wanted to work with their close friends. They stated that they could work better with friends who they got along with well.
"My group members are not good enough at providing ideas to the group. Some of them barely understand what they read. Therefore, it affects the quality of the task and I'm not happy with that." o
"I have to wait for ages for other group members to post their ideas or 9 work. Im always the first who do the post. It's quite annoying."
"I prefer working with close friends of mine because we always talk together. I think it would be much easier to work with them."

In conclusion, the results from Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview indicated that a number of students reported that reading with others was enjoyable, and they had a strong positive response associated with collaboration. However, a number of the high reading ability students who seemed
highly engaged in reading said they did not want to collaborate with the group members who did not contribute the ideas to the group.

The fifth and the last component of the classroom context to promote reading engagement was the strategy-used.

### 4.4.5. Strategy-Used

In the study, students were directly taught the four reading strategies of the CSR, namely, Preview, Click and Clunks, Get the Gist and Wrap Up. Following the strategies, students learned to use their prior knowledge and predict what they were going to read. Then they learned the fixing strategies of the unfamiliar words or expressions. They looked for key ideas to help them understand, reread the sentence with the clunk and the sentences looking for clues, and break the word apart and look for smaller words. After that, they learned to identify the most important person, place, thing or idea in the story by questions and answers. Finally, they summarized by questions and answers to show understanding of the reading.

The Reading Engagement Questionnaire, Reading Portfolio and semi-structured interviews were implemented to investigate insightfully whether students felt they were competent to use strategies when they read after having been taught the strategies or not.

### 4.4.5.1 Quantitative analysis from the Reading Engagement Questionnaire

In the Reading Engagement Questionnaire, items 17 to 20 were constructed to examine to what extent the students believed in themselves as competent users of the strategies that they learned in the class.

The findings are illustrated in Table 4.6.

| Table 4.6: Strategy-Used |
| :--- |
| Questionnaire Items |
| 17. I thinklearning reading strategies can improve <br> my reading in English. |
| 18. I think learning reading strategies in class is <br> useful. |
| 19. I use the reading strategies that I learned to <br> accomplish any reading task. |
| 20. I read more fluently in English when I use <br> reading strategies. |

According to the results, students believed that learning strategies could improve their reading (Item 17, $\bar{x}=3.07$ ). They showed a positive attitude toward learning strategies and were aware of their importance (Item 18, $\bar{x}=3.09$ ) and they thought they were competent in using strategies when they read (Item 19, $\bar{x}=3.05$ and 20, $\bar{x}=3.09$ ).

The results were supported by the qualitative analysis of the Reading Portfolio and semi-structured interview.

### 4.4.5.2. Qualitative Analysis from Reading Portfolio

The fifth question in the Reading Portfolio investigated students' belief in themselves as competent users of strategies after having been taught in class.
Q5: Please describe what types of the strategies you used to help you comprehend the passage that you read. Please provide example of strategy-used.

Students' responses were represented in frequency and percentage in Figure 4.10.

Figure 4.10: Students' Responses toward Strategy-Used (N=53)

|  | Week 3 |  | $3 \pi<6 \Omega$ | Week 5 |  |  | Week 7 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 Entertainment |  |  | Unit 5 Fashion |  |  | Unit 4 Travel |  |  |
| Positive response | Negative response | Unsure response | Positive response | Negative response | Unsure response | Positive response | Negative <br> response | Unsure response |
| $\begin{gathered} 38 \\ (71.69 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 15 \\ (28.3 \%) \end{gathered}$ |  | $\begin{gathered} 40 \\ (75.47 \%) \end{gathered}$ | $\begin{gathered} 13 \\ (24.25 \%) \end{gathered}$ | $0$ | $\begin{gathered} 38 \\ (71.69 \%) \end{gathered}$ | $\begin{gathered} 15 \\ (28.3 \%) \end{gathered}$ | 0 |
| Week 9 |  |  | Week 11 |  |  |  |  |  |
| Unit 3 Sports |  |  | Unit 11 Animals |  |  |  |  |  |
| Positive <br> response | Negative response | Unsure response | Positive response | Negative response | Unsure response |  |  |  |
| $\begin{gathered} 38 \\ (71.69 \%) \\ \hline \end{gathered}$ | $\begin{gathered} 15 \\ (28.3 \%) \end{gathered}$ | $0$ | $\begin{gathered} 6390 \\ (73.58 \%) \\ \hline \end{gathered}$ | $14$ (26.41\%) | 0 |  |  |  |

From the findings, most of the students viewed themselves as competent users of the strategies and felt confident when they were taught how to use them. They thought they were able to read more fluently with the use of strategies even without a dictionary at hand. The students stated that:
"I think I use enough of the strategies I learned from classes and I feel more confident to read when I know how to use strategies."
"I think using strategies while reading help me read more fluently."
However, some of the students were not used to implementing the strategies while reading. They stuck to the traditional use of a dictionary. Some of them even directly asked their friends or parents to translate the texts for them. They reasoned that they could not get the main idea and holistic meaning of the passages even though they had already patched the words they knew together. The responses are presented in the following statements.
"I still use a dictionary to translate the unknown words, word by word."
"I have no time, so I directly asked friends or parents to translate the passages."

Then qualitative data from the semi-structured interview was used to support the findings from the portfolio.

### 4.4.5.3. Qualitative Analysis from Semi-structured Interview

The third question of the interview investigated students' intrinsic motivation when they socially interacted with the group to read and work on the task.
Q5: Which of the reading strategies do you think help your understanding when you read the text in English?"

Student's responses were tallied for the frequency and percentage of the opinions as shown in Figure 4.11.

Figure 4.11: The Frequency and Percentage of the Opinions of High Reading Ability and Low Reading Ability Students on the Strategy-Used

| Students 6 | ம d/ c d \| Strategy-Used |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High Reading Ability Students(N=10) | ${ }^{\sigma}$ Week 5 W9 191 . |  |  |  |  |  |
|  | Positive response | Negative response | Neutral | Positive response | Negative response | Neutral |
|  | $\begin{gathered} 5 \\ (100 \%) \end{gathered}$ |  |  | $\begin{gathered} 5 \\ (100 \%) \end{gathered}$ |  |  |
| Low Reading Ability Students $(\mathrm{N}=10)$ | $\begin{gathered} 3 \\ (60 \%) \end{gathered}$ | $\begin{gathered} 2 \\ (40 \%) \end{gathered}$ |  | $\begin{gathered} 3 \\ (60 \%) \end{gathered}$ | $\begin{gathered} 2 \\ (40 \%) \end{gathered}$ |  |

The qualitative analysis is provided with the sample of the responses.
Both high and low reading ability students reported the usefulness of the strategies they learned from class. There were four strategies taught in class, Preview, Click and Clunks, Get the Gist, and Wrap Up. There were sub-strategies underneath such as activate background knowledge, predict what to read, look for key ideas to help understand, reread the sentence with the clunk and the sentences looking for clues, break the word apart and look for smaller words, identify what is the most important person, place, or thing and what is the most important idea the story, summarize the content, and ask and answer the questions.

According to the findings, all the high reading ability students reported themselves as competent users of strategies. The students revealed that they used more than one strategy at a time. They balanced all the four strategies in the usage. Each student reported using their background knowledge to predict the content of reading, handling the familiar words or expressions by looking for key ideas to help understand, rereading the sentence with the clunk and looking for clues, and breaking the word apart and looking for smaller words like prefixes or suffixes. Moreover, they summarized and seized the important ideas of the reading passages.
"I can't tell which strategies I use the most. It depends on the situation or in what way I get stuck. Mostly, I use my background knowledge to help understand what the story is about. For example, I'm interested in soccer. Therefore, when I read "World Cup", I make the most of my prior knowledge to help comprehend the text."
"When I get stuck, I use many strategies to get through. I usually break the unfamiliar words into smaller parts or use the prefixes and suffixes. Sometimes, I look for the key ideas in the context clues. And to see the

จ91macro-picture of the story, I summarize what I read."
As for students in the low reading ability group, most of them stated that they used strategies to help them get through the difficult to comprehend reading. However, the strategies reported in use by the low reading ability group were limited in number compared to the high reading ability students. The strategies found in usage of those students were using background knowledge, rereading the sentence with the clunk and looking for clues, and summarizing.
"I usually use my background knowledge help read so that I can understand better what we are talking about."
"There are too many words that I really don't get the meaning of in one reading passage. Thus, I summarize the whole story to help understand the big picture."
Nonetheless, the students of low reading ability stated their ignorance of using the strategies. They felt more at ease using the dictionary to translate word by word. Some of them took a shortcut by asking their friends to translate the texts.
"I use the dictionary at anytime I get stuck with unknown vocabulary."
In this case I furthered my question to the students, "And what if you don't have a dictionary at hand when you read?"
The reply was "I just guess the meaning or ask a friend."
In sum, the results from Reading Engagement Questionnaire, Reading Portfolio, and semi-structured interview indicated that students believed in themselves as competent in using of strategies including Preview, Click and Clunks, Get the gist and Wrap Up to help smooth reading. However, students' responses did not frequently refer to comprehending texts across a variety of topics. Some of the low reading ability students reported not using the strategies while reading. They still believed in the traditional use of a dictionary.
4.4.6. Results of the Reading Engagement from the Five Classroom Context Components

To report the holistic findings of Reading Engagement as promoted by the five components of the classroom context, the mean score from the Pre-questionnaire which was administeredin week 5 and the Post-questionnaire from week 11 was compared to observe the growth of student's reading engagement. The findings are presented in Table 4.7.


Table 4.7: A Mean Comparison of Pre-Questionnaire and Post-Questionnaire

|  | N | $\bar{x}$ | S.D. | t | Sig.(2- <br> tailed) | Mean <br> differences |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pre- <br> questionnaire <br> Post | 53 | 2.899 | .281 | -6.71 | .000 | 0.168 |
| questionnaire | 53 | 3.067 | .324 |  |  |  |
| $\mathrm{p}<.05$ <br> The results from |  |  |  |  |  |  | mean scores from pre and post-questionnaire of the students who received the SCBLM instruction. ( $\mathrm{p}<.05$ ). The mean score of post-questionnaire was significantly higher than the mean score from the pre-questionnaire at .05 level. The results suggest that students increased their reading engagement at significant level after having exposed to the SCBLM in the whole semester.

Therefore, the findings from the post-questionnaire were used in the analysis since students’ answers were obtained after they had experienced the learning under the SCBLM until the end of unit lessons in week 11.

The mean score of the Reading Engagement Questionnaire was 3.06 which was interpreted as a high level of reading engagement. The S.D. and the CV obtained were .324 and $10.58 \%$, respectively. The CV showed the students' answers did not vary at a high percentage for the overall questionnaire.

### 4.3.6.2. Reading Portfolio

The overall results of students' reading engagement in five topical unit lessons are illustrated in Figure 4.12.
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Figure 4.12: Frequency of Distribution of Student's View toward Reading Engagement
$\mathrm{N}=53$


According to the representative chart of data from the portfolios, the students reported positive responses of the reading engagement when they learned with the SCBLM. The percentages obtained from unit 1 Entertainment, unit 5 Fashion, unit 4 Travel, unit 3 Sports and unit 11 Animals were $80 \%, 77.35 \%, 88.67 \%, 82.26 \%$ and $80 \%$, respectively. The results indicated that students had intrinsic motivation to read and were confident about using the strategies competently when they learned in the SCBLM classroom context.

### 4.4.6.3. Semi-Structured Interview

The total percentages of the positive response, negative response and neutral response from the semi-structured interview asking students from high and low reading ability groûps are illustrated in Figure 4.13.

Figure 4.13: The Results of Reading Engagement from the Semi-structured Interview


According to the results, the students reported positive responses of reading engagement when they learned via the SCBLM. The percentages of positive responses obtained from the interviews in week 5 were $88 \%$ from high reading ability students and $84 \%$ from low reading ability students and in week $11,80 \%$ from high reading ability students and $80 \%$ from low reading ability students. This indicates that students of high and low reading ability responded that they had intrinsic motivation to read with selfconfidence as competent strategy users when they were in the classroom context of SCBLM .

### 4.4.7. Additional Findings of Students’ Attitude toward the SCBLM

In the Reading Engagement Questionnaire and semi-structured interview, there was an additional aspect that was observed by the researcher, the student's attitude toward the SCBLM. The items 21 and 22 were constructed to explore the attitude of the students. The results from the questionnaire are illustrated in Table 4.8.

## 4.8: The Results of Students’ Attitude toward the SCBLM

| Questionnaire Items | $\bar{x}$ | S.D. | CV <br> $(100 \%)$ |
| :--- | :---: | :---: | :---: |
| 21. The SCBLM makes me enjoy reading in English. | 3.18 | .55 | 17.29 |
| 22. The SCBLM motivates me to read and seek for <br> knowledge. | 3.09 | .49 | 15.85 |

The findings revealed that students had a positive attitude toward the SCBLM and the module increased enjoyment and enhanced the motivation of the students regarding the reading (Item 21, $\bar{x}=3.18$,Item 22, $\bar{x}=3.09$ )

Then, from question 6 in the interview, the results are described as follows. Q6: "How do feel toward the SCBLM which was implanted in the reading class?"

The students of both high and low reading ability groups reported a positive attitude toward the SCBLM. They found the topics and the reading passages interesting to read. They said that reading the subject content online was new to them since they had never experienced web-based learning before.

They also commented regarding the practicality and feasibility of the SCBLM. In terms of working with the groups, some of students revealed that they preferred working online to face-to-face and others reported vice versa. Therefore, the SCBLM had characteristics that suited their various learning styles. Some of the low ability students suggested that the module should add "games" as one of the activities so they would feel more attracted to the reading.

In summary, to answer research question 2, reading engagement in students was investigated by using a questionnaire to collect quantitative data. In addition, a portfolio and a semi-structured interview were used. The findings from the questionnaire indicated that the level of reading engagement in students in both high and low reading ability groups was significantly high. Moreover, the insightful data from the portfolio and the semi-structured interview revealed their enjoyment in the reading depended on whether they got what they wanted to read or were interested in the topic. Students preferred reading the texts that related to the real world although some of them found the authentic texts too difficult to understand in terms of language.

Regarding the aspect of social interaction, most of the students reported a satisfactory view toward the working group. However, some of them thought that other members in the groups did not contribute enough neither share their ideas with the group. In terms of strategy-used, from the interview, the high reading ability students showed the self-belief as competent strategy users; whereby, some of the low reading ability students were not able to use the strategies while reading. They preferred the traditional use of a dictionary. The overall results from the quantitative and qualitative data showed that there was a significant effect of the SCBLM on students' reading engagement.

### 4.5 The Relationship between Students' Reading Engagement and EFL Reading Ability

Research Question 3: Does any relationship between students' reading engagement and their reading ability exist after taking the Social Constructivism Blended Learning Module?

Hypothesis 2: There is a significant relationship between student's reading engagement and the reading posttest mean score.

To answer research question 3, the relationship between students' reading engagement and their reading posttest scores was investigated by using Pearson Moment Product to find correlation coefficient between students' individual total scores of the reading engagement questionnaire and their posttest scores. The SPSS program was used to analyze the data.

To test the hypothesis, the scores of the post questionnaire on the reading engagement and the scores from the CU-TEP post test were analyzed to find a correlation between the two variables. The results are presented in the following

Table 4.9: Correlation between Students' Posttest Scores and their Reading Engagement
HR students'
Posttest Scores

$(\mathrm{N}=17)$ | LR students |
| :---: |
| Posttest Scores |
| $(\mathrm{N}=16)$ |$\quad$| All students' |
| :---: |
| Posttest Scores |
| $(\mathrm{N}=53)$ |

The results of fifty three students showed a positive low correlation at .171. It indicated $2.92 \%\left(r^{2} * 100\right)$ at variance held in common by engagement and posttest scores. There was no significant relationship between the student's posttest scores and their reading engagement.

Then, the relationship between the student's posttest scores and their reading engagement in the high reading ability group and the low reading ability group was calculated by non-parametric statistics using Spearman's rho. The scores from the post questionnaire of the high reading ability group on reading engagement and the scores from the CU-TEP post test were analyzed to find a correlation between the two variables. Similarly, the scores from the post questionnaire of the low reading ability group on the reading engagement and the scores from the CU-TEP post test were calculated.

The findings indicated a positive low correlation at .186 in high reading ability students with $3.45 \%\left(r^{2} * 100\right)$ at variance held in common by engagement and posttest scores. There was no significant relationship between the student's posttest scores and their reading engagement in this group.

Regarding the low reading ability group, the results were in the same direction. The findings also indicated a positive low correlation at .078 with $0.6 \%\left(r^{2} * 100\right)$ at variance held in common by engagement and posttest scores. There was no significant relationship between the student's posttest scores and their reading engagement in this group. Therefore, the percentage obtained for the high reading group was a little higher at 2.85\%.

In conclusion, there was a weak positive relationship between the student's posttest scores and their reading engagement in students of all ability levels. The data illustrated no significant relationship between the total scores of the reading engagement questionnaire and the CU-TEP posttest scores. According to the results, the scores of the students' posttest scores and their reading engagement tended to move in the same direction, but with the low values of correlation.

### 4.6 Students' Collaborative Learning Behavior in the Blended Learning

Research Question 4: To what extent does the Social Constructivism Blended Learning Module affect the students' collaborative learning behavior?

To answer research question 4, the data of students' collaborative learning behavior both face-to-face and online was collected and analyzed qualitatively by using in the Teacher's Observation Field Note.

The characteristics of collaborative learning behavior of students were observed in accordance with the essential components of a successful collaborative learning group suggested by Johnson, Johnson and Smith (1998). It was stated that students should be motivated to help one another accomplish group goals, share resources, support and encourage each other's efforts to learn. Students should also be accountable for contributing his or her share of work and ideas. They were required to use teamwork, have commitment and to learn to evaluate their group productivity. Therefore, in the study, group work dynamic, balance of workload, engagement in doing group tasks and social interaction both online and face-to-face were observed. In addition, the working skills of analyzing information, and the quality of comments and tasks were also observed and analyzed qualitatively.

The face-to-face data of students' collaborative learning behavior in class was analyzed based on the evidence obtained from the video recording of one representative group, and the online data of students' collaborative learning behavior was analyzed based on students' web logs on the SCBLM website.

There were four sessions requiring students to work collaboratively in groups. The Preview activity at the beginning of the unit lesson and Wrap Up at the end were face-to-face learning; whereby, the Click and Clunks and the Get the gist were carried out online.

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4.6.1 Descriptive Characteristics of the Representative Group

The representative mixed reading ability group was primarily defined as follows. The group consisted of five students of mixed ability: two of high reading ability, one of intermediate reading ability and two more of low reading ability. The group was selected by means of simple random sampling. The mean score of the ten mixed ability groups was found to show no statistically significant difference among groups (See Table 3.1).

Therefore, this representative group was found robust in characteristics to represent the others.

### 4.6.2 Descriptive Data of the Student's Collaborative learning Observation

The observation was carried for two units, the second unit in week 4 and the fifth unit in week 10. The data came from four sessions of video recording transcription and four of collaborative activities online in the Click and Clunks and reading group task of Get the Gist.

The classroom observation in this study is a naturalistic one. The observation took place while the students were working in groups. Their collaborative learning behavior was investigated by observing their social interaction which was defined as a dynamic, changing sequence of social actions between individuals within a group. Moreover, the frequency of contributing their comments as well as the quality of the generated comments was explored.

The observation field note consisted of four parts:
Part 1- The face-to-face social interaction and their quality of comments and ideas during the Preview stage were investigated

Part 2 - The online social interaction and their quality of comments and ideas during the Click and Clunks stage were explored.
Part 3 -The online social interaction and their quality of comments and ideas during Get the Gist stage were examined

Part 4 - The face-to-face social interaction and their quality of comments regarding the group reading task during the Wrap Up were observed.

### 4.6.3 Inter-rater Reliability <br> 

The observation was conducted with a randomly selecteddrepresentative group of five members out of the ten groups. Then the data from the four-time face-to-face learning were recorded on video. Once gathered, the video recordings were transcribed. Regarding the online data, students' web logs and the group work via the asynchronous tools were archived and observed.

In order to ensure the reliability of the encoding, the data were sent to another two experienced English instructors to judge the evidence. Then, the inter-coder reliability was computed to assess the extent to which the coders agreed on the codes assigned to each segment. A high level of agreement ( $\geq 80 \%$ ) is usually sought between coders (Green, 2004).

Three scales of evaluating the collaborative learning behavior of the representative group were used to compute the inter-reliability among the three coders. The three scales were as follows:

| Strong evidence | $=2$ |
| :--- | :--- |
| Some evidence | $=1$ |
| Little or no evidence | $=0$ |

The total items of the Teacher's Observation Field Note were 48. Then the summed up scores were computed by means of Pearson Correlation to investigate the inter-coder reliability. Three coders provided the judgment on the face-to-face and online collaborative learning of the group members. There were two unit lessons observed; unit 5 Fashion in week 4 and unit 11 Animals in week 10. Correlations between the three coders are presented in Figure 4.14.

Figure 4.14: Correlations among Three Raters

| Unit 5 Fashion |  |  |  | Unit 11 Animals |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coder 1 | Coder 2 | Coder 3 |  | Coder 1 | Coder 2 | Coder 3 |
| Coder 1 |  | . 952 | . 952 | Coder 1 |  | .950** | .947** |
|  |  | Sig. (2tailed) . 000 | Sig. (2tailed) .000 |  |  | Sig. (2tailed) . 000 | Sig. <br> (2- <br> tailed) <br> . 000 |
|  |  | 90.63\% | 90.63\% |  |  | 90.25\% | 89.68\% |
| Coder 2 | . 952 |  | . 903 | Coder 2 | .950** |  | .900** |
|  | Sig. (2tailed) .000 | $\begin{aligned} & 619 \\ & 6 \\ & 6 \end{aligned} 9$ | Sig. (2tailed) .000 |  | $\begin{aligned} & \hline \text { Sig. } \\ & \text { (2- } \\ & \text { tailed) } \\ & \hline .000 \\ & \hline \end{aligned}$ |  | Sig. <br> (2- <br> tailed) <br> .000 |
|  | 90.63\% |  | 81.54\% |  | 90.25\% |  | 81\% |
| Coder 3 | . 952 | . 903 |  | Coder 3 | .947** | .900** |  |
|  | Sig. <br> (2- <br> tailed) <br> . 000 | Sig. (2tailed) . 000 |  |  | Sig. (2tailed) . 000 | Sig. (2tailed) . 000 |  |
|  | 90.63\% | 81.54\% |  |  | 89.68\% | 81\% |  |

** Correlation is significant at the 0.01 level (2-tailed)

From Figure 13, it showed that in encoding the 43 qualitative responses of each unit lesson, the correlation between Coder 1 and 2,1 and 3 , and 2 and 3 , was found more than $80 \%$. The correlation is significant at the 0.01 level ( 2 -tailed).

