

ผลของกิจกรรมการอ่านแบบ “เอกซ์เทนซีฟรีดดิ้ง พลัส” (Extensive Reading Plus) ต่อการพัฒนา
ทักษะการอ่าน การเขียน และความคิดเห็นของนักศึกษาระดับปริญญาบัณฑิต



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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต
สาขาวิชาภาษาอังกฤษเป็นภาษานานาชาติ (สหสาขาวิชา)

บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย

ปีการศึกษา 2550

ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

**THE EFFECTS OF EXTENSIVE READING PLUS ACTIVITIES ON THE
DEVELOPMENT OF READING AND WRITING SKILLS AND PERCEPTIONS OF
UNDERGRADUATE STUDENTS**



Mrs. Wilairat Kirin

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

(Interdisciplinary Program)

Graduate School

Chulalongkorn University

Academic year 2007

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Thesis Title THE EFFECTS OF EXTENSIVE READING PLUS ACTIVITIES
ON THE DEVELOPMENT OF READING AND WRITING
SKILLS AND PERCEPTIONS OF UNDERGRADUATE
STUDENTS


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Field of Study English as an International Language

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Requirements for the Doctoral Degree


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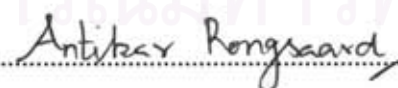

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งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลของการอ่านแบบเอกซ์เทนซีฟรีดดิ้ง พลัส (Extensive Reading Plus) ที่มีต่อ (1) ความสามารถด้านการอ่านเพื่อความเข้าใจ ความเร็วในการอ่าน และความเข้าใจเรื่องเล่า (2) ความสามารถด้านการเขียน และความสัมพันธ์ตลอดจนรูปแบบพัฒนาการของปริมาณการอ่านและคะแนนจากแบบทดสอบการเขียน และ (3) ความคิดเห็นของผู้รับการทดลองที่มีต่อพัฒนาการด้านการอ่าน กลุ่มตัวอย่างเป็นนักศึกษาที่ไม่ใช่เอกภาษาอังกฤษ ปี 2 จากมหาวิทยาลัยราชภัฏนครปฐม ที่ลงทะเบียนเรียนรายวิชาการอ่านพื้นฐานในภาคเรียนที่ 1 ปีการศึกษา 2550 จำนวน 34 คน กิจกรรมเอกซ์เทนซีฟรีดดิ้ง พลัส ซึ่งสอดแทรกเข้ากับการวิชาการอ่านประกอบด้วย การสอนวิธีอ่าน การร่วมกิจกรรมส่งเสริมการอ่าน และการอ่านในใจ เป็นเวลารวม 3 คาบเรียนต่อสัปดาห์ ตลอดการทดลอง 15 สัปดาห์ผู้รับการทดลองได้รับการส่งเสริมให้อ่านหนังสือฉบับทำให้ง่าย (simplified readers) ตามความสนใจ ทั้งในและนอกห้องเรียน เมื่ออ่านหนังสือจบแต่ละเล่ม ผู้อ่านบันทึกปริมาณการอ่าน คอบแบบสอบถามเกี่ยวกับกลวิธีที่ใช้ในการอ่านและแรงจูงใจในการอ่านของตน และพบผู้วิจัยเพื่อรับการสัมภาษณ์เกี่ยวกับหนังสือที่อ่าน เมื่อจบการทดลองผู้อ่านรวมจำนวนหน้าของหนังสือที่อ่านทั้งหมด ปริมาณการอ่านนี้นำมาใช้ในการแบ่งกลุ่มผู้อ่านออกเป็น กลุ่มผู้อ่านน้อย ซึ่งอ่านโดยเฉลี่ย 147 หน้า และกลุ่มผู้อ่านมาก ซึ่งอ่านโดยเฉลี่ย 364 หน้า ผลจากการเปรียบเทียบคะแนนของผู้อ่านทั้งสองกลุ่มพบว่า (1) ผู้อ่านในกลุ่มอ่านมากมีความสามารถด้านความเข้าใจในการอ่านและความเร็วในการอ่านเพิ่มขึ้นอย่างมีนัยสำคัญที่ระดับ .05 ส่วนความเข้าใจเรื่องเล่า ผู้อ่านทั้งสองกลุ่มไม่มีความแตกต่างกัน (2) ผู้อ่านในกลุ่มอ่านน้อยมีคะแนนด้านการเขียนครั้งที่ 1 กับ ครั้งที่ 2 และ ครั้งที่ 1 กับ ครั้งที่ 3 เพิ่มขึ้นอย่างมีนัยสำคัญที่ระดับ .05 นอกจากนี้ ปริมาณการอ่านและคะแนนการเขียนมีความสัมพันธ์กันหนึ่งคู่ในจำนวนหกคู่ และไม่มีรูปแบบพัฒนาการที่เป็นระบบ และ (3) ผู้อ่านทั้งสองกลุ่มใช้กลวิธีการอ่านที่ถูกต้องเพิ่มขึ้นและมีแรงจูงใจในการอ่านสูงขึ้นตามปริมาณ การอ่านที่เพิ่มขึ้น

สาขาวิชา...ภาษาอังกฤษเป็นภาษานานาชาติ...

ปีการศึกษา...2550.....

ลายมือชื่อนิติศ.....

ลายมือชื่ออาจารย์ที่ปรึกษา.....

4889672320: MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE

KEY WORD: EXTENSIVE READING PLUS/ READING AMOUNTS/ READING COMPREHENSION/ READING SPEED/ READING NARRATIVES/ WRITING ABILITY/ PERCEPTIONS/ READING STRATEGIES/ AND MOTIVATION

WILAIRAT KIRIN: THE EFFECTS OF EXTENSIVE READING PLUS ACTIVITIES ON THE DEVELOPMENT OF READING AND WRITING SKILLS AND PERCEPTIONS OF UNDERGRADUATE STUDENTS. THESIS ADVISOR: ASSOC. PROF. PUNCHALEE WASANASOMSITH, PH.D., 309 pp.

The study investigated the effects of ER Plus activities on (1) three sub-skills of reading ability, i.e. reading comprehension, reading speed, and reading comprehension of narratives; (2) writing ability and the relationships and developmental patterns of reading amounts and writing scores; and (3) students' perceptions on the development of their reading strategies and motivation over time. The subjects of the study were 34 second-year EFL students majoring in Finance and Banking who were enrolled in the Fundamental Reading Course in the first semester of the academic year 2007 at Nakhon Pathom Rajabhat University. All were randomly selected to participate in the 15-week study that was made up of three consecutive periods (150 minutes in total) per week of traditional reading instruction plus motivating activities and silent reading. The subjects were also required to read simplified readers of their choice outside class, record the amounts of reading, answer a perception survey, be interviewed by the teacher after they finished each book, and take a writing test at three time points, each five weeks apart. After the treatment period, all of the subjects' reading amounts were totaled, and, based on the total, the subjects were divided into two groups: high and low with an average reading amounts of 364 and 147 pages, respectively. The findings revealed that: (1) the high group significantly improved their reading comprehension ability and reading speed at .05 level, while the low group did not, and both the high and the low groups were not different in reading comprehension of narratives; (2) the low group had significant differences in their writing scores between the first and second and the first and third, whereas the high group had no significant improvement, and there was neither correlation nor systematic developmental patterns between reading amounts and writing scores; and (3) the subjects in both groups had a tendency to utilize more efficient reading strategies and had increased motivation to read that corresponded with their increased reading amounts.