In summary, in terms of inter-coders’ reliability, a high correlation (> 80\%) between two coders was found. This indicated the degree to which the encoding of one coder can be predicted from the encodings of the other coders (Hatch and Farhady, 1982)

### 4.6.4 The Analysis of the Teacher's Observation Field Note

In order to investigate students' collaborative behavior, a content analysis technique was employed. The frequency of the idea contributing of the members during the group work both face-to-face and online was explored. In addition, the quality of the discussion was also observed insightfully. In this approach, the criteria for coding was identified and coding categories defined which were "strong evidence $=2$ ", "some evidence=1", "little or no evidence=0") and were used to rate the degree of student's collaborative learning behavior. There were 12 items to evaluate in each stage, Preview, Click and Clunks, Get the Gist and Wrap Up. The number obtained was employed as guidelines for further qualitative data analysis. Then the evidence from the video transcription and the asynchronous tools on the SCBLM website was analyzed qualitatively to support the results from the Teacher's Observation Field Note.

The analysis was reported according to the delivery modes. Therefore, part one was the data analysis from the face-to-face delivery mode during Preview and Wrap Up stage). Then, in part two, the data analysis from the online delivery mode was described insightfully during Click and Clunks and Get the Giststage. The analysis was as follows.

### 4.6.4.1 Students' Collaborative Learning Behavior from the Face-to-Face

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In the study, the teacher's observation field note, sections 1 and 4 were employed to collect data of students' collaborative learning behavior face-to-face in class. The observation was carried out during two stages: the Preview and the Wrap Up stage. Thus, the results were reported in those two stages respectively.

### 4.6.4.1.1 The results from the Preview stage

In Preview stage, students were asked to work in groups to discuss the selected topic to activate the prior knowledge and predict what they were going to read.

The results of the Preview stage from the Teacher's Observation Field Note are illustrated in Table 4.10.

Table 4.10: The Results of the Preview Stage from the Teacher's Observation Field Note

| Preview (Face-to-face) | Week 5 | Week 11 |
| :---: | :---: | :---: |
| 1. There is adequate initial discussion of the task | 2 | 2 |
| 2. A variety of ideas is generated by the group members | 2 | 2 |
| 3. The group members discuss and negotiate until everyone involved understands and supports the decision. | 1 | 1 |
| 4. Everyone in a group contributes his/her ideas equally. | 1 | 1 |
| 5. Group members listen to and support everyone's ideas. | 2 | 2 |
| 6 . Group members are determine to reach the goal. | 2 | 2 |
| 7. There is ongoing communication between group members. | 2 | 2 |
| 8. Group members offer each other assistance. | 2 | 1 |
| 9. The group selects information with clear criteria in mind. | 2 | 2 |
| 10. The group organizes information in a logically consistent and thoughtful manner. | 2 | 2 |
| 11. The group shows skill in drawing conclusions from the information. | 1 | 1 |
| 12. The group members contribute ideas relevant to the | 2 | 2 | topic of discussion D

During the Preview stage in class, in unit 5 "Fashion," and unit 11 "Animals," the students watched three clips related to the topic. Then, they/read the cues on the Preview page of the SCBLM website. Those were cues that led to the discussion. Some of the group members, particularly the low reading ability students, did not understand the cues in English. The high reading ability students provided clear assistance explaining the cues to the members who asked for the translation. After that, the high ability students initiated and led the discussion.

In terms of the social interaction, there was ongoing communication among group members. However, the low reading ability students did not provide much of their ideas
to the groups. The high reading ability students dominated the discussion until the conclusion was drawn. All members listened and supported everyone's ideas. There was no sign of disagreement; therefore, negotiation was not an issue in the discussion. Moreover, they showed an attempt to reach the goal of the discussion.

Regarding the quality of the comments and ideas, the group members provided ideas that related to the topic of discussion. No evidence was found that they deviated from the topic. They selected information with clear criteria in mind for the discussion and organized the information in a logically consistent and thoughtful manner. Finally, at the end, they made some statements of conclusion about the discussion.

The sample of the evidence from the video transcription can be described as follows.

### 4.6.4.1.1.1 Supportive evidence from the video transcription

Background Information: There were five members in the focus group, two of them were males and three were females. Each one had been given a pseudonym as HR1, HR2, MR, LR1, and LR2. HR1 and HR2 were the students of high reading ability, MRthe intermediate reading ability students and LR1 and LR2-the low reading ability students.

In the first sample, in week three, the group was assigned to discuss the topic of fashion after watching the clips. The discussion was in Thai. There were three cues that led in to the discussion to activate their prior knowledge, then, predict what they were going to read. The cues were as follows.

Brainstorm within a group to discuss the following questions:
Question 1: Do you know the person in the clip1? Who is she? People think of her as a "fashion icon." What does this mean? And do you know any Thaifashion icons?
Question 2: Had you heard about "Bangkok Fashion" before watching the clip 2? If "yes", discuss what it is with the group. oo lal de
Question 3: Discuss the similarity or differences of the school uniforms that you have seen in the clip 3. Do you like to wear your school uniforms? Why or why not?

Some translated extracts from the discussion are illustrated in Figure 15.

Figure 4.15: Extract of the discussion from Preview activity in unit 2 "Fashion"

| Members | Transcription |
| :---: | :---: |
| HR1: | (Read in silence to review the cues again) "Ok the first question, I know her. She's Princess Diana." |
|  | (Meanwhile, the L1 asked the H2 sitting next to him "What does fashion icon mean?" He was trying to understand the cue. The H2 then, offered assistance by translating its meaning in a low voice.) |
| HR2: | "Yeah.. Princess Diana. Ok fashion icon is the person who is modern and always dresses in trendy outfits." |
| LR1: | (Nodded in silence) |
| LR2: | (Staring at friends, no sign of acknowledgment) |
| HR1: | "Then what about Thai fashion icons?" |
| MR: | "Oh yeah, we have Thai fashion icons." |
| HR2: | "Yes we have many of them. Our Thai fashion icons are those of the high society (in a sarcastic tone). Unlike us, we are simply children and we dress in normal outfits." |
|  | (Everyone's laughing and nodded.) |
| MR: | "Then, what about Bangkok fashion? What is it?" |
| HR1: | "Ummm. I' m not sure. Oh! oh! I see! It's a campaign to promote Bangkok as the centre of fashion." |
| HR2: | "Yes, I remember, there were stars and top models doing fashion on the catwalk last year." |
| MR: |  |
| LR1: | (Nodded) |
| LR2: |  |
| HR1: | "Yes, the campaign aims to promote all Thai brands." Iover |
|  | (Everyone nodded.) |
| HR1: | "Ok. Let's answer question 3." |
|  | (And the discussion went on until the all the three questions were answered.) |
| HR1: | "I think that will be all. Done!" |
|  | (Everyone nodded and ended the discussion.) |

From the first video transcription extract, only the students of high reading ability, HR1 and HR2 provided the ideas interchangeably to the groups. MR showed some conversation leading. None of the ideas were generated from the low reading ability students, LR1 and LR2. The action of the discussion was actually fast and the high reading ability students were more active idea providers. Therefore, the high reading ability students showed strong evidence of controlling and dominating the discussion when they had the group activities face-to-face in class. Whereby, the low reading ability members listened and showed agreement silently.

However, in week ten, when they studied the last unit lesson, unit 11 "Animals," the low reading ability students contributed some ideas to the group.

In the second sample, the group was assigned to discuss the topic of animals after watching the clips. There were three cues that led to a discussion to activate the prior knowledge, then, predict what they were going to read. The cues were as follows.

Brainstorm within the group to discuss the following questions:
Question1: How many of the endangered species which appear in clip1 do you know? Which of them have you never seen before and do you think they still exist?
Question 2: Have you ever read or watched a movie about the Amazon? When you see the animals in clip 2 , what do you think of?
Question 3: Do you have a cat at your place. Some say that cats have some mysterious skills or power. Do you agree with this statement?
Some translated extracts from the discussion are illustrated in Figure 16.

Figure 4.16: Extract of the discussion from Preview activity in unit 11 "Animals"

| Members | Transcription |
| :--- | :--- |
|  | (Everybody read in silence to review the cues again) |
| HR2 | "Yeah! First question, we know some of them but not all..." |
| HR1 | "Like..panda, rhino..tiger..." |
| MR | "Lion." |
| HR2 | "manatee, koala" |
| LR1 | "Cheetah too!" |
| HR1 | "Many of the animals in clip we haven’t seen before." |
| LR2 | "We also know whale!" |


|  | (Everybody said "yes, yes") |
| :---: | :---: |
| LR1 | "And Gorilla!" |
| HR2 | "We hardly recognize any species of birds seen in the clip." |
| HR1 | "That's true! I don't know any of them. They look strange." |
| MR | "Me either!" |
| LR1 | "I don't know them at all. I've seen some of them in the pictures...but don't know any names." |
| HR2 | "Anyway, we have never seen all the animals although we know them. I've seen lions." |
| MR | "Rhino." |
| LR2 | "Tiger." |
| HR1 | "I think few of animals in the clip survive this day." |
| HR | "Few of them are left. Most of them may extinct." |
|  | (Everyone nodded.) |
| HR2 | (Read the second question a loud.) |
| HR2 | "Oh I think the animals in the Amazon are wild and dangerous ones. This is because they live in a dense jungle." |
| MR | "They are fierce." \#xikerper |
| LR1 |  |
| HR1 | "They can do anything to protect themselves." |
| HR2 | "Amazon is not a place where man should go. There were many frightening animals like anaconda, Piranha." |
| LR1 | "Yeah! Piranha." |
| MR | "Shouldn't take a trip there!" |
| LR1 | "Absolutely not!" |
|  | (And the discussion went on until the all the three questions were answered.) |
| HR2: | "Ok! I think we covered everything! All done!" |
|  | (Everyone nodded and ended the discussion.) |

The results from the video transcription of week ten indicated that in the Preview session of unit 11 "Animals," group members of all abilities actively participated in the discussion. Although, the high reading ability students still led and controlled the
conversation, the students of low reading ability provided more of their ideas than in week two because they had enough background knowledge to discuss the subject with their peers. This made them feel more confident to join the discussion. The low reading ability students seemed to go along with the other members; however, there was no evidence to show that they started the discussion.

In sum, during the Preview stage, the high reading ability students dominated the discussion while the low reading ability supported the goal in silence and hardly contributed the ideas. The low reading ability just observed and learned.

Another face-to-face learning session in the SCBLM took place in the Wrap Up stage.

### 4.6.4.1.2 The results from the Wrap Up stage

In the Wrap Up stage, students were required to work in a group to make a conclusion of what they read. Then, they discussed the advantages and disadvantages of the group work on the task.

The results of the Wrap Up stage from the Teacher's Observation Field Note are illustrated in Table 4.11.

Table 4.11: The Results of the Wrap Up Stage from the Teacher's Observation Field Note

| Wrap Up (Face-to-face) |
| :--- |
| 1. There is adequate initial discussion of the task |
| 2. The group members help summarize the reading. |
| 3. Group members equally contribute ideas. |
| 4. There is peer feedback on group task. |
| 5. Group members listen and support other group members 11 |
| ideas. 9 |
| 6. There is ongoing communication between group members. |
| 7. Group members are determined to reach the goal. |
| 8. Group members offer each other assistance. |
| 9. The group selects information with clear criteria in mind. |
| 10. The group organizes information in a logically consistent |
| and thoughtful manner. |


| 11. The group shows skill in drawing conclusions from the | 1 | 2 |
| :--- | :--- | :--- |
| information. |  |  | | 12. The group members contribute ideas relevant to the |
| :--- | :--- |
| topic of discussion |

During the Wrap Up stage students were asked to work in their groups to summarize the story that the group chose to read. After that, they were asked to provide feedback on the group task. In unit 5 "Fashion," this group selected "The School Uniform is In" as their reading and in the last unit of week eleven, "Animals," they preferred "Endangered Animals" as their choice of reading.

In terms of social interaction, the group members showed an effort to help summarize the story they had read. In both units of "Fashion" and "Animals," the high reading ability students took the leading role in initiating the discussion, raising the topic of discussion, summarizing the reading and providing feedback. The low reading ability students stayed reticent, but sometimes nodded and smiled as a sign of supporting the other group members. There was ongoing communication about the chosen topic. They were all determined to reach the goat. One of the high reading ability members was responsible and assisted others by reminding them to work on the task and explained the steps of working.

Regarding the quality of the comments and ideas, the group members provided ideas that related to the topic of discussion. They selected information with clear criteria in mind that they had to summarize and provide feedback about the group task. Their organization of the summary was in logical consistency. They summarized first, then provided feedback. At the end, the group helped conclude the topic of discussion.

The sample of the evidence from the video transcription is described as follows.
4.6.4.1.2.1 Supportive evidence from the video transcription $\frac{\sigma}{6}$

During the Wrap Up stage, students were asked to sum up the main idea of the story the group chose to read. In unit 5 "Fashion," this group read "The School Uniform Is In." The extract of a video transcription showed group members' interaction as follows.

Figure 4.17: Extract of the discussion from Wrap Up activity in unit 5 "Fashion"

| Members | Transcription |
| :---: | :---: |
| HR1 | "Ok the story about the school uniform that we read...ummm the story tells us that the school uniform has become more and more popular, for example in Asian countries like Japan, Korea." |
| HR2 | "And the United States." |
| LR1 | "The US. didn't have school uniforms before?" |
|  | (Nobody paid attention to his question. They went on discussing.) |
| MR | "It's good that we have school uniforms." |
| HR2 | "Yes, so we look all the same." |
|  | (Everybody nodded) |
| HR1 | "No need to bother to find other outfits or run after fashion...it's not proper!" |
| HR2 | "I think we look neat in a school uniform." |
| HR1 | "And we are proud of our school when wearing a school uniform." |
| HR2 | "Usually people are well behaved when we wear a school uniform to keep the school's reputation." |
| HR1 | "In the story, there's a question about creativity if we wear uniform." |
| MR | "Yeah but we like wearing school uniform anyway." |
|  | (LR2 didn't provide any idea to the group.) |
|  | (The discussion went on. When the teacher saw that they didn't provide the feedback yet, as a facilitator, she asked the students to talk about the group task, they made only one statement.) |
| HR1 | "The task?... oh our group task was ok. We enjoyed describing the advantages and disadvantages of the school uniform." |
|  | (Everyone nodded and smiled) $198 \cap$ Q |

The results from the video transcription indicated that in the Wrap Up session of unit 5 "Fashion," members of all abilities actively participated in the discussion. The high reading ability students played a leading role and dominated the discussion; whereas the students of low reading ability did not help summarize or contribute ideas to the group. However, they did show signs of agreement to support their peers' statements by nodding and smiling. All group members were determined to reach the goal of the discussion to
wrap up the reading and work. Therefore, while brainstorming, no one paid attention to the unvoiced members.

The second sample was the extract from unit 11, "Animals." The story they chose to read with the group was "Endangered Animals." The extract of a video reading showed group members' interaction as follows.

Figure 4.18: Extract of the discussion from Wrap Up activity in unit 11 "Animals"

| Members | Transcription |
| :---: | :---: |
| HR2 | "Ok the story tells us about endangered animals." |
| HR1 | "It also tells how they became extinct in the ancient time." |
|  | (Everybody nodded and whispered "yes, yes") |
| HR1 | "Yes, like when the meteorite hit the planet and caused extinction of dinosaurs." |
| HR2 | "Unlike nowadays, hunting is the cause of animal extinction." |
| HR2 | "Man uses the products of those animals." |
| HR1 | "Many of them almost disappeared by now like panda." |
| HR1 | "In the story, there's an area called "hot spot" where we preserved the endangered species." |
| MR | "Right, right." |
| HR2 | "Polar bears have no place to live because the ice has melted. Global warming...Everything is linked." |
|  | (The discussion went on. When it came to the feedback, this time the students provided a clear feedback on the group work.) |
| HR1 |  |
| LR1 | "No, not at all." |
| HR1 | "It's the thing we can find on the Internet. It's the hot issue at the moment." |
| HR2 | "And for the task, everybody cooperated very well this time, especially me. I worked the most (Anyway, he just said this for fun.) Thanks to Natnicha! She always reminds us to work and tell us what to do next." |
| HR1 | "I like the story we read this time." |
|  | (LR2 sat silently in a group and watched her peers discussing.) |

From the video transcription from the Wrap Up session of unit 11 "Animals," the high reading ability students still played leading role in week ten of the learning and dominated the discussion. Meanwhile, the students of low reading ability only went along with peers' ideas. They showed silent signs of agreement to support the peers' statements. All group members were determined to reach the goal of the discussion to wrap up the reading and work. The high reading ability students provided a clear feedback of the work at the end. In this group, the LR2 seemed rarely to contribute her ideas. This might result from her quiet personality, or limited ability of comprehension.

In conclusion, during the Wrap Up stage, the high reading ability students still led the discussion and took control. The low reading ability students in this group did not contribute ideas either showed their understanding about the reading.
4.6.4.2 Students' Collaborative Learning Behavior from the Online Learning

In the study, the Teacher's Observation Field Note, sections 2 and 3 were employed to collect data of students' collaborative learning behavior online on the SCBLM website. The observation was carried out during two stages: the Click and Clunks and the Get the Gist stage. Thus, the results were reported in those two stages respectively.

### 4.6.4.2.1 Click and Clunks

In Click and Clunks stage, students were asked to work in groups to note the words or expressions they were not familiar with as a "clunk" on the discussion board. The group members who clicked with those clunks came to help fix them.

The results of the Click and Clunks stage from the Teacher's Observation Field Note are illustrated in Table 4.12.


| Click and Clunks (Online) |
| :--- |
| 1. There is adequate initial discussion of the task |
| 2. The group members give assistance to each other to fix the |
| clunks. |
| 3. The group members contribute the ideas relevant to the assigned <br> task. |
| 4. Group members equally access the Click\& Clunks forum on the |
| Social Constructivism Blended Learning Module's Reading <br> Website. |

5. Group members express acknowledgment when the clunks are fixed.
6. There's ongoing communication between group members.
7. Group members are determined to reach the goal of accomplishing the task.
8. Group members actively engage in their sharing click\& clunks tasks
9. The group states their clicks with clear definition to solve the clunks.
10. The group organizes information in a consistent and thoughtful manner.
11. The group shows skill in drawing conclusions from the information.
12. The group clearly shares divergent clunks-fixing that helps understanding of the content.

During the Click and Clunks stage students were asked to work in group to note the words or expressions they were not familiar with as a "clunk" on the discussion board. The group members who clicked with those clunks came to help fix them. In unit 5 "Fashion," this group selected "The School Uniform is In" and in unit 11 of week ten, "Animals," they selected to read "Endangered Animals."

In terms of the social interaction, the group members accessed the SCBLM website. They stated their clunks and then helped fix the clunks with their clicks. The group was determined to reach the goal of fixing the clucks. Therefore, there was not much social interaction among members. They didn't negotiate and make any conclusions when all the clunks were solved. There was no sign of acknowledgment or appreciation toward their friends after the clunks were fixed. In the units of "Fashion" and "Animals," both the high and low reading ability students contributed their help to the group. They all posted their clunks and all assisted in fixing them. The low reading ability students participated in the activity although they were not confident in translating the unknown words or expressions.

As for the quality of the provided definitions and ideas, the group members stayed on the topic of the task assigned. The organization of the clunk fixing was in logical consistency. However, there was no conclusion at the end.

The sample of the evidence from the web logs are described as follows.
4.6.4.2.1.1 Supportive evidence from the web logs

During the Click and Clunks stage, students were assigned to conclude the main idea of the story the group chose to read. In unit 5 "Fashion," this group read "The School Uniform Is In." For the representative students, the pseudonyms of HR1, HR2, MR, LR1, and LR2 were used. HR1 and HR2 were the students of high reading ability, MR-the intermediate reading ability students and LR1 and LR2-the low reading ability students.

The extract of the web logs showed group members' interaction as follows.

Figure 4.19: Extract of the web logs from Click and Clunks activity in unit 5

## "Fashion"



There was a conversation thread of group work with little evidence of the discussion. They determined to reach the goal by posting the clunks, then, helped fix those of others. However, the low reading ability students also contributed their ideas to the group in spite of the concerns and uncertainty of their ability to translate the words or expressions. More of the group work on the Click and Clunks are illustrated in Figure 4.20.

Figure 4.20: Extract of the Web Logs from Click and Clunks activity in the unit 11 "Animals"


The qualitative results from the web logs indicated that the students of high, intermediate and low reading ability actively participated in the Clink and Clunks task. They contributed to the group. They gave assistance to the group members when help was needed. In the last log of the conversation thread, the MR provided more correct clunks solving when the low reading ability members failed to state the correct translation.

In summary, in the online Click and Clunks stage, both high and low reading ability students contributed their share to the group relatively the same numbers of ideas on the discussion board. There was no evidence of social interaction on the discussion board of Click and Clunks task. However, it can be assumed that the students actively participated and showed intention to reach group goal of task achieving because there was no evidence that students slid off the topics.

Another online learning in the SCBLM took place in the Get the Gist stage.

### 4.6.4.2.2 The results from the Get the Gist stage

In the Get the Gist stage, students were required to work in a group on a post reading group task. Students worked collaboratively to accomplish the reading group task. The task type needed students to read beyond the lines and apply what they've read to a real world task.

The results of the Get the Gist stage from the Teacher's Observation Field Note are illustrated in Table 4.13.

Table 4.13: The Results of the Get the Gist Stage from the Teacher's Observation Field Note


| 8. Group members offer each other assistance. | 1 | 1 |
| :--- | :--- | :--- |
| 9. The group selects information with clear criteria in mind. | 2 | 2 |
| 10. The group organizes information in a logically consistent <br> and thoughtful manner. | 1 | 2 | | 11. The group shows skill in drawing conclusions from the |
| :--- |
| information. |
| 12. The group members contribute ideas relevant to the <br> topic of discussion |

During the Get the Gist stage students were asked to work in groups to accomplish the post reading group task on the discussion board. In unit 5 "Fashion," this group selected "The School Uniform is In" and in the unit 11 of week ten, "Animals," they selected to read "Endangered Animals."