Field of study English as an International
Language
Academic year 2007

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ACKNOWLEDGEMENTS

The completion of this thesis is a result of contributions from several people to whom I would like to give my sincere gratitude. First of all, I have benefited greatly from the instruction and experience professors at Chulalongkorn University and overseas have provided, which have enabled me to pursue my research interests. Without this solid ground, my success would not be possible. Furthermore, I offer my appreciation and thanks to my research specialists: Prof. Adrian S. Palmer, Assoc. Prof. Wathna Soonthorndhai, Asst. Prof. Dr. Kamonpan Boonkit, and Asst. Prof. Dr. Usa Noytim, who have made valuable comments and given practical advice for the improvement of my research instruments. Their prompt and enthusiastic responses to my enquires are most appreciated. Most importantly, this research would not be of great benefit without suggestions and constructive remarks from the research committee: Assoc. Prof. Dr. Sumalee Chinokul, Assoc. Prof. Dr. Punchalee Wasanasomsithi, Assoc. Prof. Dr. Suphat Sukamolson, Assoc. Prof. Antikar Rongsa-ard, and Dr. Wannana Soontornnaruerangsee, who have shaped the design and contents of this thesis, so it covers most of the related issues necessary for the growth of reading instruction. Their attentiveness to the complexity of my work and their moral support have inspired me to put more effort into the completion of this thesis. Particularly, I owe a real debt of gratitude to my advisor, Assoc. Prof. Dr. Punchalee Wasanasomsithi, who, despite her many other responsibilities and tasks, has persevered and spent considerable time reading, adding valuable comments, and giving advice so that this thesis comes out with the fewest deficiencies. Last but not least, my gratitude is extended to my colleagues: Mr. David Brown and Ms. Britt Goodrich, who have assisted with the editing work, and, at the same time, provided thought-provoking comments that made me reflect on a number of research-related issues.

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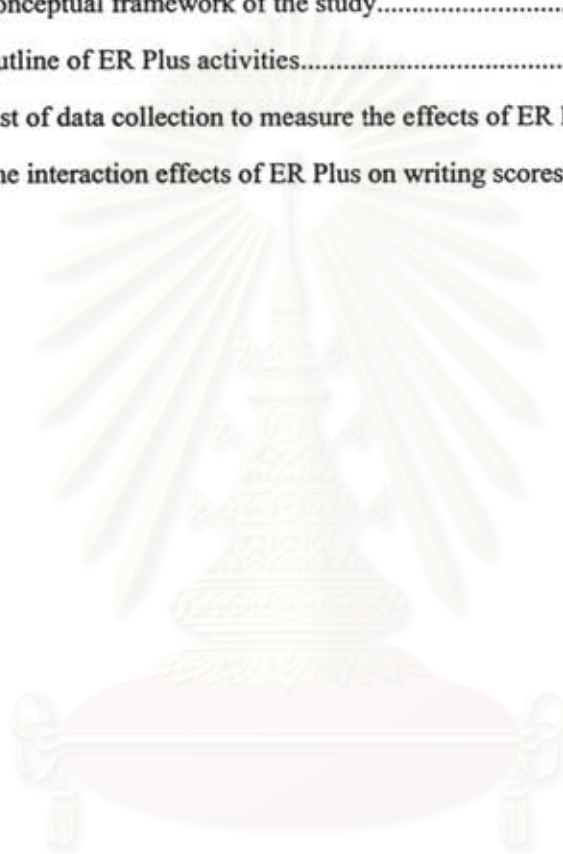
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CHAPTER I

INTRODUCTION

Background and Significance of the Study

Reading is the skill to which Thai students studying at higher educational levels are most exposed, among all language skills. It is increasingly essential since more and more students are searching through the unlimited sources of information available on the Internet, 85% of which is in English (Crystal, 2002). These students are not only required to read for academic purposes, but for pursuing their personal interests. It is very important, therefore, that university students are able to read effectively so that they can make use of the influx of information both in printed media and hypertexts while studying, completing their job training, and ultimately joining the workforce. Also equally important in this communication era is the skill of writing, which is a recognized prerequisite for the success of academic and professional growth. It is becoming even more crucial for certain groups of students who are expected to be able to correspond in writing with company associates or clients. With high proficiency in reading and writing, students can readily take advantage of the massive amount of available information and communicate as well as respond appropriately to different types of written tasks.

The demand on reading and writing abilities imposed on students has heightened the need for English teachers to find effective approaches to increase these two skills concurrently. Unfortunately, writing is often not selected as a compulsory course for non-English majors, particularly at Nakhon Pathom Rajabhat University (henceforth NPRU). In addition, for elective English courses, students tend to choose courses that emphasize speaking and reading rather than writing. Major reasons are due to the requirement of the workplaces, as well as personal beliefs in the importance of those chosen skills. With such problems in mind, in order to increase students' writing ability, the pedagogical method to be employed should not require too much of their class time. Otherwise, teachers should consider integrating writing skills into an existing English course.

Although Thai students in this information era have greater chances to be exposed to English texts through a wide range of media, the fact that they use English as a foreign language reduces their necessities to use the language in their everyday lives. Their motivation to read is, therefore, considerably low, and this might affect their reading ability. Regarding the reading ability of students at NPRU, from the researcher's preliminary survey conducted with 85 first-year students studying in the second semester of the academic year 2006, 50% ranked themselves as having relatively low to moderate ability to read with comprehension, despite the fact that 58% of them acknowledged reading as either relatively most or most beneficial. In terms of writing, 59% of the students rated themselves as less able to fair writers, while 56% of them acknowledged its advantages (Kirin, 2006).

The prevailing intensive reading (henceforth IR) approach focusing on skill practice is one cause of the low reading amounts of students at NPRU. With the academic-based contents, basically, students read for grades, rather than for information, or for learning about others' cultures. Under such circumstances, most non-English majors cannot search and understand information in English. Having students read texts that are far beyond their capabilities is also not very helpful, as the results of their word-by-word translation are often time consuming with little or no comprehension at all. It seems that the existing reading instruction needs some revisions. According to Grabe (2002: 56), "most teachers, curricula, and instructional materials do not recognize the severely limiting impact of relatively low amounts of exposure to L2 reading texts." For him, the solution is obvious and simple, i.e. get students to read extensively. The use of extensive reading (henceforth ER) as a means to improve learners' reading competence was found to be effective with learners in several learning contexts. It would, thus, be beneficial to investigate if such practice is applicable to learners in the Thai classroom context. In addition, ER has been reported to enhance not only reading but also writing abilities (Mason and Krashen, 2004), although the latter was not taught formally. If ER has the potential to simultaneously improve both reading and writing abilities, then, it is worth investigating further to prove its effectiveness.

To increase the reading amounts, Nuttall (1996) points out the importance of 'enjoyment' and 'quantity' as the key to success in reading. She views people who fail to make progress in

reading as being trapped in the ‘vicious circle.’ These readers read slowly, do not enjoy reading, read less, and end up unable to understand what has been read. To help them get out of such a depressing circle, teachers need to encourage wide reading. The more students read, the better they understand the text. Once the readers read with enjoyment, they read faster unconsciously. To adopt such a viewpoint, the underlying pedagogical techniques to achieve ‘enjoyment’ and ‘quantity’ involve teaching reading strategies (so that students read effectively and can enjoy what they are reading) plus promoting motivation among readers (so that they read in breadth and width). Similarly, Eskey (2002) believes that to become a competent reader, engaging in reading in large quantity is a prerequisite. The reading teacher must motivate and facilitate reading by, first, introducing appropriate texts and encouraging reading in large volume, and second, teaching learners reading strategies. Apart from these reading experts, reading a large quantity to expose learners to unlimited languages has been recommended by many other scholars (e.g. Grabe, 2004; Day and Bamford, 1998; Krashen, 1993, to name just a few).

Strategic reading and motivation seem to play a central role in the promotion of extensive reading. However, there are other factors believed to affect students’ reading competence as well. According to Alderson (2002), aspects of readers themselves that affect their reading are background and subject/topic knowledge, cultural knowledge, L1 and the target language reading ability, the knowledge of L1, and the relationship between L1 and the target language. Other factors that influence readers’ attention to information being read include the purpose in processing text and their motivation and emotional state. For fluency in reading, Alderson points out the importance of word recognition and the automaticity with which this proceeds.