In terms of social interaction, the group members of high reading ability accessed the SCBLM website more than those of low reading ability in unit 5 . However, both students of high and low reading ability accessed the site and did relatively the same amount of work. The group was determined to reach the goal of accomplishing the task. There was not much social interaction among members. They made the conclusion after the work was done only in unit 5. Both the high and low reading ability students contributed their ideas to the group. They all posted their share of ideas on the discussion board. The low reading ability students participated in the activity although they sometimes worked in Thai.

As for the quality of the provided definitions and ideas, the group members contributed the ideas relevant to the topic of discussion. Their organization of the clunk fixing was sometimes logically consistent.
4.6.4.2.2.1 Supportive evidence from the web logs 9 a
In the Get the Gist stage students were asked to work in groups to accomplish the post reading group task on the discussion board. In unit 5 "Fashion," this group selected "The School Uniform is In" The group task of this unit was as follows.

Story 3 The School Uniform Is in!
Task : Brainstorm with your group and work on a message board. Use the information from the reading and then, discuss the advantages and disadvantages of
wearing a school uniform. Then make a collection of your dream school uniforms with the group. Provide the reasons why you would prefer to wear them.

The results from reading group task are illustrated in Figure 4.21.

Figure 4.21: Extract of the Web Logs from Reading Group Task Activity in unit 5
"Fashion"


Figure 4.22: Extract of the web logs from reading group task activity in unit 5 "Fashion" (Continued)


The results indicated that both the high and low reading ability students contributed their ideas to the group. They all posted their share of ideas on the discussion board. The low reading ability students participated in the activity although they sometimes worked in Thai. The students of high reading ability initiated the task and did the group summary of their group work.

In unit 11 "Animals," this group selected "Endangered Animals" The group task of this unit was as follows.

Story 1 Endangered Animals

Task : Brainstorm in your group and work on a message board. List with your group at least five endangered animals. Then, discuss with your group how to save those endangered species. Post the pictures and describe their habitats, and their way of living.

The results from reading group task are illustrated in Figure 4.23.

Figure 4.23: Extract of the Web Logs from Reading Group Task Activity in the Unit 11 "Animal"


The results showed that both the high and low reading ability students contributed their ideas to the group. In this task, they did the "Cut and Paste." Actually, the "Cut and Paste" for the work that required the factual information was acceptable. In addition, the students stated their opinions on the way to save endangered animals at the end. However, the "Cut and Paste" seemed too risky for the low reading ability students as it was noticed that LR2 provided irrelevant information about the topic. She did not comprehend the content of the information and took its relevance for granted. The students of high reading ability initiated the task but did not provide the group summary of their group work this time.

In conclusion, in the online Get the gist stage, both high and low reading ability students contributed their share to the group relatively the same numbers of ideas on the discussion board. There was not much social interaction going on. However, it can be assumed that the students actively participated and showed intention to reach group goal of task achieving.

In summary, to answer research question 4, the collaborative learning behavior of the students was observed. It was found that their collaborative learning behavior was different when leaning with the two delivery modes of face-to-face and online learning. In the face-to-face sessions, the more capable peers in the group showed a more outstanding role of leading the discussion. They dominated and controlled the discussion. All group members were determined to reach the goal of each task. However, the less capable members showed their group support in silence. They did not voice their opinions but went along with their peers until the end of the discussion. On the contrary, the low reading ability students expressed their ideas more in the online task. Nonetheless, the facelessness of the online task revealed no interpersonal interaction while doing the task. The members arranged their workload and responsibilities for their part. Therefore, the SCBLM was found effective in addressing the different learning behavior of the low reading ability students who felt more confident contributing their ideas despite the quality via online learning. Moreover, they generated more understanding when the meaning was explained face-to-face by the high reading ability students.

To conclude all the findings of four research questions, the results were summarized and illustrated in Figure 24.
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Figure 4.24: Summary of the Findings

| Research Question | Instruments | Data Analysis | Results |
| :---: | :---: | :---: | :---: |
| Research Question 1 <br> To what extent does the Social Constructivism Blended Learning Module improve Thai secondary school students' English reading ability? <br> 1.1 Is the posttest score of high reading ability students significantly higher than the pretest score? If it is, what is its effect size? <br> 1.2. Is the posttest score of low reading ability students significantly higher than the pretest score? If it is, what is its effect size? | CU-TEP reading test $\qquad$ $\qquad$ $\pm$ $\rightarrow$ $\rightarrow$ <br> ถาปข <br> ลงกร | Dependent t-test was used to calculate scores of the students, high reading ability students and low reading ability students. <br> The effect sizes of pre-and posttest of the experimental group was calculated from Cohen's d formula from t-tests | 1. There was no significant improvement of students’ reading ability by comparing the pretest and posttest mean scores of the students who received the SCBLM instruction. (p>.05). <br> 2. There was no significant improvement of high reading ability students by comparing the pretest and posttest mean scores of the students who received the SCBLM instruction. ( $\mathrm{p}>.05$ ). The effect size was .43 which is a small effect. <br> 3. There was a significant improvement of low reading ability students by comparing the pretest and posttest mean scores of the students who received the SCBLM instruction. ( $\mathrm{p}<.05$ ). The effect size was .61 which is a medium effect. <br> การ |


| Research Question 2 <br> To what extent does the Social Constructivism Blended Learning Module affect Thai secondary students’ reading engagement? | Reading <br> Engagement <br> Questionnaire | Mean, SD and coefficient of variation of questionnaire items were calculated. | 1. The mean score of the Reading Engagement Questionnaire was <br> 3.06 which was interpreted as a high level of reading engagement. The S.D. and the CV obtained were . 324 and 10.58 , respectively. The CV showed the students' answers did not vary at a high percentage for the overall questionnaire. <br> 2. For the conceptual knowledge, students reported that the topics of the reading in the SCBLM were interesting and that made them enjoy the new knowledge they received (item3, $\bar{X}=2.96$ and $4, \bar{X}=3.09$ ). It was confirmed from the results that the students’ views were broadened and they sought for more information on the topics they selected. They also understood more of the concepts in the content areas of their interest (item 1, $\bar{X}=3.13$ and 2, $\bar{X}=3.09$ ). <br> 3. In terms of autonomy support, The students showed the satisfaction of having opportunity to select their own reading and thought that enough choices of reading were provided in the SCBLM (item 5, $\bar{x}=3.07$ and 6 , $x=3.09$ ). They revealed that they enjoyed the reading and felt motivated to read on the |
| :---: | :---: | :---: | :---: |



|  |  | 6. Students believed that learning strategies could improve their reading (Item 17, $\bar{x}=3.07$ ). They showed a positive attitude toward learning strategies and were aware of their importance (Item 18, $\bar{x}=3.09$ ) and they thought they were competent in using strategies when they read (Item 19, $\bar{x}=3.05$ and 20, $\bar{x}=3.09$ ). |
| :---: | :---: | :---: |
|  |  | 1. The students reported positive responses toward reading engagement when they learned with the SCBLM. The percentages obtained from unit 1 Entertainment, unit 5 Fashion, unit 4 Travel, unit 3 Sports and unit 11 Animals were $80 \%$, $77.35 \%, 88.67 \%, 82.26 \%$ and $80 \%$, respectively. The results indicated that students had intrinsic motivation to read and were confident about using the strategies: Preview, Click and Clunks, Get the gist and Wrap Up, competently when they learned in the SCBLM classroom context. <br> 2. Students who gave negative responses (from 11.32\% to 21.88\%) reasoned that not all the topics in the SCBLM interested them. They could not have the texts they want to read. They preferred fiction type of reading and some of them found the |


|  |  | authentic texts too difficult to <br> understand in terms of language. <br> Regarding social interaction, <br> some of the students thought that <br> other members in the groups did <br> not contribute enough neither <br> share their ideas with the group. <br> Finally, some students were not <br> able to use the strategies and <br> preferred the traditional use of a <br> dictionary. |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| Research Question 3 <br> Does any relationship between students' reading engagement and their reading ability exist after taking the Social <br> Constructivism Blended Learning Module? | Reading <br> Engagement <br> Questionnaire <br> and CU-TEP <br> reading test | Correlation coefficient was calculated between individual total scores of reading engagement questionnaire and posttest scores by using Pearson Product Moment | 1. The results of fifty three students showed a positive low correlation at .171. It indicated $2.92 \%\left(r^{2} * 100\right)$. <br> 2. There was a positive low correlation at . 186 in high reading ability students with $3.45 \%\left(r^{2} * 100\right)$ <br> 3. There was a positive low correlation at .078 in low reading ability students with $0.6 \%$ $\left(r^{2} * 100\right)$ |
| :---: | :---: | :---: | :---: |
| Research Question 4 <br> To what extent does the Social Constructivism Blended Learning Module affect the students' collaborative learning behavior? | Teacher's <br> Observation <br> Field Note | Students’ collaborative learning behavior and students' engagement in the task both face-to-face and online, the quality of comments and quality of reading tasks were transcribed, coded, and analyzed qualitatively <br> The data analysis is based on <br> 3.4.4.5.1. Evidence from the video transcripts 3.4.4.5.2 Evidence from student's web logs on the 9 ard discussion board | The findings showed that students' collaborative learning behavior was different when leaning with the two delivery modes of face-to-face and online learning. <br> 1. In the face-to-face sessions, the more capable peers in the group showed a more outstanding role of leading the discussion. They dominated and controlled the discussion. <br> 2. Face-t-face, all group members were determined to reach the goal of each task. However, the less capable members showed their group support in silence. <br> 3. It was found that the low reading ability students contributed ideas to the group more online than face-to-face. <br> 4. The SCBLM was found effective with blended delivery mode in addressing the different learning behavior of the low reading ability students who felt more confident contributing their ideas with facelessness. |

### 4.6 Chapter Summary

From the findings, it can be summarized that according to the quantitative analysis of the English reading ability of the students, the SCBLM significantly improved the students at low reading ability ( $<.05$ ); whereas, it did not affect the high reading ability students at a significant level (>.05). Regarding the reading engagement, the findings from both quantitative and qualitative analysis indicated that the SCBLM had significant effects on students’ reading engagement. Pearson Product Moment was used to find the correlation between reading ability outcomes and a questionnaire results. The results showed that there was a positive relationship between reading engagement and CU-TEP reading posttest score but in a low value of correlation. In addition, the qualitative findings from the Teacher's Observation Field Note indicated that the blended learning in the SCBLM was effective in addressing diverse collaborative learning behavior, particularly in the low reading ability students.

In conclusion, the SCBLM seemed to benefit the learning outcomes of the low reading ability students; conversely, it provided only a small positive effect on the high reading ability students. The discussions and recommendations will be discussed in Chapter Five.

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## CHAPTER V

## SUMMARY, DISCUSSION, AND RECOMMENDATIONS

### 5.1. Introduction

This chapter consists of four parts. The first part describes a summary of the study. The objectives, the research design, the research methodology, and the findings are reported. In the second part, the interpretations of findings are discussed. Then, the implications drawn from the study are suggested in the third part. Finally, the recommendations for further research are offered in the fourth part.

### 5.2. Summary of the Study

The main objectives of this study were 1) to develop a Social Constructivism Blended Learning Module(SCBLM); 2) to examine the effect of the Social Constructivism Blended Learning Module on Thai secondary students’ reading ability; 3) to investigate the effect of the Social Constructivism Blended Learning Module on Thai secondary students’ reading engagement; 4) to investigate the relationship between students' reading engagement and their reading ability after studying under the Social Constructivism Blended Learning Module; and 5) to explore students’ collaborative learning behavior while studying under Social Constructivism Blended Learning Module.

This research employed the pre-test post-test single group design. The study was conducted to compare students' English reading ability before and after using the Social Constructivism Blended Learning Module (SCBLM). Students' reading engagement was also investigated during and after the SCBLM implementation. Both qualitative and quantitative research methods were used in the study. A mixed research design was believed, in this study, to provide stronger evidence for a conclusion through convergence and corroboration of findings.

The samples were 53 students Grade 11 students who studied at Chulalongkorn University Demonstration Secondary School in the 2007 academic year. The students were assigned into mixed ability groups according to the scores obtained from CU-TEP pretest. Each group consisted of five or six students with high and low English reading ability. In every group, the low reading ability students worked with the high reading ability students to ensure the process of scaffolding. The "high reading ability students"
refers to the $25 \%$ of students in class who achieved the highest scores on the test. The Mean and S.D of the high reading ability group obtained from the pretest was 27.41 and 5.82 , respectively. On the other hand, the $25 \%$ of students who achieved the lowest scores with Mean score of 13.00 and S.D. of 4.90 , are referred to as the low reading ability group. There were 17 high reading ability students and 16 low reading ability students in the study.

This study was divided in two main phases. Phase one concerned the development of the Social Constructivism Blended Learning Module (SCBLM). This phase was comprised of the following stages: 1) the basic concepts and the related documents were explored and digested in relation to the four theories: Second language reading comprehension, Social Constructivism including the Collaborative Strategic Reading Model (CSR), Blended Learning and Reading Engagement; 2) the instructional materials including, instructional manual, the lesson plans and SCBLM website were developed; 3) the instructional manual, lesson plans and the website were validated by experts in the relevant fields then revised according to the experts' suggestions; 4) the SCBLM instruction including the research instruments were pilot tested to verify the effectiveness then revised according the results from the pilot study.

Phase two concerned the implementation of the Social Constructivism Blended Learning Module. The experiment was conducted in the first semester of the 2007 academic year in order to examine the effects of the SCBLM on the students' reading ability and their reading engagement. In the study, students worked in heterogeneous reading ability groups. The instruction was arranged into blended delivery modes of face-to-face and online learning. The students were taught SCBLM reading instruction unit by unit. Every two weeks, the researcher as a teacher had the students vote for the topic of the week to read. The series of units of instruction arose from the votes of students. The vote was sequenced prior to the beginning of the new learning unit. The votes of the week1 resulted in the topic of "Entertainment" (49.05\%), the vote for the week 3 was "Fashion" (39.62\%),week 5, 7 and 9 were "Sports" (43.39\%), "Travel" (60.37\%) and "Animals" (50.94\%), respectively. Five units were studied in total during the experiment. The experiment lasted 12 weeks and there were two periods of 50 minutes each. In week 12 , the experimental group was post-tested with the CU-TEP test.

The SCBLM instruction was comprised of four main stages via two delivery modes: 1) the Preview stage which was offered face-to-face in class. During this stage, the students were asked to work in groups to discuss the selected topic to activate prior
knowledge and predict what they were going to read; 2) the Click and Clunks stage which was offered online on the SCBLM website. During this stage, the students were asked to work with the group to note the words or expressions they were not familiar with as a "clunk" on the discussion board. The group members who clicked with those clunks came to help fix them; 3) the Get the Gist stage which was an online activity. During this stage, students were required to identify the most important idea and important point in a story by doing ten items of exercises. The questions of the exercises measured the literal level of the reading and interpretative level of what could be read between the lines. In this stage, students were also asked to work collaboratively to accomplish the reading group task. The task type needed students to read beyond the lines and apply what they read to a real world task; and 4) the Wrap Up stage, where the students were required to work in a group face-to-face to make a conclusion of what they read then discuss the advantages and disadvantages of the group work on the task. The four strategies of the CSR models including Preview, Click and Clunks, Get the Gist and Wrap Up, were explicitly taught to the students during the Preview stage and the feedback of the unit lesson was provided during the Wrap Up stage.

In terms of promoting students' reading engagement, the instructional context was arranged according to the five components suggested by Guthrie et al.(1996.) For the knowledge goal or the conceptual knowledge, the students were provided reading topics in accordance with their interest in the topics. After that, they vote for the topics during the Preview stage. Then the students’ autonomy was supported by letting them have the opportunity to select the story to read with the group. There were three choices provided under each topic. Real world interaction was promoted by providing hands-on activities which concerned real world objects or issues. During the online reading in Click and Clunks and Get the gist stage, students have the authentic texts as their choices to read. Moreover, social interaction was supported by letting the students work in a group both face-to-face in the Preview and Wrap Upstage, and online in the Click and Clunks and Get the gist to discuss and work on the reading task. Finally, the reading strategies including Preview, Click and Clunks, Get the gist and Wrap Up, were directly taught so that the students regarded themselves as competent strategy users.

The data obtained from the Reading Engagement Questionnaire, the Reading Portfolio and the Semi-structured interview was used to explore students' reading engagement. The Teacher's Observation Field Note was used to collect data from the online and face-to-face observation from a representative group consisting of two high
reading ability students, one intermediate student and two low reading ability students. The collaborative learning behavior of a mixed ability group was investigated. The face-to-face learning was videotaped then transcribed while the online learning was archived in the form of the web logs on the SCBLM website. Fore research question 1, a t-test was used to analyze the mean differences of pretest and posttest scores of the high reading ability students and the low reading ability students. For research question 2, the quantitative data from the questionnaire and the qualitative data from the portfolio, the semi-structured interview were analyzed. For research question 3, Pearson Product Moment was used to find correlation coefficient between reading engagement and CUTEP reading posttest scores. For research question 4, Teacher’s Observation Field Note was used to examine collaborative learning behavior of students. The findings of the study are reported in the following section.

### 5.3. Findings

The findings of the study are summarized in four major areas: 1) EFL reading comprehension ability; 2) reading engagement; 3) the relationship between reading engagement and the reading posttest scores; and 4) collaborative learning behavior via the blended learning.

### 5.3.1. EFL Reading Comprehension Ability

In response to research question 1 , the results from the $t$ - test indicated that there was no significant difference in the reading ability among high reading ability students at $>0.05$ level with a small effect size at the value of .43. Conversely, the mean score in the low reading ability group was found significantly higher ( $<0.05$ ) with a medium effect size at value of .61. In other words, the SCBLM instruction significantly improved students' reading ability at the low reading ability level. According to the findings, only the students at the low reading ability level significantly improved their reading comprehension ability after studying under the SCBLM.

### 5.3.2. Reading Engagement

In response to research question 2 , students' reading engagement was investigated by using a questionnaire to collect quantitative data. The students' reading engagement questionnaire was analyzed to find Mean and SD. of the questionnaire items. Coefficient
of variation of each item was calculated. The mean score obtained from the questionnaire was 3.06 of the four Likert scales ( $\mathrm{N}=53$ ). The results indicated that the students showed reading engagement at a significant level and had a positive view toward the SCBLM after they had their English reading lessons via the SCBLM.

Moreover, the insightful data from the portfolio and the semi-structured interview revealed that the reading enjoyment of the students. Students engaged in reading due to the satisfaction and the interest in the topic. Students preferred reading the texts that were related to the real world although some of them either preferred fiction or found the authentic texts too difficult to understand in terms of language. Regarding the aspect of social interaction, students of the low reading ability group reported a satisfactory view toward working collaboratively to accomplish the task.

However, some of the high reading ability students thought that the other members in the groups did not put much effort into the task and did not share ideas with the group. In terms of strategy-used, the high reading ability students believed that they were competent strategy users; whereas, some of the low reading ability students reported not using the strategies while reading. They preferred the traditional reading methods such as seeking assistance from the dictionary. The overall results from the quantitative and qualitative data showed that there was a significant positive effect of the SCBLM on students' reading engagement due to the value obtained from the questionnaire, and the positive response from the Reading Portfolio and the semi-structured interview.

### 5.3.3. The Relationship between Reading Engagement and the Posttest Reading Scores

In response to research question 3, the relationship between students' reading engagement and their reading posttest scores was investigated.Correlation coefficient between students' individual total scores of the reading engagement questionnaire and their posttest scores was calculated with Pearson Product Moment. The SPSS program was used to analyze the data. The findings from 53 students showed a positive low correlation at .171. It indicated $2.92 \%$ at variance held in common by engagement and posttest scores. Then, the relationship between the student's posttest reading scores and their reading engagement in the high reading ability group and the low reading ability group was calculated by non-parametric statistics using Spearman’s rho. The findings indicated a positive low correlation at .186 in high reading ability students with $3.45 \%$. Meanwhile, the findings also indicated a positive low correlation at .078 with $0.6 \%$ in
low reading ability students. In other words, there was a weak positive relationship between the student's posttest reading scores and their reading engagement in both reading ability levels. The results revealed that there was no significant relationship between the total scores of the reading engagement questionnaire and the CU-TEP posttest scores. According to the results, the scores of the students' posttest scores and their reading engagement tended to be in the same direction, but with the low values of correlation. In summary, students' reading posttest scores and their self-reported reading engagement showed a positive relationship but not at a significant value.

### 5.3.4. The collaborative learning behavior via the blended learning

In response to the research question 4, students' collaborative learning behavior for both face-to-face and online learning was observed and analyzed qualitatively using the Teacher's Observation Field Note. The social interaction as the group work dynamic, workload sharing, and engagement in doing group task both online and face-to-face were investigated. In addition, the working skills of analyzing information, and the quality of comments and task outcomes were observed and analyzed qualitatively.

The face-to-face data of students' collaborative learning behavior in class was analyzed based on the evidence obtained from a video transcription of a representative group, and the online collaborative learning behavior was analyzed based on students’ web logs on the SCBLM website. The observation was conducted two times. The first time was after unit 5 "Fashion" in week 5 and the second time was after unit 11 "Animals" in week 11.

The qualitative results indicated that the students' collaborative learning behavior was found to be different when learning via the two delivery modes of face-to-face and online learning. In the face-to-face sessions, the high reading ability students took a more outstanding role in leading the discussion. They dominated and controlled the discussion. Meanwhile, the low reading ability students showed their group support in silence. They did not voice much of their opinions but concurred with the other members until the end of the discussion. However, they tended to understand better the text when it was explained face-to-face by the high reading ability students. It was found that the low reading ability students contributed their ideas more in the online task. Therefore, the SCBLM was found effective in addressing diverse collaborative learning behavior, particularly, the low reading ability students who felt more confident contributing their ideas via online learning than in the face-to-face learning.

### 5.4. Conclusion of the SCBLM Development

The Social Constructivism Blended Learning Module (SCBLM) has radically changed the teaching paradigm for EFL reading instruction In a traditional classroom, most Thai teachers use direct translation methodology in English reading instruction (Saragnam,1986; Aksaranugraha, 1989 cited in Kuttiya, 2001); whereas the SCBLM encourages the learner-centeredness approach in a way of Social Constructivism promoting in the learning. The SCBLM shifts the importance from teacher's to student's role by employing social constructivist and face-to-face and online blended method to enhance student's EFL reading ability and student's reading engagement. In contrast with traditional reading instruction method, the students can control over their own learning under the SCBLM while working collaboratively in a group. Therefore, they become more actively involved. In the study, they work in a mixed ability group at every stage of learning: Preview, Click and Clunks, Get the Gist and Wrap Up. Thus, all the students in the study take charge of their own learning with their own pace to achieve group goal in each task.

The results in the study indicated that the low reading ability students posttest mean score was higher than their pretest mean score at significant level ( $\mathrm{p}<.05$ ); whereby, the posttest mean score of the high reading ability students did not increase at significant level after they had studied un the SCBLM. Students' reading engagement was found in the study according to the findings from the reading engagement questionnaire, reading portfolio and semi-structured interview when they studied under the SCBLM. When the relationship between students' reading engagement and their reading ability was investigated, there was the low positive correlation between the two variables. Lastly, after having investigated students' collaborative learning behavior, the low reading ability students showed different collaborative learning behavior in the blended learning environment under the SCBLM. Although the results from the study are not applausive since solely the low reading ability students seems to benefit from the SCBLM in terms of their English reading ability improvement and the leaning context via face-to-face and online which suited their different collaborative learning behavior, it is worth discussing the pedagogical benefits found in the SCBLM. Despite some of the unsatisfactory results from the study, the SCBLM still yields some gains to the field of instruction. The SCBLM offers an alternative way of teaching as an infant stage of integrating technology in form of blended face-to-face and online learning in Thailand. Therefore, the results
from the study can provide an insight into the nature of use of technology in the EFL reading instruction for those who plan to carry this type of study.

The SCBLM which implements the web-based activities throughout the study is certainly an option that offers instructors a range of advantages. First, teachers can schedule the tasks or track the attendance since the information can be archived online. Secondly, feedback can be provided with relative ease via the online tools such as message board, email, etc. Furthermore, the online materials can be updated and customized at all time; therefore, the teacher can adjust and tailor the course with feasibility. Students also gains from the SCBLM. Students are allowed a more flexible pace of learning. Students can profit from an interactive and engaging environment with a range of learning scaffolds and supports by working in a group with the synchronous tools as chatrooms and asynchronous tools as discussion boards. However, teachers should be aware of some inconvenience known as technical problems that can occur from time to time. For example, there's case that the server's down and the learning process can be interrupted.

Reinking (1988) stated that computer-based instruction in reading plays important role. It is effective for a wide variety of reading skill and concept areas. According to Reinking, the emphasis should not be on using computers to increase reading achievement, but rather on whether teachers use computers for meaningful reading instruction.

Thus, in developing the SCBLM, the researcher make sure that students have the opportunity to work with online materials that use content and language that are within the range of their conceptual development. So, students can have opportunities to encounter a wide variety of text structures upon which to apply their comprehension skill in some meaningful way. In the study, students expressed their preference of online reading to the traditional textbooks during the semi-structured interviews.

The SCBLM also makes contributions to the grounded theories: Social Constructivism, Reading Engagement and Blended Learning. In the following topics of discussion, the results from the present study will be discussed in details.

## 5. 5. Discussion

In this part, quantitative and qualitative findings concerning the effects of the use of the Social Constructivism Blended Learning Module on the students' reading ability and reading engagement are discussed. Four aspects from the findings lead the discussion. They are as follows: 1) The effects of the SCBLM on the students' reading ability; 2) The effects of the SCBLM on students' reading engagement; 3) The effects of the SCBLM on the relationship between students' reading engagement and reading ability; and 4) The effects of the SCBLM on students' collaborative learning behavior.

### 5.5.1. The Effects of the SCBLM on the Students' Reading Ability

According to the findings which indicated that the low reading ability students gained higher posttest reading mean score than one of the pretest; whereas, the posttest reading mean score of the high reading ability students did not significantly improved after having studied under the SCBLM, the supporting reasons to explain the findings are going to be discussed as follows.
5.5.1.1 The effects of the SCBLM on the high reading ability students

The reasons for the insignificant English reading ability improvement
in the high reading ability students can be explained with the theory of Social Constructivism integrated in the SCBLM.

In the study, the SCBLM employed the principles of the social constructivism as a pedagogical approach to the learning. The Social Constructivism Blended Learning Module or the SCBLM has been developed based on the concepts of collaboration and scaffolding. The collaboration is promoted by having the mixed reading ability students work together in a small group during the stages of the instruction: Preview, Click and Clunks, Get the Gist and Wrap Up. Via the blended delivery modes: the face-to-face and the online, the students have an opportunity to work together both in face-to-face traditional learning and on the SCBLM Website. With the synchronous and asynchronous tools integrated in the SCBLM, students can control over their self-paced learning.

Consequently, the effects of the social constructivist approach in the SCBLM plays an important role on student's reading ability in the study. Much of the literature has described the benefits of social constructivism. In the study, the high reading ability students assume the role of tutors in the small groups and help scaffold reading comprehension in the low reading ability students. The findings from this study are,
however, inconsistent with the results of previous research which identified significant improvement in high reading achiever students (Driscoll, 1994; Hausfather,1996; Pootrakul, 1985; Klingner \& Vaughn, 1996; Klingner, Vaughn, \& Schumm, 1998; Klingner \& Vaughn, 2000).

The insignificant effect of the SCBLM on the high reading ability students can be explained by two main reasons.
5.5.1.1.1 The first explanation is the phenomenon called, the "free rider effect" which occurred in the face-to-face learning in the study. The "free rider effect" is described as when the less capable members spend less effort in group tasks and just go to the team work motion (Kerr and Brunn, 1983). There have also been a number of studies warning about the drawbacks of collaborative learning for the more capable peers in a working group. Research has demonstrated that peer ratings can affect individuals' perceptions about the cohesiveness and performance of their groups (DeNisi, Randolph, \& Blencoe, 1983). In a meta-analysis of studies that examined group evaluation, Karau and Williams (1993) discovered that the potential evaluation of individual contributions to group work had an especially strong influence in ensuring that each team member did a fair share of the work. Also, Druskat and Wolff (1999) found that peer appraisals can have a positive influence on a group's ability to work well together and on team members' satisfaction with the group. The free rider effect is also found in the present study during the face-to-face observation. The low reading ability students contributed a less share of the group work in the face-to-face mode of learning.

### 5.5.1.1.2 The second reason can be that of the reading ability in the

 high reading ability students. In the study, the CU-TEP reading pretest mean score of the high reading ability students is 27 of a total of 60 . This score value ranks the student at a moderate user level according to the criteria values from the Chulalongkorn University Academic Testing Center. This suggests that the high reading ability students did not reach the level of competent readers. Therefore, to have them scaffold the low reading ability students might burden their own learning in some aspects. There is also supported by Randall (1999) who revealed in her study that to make members of the group responsible for each other's learning could load a great burden on some students.In the mixed ability groups, the results are often that the stronger students are left to teach the low reading ability students and do most of the work. In this study, low reading ability students in groups of mixed reading ability became passive on the task
while learning in the face-to-face traditional class. In addition, at least one person in the group tended not to contribute, and let the others carry the load.

However, this is not new. Randall's study revealed such findings had been seen repeatedly in elementary and junior high school groups. In sum it might have been better if they work in a group that matched their zone of proximal development in which the actual zone and the potential zone existed in continuum. Furthermore, they might have taken the responsibility for the low reading ability peers as a great burden.

The findings of this study corroborate the findings of other previous studies in which the social constructivist approach was implemented. The research on high-ability students has produced inconsistent findings. In the study of Webb, Nemer and Zuniga (2002), the effects of group ability composition (homogeneous versus heterogeneous) on group processes and outcomes for high-ability students completing science performance assessments were investigated. The results showed that the high ability students working in homogeneous groups uniformly outperformed the high ability students in the heterogeneous groups. Students who believed that working with lower ability students may hinder their progress, might be more motivated to work in homogeneous ability groups (Saleh, 2005). In Thailand, Thai university high proficiency students did not improve their reading ability significantly after using the collaborative learning. On the other hand, the intermediate and the low proficiency students did improve their reading comprehension (Meejang, 2004; Praphruitkit, 2006).

As a result, the SCBLM which implemented the social constructivist learning approach as a theoretical framework can affect the reading ability improvement in the high reading ability students in terms of the free rider effect and the incapability of the high reading students to take charge of their own earning at the same time of being responsible for the low reading ability students' learning. Thesereasons can, therefore, explain why the high reading ability students did not gain the higher mean score despite their outstanding performance in doing the activities.

### 5.5.1.2 The effects of the SCBLM on the low reading ability students

The reasons for the significant English reading ability improvement in the low reading ability students can also be explained with the theory of Social Constructivism integrated in the SCBLM.

In the social constructivist view, the less capable students benefit from learning context in which the low reading ability students worked with the high reading ability
students in the small mixed ability group (Lou et al.,1996; Webb, Troper, \& Fall, 1995; Tudge,1992). In the study, the low reading ability students who worked in the small mixed ability group were assumed their role as tutees. The low reading ability students had opportunity to observe the more capable peers before the learning support faded. Then, they became self-reliant in reading.

Therefore, this can explain the findings why the low reading ability students gained significantly higher posttest reading mean score than their pretest reading mean score after having studied under the SCBLM. In the SCBLM reading instruction, the low reading ability students were assisted when they encountered the unfamiliar vocabulary or expressions in the reading texts by the high reading ability students in heterogeneous groups. The high reading ability students also took the leading role in summarizing the story in the face-to-face Wrap Up stage. For example, they identified the most important person, place, thing or most important idea in the story of "Endangered Animals" while the low reading ability students listened attentively and comprehended better.

This was confirmed by the results of the study of Tudge (1992) which indicated that the less competent students showed improvement; whereas, the more competent students did not usually benefit when they partnered with the less competent peers. In Thailand, Praphruitkit (2006) also discovered positive outcomes from the low reading proficiency students when they received the instructional teacher-directed and learner directed modes in paired and group activities.

Regarding the CSR model, more of the previous research findings where the CSR model was implemented yielded results that concur with the findings from this study (Vaughn, Hughes, Schumm, \& Klingner, 1998;), as well as in classrooms with significant numbers of low performing readers (Klingner et al., 1998; Klingner \& Vaughn, 2000; Vaughn et al., 2000; Arguelles, Klingner, and Vaughn,2004). The findings revealed that the students with significant reading problems and those who are low to average achieving students improved their reading outcomes and showed greater improvement in reading comprehension than students in classrooms where CSR was not implemented.

Thus, the findings from the study are conformed to the results from the previous research. Conclusively, the SCBLM which implemented the social constructivist learning approach as a theoretical framework was somewhat effective for the low reading ability students.

### 5.5.2. The effects of the SCBLM on students' reading engagement

In the study, the findings from the reading engagement questionnaire indicated that the level of reading engagement in students in both high and low reading ability groups was significantly high and the mean score of the reading engagement post-. questionnaire was higher than the mean score of reading engagement pre-questionnaire at significant level ( $\mathrm{p}<.05$ ). Moreover, the insightful data from the portfolio and the semistructured interview revealed their reading engagement including intrinsic motivation to read and the strategies used while reading.

The present study provided empirical evidence that the SCBLM had a significant effect on the reading engagement. This can be due the reason that the SCBLM integrates the five components of classroom context suggested by Guthrie and Wigfield (1997) which promote students' reading engagement. Those components are: the interest in the topic or the knowledge goal, autonomy, real world interaction, collaboration and the strategy-used. These constructs were according to the classroom context for reading engagement model. The five components of the classroom context in the SCBLM which are believed in enhancing the reading engagement are reported respectively.

### 5.5.2.1 Conceptual knowledge

The first component is the conceptual knowledge. In the present study, for the conceptual knowledge, the students are provided reading topics in accordance with their interest in the topics. After that, they vote for the topics during the Preview stage. The findings illustrated that students with high interest valued the domain of the content area of the topics and their interest grew by seeking for more information on those topics. In the study, students self-reported that the topics of the reading in the SCBLM were interesting and that made them enjoy the new knowledge they received. It was confirmed from the resultso that the students' oviews were broadened and they sought more information on the topics they selected. They also understood better the concepts of the content areas of their interest. However, there was evidence that not all the students were interested in the topics. Some of the negative responses stated a lack of interest in the reading.

The findings concurred with the study of Guthrie (2007). In his study, the semistructured interview was conducted with fourth grade students. Students with high interest typically exhibited a high, positive response to a book or topic, such as saying they really liked the book, statements of enjoyment of reading, pursuing a topic or an author through planning, or connecting reading to personal experiences or feelings and
enjoyed favorite topics. In contrast, the least interested readers reported that they did not have a favorite book, did not enjoy any authors, and always preferred other activities. Students with a high positive preference for a certain topic invariably had deep recollection of information or books about the topic, whereas students with a low preference for reading a topic displayed little recall and grasp of content.

In addition, a number of empirical studies yielded the important benefits on reading comprehension and the conceptual knowledge from the texts (Pressley et al.,1992, Rosenshine, Meister and Chapman, 1996). The findings of the present study build on the results from the previous work by using the conceptual knowledge in the SCBLM classroom context to promote students' reading engagement.

### 5.5.2.2 Autonomy Support

The second component was autonomy support. In the present study, the students' autonomy was supported by letting them have the opportunity to select the story to read with the group. There were three choices provided under each topic. The findings indicated that the students at the highest level of this construct preferred to choose their own reading with the group, and valued such choices highly. Students for whom choice was important had ways of ensuring they had opportunities to make choices. Interestingly, however, it was found that many of the students thought that teachers made better reading choices for them, and they did not have a strong desire to choose what they read. Moreover, some students expressed that they preferred both making their choices, as well as trusting the teachers for choosing the reading for them.

In relation to the study of Guthrie (2007), Students at the highest levels of this construct of autonomy or perceived control preferred to choose their own books and to control their reading activities. This control took the form of selecting topics, finding places to read. These students preferred the guidance of adults, rather than their own autonomy, in selecting reading materials. Kohn (1993) indicated the idea that students are capable of controlling their learning, writing. Corno (1992) supported that students could be encouraged to take responsibility for their own learning. The entire constructivist tradition is predicated on the idea of student autonomy, which is to say, the chance for students to view their learning as something under their control rather than as disembodied subject matter.

### 5.5.2.3 Real World Interaction

The third component was real world interaction. In the SCBLM, real world interaction was promoted by providing hands-on activities which concerned real world
objects or issues. Students have the authentic texts as their choices to read before going to work on online reading task in a group during the Click and Clunks and Get the gist stage. The findings revealed that students enjoyed reading the texts that related to the real world although some of them preferred fiction or found the authentic texts were too difficult to understand in terms of language. Due to the authentic texts provided in the SCBLM, students could connect prior knowledge to text, ask questions, draw inferences, and synthesize information, among other things.

The connection of the authentic texts in the SCBLM to students' real life experience establishes a purpose for reading that is personally significant and meaningful. It also piques students' curiosities for reading results in the further search to read for the topic of interest. For example, the student who is interested in cats, searches for more knowledge about the felines after reading "Extra-sensory Cats" in the SCBLM. Finally, it can foster students' creating of personal goals for reading and learning concepts in form of self-questioning.

The findings confirm the results from the previous studies. The studies reveal that the real world interaction affords experiences to readers who may have impoverished experiences about the conceptual themes and activates other students' awareness about the theme. Real world interaction is needed to prime students for engagement in reading. Students are typically interested in things that they know a little something about.( Alexander, Jetton and Kulikowich, 1995; Bergin,1999). The study of Guthrie et al.(1998) optimize reading engagement by placing strategy instruction in a rich context of realworld interactions and opportunities for self-directed learning in CORI instructional approach. Students participating in CORI were found to be more likely to learn and use strategies to gain information (Guthrie et al, 1998). Another model that has many similar aspects is the literature based model for inquiry (Short et al, 1996), which also uses a conceptual theme to connect real-world experiences and observations to literature to inspire collaborative and self directed inquiry, framed with problem-posing and problemsolving. Both programs have the potential to engage students in learning through embedding strategies in authentic contexts.

### 5.5.2.4 Collaboration Support

In the SCBLM, the social interaction was supported by letting the students work in a group both face-to-face in the Preview and Wrap Up stages, and online in the Click and Clunks and Get the gist to discuss and work on the reading task. Several interesting findings emerged in the SCBLM instruction with respect to collaboration. A number of
students reported that reading with others was enjoyable, and they had a strong positive response associated with collaboration. The SCBLM results in motivating students working with the group, discussing, and solving the unknown words or expressions together. The students seem to feel more confident to read with the help of their group members and understand more when they read and work with friends than reading on their own. On of the students stated, "When we discuss the reading, I get more meaning of the texts." In the study, the students also thought the collaboration in the SCBLM helped their understanding because they had to search for more information about that topic before working on the group task with friends.

Most of the students in the high reading ability group stated their satisfaction with working in groups as well. However, a number of the high reading ability students stated that they were not satisfied to collaborate with the group members who did not contribute the ideas to the group.

The findings corroborate the findings in the recent study of Guthrie (2007). In his study, some students enjoyed talking extensively with their teacher about the content and drama of what they were enjoying. However, this social and collaborative motivation for reading correlated least well with the other motivational constructs. Many students who had high interests, substantial involvement, and well-formed self-efficacy were relatively solitary readers. The study of McCarthey, Hoffman, and Galda, (1999) suggested in the reading engagement view that decoding, comprehension, and metacognition were enhanced through social interaction. In their study, one first grade classroom teachers found the opportunities for interaction to engage in meaningful literacy activities. The social interaction included sounding out words together, decoding words with a partner, shared reading with a partner, learning cognitive strategies from other students, and interactive read aloud of picture books. $/$ C $\downarrow$ §
5.5.2.5 Strategy-Used $\sigma$. 9,8 . 9 and Clunks, Get the gist and Wrap Up, were directly taught to students while studying under the SCBLM so that the students regarded themselves as competent strategy users.

The strategy-used reported by the students indicated the belief of students in themselves as competent in using the strategies to help smooth reading. The strategy instruction in the SCBLM seems to boost confidence in students as found in the students' report of using the strategies to get through the reading. They break the unfamiliar words into smaller parts or use the prefixes and suffixes. Sometimes, they look for the key ideas
in the context clues. And, they summarize what they read to see the macro-picture of the story. However, students' responses did not frequently refer to comprehending texts across a variety of topics. Some of the low reading ability students reported not using the strategies while reading. They still believed in the traditional use of a dictionary.

The findings supported the study of Guthrie (2007). Guthrie found that the attributes implicit in this definition and emerging from students' responses to the interview questions were: belief in oneself as a good reader, confidence in reading, and knowledge and use of strategies in reading. Based on students' responses in his study to the interview questions, it also appeared that generalized efficacy regarding "being a good reader"' was a topic many students did not discuss with elaboration.

Another study of Guthrie and Wigfield (1997) used eleven general motivational constructs to measure aspects of reading engagement that would allow them to measure student perceptions of self and of the value of reading. The researchers used motivational constructs including ability beliefs as competent strategic readers, subjective task values such as interest, importance, and usefulness of an activity, goal setting, and self-efficacy. Wigfield and Guthrie (1997) general motivational constructs corresponded to Cambourne's (1995) which stated that engagement occurs when students believe they are capable, are unafraid of physical or psychological harm, and are learning a beneficial activity.

The results of the present study were confirmed in the aspect that reading engagement can be fostered by the classroom context of Guthrie and Wigfield (2000) and attained from previous research studies. Guthrie, Wigfield, Barbosa et al, (2004); Guthrie, Wigfield, \& Von Secker, (2000) have identified several teacher practices including the emphasis on learning and knowledge goals, the provision of real-world interactions connected to reading topics, the comprehension strategy instruction using interesting information and literary texts, the support for student autonomy, and the support for student collaboration, appear to optimize engagement in reading, particularly when implemented in concert with one another (Stipek, 2002). Lutz, Guthrie and Davis (2006) analyzed relations among student engagement and the classroom context, they identified teacher practices within the lesson that corresponded with increased, decreased, and sustained engagement.

Based on the findings from the present study which build on from the results of the previous research, the SCBLM showed a significant effect on students' reading engagement by integrating five components of the classroom contexts including
conceptual knowledge, autonomy support, real world interaction, collaboration support and strategy-used, to interact to foster the reading engagement in students by increasing intrinsic motivation and self-belief as competent strategy users.
5.5.3. The effects of the SCBLM on the relationship between students' reading engagement and reading ability

The results in the present study show a low positive relationship with the small correlation values between students' reading engagement and their English reading ability. Although the results contradict the previous research which state that the reading engagement and reading achievement are synergistic (Campbell, Voelkl and Donahue, 1997; Kirsch et al, 2002; Guthrie et al, 2001), the findings are nonetheless promising due to the positive correlation value obtained.

The report of the Program for International Student Assessment (PISA) 2007 indicates that student's engagement in reading is associated closely with reading achievement. Student engagement is an important and well-documented predictor of academic achievement in general, as well as in specific subject areas including reading (Fredricks, Blumenfeld, \& Paris, 2004; Guthrie \& Wigfield, 2000).

The controversial findings in the present study can be discussed as follows:
5.5.3.1 The reading ability of the students in the present study can be one of the reasons to explain the low correlation between students’ reading engagement and their reading ability. In the study, the reading ability is determined by the CU-TEP reading test scores on the basis of percentile value. To categorize students into high and low reading ability groups encounter the problem since the mean score obtained in the pretest is 20 from the total of 60 scores. According to the benchmark set by Chulalongkorn University Academic Testing Center, most of the students are in the range from marginal to moderate users. Therefore, the results might be from the fact that the majority of the students do not truly possess high reading ability. The previous research state the explanation of the no correlation between students' proficiency and the strategies used. The explanation is that students' proficiency does not reach the proficient level (Kheowruenromya, 1994; Piamsai, 2005).
5.5.3.2 The second reason might be due to the one-way self-report
from the students on the reading engagement. The study use self-report of students on students’ reading engagement triangulated from reading engagement questionnaire, portfolio and semi-structured interview. However, it might be better to add data from a
researcher's view to triangulate in two-way view. In the recent study of Guthrie et al. (2007), the data analysis from semi-structured interviews on motivation self-reports of the fourth grade students showed that the students' self-reported motivation on the MRQ (Motivation for Reading Questionnaire) did not predict reading comprehension growth nor vice versa. It was recommended that reading comprehension growth should also be observed by interviewers.