To develop a reading course that takes into account those aforementioned aspects that can best facilitate students’ reading engagement and eventually promote reading proficiency, teachers have to take it for granted those unsolvable aspects connected to each individual student, such as their background, L1 reading attitudes and proficiency, schema, cultural knowledge, etc. Only the aspects that reading teachers can navigate should be borne in mind. Such aspects deserving to be incorporated into reading courses comprise, for example, word recognition, automaticity, metacognitive knowledge, reading strategies, attitudes, and motivation. It seems that a reading course that combines IR and ER approaches can include such components referred to as

essential for generating a capable reader who enjoys reading. Based on such belief, this research investigated the effects of ER when it was integrated into traditional IR lessons. The reading engagement was also supported by motivating and collaborative activities with the aim to encourage students to read as much as possible, so the growth of students in reading and writing skills could be examined.

In the IR approach, which is a reading instruction commonly used among EFL teachers, “reading text is treated as an end in itself” (Aebersold and Field, 1997: 45). Teachers help students attain meaning from the text in detail, increase reading skills such as identifying main ideas and recognizing text connectors, and improve vocabulary and grammar knowledge (Renandya and Jacobs, 2002). The teacher-selected texts are rather difficult, and so students need teachers’ guidance. Problems commonly occur when students have relatively low knowledge of basic words, so the reading process is a struggle for them. Nevertheless, if texts are easy to understand, then there is no need to learn how to guess the meaning of words or learn how structures can be interpreted. Generally, for the IR lessons, there are supplementary exercises to strengthen readers’ competence in language features and skills already acquired from the text. Although IR can prepare students to read strategically, it underscores the value of affective factors, especially reading motivation. Students are supposed to read the texts that their teachers think are appropriate for practice of specific skills or language features. Whether they like it or not is not the matter. The purpose of reading is mainly for practice of language, rather than for issues relevant to the readers’ interests. In such conditions, the languages in the reading materials are often far beyond readers’ competence and prior knowledge, and so many find the texts too difficult to comprehend. This situation is true especially for most low-proficiency students who are studying at the university level and are required to meet the set standard.

In the ER approach, on the other hand, students read large quantities of self-selected materials that are within their linguistic capability. The purpose is for general comprehension, pleasure, or information. Bamford and Day (1998: 126) contend that the goal of ER is “for students to become willing and able readers in the second or foreign language” and that the texts “are written to communicate a message, not to exemplify language.” While students learn how to use effective reading skills overtly from the IR class, they also need the practice of reading in

large volume to coordinate and organize the skills and strategies already acquired in order to read texts from a wide range of sources to achieve academic requirements (Carrell and Carson, 1997). By reading long texts, readers practice skills to distinguish relationships between the various parts of the text, contributed by the plot, argument, or the accumulating evidence of a writer's point of view (Nuttall, 1996).

Apart from those characteristics of ER that distinguish it from IR, there are other major ingredients, i.e. automaticity, affect, autonomy, and sociocultural awareness, which, according to Bamford and Day (1998: 131), explain why studies of ER "often come up with positive results." None of these components are basically found in the traditional IR class. With extensive exposure to texts, readers gain rapid and automatic word recognition and a large recognition of vocabulary (Grabe, 2002). As for affect, as Dole, Brown, and Trathen (1996) suggest, it should be taken into account at every level of reading instruction. Affect involves attitudes and motivation, the next issue to be elaborated. Autonomy, another vital component of ER activities, is, for example, freedom in choosing what, and, in some projects, when, and where to read, all of which are absent in most IR classes.

Bamford and Day (1998) advocate the integrated course by proposing that a skills-based course, i.e. IR, may contain ER components, or an ER course may include periodic class-wide or individualized instruction in specific skills of reading. The ER in the present study not only focused on the act of reading in large quantities but also on learning how to read effectively; thus, it was referred to as ER Plus activities. The combined advantages of IR and ER approaches should equip students with effective reading strategies as well as motivation to read. According to Urquhart and Weir (1998), information on effective and ineffective reading strategies that students learn from IR classes helps inform and improve their reading efficiency. In addition to basic reading skills, others such as syntactic processing, word integration process, text structures, comprehension monitoring, etc. have been found to facilitate comprehension in reading (Grabe, 2004). Such knowledge and skills are prerequisite reading tools and exclusively crucial for EFL students. However, knowing how to read alone does not assure that students will read. Several components of ER promote the love of reading and provide tension-free environment. These include the teacher's role as a model reader and facilitator, reading in noncompetitive and

nonjudgmental community, students' choice on reading texts, etc. Bamford and Day (1998) stress that reading experience that is successful increases positive attitudes towards reading which subsequently motivate more reading. ER, by its supportive principles, should motivate, or at least inspire, students to engage more in reading. Nevertheless, the question, "why ER is not implemented widely when the majority of studies have reported positive results?" has been repeatedly raised. Such problems can partly be solved if sources of reasons why students read and obstacles that stop them from reading are explored. To understand those issues adequately, it is necessary to understand the role motivation plays in reading.

Motivation, according to Ehrman and Oxford (1995), is one major influence on the success of language learning. In reading, motivation plays a central role in readers' persistence to the materials being read. Examples are well documented in the works of Wigfield and Guthrie (1997) that found motivation and engagement with reading significantly related to amount of reading and in Guthrie et al. (1999) that found higher motivation among third- and fifth-grade students significantly increased their amount of reading and their text comprehension.

Brown (2001: 72) defines motivation as "the extent to which you make choices about (a) goals to pursue and (b) the effort you will devote to that pursuit." He, therefore, considers intrinsic and extrinsic motivation as "a continuum of possibilities of intensity of feeling or drive, ranging from deeply internal, self generated rewards to strong, externally administered rewards from beyond oneself" (Brown, 2001: 75). In the Expectancy and Value Model of motivation, Feather (1982) proposes four variables as motivating the desire of ESL students to read. They are materials (interest, linguistic level, attractiveness, and availability), reading ability, attitudes towards reading in ESL, and sociocultural environment, the last of which also includes influence of family and friends. Several underlying concepts of ER projects such as reading materials that are self-selected, interesting, and comprehensible; texts within readers' linguistic proficiency range; and tension-free environment that supports reading for pleasure, etc. are congruent with major variables in Feather's model.

Sources of motivation, apart from those drawn from the ER project itself, can be derived from cooperation among students in social contexts. Grabe (2002) views social contexts as

consisting of those of home, school and other institutions, peer, and student-teacher interactions. He emphasizes peer interactions and student-teacher interactions as a key role in developing readers' motivation, attitudes, task success, and reading experiences. The concept of students working in pairs or small groups to achieve shared learning goals while teachers, instead of monitoring group learning, become a member, along with students, of a community in search of knowledge (Bruffee, 1993) is a common ground in the collaborative language learning approach. Its concept seems to be in line with what Grabe suggests to be sources of positive affects.

When students work together on a common task, they share information and support one another. Working collaboratively can be motivational in that it increases individual students' confidence to succeed (Schunk, 1989), and it promotes engagement in work and group consciousness (Slavin, 1987). Turner and Paris (1995) assert that collaboration can attract students' curiosity and spark further interest as well as increase both effort and persistence. These two authors conclude that, "[s]ituations that encourage productive social interaction offer ways for students to develop competence and efficacy as readers and writers" (Turner and Paris, 1995: 668). The potential of having students work in collaboration to motivate reading among community members is appealing but overlooked by many ER organizers. One of the reasons lies in the belief that having students collaborate, share, and learn together would take a lot of time, and, for others, it is an extravagance. There are too many activities waiting to be allotted into the existing reading lessons. Therefore, there is no place and time left for extra reading.

Evidence that proves the success of ER in motivating students to read is apparent from considerable ER research. Findings in terms of positive affects seem to yield the most impressive results across learner backgrounds (e.g. Constantino, 1994; Cho and Krashen, 1994, 1995; Mason and Krashen, 1997; Evans, 1999; Hayashi, 1999; Yang, 2001; Takase, 2003). Nevertheless, most research examined students' attitudes or opinions towards the overall ER projects, not focusing on a particular distinction between motivating and discouraging sources. Such issues are fundamentally crucial to the success or failure of any ER projects, and very limited empirical evidence is available so far.