However, since this study is an initial study and the first stage of investigating the relationship of the two variables: the reading engagement and the reading achievement scores, the positive relationship found in the study shows the tendency of improvement in this type of relationship despite the low positive correlation.
5.5.4. The effects of the SCBLM on students' collaborative learning behavior

The results in the present study indicate that the collaborative learning behavior of the students is different when studying under the SCBLM via the two delivery modes, face-to-face and online learning. In the face-to-face sessions, the more capable peers in the group took a more outstanding role in leading the discussion. Meanwhile, the low reading ability members agreed silently. However, the students of both ability groups contributed their share of ideas to the group on the online task at relatively the same level. The findings support the results from the previous literature. Many researchers revealed controversial findings of the online and face-to-face collaboration. Within their online collaborative groups, they are challenged by the paradoxical tension generated by their desire to be a part of the group and their fear of being rejected by the group (K. Smith \& Berg, 1987) and the difficulties associated with communicating online without the normal physical cues (McConneII, 2000). On the other hand, it has been stated that the benefit of online group work is that the social cues and norms are less obvious in online communication; therefore, the interaction pattern is not likely dominated by a few members (Kim et al., 1999). \% 6 bo

The SCBLM seems to provide positive effects for students, particularly the low reading ability students, who express the collaborative learning behavior differently during the face-to-face and online learning. The reason to explain its positive effects can be due to the benefits from the blended learning features in the SCBLM.

The SCBLM employed the blended learning platform of face-to-face in the Preview and Wrap Up stage and online instruction in Click and Clunks and Get the gist. Due to the double delivery channels, the blended learning benefits the students in terms
of providing option for different learning styles and in this study, different collaborative learning behavior. In the previous work, this hybrid approach has been developed as completion to what e-learning lacks such as human interaction and delay in feedback in asynchronous learning (Lauriard, 1993; Murphy, 2002; Thorne, 2003; Osguthorpe and Graham, 2003; Heinze and Procter, 2004; Lim, 2002 cited in Yoon and Lim, 2007). On the other hand, it is also stated the blended learning can cover the flaws of the face-toface learning. For example, learning online is much less intimidating than in the classroom since anonymity provides students a level playing field undisturbed by bias. Students can also think longer about what they want to say and add their comments when ready. In a traditional class room, the conversation could have gone way past the point where the student wants to comment.

Based on the previous findings, it is determined that students in the present study who received the reading instruction under the SCBLM, are likely to benefit much more from the learning in terms of self-pacing, or being able to work at their own pace, and learning styles, like auditory or visual students who benefit from the multi-media features of the SCBLM website. Moreover, blended learning promotes diverse collaborative learning behavior in low reading ability students who contribute more when working online than face-to-face. There is also a learning flow and students are able to continue reading or do the working outside classroom, with multiple selections of resources to read.

Therefore, SCBLM which integrates the blended learning is found somewhat effective in addressing diverse collaborative learning behavior, particularly the low reading ability students who felt more confident contributing their ideas despite the quality via online learning. In addition, the low reading ability students also have the opportunity to scaffold their reading comprehension face-to-face with the high reading ability students in the group.

### 5.6. Implications and Recommendations

The SCBLM has the characteristics of a multi-component approach to enhance reading comprehension and reading engagement in upper-secondary school students. Since the SCBLM instruction procedures take place in a multimedia or Internet-based the computer room and there's a small sample size in the study, the findings may not be generalized to all settings. However, these findings can provide useful insights to
pedagogical approaches in other similar settings. Based on the findings and the discussion of the study, recommendations are made for the research consumers and teachers who are interested in the implementation of the SCBLM

### 5.6.1. Implications and recommendations for EFL Reading Instructors

There are some pedagogical implications and recommendations for the teachers who plan to use the SCBLM in reading instruction. They are as follows.
5.6.1.1 Implications and Recommendations for Small Group Work

Reading instruction with the SCBLM shows promising significant improvement in the low reading ability students. The SCBLM was found effective because the low reading ability students increased the reading ability at a significant level. It is believed that the findings from this study yield important implications for the mixed reading ability or heterogeneous classroom. Although there are a number of studies that showed the positive effects of small group on student achievement (Slavin, 1990,1996; Johnson et al. 1991; Johnson and Johnson, 1994; Springer, Stanne and Donovan, 1999; Bartlett et al., 1999; Smith \& MacGregor, 2000; LaLopa, \& Sorgule, 2001; Frash Jr. et al., 2004), it could happen that less proficient students are less active than other members of the group (Jacob et al., 1996; Oconer\&Jenkins, 1996, cited in Klingner\&Vaughn, 2000).

Therefore, teachers who implement the SCBLM should pay close attention to students' participation level. This is to keep away from the "social loafing" which is one of the factors that seriously affects the development of teamwork (Michaelson, Knight \& Fink, 2004). Furthermore, teachers should make adjustments if some students seem marginalized. The effectiveness components of small group work success should be taken into consideration. First of all, the high reading ability students should have the opportunity to work with both types of heterogeneous and homogeneous groups. In the heterogeneous or the mixed ability groups, they can help scaffold the low ability students and in the homogeneous group, they can have the opportunity to work in their proper Zone of Proximal Development. Rosser (1997) stated in his study that it might be better to have a homogeneous group than to hinder the learning of students who were already marginalized. Rearranging the members of the group is suggested from time to time.

The small group work in the SCBLM is considered the primary factor that helps the low reading ability students gain much of the reading comprehension. The teacher should treat students as active learners. Teaching methodologies should stimulate learners
to construct knowledge and learning environments should be collaborative and supportive.

In Thailand, the high achieving students are provided the opportunity to enhance or accelerate their ability in many school programs as the program for the high intelligence or the enrichment program for English reading ability students at Chulalongkorn Demonstration School for instance. It would be interesting if the low achieving students are offered an alternative way of learning. Therefore, the SCBLM is strongly recommended for the teachers who have sought a way to improve the reading ability of the Thai low reading ability students.

However, collaborative learning takes time to implement. Starting the unit lesson takes more time especially when the students are novices to all types of learning in this study such as the web-based learning. Thus, the teachers should seek to manage the class systematically especially for large sized classes to smooth the instruction. In addition, thorough guidelines for activities should be provided for students when starting the implementation of the new method of learning.
5.6.1.2. Implications and recommendations for the integration of the reading engagement classroom context in the instruction

Although the SCBLM did not establish a strong relationship between reading engagement and the students' posttest score, it yields evidence of a positive relationship. This suggests positive effects of the SCBLM on the reading engagement. The present study is at the infant stage; therefore, it might be beneficial to investigate to what extent the relationship of reading engagement and reading achievement scores would vary when applied with the students in different contexts such as education level, age or school setting.

The teachers who intend to implement the SCBEM in the classroom are suggested to integrate components models of instruction for promoting diverse students' engagement in learning and academic success. Self-involvement in time spent on the extended reading is strongly recommended. According to Guthrie et al.(2007), students who are absorbed in reading, and spend extended amounts of time reading are likely to increase reading engagement. The relationship between student engagement and the classroom context corresponds with increased, decreased, and sustained engagement. As a result, teachers should integrate such classroom context model to enhance the intrinsic reading motivation in students. However, the teacher should bear in mind that there might
be differences among individuals. For example, there are some students who prefer fiction reading to non-fiction. This suggests that the balance of the components should be tailored in accordance with the target students.
5.6.1.3 Implications and Recommendations for the Integration of Blended Learning in EFL Reading Instruction

Blended learning is advantageous to the students in reading instruction via the SCBLM. Due to the flexibility of web-based reading, lesson plans or reading content can be modified to fit the needs of the students. Blended learning in the SCBLM allows the teacher to look for creative ways and use a variety of media to address the specific needs of the students. Teachers should be aware that organizations are recognizing increasingly the importance of tailoring learning to the individual rather than applying a 'one-size-fitsall' approach (Thorne, 2003)."

Blended learning is not simply adding an online component to a lesson but it is used as an empirical part of the lesson. Excellent opportunities exist for teachers to make learning interactive, and dynamic when using blended learning. With the features of the hybrid learning of the SCBLM, a teacher can maximize the learning activities both inside and outside the classroom. Teachers are recommended to guide the students thoroughly at the very start of a lesson to avoid frustration. When a student reaches the point that he or she can work with the group and accomplish a task online without assistance, such student will encounter a learning experience that is deeper and more rewarding.

### 5.6.2. Implications and recommendations for EFL Students

Students should manage their time to read better. It is understood that Thai students are responsible for the learning of eight subjects in one semester. However, the SCBLM provides the benefit of self-pace reading so that the students can manage their own learning. According to Guthrie (2007), self-involvement of time spent on the reading can enhance reading comprehension. Thus, EFL students are recommended to manage their time to read better to increase comprehension in their English reading.

### 5.7. Recommendations for Further Study

5.7.1. It is recommended for other researchers who intend to expand this study to conduct the experiment over a longer period. The number of subjects in the present study was limited in terms of generalizability; therefore, it would be beneficial to explore in future studies whether it will yield similar results when implementing the SCBLM with subjects in other settings such as other schools, or with the subjects of other levels such as university level. For those who intend to replicate the study, it would also be interesting to explore the use of the SCBLM with other group compositions such as the high ability students in a homogeneous group. It would be intriguing to investigate the extent of the increase in reading ability in high reading ability students in such groups.
5.7.2. Future studies should investigate whether the engagement model in this study could hold across age, gender, and achievement levels. It would be important to examine whether the relations in the model differ in the age and gender. It is reasonable to assume that the reading engagement model would work with students of both genders; however, this issue requires further analysis. The multi-dimension of evaluating reading engagement is recommended to triangulate data from another party's point of view other than the self-report from students. For example, a teacher's observation and report should be considered for use in further research.
5.7.3. The present study is just a beginning to clarify the benefits of using computers in the blended delivery mode to teach reading. Since there is no definite proportion of the face-to-face and online learning, it is recommended that other researchers should tailor the blended combination according to the needs of the subjects in other studies. Attitude toward the blended learning should be considered to get more insight into the affective domain of the students in the blended learning environment.

### 5.8. Chapter Summary

Chapter five provides a brief summary of the study with objectives, research design, research methodology, and results from the study. Then the discussions are led based on the research questions of the study: the effects of the social constructivist approach on students’ reading ability, reading engagement and the classroom context components, the relationship between reading engagement and the posttest reading scores
and students' the collaborative learning behavior via blended learning; The implications that are suggested for the SCBLM implementation; The social constructivist approach benefited more the low reading ability students than the high reading ability students; Reading engagement can be fostered by the five components of classroom context: knowledge goal, autonomy support, real world interaction, collaboration and the explicit strategy instruction; Blended learning suited all types of self-paced learning and collaborative learning behavior of students particularly the low reading ability students. Finally, recommendations for further study are provided to explore more insight English reading instruction for EFL students.


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Appendix A<br>Instructional Manual of Social Constructivism Blended Learning Module

## I. Rationale

The importance of reading English has been recognized for some time as one of the major components of communicative skills for EFL students. According to scholars of literacy, ESL/EFL readers would make better progress and attain greater development in all academic areas with strengthened reading skills (Anderson,1999; Nagy \& Herman,1987; Krashen,1984; Grabe,1991; and Antepara,2003). In Thailand, English reading competency is required at all levels of study. A considerable amount of information in textbooks and on the Internet is in English. Students are exposed to English through textbooks, magazines, or websites. However, previous studies have reported findings of unsatisfactory reading ability outcomes in Thai students. A major problem of Thai EFL students is difficulty in interpretative and critical comprehension when reading in English (Thammamongkol, 1970; Angwatanakul, 1992:158-161; cited in Nitsaisook, 2002; Mejang,2004). Saragnam (1986) suggests that one reason for this is the use of the direct translation methodology and limited opportunity to work on activities. Another cause might be the learners themselves. Nuttall (1996) claims that poor learners can be trapped in a vicious cycle and may find reading laborious. When they do not enjoy reading, they rarely read, and their decoding skills suffer. Thus those who can read competently in English have access to information not available to those with poor reading skills. This study, therefore, attempts to find a better alternative for maximizing Thai students' EFL reading ability and thus increase the nation's potential as well as broaden individual outlook in the borderless era. The Social Constructivism Blended Learning Module (SCBLM) has been developed as an alternative?method for promoting not only English reading ability in Thai secondary students but also to offer the possibility of enjoying reading in English. Students may, then, gain intrinsic motivation for engagement in reading as lifelong EFL readers.

## II. Theoretical Framework

The conceptual underpinning of a development of the Social Constructivism Blended Learning Module is based on the theories of Social Constructivism, Collaborative Strategic Reading Model, Blended Learning and Reading Engagement.

## Social Constructivism

Social constructivism was developed by Lev Vygotsky in the 1970's. The theory is underpinned by the two main concepts of collaborative learning and scaffolding knowledge in the Zone of Proximal Development. Vygotsky (1978) believed that cognitive functions originate in, and must be explained as products of social interactions. Knowledge is not simply constructed, it is co-constructed. One of the essential elements of Social Constructivism is scaffolding. Peer-scaffolding is a step towards independent use of better reading strategies. (Wilson, 2003).

## Collaborative Strategic Reading (CSR)

Collaborative Strategic Reading (CSR) is a reading comprehension practice proposed by Klingner and Vaughn (2000) that combines two instructional approaches: Modified reciprocal teaching (Palinscar \& Brown, 1984), and, cooperative learning (Johnson \& Johnson, 1987) or student pairing. The CSR Model was originally used on children with learning disabilities to improve reading and build up vocabulary. This reading model is comprised four strategies: Preview before the reading, clicks and clunks during reading, get the gist during reading and the wrap up after reading.

Collaborative group work and knowledge building from social interaction is nowadays transforming learning environments from a shared physical space to distant places linked via cyberspace. Collaborative learning or group reading and discussion can be carried online synchronously and asynchronously via electronic tools if the students have the Internet at home. However, online learning alone is not without limitation or drawbacks such as the 'facelessness' of interaction, with its lack of verbal and facial cues, body language; in addition there are the technological breakdowns, and the lack of
discipline of learners. Therefore blended learning is presented as a solution to such drawbacks in online learning.

## Blended learning

Blended learning is the label commonly used to describe courses that combine face-to-face classroom instruction with online-based learning in a way that moves a significant part of the course online and, as a result, alters the way classroom seat time is used (Murphy,2002; Heinze and Procter,2004). What sets a hybrid course apart from the more common use of technology as a course supplement, or add-on to an existing course, is that it is redesigned to maximize the advantages of both face-to-face and virtual modes of instruction.

## Reading Engagement

Reading engagement refers to the motivated use of strategies and conceptual knowledge during reading (Guthrie and Davis, 2003). Reading engagement is a merger of motivation and thoughtfulness. A model of engagement through classroom practice has been developed and aimed at motivating struggling readers in lower secondary education. Teachers who intend to promote engaged reading in the classroom can do so by building a context for it. To create this context, teachers should identify a knowledge goal and announce it, provide a brief real-world experience related to the goal, give students some choice about the subtopics and texts for learning, teach cognitive strategies that empower students to succeed in reading these texts and assure social collaboration for learning. Engaged readers seek to understand text information, enjoy learning and believe in their reading abilities. Guthrie and Alao (1997) stated that reading engagement is strongly related to reading achievement.

Therefore, the Social Constructivism Blended Learning Module (SCBLM) is a hybrid or blended way of learning incorporating the combination of online learning and face-to-face instruction in class. The instructional procedure in SCBLM has been designed according to Social Constructivist principles. The Social Constructivism Blended Learning Module aims to promote English reading ability and reading engagement in Thai secondary students.

## III. The context and the setting

The context of the English reading class where the Social Constructivism Blended Learning Module (SCBLM) will be implemented is upper-secondary school students who study in a demonstration school in Thailand. Therefore, they are EFL learners. There will be $5311^{\text {th }}$ grade students (Mattayomsuksa 5) who enroll in an English Reading course. The average age is 16 years old. The language level is upperintermediate. Students are believed to have enough background of English learning and computer literacy by having prior courses in both subjects.

## IV. Goals

The Social Constructivism Blended Learning Module is an instructional module which is designed to offer students an alternative way of reading instruction via face-to-face and online delivery modes. The students will learn the reading strategies to comprehend better the texts in English. The students will learn how to improve their English reading ability by working on the task collaboratively in groups. The learning module will promote reading ability by focusing on the development of English reading comprehension and the capacity to acquire content knowledge through reading. At the end of the SCBLM implementation, students are expected to read in English with better comprehension. The engagement of reading in students is also expected to increase which means that students will feel more motivated to read in English with the ability to use the reading strategies.

a variety of reading texts were put on the website with the reference of the sources. Each topic consists of 3 stories. Students can select with the group to read one of the three stories. Through this, students attain their knowledge goal and learning autonomy is supported. The selected texts are authentic and non-fiction. This aims to increase the relation of students' knowledge to the real world and to activate real world interaction.

### 5.1 Topic Selection

The content of the model will be organized into topical units. All the topics are selected according to the results of a need analysis inventory, carried out at Chulalongkorn University Demonstration Secondary School in the 2006 academic year. The target learners who answered the questionnaire are 131 Mattayomsuksa 5 or grade 11 students. They were asked to rate 1 to five their favorite topics which they prefer to read in English. Only the most frequently chosen topics of the students were counted to arrange the topics of reading in the Social Constructivism Blended Learning Module. The twelve topics are as follows:

1. Entertainment 21.37 \%
2. Computer games and games 16.03 \%
3. Sports $15.26 \%$
4. Travel 7.63\%
5. Fashion 6.87\%
6. Hobbies and leisure 6.10\%
7. Science and technology 3.81\%
8. Architecture\& decoration 3.81\%

9. Astrology and supernatural phenomena $3.05 \%$ a $\frac{\sigma}{6}$ g ?
10. Animals 2.29\%
11. Cultures 1.52 \%

Only the top twelve topics were selected. The rest are: education, health and wellness, education and economics. The other topics on the questionnaire, gardening, politics, daily life and family, and social news, were chosen as the most favorite topic by none
of students. Three students added their preferred topics as cars, philosophy and war.

### 5.2 Text selection

The reading materials are from a wide range of sources under the twelve topics of students' interest. The texts are selected with some consideration. According to Aebersold and Lee Field (1997) for the L2 classroom, two criteria that shape the selection are: the cultural content of the work and the relevance of the work to the lives of the students in the class. Cultural content that is too implicit may be too complicated for the students, then the reading becomes a chore rather than a pleasure. There should be some degree of match between the students' lives and interests, so the reading texts will increase their motivation and pleasure. The texts used should vary such as schedules, application forms, advertisement, labels, textbooks, novels, short stories, newspapers, journals, magazines, academic reports, research papers, technical reports, brochures, leaflets, posters, manuals, bulletin boards, billboards, labels, business correspondence, e-mail, memorandum, websites, etc. Authentic texts are preferable and if modified, should not be modified extensively.

The selected texts are evaluated to determine the readability by using FleschKincaid formula. The Flesch/Flesch-Kincaid Readability measurements are designed to indicate how difficult a reading passage is to understand. Readability measures are primarily based on factors such as the number of words in the sentences and the number of letters or syllables per word (i.e., as a reflection of word frequency). Two of the most commonly used measures are the Flesch Reading Ease formula and the

Flesch reading Ease- The output of the Flesch Reading Ease formulais a number from 0 to 100 , with a higher score indicating easier reading. The average document has a Flesch Reading Ease score from 60 to 70. Flesch-Kincaid Grade Level- The more common Flesch-Kincaid Grade Level formula converts the Reading Ease Score to a U.S. grade-school level.

This program can provide a rough guide and a useful indication as to whether the content of the text is at the right level. However, the rough guide obtained is generally used for native readers. Hence, the reading texts from commercial textbooks for EFL students are randomly selected to be evaluated by Flesch-Kincaid program to find the range of Flesch-Kincaid grade level used in the textbooks. The textbooks are: Opportunities, Active Skills for reading, and Cutting Edge. The level of all the books is upper-intermediate. The average of grade levels of the texts found is from 8 to 12.

Therefore, the reading materials in each unit of the Social Constructivism Blended Learning Module have a Flesch-Kincaid Grade Level varying from 8 to twelve. However, the 3 stories in each unit are well balanced according to the Flesch Reading Ease formula and the Flesch-Kincaid Grade Level.

## VI. Teacher's Role:

The instructional process of the SCBL Module takes place both face-to-face in class and online. The role of the teacher is class is to be there as a facilitator or coordinator. The first period of learning is the orientation. A teacher distributes the SCBLM guidelines and explains how the module works. Students are advised how to maximize the learning via the SCBLM and take some time to get acquainted to the module. The online tasks are explained thoroughly. In the face-to-face Preview and the Wrap up sessions, students discuss in groups and provide ideas and opinions. Consequently, the teacher takes the role of a skillful facilitator and tries to help students flesh out the ideas. When doing activities or reading tasks online, the role of the teacher is reduced to being an observer and trying not to interfere while students are working. If the students have questions or problems, they can contact a teacher immediately online. The teacher can help them from anywhere without having to be present.

## VII. Student's Role:

The learning process with the Social Constructivism Blended Learning Module emphasizes the role of learners. Student-centeredness is prominent both in class and online. The student's role is to participate in a group work, then synthesize the ideas to achieve the tasks. They take full responsibility of learning and doing reading activities
online. This SCBL Module suits the various learning styles of students. When they work in groups, some students don't have a chance to speak because one or two students of the group can dominate the conversation. During the online sessions, the reticent students may have a chance to share their comments or ideas on the SCBLM discussion board.

## VIII. Instruction Procedure

8.1 Duration of instruction: 70 minutes for the pretest, fifty minutes for students' orientation, five periods of 50 minutes for the face-to-face Preview and another five periods of 50 minutes for face-to-face Wrap Up sessions. The online tasks are carried out over a week. At the end, 170 minutes are used for the posttest.

### 8.2 Teaching Model

The instruction is designed according the theoretical instructional model of the SCBLM. The steps of teaching are as follows.

### 8.2.1 Preview (50 minutes/ Face-to-face in class)

To activate prior knowledge, students have to brainstorm: and explore what they already know about the topic. Then they predict what they think they will learn about the topic when they read the passage. They may note characteristics of text length and structure. Students working together try to identify important headings and subheadings. Finally, they determine what to read and in what order, as well as what to pay careful attention to or what to ignore.

### 8.2.2 Click and Clunk (no time limits/ Online)



Students decide which parts, including vocabulary and expressions, are hard to understand, These are what are referred to as "clunks". Students note the difficult vocabulary and expressions on learning notes available on website. After that they work together in groups to try to fix the clunks by using reading strategies to look for key ideas to help understand, reread the sentence with the clunks and look for clues, or break the word apart and look for smaller words. Then they discuss the reading in groups and try to sort out all ideas.

### 8.2.1 Get the gist (no time limit/ Online)

Students try to find out what is the most important person, place, or thing in the story and seize the most important idea the story. Then they work in groups to achieve online tasks. Those tasks are having a discussion, retelling a story, making margin notes while reading, summarizing the content and adding a personal response or asking/answering questions, or drawing a conceptual picture of the story.

### 8.2.4 Wrap Up (50 minutes/ Face-to-face in class)

This session is for questions and answers Teachers/students and Students/peers interact by questioning to show understanding. Each group presents the results of the reading group task to the class then discuss the advantages and disadvantages of the learning in class.

To increase reading engagement, the SCBLM classroom context is based on the five components of classroom context to promote student's reading engagement (Guthrie et al., 1996). They are as follows.

1. To help students attain the knowledge goal, the SCBLM learning units are organized into themes which are based on the need analysis of learners. Moreover, each week, they can vote for the topic or theme of the week. It is not necessary to follow the units in order. As a result, students can read what they want to read.
2. To support student's autonomy. Students discover interesting texts through self-selected reading. In SCBLM, students can select a text from 3 texts provided under the same topic. Choice is motivating because it affords students control. A learner seeks to be in command of their environment, rather than being manipulated by powerful others.

3. To let students interact with the real world. The texts used in the SCBLM are authentic. The main role of real-world interaction is to evoke intrinsically motivated behaviors. These intrinsically motivated behaviors create the occasion for active learning and the acquisition of relevant knowledge. The real world connection establishes a purpose for reading that is personally significant and meaningful.
4. To support students' collaboration with peers, the students mainly work in groups so they have the opportunity to have social discourse in a learning community that enables them to see perspectives and to construct knowledge socially from the text. Many teachers use collaboration to activate and maintain students' intrinsic motivation and mastery goal orientation.
5. The students are directly taught reading strategies (In the study: Preview, Click and Clunk, get the gist and Wrap Up). They learn to identify the qualities of information that is helpful in reading, such as using context to find meaning, identifying the main idea of paragraphs, summarizing by modeling how to locate topic sentences and supporting information.

The instructional model of the Social Constructivism Blended Learning Module is designed to maximize the learning environment to promote reading ability as well as student's reading engagement.

Figure 1 The Instructional Model of Social Constructivism Blended Learning Module (SCBLM)


The reading comprehension of students is assessed in the Get the gist session by working on the reading exercises and the reading group task. According tō Thrasher (2000), there are three levels of comprehension:

First, the reader examines the words of the author and determines what is being said, and what information is being presented.

Second, the reader looks at the relationships between statements within the materials and from these intrinsic relationships derive various meanings. The intrinsic relationships the reader perceives are colored and influenced by his or her previous knowledge of and experience with the topic in question.

Third, the reader takes the product of the literal meaning of the texts, i.e. what the author has said and the interpretative meaning of the texts, i.e. what the author meant by what he said and applies it to the knowledge already possessed, thereby deepening readers' understanding. At the applied level, the reader selects intrinsic relationships produced at the interpretative level of comprehension and synthesizes them with concepts that are the product of previous knowledge and experience. In conclusion, the reading exercises of reading comprehension in the SCBLM have the objective to measure three levels of reading comprehension: the literal, the interpretative, and the applied levels.

Each passage in the SCBLM consists of two sets of five item exercises (Ten items in total). The example is as follows.

Figure 2: Sample of Reading Exercises


Students' scores from the exercises are calculated to find the effectiveness of the Social
Constructivism Blended Learning Module (E1/E2). The suggested value is 75/ 75.

## Appendix B

## Lesson plans of Social Constructivism Blended Learning Module(SCBLM)

Setting:

- Location - Bangkok
- ESL/EFL - EFL context students
- Age
- 16 years of age
- Grade Level
- Mattayomsuksa 5 (Grade 11)
- Language Level
- Student Needs

High, intermediate and low reading ability.

- Increasing of the reading ability and reading engagement


## SCBLM Reading Instruction

The instruction will be in according with theoretical instructional model of SCBLM. The English reading instruction will be carried out both face-to-face in the actual class and online via the SCBLM reading website. There are four main stages of teaching according the CSR model (Klingner and Vaughn, 2000). They are as follows.
I. Preview (Before reading)

Delivery mode: face-to-face

1. Each week students choose their topic from of interest to read.
2. When the class gets the topic of the week, students work in a group of mixed reading ability.
3. Students brainstorm with a group to discuss the questions which provide brief descriptions previewing the readings in the unit. The discussion questions are introduced to stimulate student interest and activate their prior knowledge on the topic. This session allow the students to have an idea of what they are going to read and get the directions of what they are going to do while and after reading. The students think more about a specific area of a theme. They make predictions based on their personal experiences, a valuable link between
background knowledge and new information is formed.
4. After that each group of students select one of the three stories under the selected topic.
5. Students read the selected story on the SCBLM website and arrange the time to work together online at home.
6. The instructor teach the reading strategies to the students. In the study, the four strategies which are taught to the students are Preview, Click and Clunk, Get the gist and Wrap Up. These strategies suggest students to look for key ideas to help understand, reread the sentence and look for the clues from the context, break the word apart and look for smaller words to find meaning.

## II. Click and Clunk (while reading) <br> Delivery mode: Online

7. Students read the selected story at their convenient time and place. After reading they list difficult and unfamiliar words or expressions they find the reading in the "Click and Clunk" discussion board.
8. Students discuss in group on a discussion board to fix the clunks.
9. Students go back to reread the story.

## III. Get the gist (After Reading) <br> Delivery mode: Online

10. Students rereading the story. Then they identify the most important person, place, thing or main idea in the story by doing the reading exercises. Each story has 10 items: First five items are to measure the literal comprehension the details of the story and the other five are to measure the interpretative comprehension.
11. Students do the group reading task at the end of the selected story online via synchronous (chatroom) or asynchronous (discussion board) tools.
IV. Wrap up (After Reading) $\sim \sigma$ Delivery mode: face-to-face
12. Students present group task in class. o
13. Students help summarize what they have read with group members and discuss what they have found from the reading.
14. Discuss the advantages and disadvantages of the work on the task that week.
15. Teacher resumes the session and provide feedback.

## Lesson plans of SCBLM English Reading Instruction Unit 1:Entertainment

Standard F1:1: Understanding reading processes; capable to interpret message written derived from reading all kinds of written words from various media and capable to apply knowledge critically.
Standard F 1.2: Possessing skills for language communication, for data,
Information and ideas exchanges, capable to apply technology to express feeling and manage learning processes appropriately

## Learning objectives

By the end of this unit, the students should be able to:

1. Read and distinguish the main idea from supporting details.
2. Recognize cohesion.
3. Make inferences.
4. Understand the meanings of vocabulary, phrasal verbs, and expressions.
5. Use strategies in reading.
6. Apply knowledge from the reading to the real world.

สถาบันวิทยบริการ

จุฬาลงกรณ์มหาวิทยาลัย

| Unit | Titles | Reading Skills | Reading <br> Strategies |
| :---: | :---: | :---: | :---: |
| 1. Entertainment | 1. From Hollywood to Bollywood <br> 2. Go Hip-Hop! <br> Go! <br> 3. Manga | - Deducing the meaning and the use of unfamiliar lexical items <br> - Understanding cohesion between parts of a text through grammatical cohesion devices - Identifying the main idea and supporting details - Recognizing the tone of the text. <br> - Making inferences | Introduce the four reading strategies of Preview, Click and Clunk, Get the gist, and Wrap Up. |

## สถาบันวิทยบริการ

 จุฬาลงกรณ์มหาวิทยาลัย
## Preview

The ore tical support:
CSR/Social
Constructivism

Purpose: To activate background knowledge
Time: 50 minutes
Delivery mode: Face-to-face Instructional process

1. Students work in a group of five of mixed reading abilities, then, brainstorm within a group to discuss the questions concerning the topic.
2. After that each group of students select one of the stories under the topic of Entertainment.
3. Students decided with a group to read and work on "Go! Hip-Hop Go!


## SCBLM English Reading

People
敂Participants

Activities
ØChats
EForums
Hot Potatoes Quizzes
Resources
Topic outline
 3a Biented Learning

## phoutile

Search Forums

Advanced search（？）

## Administration

## 6 Turn editing on

圆 Settings
3 Edit profile昭Teachers \＄1 Students it Groups Backup ${ }^{\pi}$ Restore 6 Import course data dill Scales閴 Grades L Logs $\square$ Files ［7］Help鹿 Teacher forum

My courses
Ancourses：Story 3 Manga
Reading 3 Story 3 Exercise 2
Reading Group Task

P1 Introduction
What is SCBLM？
$\square$ Leaming Objectives
List of Participants
MUsefulLinks
CH Collaborative Strategic Reading（CSR）

P Preview
AEClick and Clunks
$\square$ Story 1 From Hollywood to Bollywood E）Story 1 Exercise 1

P Story 2 Gol Hip－Hop Go！
Story 2 Exercise 1
Story 2 Exercise 2
3．Story 3 Manga

## SCBLM English Reading

> Le Jump to...

HOME » SCBLM » Resources » Preview
Update this Resource

Click to see the clips below then discuss.
1.Clip 1
2. Clip 2
3. Clip 3

Bainstorm within a group to discuss the following questions: Question 1. Watch the clips and tell what kind of the entertainment do you think they are.
Question 2. What kind of entertainment do you spend your leisure time on? Why? Question 3. Share your favorite movies/songs/ or comics with the group with supporting reasons


## 

Story $2 \mathcal{F l e s c h}$ Reading Ease level 46.6 Flesch Kincaid Grade Level 11.3

## SCBLM English Reading



Hip-hop has taken over the music industry in the US. In the same way the Williams sisters i at the National Basketball Association as hiphop players Shaquille O'Neal and Allen Iverson and hip-hopcu used to sell soda, candy, and clothes to young poople.

To see hip-hop as simply rap is to not understand the impact and influence of a greater mov, one element of hiphop. True hip-hop heads understand that hip-hop isn't just about music. It's a culture, a fashion, a set of values, and a unique perspective. Hip-hop is an economy. Its the ability to take the innersystem, and turn it into a multi-million or possibly even billion-dollar business. Hip-hop surrounds groups to address racism, oppression, and poverty, and then their leader, "Chuck D" turning it into a new political young adults active in ways of the civil rights movement.

Hip-hop tells the stories of the multiethnic urban youth and the communities they live in, ant city African-Americans. Hip-hop is aboutinner-city and lower-class life. It's about trying to live out the Ame up. It's abouttrying to make something out of nothing.

0) Ohip-hop is about theyouth culture of New York Cily taking over the world. Hip-hop is abor pain, love, racism, sexism, broken families, hard times, overcoming adversity, and the search for God. An) and just sees rap music doesn't truly understand the history and the current influence hip-hop has on the w

In Thailand there was attempt to hamess the power of Hip-Hop to encourage Thai youth to Buddhist religion. The Ministry of Culture introduced a new genre ofrap called "Dharma Rap. "Dharma is d Buddhism. The genre of music will focus on Buddhist religious principles, including sharing and being comf violent and sexist lyrics. "Dharma Rap" is part of a broader campaign being spearheaded by the Ministry of Social Development and Human Services.

The aim is to bring Thai's youth, who are becoming increasingly westernized, back to the cc religion.

http://www.:50uthspecialties.com/articles/topics/urban/hip-hopphpp http://www.thailandga.com/forum/showhread. php? $\mathrm{t}=6133$ -

http://www.ntell.culi.chula.ac.th/moodle/moodle/mod/resource/view.php?id=... $\quad 13 / 3 / 2551$
3.Students read the selected story on the SCBLM website and arrange the time to read and to work on Click and Clunks and Get the gist online at home.
4. The instructor introduces briefly four reading strategies to the students: Preview, Click and clunk, Get the gist and Wrap Up. The focused strategy of Unit 1 is Preview.

5. Students read the selected story at their convenient time and place. After reading they list difficult and unfamiliar words or expressions they find the reading in the "Click and Clunks" page on the website.
6. Students work in a group on a discussion board to help fix the clunks. Students go back to reread the story. $\qquad$
จุฬาลงกรณ์มหาวิทยาลัย

SCBLM English Reading


## SCBLM English Reading

> Sump to...

HOME » SCBLM » Forums » Click and Clunks » GROUP 3
( 3
Search forums
Display replies in nested form
Move this discussion to ...

## GROUP 3

by Pornpimol Sukavatee - Monday, 25 June 2007, 02:05 PM
This is group 3 .

Re: GROUP 3
by . Wednesday, 27 June 2007, 01:23 PM

1. racism
2. poverty
3. harness
4. enocourage
5. spearheaded

## Show parent I Split | Delete | Reply

Re: GROUP 3
by

- Monday, 2 July 2007, 09:13 PM 1. racism (n.) สทธะนชาดิเหอียดผว 2. poverty ( n .) ตวามยากจน

3. harness ( n .) เครื่อผูกปังเหียนม้าเข้ากับรก
4. enocourage (न.)ใหักำลังใจ, กระตัน $\frown$


Re: GROUP 3
by -Wednesday, 27 June 2007, 01:24 PM
ministry
http://www.ntell.culi.chula.ac.th/moodle/moodle/mod/forum/discuss.php?d=... $13 / 3 / 2551$

7. Students reread the story and identify the most important person, place, or thing in the story.
8. Identify main idea of the story.
9. Students do the reading exercises. Each story has 10 items: First five items are to measure the literal comprehension the details of the story and the other five are to measure the interpretative comprehension.
10.After doing reading exercises, work together in group to do reading group task.

## สถาบันวิทยบริการ

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Show questions one by one

1. According to the author, which tell best what the hip hop is?
A.
 political movement
B. $\qquad$ a tashion
C. ? the truth about lower class life
2. What does hiphop generally tell us? A. ? a lower class life
B.? a westernized life
C.
 a powerful life
3. What is a Dharma Rap?
A.? lyrics counting African American life
nl
$1 \longrightarrow$
http://www.ntell.culi.chula.ac.th/moodle/moodle/mod/hotpot/view.php?id=712 $13 / 3 / 2551$

SCBLM English Reading

HOME » SCBLM » Forums » Reading Group Task | Update this Forum |
| ---: |
| (7) Everyone can choose to be subscribed |
| Showledit current subscribers |
| Unsubscribe from this forum |

Story 1 From Hollywood to Bollywood
Task : Brainstorm in your group and work on a message board. Write the storylines of Bollywood movis. Don't forget to put the typical characteristics of Bollywood film in your story

## Story 2 Go! Hip-Hop Go!

Task : Brainstorm in your group and work on a message board. Write a story of a life in a day of a student and try to rhyme the words (ei. day and play, coin and join). Then rap it in the class next time. Make a nice and polite choice of words.

Stary 3 Manga
Task : Brainstorm in your group and work on a message board. Write the story lines of a manga on the message board. Then create manga's storyboard. The way to work on this is optional. You can hand in as a hard
copy or as an attached file.

Please click the group that you are in and then click reply to post your ideas


## SCBLM English Reading

> E Jump to.

HOME * SCBLM * Forums * Reading Group Task * GROUP 3

## GROUP 3

by Pornpimol Sukavatee - Monday, 25 June 2007, 02:30 PM
This is group 3.

Ratings: Mostly Connecled Knowing
Re: GROUP 3
by -Monday, 2 July 2007, 06:19 PM
แหะๆๆๆ มาประเดิม เอาเปืนแบบท่อนเฉีดต้วกันก่อนเละแล้วกันเนอะ
Hey! Hey! Youl You!
Do you wanna know about me?
Yeah! Yeah! Check this out and you will see
My lifestyle is rock as it's supposed to be
So why don't you follow me . $/$,
Here we go now!!!

http://www.ntell.culi.chula.ac.th/moodle/moodle/mod/forum/discuss.php?d=... $\quad 13 / 3 / 2551$

## Theoretical support:

CSR/Social
Constructivism

## Wrap up (After Reading)

Purpose: To have the students present their work, then get teacher and peer feedback and work together to draw conclusion of the unit.
Delivery mode: face-to-face
Time : 50 minutes
Instructional process:
10. Students present group work in class.
11. Students summarize what they have read with the group
12. Make a conclusion of the topic "Entertainment"
13. Discuss the advantages and disadvantages of the work on the task that week.

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

## Appendix C <br> A Development of SCBLM Website

## Rationale

Internet has grown dramatically and is now a world-wide network located in over hundreds of countries with Internet connections, with users from government, research institutions, schools, universities, business companies, organizations and individual homes. It becomes wide range of usage due to its features: Access to vast, actively maintained online repositories of information, global availability at relatively low cost, engaging multimedia and platform independent user interface, intuitive navigation though point and click hyper links, extensive information indexing and mapping by an array of search engines, and support for real-time communication between individual and groups (e-mail, chat, conferencing, for instance) .

The emergence and development of a new form of technology-supported instruction: web-based instruction has it prominent role in this era. Universities and colleges around the world are beginning to develop and evaluate web-based materials for use in their programs. There has been an explosion of professional conferences and organizations that focus on the web. Many of these conferences have an educational dimension to them, and many are devoted exclusively to the web and education. The use of the World Wide Web as an educational delivery medium has pushed the limits of instructional design. The Web is one of the most accessible tools available for academics to use. It allows an easy means of publishing material, it provides new learning mode, the majority of its browsers are graphical and user-friendly, and it is at low cost. The Web is basically and online publishing system using electronic distribution facilities of the Internet. It uses the facility called hypertext which allow the readers to click their mouse on a highlighted phrase or reference which would then take them to another Web site with information on that subject. Apart from text documents, the Web can also incorporate graphics and multimedia. The Web works on a client-server principle. The user launches their browser for example, Netscape or Internet Explorer on their machine which in turn interrogates a server retrieving files. Files are located via their Uniform Resource Locator (URL) or a unique address detailing the protocol for transferring the
data，the domain name of the Web server，and the pathname／filename of the actual document．

As for language teaching，current methodology focuses on getting learners to communicate in the target language and emphasizes the importance of authentic language task．Reading skills can be taught with technology．We all aware that almost Web sites which provide information are represented in English．Hence，the World Wide Web is another approach to reading skills．Healey（1999）suggest a possibility that teachers can give a group of students a list of Web sites relate to a specific topic and the task of gathering information about that topic．Each person can quickly scan a different site and report the main idea and a few significant details back to the group as in a communicative information－gap activities．If the learners themselves generate the topics and the questions they are searching，the task becomes both appeal and authentic．Anyway，the enjoy reading learners need to know about invoking background knowledge，asking themselves questions while reading，finding similarities and differences in their own experience and applying information to a wider context．Even at the level of word recognition，Hypertext programs have vocabulary help that users can link to while going through the text．

To develop a website as a tool for reading instructions for the research，we also consider the importance to the interaction of participants on the Web．Web－based projects，or in this case，a reading task and online activities are provided and the students can access at their own convenience．Interaction where participants contribute to forum at different times is called asynchronous communication．The Web also provides facilities to permit synchronous communication which allows participants to carry out live conversations and discussions．Additionally，live video can be used to create learning environment that stimulates a virtual classroom．$⿴ 囗 ⿱ 一 一 厶 儿 99 \mathrm{c}$

Due to all benefits of the World Wide Web mentioned above，it＇s attractive for teachers to use the Web as a tool of the instruction，as well as resources for interactive， task－based language learning．Therefore，the Website of English Reading will be primarily the main research instrument of the Social Constructivism Blended Module aiming to enhance English reading ability in secondary Thai learners and also to provide to learners’ joy of reading which will increase their reading engagement．

To construct a web for learning, we should consider thoroughly the details and all components of it to ensure the learning outcomes in learners. There are 2 main aspects that we will put focus on while developing this English reading website : The Instructional Design and the strategies of web-based learning.

## Theoretical framework

Theoretical framework in constructing English reading website for Social Constructivism Blended Learning Module consists of two sub-theoretical frameworks. The first design come from the synthesized theories which support the research study. They are Social Constructivism ( Vygotsky,1978), Blended Learning (Heinz and Procter,2004), Collaborative Strategic Reading Model (Klinger and Vaughn) and the last one the Model of Reading Engagement (Guthrie 1996). The second one is based the principles of website designing to be used as instructional tool in Web-based instruction. The principles of instructional design are the ADDIE Model. Thus, we will go into detail for all those principles. The first sub-framework to begin with is the framework of Social Constructivism Blended Learning Module.

## Instructional Design framework: ADDIE Model

Leshin et al. in 1992 labeled instructional design as instructional system development, in which an individual completes an ordered set of activities in order to develop instructional system. There are three basic models employed in instructional design: the cognitive model, the instructional systems design model and the constructivist model. 67919129 GUS

## ADDIE ModeI Instructional Systems Design (ISD) is a process to ensure learning does not

 occur in a haphazard manner, but is developed using process with specific measurable outcomes. The responsibility of the instructional designer is to create an instructional experience, which ensures that the learners will achieve the goals of instruction. The ADDIE model is a generic, systematic approach to the instructional design process, which provides instructional designers with a framework in order to make sure that their instructionalproducts are effective and that their creative processes are as efficient as they can possibly be. The phases of ADDIE model are:

1. Analyze: define the needs and constraints
2. Design: specify learning activities, assessment and choose methods and media
3. Develop: begin production, formative evaluation, and revise
4. Implement: put the plan into action
5. Evaluate: evaluate the plan from all levels for next implementation

Each phase of the ADDIE model is an important element of the instructional design process. In each phase, the instructional designer makes decisions that are critical for ensuring the effectiveness of the instructional experience. We will investigate phase to phase and identify a design of the English Reading website of SCBLM.

## The Analysis Phase of SCBLM

In designing English Reading, we aim the target learners at upper level secondary due to their maturity. They are expected be partly responsible for their own learning on the web. The learners are of both genders and their interests should be differ. The reading achievement scores of the learners should be heterogeneous. As for the content analysis, the criteria for text selecting is primarily on the non-fiction texts from various source; textbooks, Internet, newspaper, magazines, etc. The content is considered for its level of difficulty. It should suit the level of learning of audience who speak English as a foreign language.

The instructional process of SCBLM is put in focus. This website has for its goal to promote reading ability and reading engagement in learners. And learning outcomes, learners should improve English reading ability in reading comprehension. Students are able to read and capture main idea, recognize cohesion and make inferences. Also for word recognition. Students are able to understand the meanings of vocabulary, phrasal verbs, and expressions. Moreover, learners would develop reading engagement. Students are able to use strategies in reading. They are able to read with intrinsic motivation and become knowledgeable, and socially interactive. Those
learning objectives will be put on the web. They are informed all the criteria for the assessment of the course which are both summative and formative. The learning assessment is put together with the course syllabus on the web. The activities and reading task here will be authentic with the help of multimedia features as to capture learners'

## The Development Phase of SCBLM

The URL of the site is www.ntell.culi.chula.ac.th/moodle/moodle All the multimedia features are analyzed and selected to enhance the learning material efficiency. Links to other Web resources will be provided. Anyway we should be careful about the appropriateness in the use of graphics, animations or others. The students are about 16-17 years of age. The animation or graphics are not really necessary; on the other hand, too much cosmetics in multimedia design of the web might bring about learners’ distraction. This website is for reading instruction, so the sound feature like music is not essential.

## The Implementation Phase of SCBLM

All the steps of website verification is put in action. The suggested steps above are for checking the readiness of the use of the website as a tool. Consequently, we carry out every suggested steps for the Web implementation. Create a course outline, associating dates with reading material. Decide on course delivery, how much is to be delivered face-to-face and how much online. Prepare the materials in electronic format. All reading text length does not exceed 2 web pages. Course Skeleton is decided on the folder/directory structure, provide extra course guidelines. Add teacher information and provide the mean to contact the instructor. Make sure that the electroniclearning material is placedin the pre-arranged folder structure. Finally, preview the material and check all links. Instruct the students on how to access the course on this English reading instruction website.

## The Evaluation Phase of SCBLM

Evaluation takes in two forms. First one is evaluation by experts. Before the website is implemented, it was evaluated by at least five experts in the field of education and
technology. Another form is an interview with the users, in the study, the Grade 11 students. The students' view has been assessed through examination and feedback, so that design, development and implementation can be improved.

There are key components of website that a successful website should consider. They are its design, structure and navigation, accessibility, technical quality and content. All thsese key components should be taken into considerration to develop this English reading website for SCBLM. Thus, we go through all the detail as follows.

## The Design

The design is one of the first things that hits a reader when looking at a website. It is important that the appearance of the site and the display of text and images are well thought out. In English reading website for SCBLM, readers are able to find their way around a web page and site easily and efficiently. The web page is structured orderly and with clear heading of every section on the web, student profile, unit outline, activities and task for instance. A structured menu with many reciprocating links helps to bind the whole site together and allows readers to get to the relevant pages quickly.Background colour islight and easy on the eye, and font colors are contrast to background so the readers see better. The use of graphics or animations are at minimum in the design because learners are 16-17 years of age, so too much graphical design might distract them from the learning.


## Structure and Navigation

User-friendly menus is clear and easy to understand and show readers their position in the site, help them to quickly see the structure and where they would expect a link to take them. Headings help to describe the page and give a clear indication of the position within the website. They also help with the hierarchy of the page, and aid in search engine rankings if they are if encased in heading tags within the code. The page and its structure is designed to accommodate different screen sizes.


Log-in process is needed to enter this English reading website to ensure that only the members of the class enter the site and do the task. This website is designed to generate the group work of students who enroll this class. Moreover, we can have a record of participation on the Web.



## Technical quality

Large size images or any features that require a long download won't be put on the web. Long time downloading may loose reader's attention from the information on the web. The web page transition and links are expected to process smoothly.

## Content



The content of the English reading website for SCBLM is organized into thematic units. All the themes are selected according to the results of need analysis inventory, done at Chulalongkorn University Demonstration Secondary School. The target learners who answered the questionnaire are 131 students of Mattayomsuksa 5 or Grade $11.0 /$ q.

| 1 Entertainmente <br> T．Preview <br> Elick and Clunks <br> Fi．Story 1 From Hollywood to Bollywood <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Fi．Story 2 Gol Hip－Hop Go！ <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> © Story 3 Manga <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Reading Group Task | 2 <br> Preview <br> 胴 Click and Clunks <br> Etory 1 Thai Gamers and Online Games <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> P Story 2 Virtual Reality <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> P1 Story 3 Video Game Industry <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 压 Reading Group Task |
| :---: | :---: |
| 3 Sports <br> Preview <br> 飛 Click and Clunks <br> Q Story 1 Muay Thai <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Story 2 Extreme sport <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 Story 3 World Cup <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Reading Group Task | 4 Travel Preview Click and Clunks Story 1 Ecotourism Story 1 Excercise 1 Story 1 Exercise 2 <br> 1 story 2 Jet Lag Story2 Exercise 1 Story 2 Exercise 2 Story 3 Unseen Thailand Story 3 Exercise 1 Story 3 Exercise 2 <br> K Reading Group Task |
| ${ }^{5}$ Fashion © <br> Preview <br> 腎 Click and Clunks <br> © Story 1 Fashion Icon <br> Story 1 Exercise 1 <br> Story 1 Exercise2 <br> B．Story 2 Bangkok Fashion <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Ptory 3 A school Uniform Is in <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 茢 Reading Group Task | Preview <br> 莍 Click and Clunks <br> ［．Story 1 How To Bird Watch <br> Sfory 1 Exercise 1 <br> Story 1 Exercise 2 <br> B．Story 2 How to Fill Your Free Time With Useful Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Q Story 8 How to Hike Sately <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 蔍 Reading Group Task |


| 7 Science and Technology © <br> 9．Preview <br> Click and Clunks <br> T．Story 1 Robot <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> R Story 2 Diet Soda <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Btory 3 Global Warming <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> E Reading Group Task | ${ }^{8}$ architiccture and Decoration © <br> 㫣 Preview <br> 琵 Click and Clunks <br> © Story 1 Ban Thai <br> （1）Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> 東 Story 2 Decorating With Style <br> 国 story 2 Exercise 1 <br> Story 2 Exercise 2 <br> 萰 Story 3 Feng Shui <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 芘 Reading Group Task |
| :---: | :---: |
| ${ }^{9}$ Food and Cuisino（9） <br> P．Preview <br> 壆 Click and Clunks <br> B．Story 1 ice cream <br> － 1 Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> Bi．Story 2 Thai Food <br> －3 Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> －Story 3 Junk Food <br> ［3）Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> Q Reading Group Task | ${ }^{10}$ Astrology and Supernatural Phenomena <br> ［7．Preview <br> 㶮 Click and Clunks <br> ت．Story 1 The Year of The Pig <br> Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> ［7．Story 2 The Bermuda Triangle <br> Story 2 Exercise 1 <br> Story 2 Exercise 2 <br> Q Story 3 Tsunami Ghost <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> K Reading Group Task |
| 11 animale <br> ． 0. Preview <br> Click and Clunks <br> 1．Story 1 Endangered Animals <br> Story 1 Exercise 1 $\qquad$ <br> Story 1 Exercise 2 <br> Story 2 Within The Amazon $\qquad$ <br> จ ตmiax กรณม <br> 9 圆 Story 3 Extra－Sensory cats <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> ．Reading Group Task | ${ }^{12}$ Bulture <br> Preview <br> 䙳 Click and Clunks <br> Story 1 Chinese New Year <br> （i）Story 1 Exercise 1 <br> Story 1 Exercise 2 <br> －Story 2 Intemational Dining Etiquette <br> －Story 2 Exercise 1 <br> Story 2 Exercise？ <br> Tlory 3 Cultural Taboos <br> Story 3 Exercise 1 <br> Story 3 Exercise 2 <br> 鹿 Reading Group Task |

## Appendix D <br> Reading Engagement Questionnaire

Purpose: To survey student's reading engagement when they learn English reading via the Social Constructivism Blended Learning Module (SCBLM). The questionnaire is comprised of 2 main parts: Personal Information and student's reading engagement in reading in English.

## Definition of Term

Reading engagement $=\mathrm{a}$ joint function of motivation and the use of strategies which arise from the learning context of the knowledge goal, student's autonomy, social interaction, authenticity of the reading texts and strategies instruction. The assumption in the study is that students who took the Social Constructivism Blended Learning Module (SCBLM) in such learning context possessed the intrinsic motivation to read and know how to handle strategy-used.

## Part I: Personal Information

Name $\qquad$
$\qquad$
Class
I read books, texts or articles in English / week

## Part II: Reading Engagement Survey

Please check $\sqrt{ }$ under the number 1 to 4 to indicate the level of your reading engagement
4= Very high
3=High
2=Low



| Questions | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1. I'm so interested in the topics which I selected in the SCBLM that I seek more information on those topics. |  |  |  |  |
| 2. The topics in the SCBLM enrich my understanding in the content areas of my interest. |  |  |  |  |
| 3. I feel motivated to read more often because the topics in the SCBLM are interesting. |  |  |  |  |
| 4. I enjoy the new knowledge when I read the stories under the selected topic in the SCBLM. |  |  |  |  |
| 5. I feel satisfied when the teacher let me choose the texts to read. |  |  |  |  |
| 6. I have enough choices of reading in the SCBLM. |  |  |  |  |
| 7. I enjoy discovering interesting texts through group-selected reading. |  |  |  |  |
| 8. Choices in the SCBLM motivate me to read more. |  |  |  |  |
| 9. The reading in the SCBLM is meaningful and related to the real world. |  |  |  |  |
| 10. The meaningful texts establish a personally significant purpose for reading to me. |  |  |  |  |
| 11. I enjoy reading the texts that reflect the real world. | 3 |  |  |  |
| 12. I feel more motivated to read the authentic texts than fiction. |  |  |  |  |
| 13. I enjoy working with group members on the reading task. <br> 66 - 6 - | I |  |  |  |
| 14. I see the importance of achieving the team goal in accomplishing the reading task. | $f$ |  |  |  |
| 15. I enjoy exchanging ideas with group members about what we read. |  |  |  |  |
| 16. I feel more motivated to read when I discuss the stories with the group members. |  |  |  |  |


| Questions | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :--- | :--- | :--- | :--- |
| 17. I think learning reading strategies helps improve my <br> English reading. |  |  |  |  |
| 18. I think learning reading strategies in class is useful. |  |  |  |  |
| 19. I use the reading strategies that I learned when I read <br> texts in English. |  |  |  |  |
| 20. I read more fluently in English when I use reading <br> strategies. |  |  |  |  |
| 21. The SCBLM makes me enjoy English reading. |  |  |  |  |
| 22. The SCBLM motivates me to read more in English. |  |  |  |  |

## Appendix E Reading Engagement Questionnaire

แบบสอบถามนักเรียน
เรื่อง

การมีส่วนร่วมในการอ่านภาษาอังกฤษจากการเรียนด้วย Social Constructivism Blended Learning Module

## (SCBLM)

คำชี้เจง ผู้ตอบแบบสอบถามนี้คือ นักเรียนโรงเรียนสาธิตจุพาลงกรณ์มหาวิทยาลัย ระดับมัธยมศึกษาปีที่ 5 คำถามแบ่งออกเป็น ๒ ตอนดังนี้คือ
ตอนที่ ๑. เป็นแบบสอบถามเกี่ยวกับสถานภาพของผู้ตอบ
ตอนที่ ๒. เป็นแบบสอบถามเกี่ยวกับความรู้สึกที่มีต่อการมีส่วนร่วมในการอ่านภาษาอังกฤษ
ในฐานะที่นักเรียนเป็นส่วนหนึ่งในการพัฒนาวิชาภาษาอังกฤษ โดยมีวัตถุประสงค์เพื่อเสริมสร้างทักษะ การอ่านภาษาอังกฤษ และเสริมสร้างการมีส่วนร่วมในการอ่านภาษาอังกฤษ คำตอบของนักเรียนจะเป็นประโยชน์ต่อ การวิจัยครั้งนี้ ขอความกรุณาท่านได้ตอบแบบสอบถามทุกข้อตามความเป็นจริง ผู้วัจัยจะรักษาคำตอบของนักเรียน เป็นความลับและใช้ในการประมวลผลเพื่อการวิจัยครั้งนี้เท่านั้น

คำนิยามศัพท์เฉพาะ
การมีส่วนร่วมในการอ่าน- การมีแรงจูงใจจากภายในที่จะอ่านภาษาอังกฤษและความสามารถในการใช้กลยุทธ์ในการ อ่าน
ตอนที่ ๑. สถานภาพของผู้ตอบ
คำชี้เจง โปรดเติมข้อความในช่องว่างตามสภาพที่เป็นจริงเกี่ยวกับตัวท่าน
อายุ $\qquad$ เพศ
นักเรียนกำลังศึกษาอยู่ชั้น ห้อง. $\qquad$
นักเรียนอ่านหนังสือหรือเอกสารที่เป็นภาษ้าอังกฤษประมาณ. $\qquad$ ต่อสัปดาห์

ตอนที่ ๒. ความรู้สึกที่มีต่อการมีส่วนร่วมในการอ่านภาษาอังกฤษของผู้เรียน คำชี้เจง โปรดเขียนเครื่องหมาย $\sqrt{ }$ ใต้ตัวเลขให้ตรงกับระดับคววมเห็นของท่านซึ่งเบ่งออกเป็น 4 ระดับ คือ 4 หมายถึง เห็นด้วยมากที่สุด
3 หมายถึง เห็นด้วยมาก
2 หมายถึง เห็นดัวยน้อย
1 หมายถึง ไม่เห็นด้วย

| คำถาม | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1. ฉันมีความสนใจหัวข้อเรื่องที่อ่านที่เลือกจาก SCBLM จนกระทั่งไป ค้นคว้า เกี่ยวกับหัวข้อนั้นๆเพิ่มเติมหลังจากการเรียน |  |  |  |  |
| 2. หัวข้อต่างๆใน SCBLM ทำให้ฉันมีความรู้เพิ่มพูนในเรื่องที่ฉันมีความ สนใจอยู่แล้ว |  |  |  |  |
| 3. เนื่องจากหัวข้อน่าสนใจ ฉันจึงมีแรงจูงใจในการอ่านบ่อยครั้งขึ้น |  |  |  |  |
| 4. ฉันสนุกกับการได้รับความรู้ใหม่ๆจากหัวข้อเรื่องต่างๆใน SCBLM |  |  |  |  |
| 5. ฉันรู้สึกึึงพอใจเมื่ออาจารย์ให้โอกาสเลือกเรื่องอ่านด้วยตนเอง |  |  |  |  |
| 6. ฉันมีเรื่องที่จะเลือกอ่านจำนวนพอเพียงใน SCBLM |  |  |  |  |
| 7. ฉันรู้สึกสนุกกับการค้นพบสิ่งใหม่ๆจากเรื่องที่ฉันเลือกอ่านกับกลุ่ม |  |  |  |  |
| 8. การที่มีโอกาสเลือกเรื่องอ่านได้ ทำให้ฉันมีแรงจูงใจที่จะอ่านบ่อยครั้งขึ้น |  |  |  |  |
| 9. เรื่องอ่านใน SCBLM เป็นเรื่องที่เป็นเรื่องจริงและเนื้อหามีความหมาย |  |  |  |  |
| 10. เรื่องอ่านที่มีความหมายทำให้วัตถุประสงค์ในการอ่านของฉัน มีความสำคัญขึ้น |  |  |  |  |
| 11. ฉันรู้สึกสนุกกับการอ่านกับเรื่องอ่านประเภทเรื่องที่สะท้อนความเป็น จริงของโลก |  |  |  |  |
| 12. ฉันรู้สึกมีแรงจูง ใจที่จะอ่านเรื่องที่เป็นเรื่องจริงมากกว่ารื่องที่แต่งขึ้น |  |  |  |  |
| 13. ฉันสนุกกับการทำงานกับกลุ่มของฉันเมื่อกิจกรรมเกี่ยวกับการอ่าน |  |  |  |  |
| 14. เมื่อทำกิจกรรมเกี่ยวกับการอ่านฉันเห็นเป้าหมมายสำคัญของการทำงาน กลุ่มให้ลุล่วง |  |  |  |  |
| 15. ฉันชอบแลกเปลี่ยนความคิดเห็นกับสมาชิกกลุ่มกี่ยวกับเรื่องที่อ่าน |  |  |  |  |
| 16. ฉันมีแรงจูงใจมากขึ้นที่จะอ่านเมื่อต้องนำเรื่องที่อ่านมาพูคคุยกับกลุ่ม |  |  |  |  |
| 17. ฉันคิดว่าการได้เรียนกลยุทธ์ในการอ่านในชั้นเรียนทำให้ฉันพัฒนาการ อ่านภาษาอังกฤษของฉันได้ |  |  |  |  |
| 18. ฉันคิดว่ากลยุทธ์การอ่านที่เรียนในชั้นเรียนมีประโยชน์ |  |  |  |  |
| 19. ฉันได้ใช้กลยุทธ์การอ่านที่เรียนมาเมื่ออานบทอ่านิภาษออังกฤิษ |  |  |  |  |
| 20. ฉันอ่านคล่องขึ้นจากการที่ได้เรียนรูกกลยุทธ์ในการอ่าน |  | 0 |  |  |
| 21. ฉันสนุกกับการอ่านภาษาอังกถษใน $\operatorname{SCBLM}$ - 9198 - 9 |  |  |  |  |
| 22. ฉันเกิดแรงจูงใจที่จะอ่านภาษาอังกฤษจากการเรียนด้วย SCBLM | - | 0 |  |  |

## Appendix F Validation of Reading Engagement Questionnaire

Table 3.16: The validation of Reading Engagement Questionnaire

| Items | Expert O | Expert P | Expert Q | Expert R | Expert S | Total | Interpretation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | +1 | +1 | +1 | 0 | 0 | 0.6 | revised |
| 2 | +1 | +1 | +1 | +1 | 0 | 0.8 | reserved |
| 3 | +1 | 0 | +1 | +1 | +1 | 0.8 | reserved |
| 4 | +1 | +1 | +1 | 0 | +1 | 0.8 | reserved |
| 5 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 6 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 7 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 8 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 9 | +1 | +1 | +1 | +1 | 0 | 0.8 | reserved |
| 10 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 11 | +1 | 0 | +1 | +1 | 0 | 0.6 | revised |
| 12 | +1 | +1 | +1 | +1 | 0 | 0.8 | reserved |
| 13 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 14 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 15 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 16 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 17 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 18 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 19 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 20 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 21 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
| 22 | +1 | +1 | +1 | +1 | +1 | 1 | reserved |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## สถาบันวิทยบริการ

จุฬาลงกรณ์มหาวิทยาลัย

## Appendix G <br> Pilot Questionnaire and Value of Reliability

Descriptive Statistics (N=17)

|  | N | Minimum | Maximum | Mean | Std. Deviation |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Item 1 | 17 | 2.00 | 4.00 | 3.0588 | .42875 |
| Item 2 | 17 | 2.00 | 4.00 | 3.3529 | .60634 |
| Item 3 | 17 | 3.00 | 4.00 | 3.1176 | .33211 |
| Item 4 | 17 | 3.00 | 4.00 | 3.4706 | .51450 |
| Item 5 | 17 | 2.00 | 4.00 | 3.1765 | .52859 |
| Item 6 | 17 | 2.00 | 3.00 | 2.8235 | .39295 |
| Item 7 | 17 | 2.00 | 4.00 | 3.4118 | .61835 |
| Item 8 | 17 | 3.00 | 4.00 | 3.4706 | .51450 |
| Item 9 | 17 | 3.00 | 4.00 | 3.1765 | .39295 |
| Item 10 | 17 | 2.00 | 4.00 | 3.0588 | .55572 |
| Item 11 | 17 | 2.00 | 4.00 | 2.8235 | .52859 |
| Item 12 | 17 | 2.00 | 4.00 | 2.8824 | .60025 |
| Item 13 | 17 | 2.00 | 4.00 | 3.2353 | .66421 |
| Item 14 | 17 | 2.00 | 4.00 | 3.4706 | .62426 |
| Item 15 | 17 | 1.00 | 4.00 | 2.8824 | .78121 |
| Item 16 | 17 | 2.00 | 4.00 | 2.9412 | .42875 |
| Item 17 | 17 | 2.00 | 4.00 | 3.1176 | .69663 |
| Item 18 | 17 | 2.00 | 4.00 | 3.0588 | .55572 |
| Item 19 | 17 | 2.00 | 4.00 | 3.1176 | .48507 |
| Item 20 | 17 | 2.00 | 4.00 | 3.2941 | .58787 |
| Item 21 | 17 | 3.00 | 4.00 | 3.0588 | .24254 |
| Item 22 | 17 | 2.00 | 4.00 | 3.0588 | .42875 |
|  | 17 |  |  |  |  |

****** Method 1 (space saver) will be used for this analysis $* * * * * *$


## RELIABILITYANALYSIS SCALE (ALPHA)



Reliability Coefficients
N of Cases $=17.06 \quad \mathrm{~N}$ of Items $=22$

Alpha $=.8794$

Appendix H
Pre- and Post Questionnaire Analysis

Pre-Questionnaire Descriptive Statistics

|  | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item 1 | 53 | 2.00 | 4.00 | 2.8679 | .52027 |
| Item 2 | 53 | 2.00 | 4.00 | 2.9623 | .47887 |
| Item 3 | 53 | 2.00 | 4.00 | 2.6792 | .61311 |
| Item 4 | 53 | 2.00 | 4.00 | 3.0000 | .48038 |
| Item 5 | 53 | 2.00 | 4.00 | 2.9811 | .53675 |
| Item 6 | 53 | 2.00 | 4.00 | 2.9811 | .36640 |
| Item 7 | 53 | 2.00 | 4.00 | 2.6792 | .64371 |
| Item 8 | 53 | 2.00 | 4.00 | 2.9434 | .56891 |
| Item 9 | 53 | 2.00 | 4.00 | 3.0566 | .41208 |
| Item 10 | 53 | 2.00 | 4.00 | 2.9811 | .45954 |
| Item 11 | 53 | 2.00 | 4.00 | 2.8113 | .52097 |
| Item 12 | 53 | 2.00 | 4.00 | 2.7925 | .49453 |
| Item 13 | 53 | 2.00 | 4.00 | 2.8491 | .49599 |
| Item 14 | 53 | 2.00 | 4.00 | 2.9623 | .47887 |
| Item 15 | 53 | 2.00 | 4.00 | 2.8113 | .44100 |
| Item 16 | 53 | 2.00 | 4.00 | 2.8113 | .55666 |
| Item 17 | 53 | 2.00 | 4.00 | 3.0189 | .45954 |
| Item 18 | 53 | 2.00 | 4.00 | 2.9434 | .53404 |
| Item 19 | 53 | 2.00 | 4.00 | 2.9057 | .59692 |
| Item 20 | 53 | 2.00 | 4.00 | 2.8679 | .55601 |
| Item 21 | 53 | 2.00 | 4.00 | 2.9057 | .52857 |
| Item 22 | 53 | 2.00 | 4.00 | 2.9811 | .49964 |
|  | 53 |  |  |  |  |

Post Questionnaire Descriptive Statistics

|  | N | Minimum | Maximumo | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item 1 | D) 653 | ] 2.00 | . 4.00 | 3.1321 | \\| . 52027 |
| Item 2 | 53 | 2.00 | 4.00 | 3.0943 | . 49085 |
| Item 3 Q 0 | $\bigcirc 53$ | 2.00 | - 04.00 | 2.9623 |  |
| Item 4 | b) 53 | - 2.00 | 10.4 .00 | 3.0943 | C. 52857 |
| Item 5 | 53 | 2.00 | 4.00 | 3.0755 | . 43186 |
| Item 6 | 53 | 2.00 | 4.00 | 3.0943 | . 44996 |
| Item 7 | 53 | 2.00 | 7.00 | 3.1509 | . 71780 |
| Item 8 | 53 | 2.00 | 4.00 | 3.1132 | . 50613 |
| Item 9 | 53 | 2.00 | 4.00 | 3.2264 | . 54213 |
| Item 10 | 53 | 2.00 | 4.00 | 3.1887 | . 55666 |
| Item 11 | 53 | 2.00 | 4.00 | 2.8679 | . 62134 |
| Item 12 | 53 | 2.00 | 4.00 | 2.9057 | . 56378 |
| Item 13 | 53 | 2.00 | 4.00 | 3.0000 | . 65044 |
| Item 14 | 53 | 2.00 | 4.00 | 3.1321 | . 55601 |


| Item 15 | 53 | 2.00 | 4.00 | 3.0000 | .48038 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Item 16 | 53 | 2.00 | 4.00 | 2.8491 | .53336 |
| Item 17 | 53 | 2.00 | 4.00 | 3.0755 | .47430 |
| Item 18 | 53 | 2.00 | 4.00 | 3.0943 | .56378 |
| Item 19 | 53 | 2.00 | 4.00 | 3.0566 | .60176 |
| Item 20 | 53 | 2.00 | 4.00 | 3.0943 | .52857 |
| Item 21 | 53 | 2.00 | 4.00 | 3.1887 | .55666 |
| Item 22 | 53 | 2.00 | 4.00 | 3.0943 | .49085 |
|  | 53 |  |  |  |  |

## A Comparison of the Pre- and the Post Questionnaires

## T-Test

Paired Samples Statistics

|  |  |  |  |  | Std. Error |
| :--- | :--- | ---: | ---: | ---: | :---: |
|  |  | Mean | N | Std. Deviation | Mean <br> Pair 1 PREQUEST |
|  | 2.8997 | 53 | .28178 | .03871 |  |
|  | POSTQUES | 3.0677 | 53 | .32463 | .04459 |

Paired Samples Correlations

|  | N | Correlation | Sig. |  |
| :--- | :--- | ---: | ---: | ---: |
| Pair 1 | PREQUEST \& POSTQUES | 53 | .829 | .000 |

สถาบันวิทยบริการ

## Appendix I Student's Reading Portfolio



## Part I Personal Information

Name $\qquad$
Sex:male female

Age: $\qquad$

## Your reading this week

Date: $\qquad$
Topic of the week:
The title of the reading selected by my group:
The friends I read with:

1. $\qquad$ 2. $\qquad$
2. $\qquad$ 5. $\qquad$

This week $I$ have accessed $\mathcal{S C B L M}$ to read $\qquad$ times.

Total of time spent on the reading on the SCBLM


Our task of this unit is: $\qquad$
$\qquad$
$\qquad$
$\mathcal{H e r e}$ is our work:


1. Please reflect on your thoughts toward the reading topic and the story ? you've read with your group this week. Is the chosen topic interesting enough? Say what you've gained from the reading. If you seek more information on such topic, ple ase describe fow and when youdo the search.
2. Please describe your feelings toward the reading passage that you chose with your group this week. Say whether you are satisfied or unsatisfied winn the choices this week.
3. Ple ase reflect on your thoughts toward the reading passage that you reaa with your group this week. Describe whether the authentic passage yourencin this week provides a meaningfulpurpose of reading to you or not.
4. Ple ase reflect on your thoughts toward the reading group task that you worked on with this group this week. Describe how you feel toward working with your group (helpfulness, helplessness, contribution of ideas etc.) anar toward the task itself (quality, ideas, etc.).

## Strategy-Used

5. Please describe what types of the strategies you used to fielp you comprefiend the passage that you read. Please provide examples of the strategy-used


Part IV: Your thoughts toward the reading task next week


To improve the quality of your reading and the group talknext week, you will. $\qquad$

## Appendix J Sample of High and Low Reading Ability Students’ Reading Portfolio



## A High Reading Ability Student

4. โปรดสะท้อนกาวมคิดเท็นต่กการทำงานกลุ่มขลงนักเิิยนว่าสมาชิกกลุ่มให้ความร่วมมือในการ ท๋่างานกeุ่มสัปดาห์นี้เป็นอย่างไร (บุกกนให้กวามร่วมมือช่วอเหลืองานหรือแสดงกวามคิคหห็น หวือไม่) ไปรดประเมินดนเองในกาวทำงานกลุ่มครั้งนี้ และเมินตัวผลงานว่ามีคุณภาพหรือไม่ ระดัง ใด

 Hff:

 อ่านมากขึ้น ไปรลแสดงตัออย่จงกนบตศบุ








ฮ่วนที่ \& การวางแผนเพื่อพัตนเการรานนในवัปดาห์ต่อไปร

โปรดแสคงดวามคิดเห็นว่าหากจะพัผนาการอ่านภาษาอังกฤษของนักเรียนรวมดึ่งพัมนาคุณภาพ ของงานกลุมรมสับดาห์หน้านักเเียบควรทำอย่างไร






## จฬาลงกรณ์มหาวิทยาลัย

## A Low Reading Ability Student

ส่วนที่อ การสะข้อนดาวมคิดทลังการอ่าน













$\qquad$






$\qquad$



## A Low Reading Ability Student

4. โิปรดสะท้อนกวามคิลเท็นต่อการทำงนกถุมมของนักเลียนว่สสมาชิกกกุ่มให้กวามว่วมมิอในการ
 หรือไม่) ไปรดประเงินดนยงงไนการทำงานกกุ่มครั้งนี้ และเิินดัวผลงานว่ามีคุณภาพหริอไม่ ระดับ १ด .


## Appendix K

Semi-Structured Interview Questions

1. In which of the topics and passages of the SCBLM are you interested? Do you seek more information about those topics? If yes, in what way? Please feel free to answer "none" if you are interested in none of those topics.
2. ที่นักเรียนอ่านมาทั้งหมดจากเรื่องอ่านใน SCBLM นักเรียนสนใจเรื่องใดมากที่สุด ถ้าสนใจแล้วนักเรียนไปค้าคว้า หาอ่านเกี่ยวกับเรื่องนั้นๆเพิ่มเติมนอกห้องเรียนหรือไม่ หากนักเรียนไม่มีหัวข้อเรื่องใดที่สนใจเลย สามารถตอบว่าไม่มี หัวข้อเรื่องที่สนใจ
3. In your opinion, does choosing the passage to read with your group make any difference from being assigned by the teacher the texts to read?
4. ในความคิดเห็นของนักเรียน การที่มีโอกาสกับกลุ่มเลือกเรื่องที่จะอ่านได้เอง กับที่ครูเลือกให้มีความแตกต่างกัน หรือไม่
5. Do you think that the passages you read in SCBLM relate to your everyday life? Which do you enjoy reading more between fiction and non-fiction? Please provide the reasons.
6. นักเรียนมีความรู้สึกว่าเรื่องที่อ่านจาก SCBLM นี้มีความเชื่อมโยงกับชีวิตประจำวันของนักเรียนหรือไม่ ปกติ นักเรียนชอบเรื่องอ่านประเภทใด เรื่องที่เป็นเรื่องจจิง หรือเรื่องที่เป็นเรื่องแต่งขึ้นมา
7. Are you satisfied to read and work on the task with your group? Does the group work affect your reading? 4.นักเรียนรู้สึกพอใจกับกิารที่ได้อ่านและทำงานกลุ่มเกี่ยวกับการอำนกับเพื่อนหวือไม่และนักเรียนคิดว่าการที่ได้อ่าน และทำกิจกรรมกับกลุ่มมีผลต่อการอ่านของนักเรียนหรื่อไม่
8. Which of the reading strategies do you think help your understanding when you read in English? Preview, Click and Clunks, Get the Gist or Wrap Up.
9. นักเรียนคิดว่ากลยุทธ์ในการอ่านใดที่ช่วยให้นักเรียนสามารถเข้าใจจรื่องอ่านภาษาอังกฤษดีขึ้น Preview, Click and Clunks, Get the Gist หรือ Wrap Up
10. How do feel toward the SCBLM which was implanted in the reading class?
11. นักเรียนรู้สึกอย่างไรเมื่อเรียนการอ่านภาษาอังกฤษด้วยการสอนด้วย SCBLM

## Appendix L

Teacher's Observation Field Note

## Teacher's Observation Field Note

Group \#
Group members1 $\qquad$ 2 $\qquad$ 3 $\qquad$ 4 $\qquad$ 5
Name of observer $\qquad$
Class
Week
$\qquad$
Reading Topic $\qquad$
Selected Story $\qquad$
Part 1 Face-to-Face - Preview Stage

$$
0=\text { little or no evidence } \quad 1=\text { some evidence } \quad 2=\text { strong evidence }
$$

Social Interaction

| 1 | There is adequate initial discussion of the task | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 2 | A variety of ideas is generated by the group members | 0 | 1 | 2 |
| 3 | The group members discuss and negotiate until everyone <br> involved understands and supports the decision. | 0 | 1 | 2 |
| 4 | Everyone in a group contributes his/her ideas equally. | 0 | 1 | 2 |
| 5 | Group members listen to and support everyone's ideas. | 0 | 1 | 2 |
| 6 | Group members are determined to reach the goal. | 0 | 1 | 2 |
| 7 | There is ongoing communication between group members. | 0 | 1 | 2 |
| 8 | Group members offer each other assistance. | 0 | 1 | 2 |

Quality of ideas and comments

| 9 | The group selects information with clear criteria in mind. | 0 | 1 | 2 |
| :---: | :--- | :--- | :--- | :--- |
| 10 | The groupoorganizes information in a logically consistent and <br> thoughtful manner. | 0 | 1 | 2 |
| 11 | The group shows skill in drawing conclusions from the <br> information. | 0 | 1 | 2 |
| 12 | The group members contribute ideas relevant to the topic of <br> discussion | 0 | 1 | 2 |

Notes and observations
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Part 2 Online-Click and Clunk Stage

| $0=$ little or no evidence $\quad 1=$ some evidence $\quad 2=$ strong evidence |
| :---: |

## Social Interaction

| 1 | There is adequate initial discussion of the task | 0 | 1 | 2 |
| :---: | :--- | :--- | :--- | :---: |
| 2 | The group members give assistance to each other to fix the <br> clunks. | 0 | 1 | 2 |
| 3 | The group members contribute ideas relevant to the assigned <br> task. | 0 | 1 | 2 |
| 4 | Group members equally access the Click\& Clunks forum on <br> the Social Constructivism Blended Learning Module's <br> Reading Website. | 0 | 1 | 2 |
| 5 | Group members express acknowledgment when the clunks <br> are fixed. | 0 | 1 | 2 |
| 6 | There is ongoing communication between group members. | 0 | 1 | 2 |
| 7 | Group members are determined to reach the goal of <br> accomplishing the task. | 0 | 1 | 2 |
| 8 |  <br> clunks tasks | 0 | 1 | 2 |

Quality of ideas and comments

| 9 | The group states their clicks with clear definition to solve the <br> clunks. | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 10 | The group organizes information in a consistent and thoughtful <br> manner. | 0 | 1 | 2 |
| 11 | The group shows skill in drawing conclusions from the <br> information. | 0 | 1 | 2 |
| 12 | The group clearly shares divergent <br> understanding of the content. |  |  |  |

Notes and observations $\qquad$
$\qquad$
$\qquad$
$\qquad$

Part 3 Online- Get the Gist Stage
0 = little or no evidence $\quad 1$ = some evidence $\quad 2=$ strong evidence

## Social Interaction

| 1 | There is adequate initial discussion of the task | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 2 | A variety of ideas is generated by the group members | 0 | 1 | 2 |
| 3 | Group members equally contribute the ideas. | 0 | 1 | 2 |
| 4 | Group members access the Social Constructivism Blended <br> Learning Module's Reading Website to work on the task. | 0 | 1 | 2 |
| 5 | The group members discuss and negotiate until everyone <br> involved understands and supports the decision. | 0 | 1 | 2 |
| 6 | There is ongoing communication between group <br> members. | 0 | 1 | 2 |
| 7 | Group members are determined to reach the goal of <br> accomplishing the task. | 0 | 1 | 2 |
| 8 | Group members offer each other assistance. | 0 | 1 | 2 |

## Quality of ideas and comments

| 9 | The group selects information with clear criteria in mind. | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 10 | The group organizes information in a logically consistent and <br> thoughtful manner. | 0 | 1 | 2 |
| 11 | The group shows skill in drawing conclusions from the <br> information. | 0 | 1 | 2 |
| 12 | The group members contribute ideas relevant to the topic of <br> discussion | 0 | 1 | 2 |



Part 4 Face-to-Face - Wrap Up Stage

$$
0=\text { little or no evidence } \quad 1=\text { some evidence } \quad 2=\text { strong evidence }
$$

## Social Interaction

| 1 | There is adequate discussion of the reading task in the Wrap <br> Up session. | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 2 | A variety of ideas about the topic of the unit lesson is <br> generated by the group members. | 0 | 1 | 2 |
| 3 | Group members equally contribute ideas. | 0 | 1 | 2 |
| 4 | There is peer feedback on the group task. | 0 | 1 | 2 |
| 5 | Group members listen and support other group members' <br> ideas about the unit lesson. | 0 | 1 | 2 |
| 6 | There's ongoing communication between group members. | 0 | 1 | 2 |
| 7 | Group members are determined to reach the goal of <br> accomplishing the task. | 0 | 1 | 2 |
| 8 | Group members actively assist each other to draw conclusion <br> of the unit lesson. | 0 | 1 | 2 |

## Quality of ideas and comments

| 9 | The group selects information with clear criteria in mind. | 0 | 1 | 2 |
| :---: | :--- | :---: | :---: | :---: |
| 10 | The group organizes information in a logically consistent and <br> thoughtful manner. | 0 | 1 | 2 |
| 11 | The group shows skill in drawing conclusions from the <br> information. | 0 | 1 | 2 |
| 12 | The group members contribute the relevant to the topic of <br> discussion. | 0 | 1 | 2 |



## Appendix M List of Experts Validating Instruments

A. Expert validating instructional manual

1. Assoc. Prof. Sumalee Chinokul, Ph.D. Chulalongkorn University
2. Asst. Prof. Dumrong Adunyarittigun, Ph.D. Thammasat University
3. Asst. Prof. Areerug Meejang, Ph.D. Naresuan University
4. Asst. Prof. Randall Sadler, Ph.D. University of Illinois Urbana-Champaign
5. Mattanee Palungtepin, Ph.D. Chulalongkorn University
B. Expert validating three lesson plans
6. Asst. Prof. Chansongklod Kajaseni,Ph.D. Chulalongkorn University
7. Assoc. Prof. Antikar Rongsa-ard Chulalongkorn University
8. Asst. Prof. Pataraporn Tapinta, Ph.D. Kasetsart University
9. Asst. Prof. Randall Sadler, Ph.D.

University of Illinois Urbana-Champaign
5. Asst. Prof. Chintana Viravaidya Chulalongkorn University Demonstration Secondary School
C. Expert validating Reading Engagement Questionnaire

1. Assoc. Prof. Siripun Suwanmunkar, Ph.D. Chulalongkorn University
$\left.\begin{array}{l}\text { 2. Asst. Prof. Jirada Wudthayagorn Ph.D. } \\ \text { Maejo University } 6\end{array}\right]$
2. Aek Phakiti, Ph.D.
 Kasetsart University
3. Tim Wentling. Ph.D. University of Illinois Urbana-Champaign
D. Expert validating Reading Portfolio
4. Assoc. Prof. Nantana Ronnakiat, Ph.D. Thammasart University
5. Assoc.Prof. Manmart Leesatayakul, Ph.D. Kasetsart University
6. Assoc. Prof. Punchalee Wasanasomsithi, Ph.D. Chulalongkorn University
7. Assoc. Duangkamol Travichitkhun, Ph.D. Chulalongkorn University
8. Asst. Prof. Ngamtip Wimolkasem, Ph.D. King Mongkut's Institute of Technology North Bangkok
E. Expert validating Teacher's Observation Field Note
9. Assoc. Prof. Boonruang Chunsuvimol, Ph.D. Thammasart University
10. Assoc. Prof. Seung-Won Yoon, Ph.D. Western Illinois University
11. Jaitip Na-Songkhla, Ph.D. Chulalongkorn University
12. Kamonwan Tangdhanakanond, Ph.D. Chulalongkorn University
13. Asst. Prof. Pornsiri Muangsamai,Ph.D. Kasetsart University
F. Expert validating Semi-structured interview questions
14. Assoc. Prof. Maneerat Sukchoterat,Ph.D.

Chulalongkorn University
2. Asst. Prof. Janpanit Surasin, Ph.D Chulalongkorn University
3. Asst.Prof. Carina Chotirawe, Ph.D Chulalongkorn University
4. Assoc. Prof. Sripen Srestasathiern,Ph,D. King Mongkut's Institute of Technology North Bangkok
5. Rosukhon Swatevacharkul, Ph.D.

Dhurakij Pundi Unversity
G. Expert validating SCBLM website

1. Asst. Prof. Steve Downey, Ph.D. University of South Florida
2. Andrew Wadsworth, Ph.D. University of Illinois Urbana-Champaign
3. Assc. Prof. Tanomporn Laohajatsaeng,Ph.D. Chiangmai University
4. Chatraporn Piamsai, Ph.D.

Chulalongkorn University
5. Tavicha Phadvibulya, Ph.D. Chulalongkorn University

## Appendix $\mathbf{N}$ Test for Equality of Variance of Ten Mixed-Ability Reading Groups

## Tests of Normality

|  | GROUP | Kolmogorov-Smirnov(a) |  |  | Shapiro-Wilk |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Statistic | df | Sig. | Statistic | df | Sig. |
| SCORES | 1.00 | . 277 | 5 | .200 (*) | . 860 | 5 | . 228 |
|  | 2.00 | . 262 | 5 | .200 (*) | . 871 | 5 | . 272 |
|  | 3.00 | . 234 | 6 | .200(*) | . 899 | 6 | . 369 |
|  | 4.00 | . 303 | 6 | . 091 | . 872 | 6 | . 235 |
|  | 5.00 | . 287 | 5 | 200 (*) | . 933 | 5 | . 616 |
|  | 6.00 | . 141 | 5 | .200(*) | . 979 | 5 | . 928 |
|  | 7.00 | . 247 | 5 | . 200 (*) | - . 954 | 5 | . 764 |
|  | 8.00 | . 292 | $\bigcirc 6$ | . 120 | - 796 | 6 | . 054 |
|  | 9.00 | . 178 | 5 | .200 (*) | - . 979 | 5 | . 927 |
|  | 10.00 | . 240 | 5 | 200 (*) | . 902 | 5 | . 421 |

* This is a lower bound of the true significance.
a Lilliefors Significance Correction
Test of Homogeneity of Variance

|  |  | Levene <br> Statistic | df1 | df2 | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: |
| SCORES | 1.918 | 9 | 43 | .075 |  |
|  | Based on Mean <br> Based on Median | 1.381 | 9 | 43 | .227 |
|  | Based on Median <br> and with adjusted <br> df <br> Based on <br> trimmed mean | 1.381 | 9 | 27.649 | .244 |
|  | 1.893 | 9 | 43 | .079 |  |

## Test of Homogeneity of Variances

SCORES

| Levene <br> Statistic | df1 | df20 | Sig. |
| ---: | ---: | ---: | :---: |
| 1.918 | 9 | 94 | .075 |

ANOVA

|  |  | ANOVA |  | D | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SCORES |  | $\sim \square$ | 9198 |  | C |
| $\begin{aligned} & 7 \\ & 9 \\ & \hline \end{aligned}$ | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 165.967 | 9 | 18.441 | . 348 | . 953 |
| Within Groups | 2280.033 | 43 | 53.024 |  |  |
| Total | 2446.000 | 52 |  |  |  |

## BIOGRAPHY

Ms. Pornpimol Sukavatee was born on 26 September, 1965 in Bangkok. She graduated with a B.A. (Honor) in French from Faculty of Arts at Chulalongkorn University in 1988. After that she got her M.A. in Linguistics from Universite de ParisSorbonne in Paris, France in 1990. Her first study is entitled " Etude Constrastive du Modal Pouvoir à Travers La Traduction du Français en Thai"

She started working at Chulalongkorn University Demonstration Secondary School in 1991 and has been teaching there since then. She teaches French and English. In 2005, she joined an Extra-curricular of the EIL Program, Chulalongkorn University to embark on educational visits to University of Oklahoma, U.S. In 2006, she got a grant from Office of Higher Education to do a part of her dissertation for nine months with Asst. Prof. Dr. Steve Downey at NCSA, University of Illinois Urbana-Champaign, U.S. She also joined the literacy and CMC classes with Dr. Gary Cziko and Dr. Randall Sadler at University of Illinois Urbana-Champaign. In December, 2007, she presented her research at PALT, international conference in Philippines. Then, she presented her research for the second time at IMCICON, international conference in March,2008,in Malaysia.

Pornpimol's particular interest is searching and exploring the methods in teaching French and English. She's also interested in developing teaching materials for Thai students.

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