Reading comprehension ability of a reader should be increased following his/her vast volume of reading. This is true when substantial evidence from small-scale studies supports positive effects of reading extensively on reading comprehension. However, major research that provides strong verification of such findings does not yet exist (Grabe, 2004). According to the review of L1 research by the National Reading Panel (2000), there is not a single experimental study that found reading comprehension significantly enhanced by ER. Grabe (2004) points out the difficulty in creating experimental circumstances in the real educational context as a major source of problems for ER research to sufficiently control extraneous variables to verify the true influence of ER on comprehension ability. This is also one main reason why more evidence on such an issue is needed, especially in the context of EFL low-ability readers.

Reading and writing is widely known as interconnected skills. According to Krashen (1993), reading is a more effective means to improve writing skill than direct instruction of writing. Through reading, the reader develops a good writing style and adequate vocabulary, advanced grammar, and spelling (Krashen, 1993), all of which support the composing process. Also, some studies found that in order to enhance writing competence reading alone was as effective as reading plus supplementary writing (Tsang, 1996; Mason, 2004). Simply put, even if there is no writing practice, by reading in a large volume, writing skills will be enhanced. For Krashen (1993: 12-13), "language is too vast, too complex to be taught or learned one rule or word at a time." In other words, there is a vast majority of rhetoric and language features one needs to know in order to write tasks in different genres efficiently. In any case, it is impossible for a teacher to cover all topics within the available writing lessons. In contrast, skills and strategies in reading are more restricted and can be applied to any types and genres of texts.

Several studies, from surveys to experiments, reported improvement in writing resulting from reading in a large quantity. Evidence from a number of surveys revealed that good writers reported more pleasure reading across age levels, especially during their high school years (e.g. Applebee, 1978; Kimberling et al., 1988 cited in Krashen, 1984). Second language readers who had higher amount of reading were also superior in writing ability in the target language (e.g. Kaplan and Palhinda, 1981; Janopoulos, 1986; Salyer, 1987; Polak and Krashen 1988; Tudor and Hafiz, 1989; Hafiz and Tudor, 1990; Constantino, 1995; Al-Rajhi, 2004). Similarly, EFL

students improved their writing abilities after being exposed to comprehensible texts (e.g. Elley and Mangubai, 1981; Al-Rajhi, 2004; Mason 2004). It seems that wide reading enhances writing abilities of L1, ESL, and EFL students in a similar vein as has been well documented by numerous studies. Based on such evidence, then, it is possible that there is a connection between reading and writing as well as a linkage from the retained input to the production of output. That is, the writers make use of the language they acquire unconsciously while reading to produce in the form of writing. Accordingly, it is also possible that ER Plus, which focuses on unconscious acquisition (ER part) and conscious learning (IR part) of language could strengthen the acquisition process better than ER alone. Empirical evidence derived from the investigation of the consequences of the ER Plus should shed light on the relationship between reading and writing skills of EFL learners in this specific context.

Nevertheless, a number of studies on EFL students found modest or no relationship between ER and writing abilities in a positive direction (e.g. Lai, 1993a; Caruso, 1994; Lee, and Krashen, 1996). So far, there is no common grounds on a certain extent to which ER can contribute to the enhancement of EFL students' writing abilities. Though several ER studies reported gains in writing ability after students had been engaged in reading extensively for either a short or a long period of time, they were not comparable due to a number of variations of ER studies.

Variations of ER research

Different studies reported findings based on variables varying on a wide range of characteristics. The main problems lie in the variations on learner backgrounds, amounts of reading, measurement methods, grading systems, and research designs. Elaboration on those issues is as follows.

First, backgrounds of students in each study varied a great deal on aspects such as ages, school levels, proficiency levels, reading habits, L1 and EFL reading experience, levels of motivation, etc. Any of these aspects can have a bearing on the comprehensibility and acquisition of reading input and possibly their subsequent writing output.

Second, amount of reading, which is a major cause of confusion, is generally used as an indicator to specify how much students in each study had read. The problem is, different research reported amounts of reading based on different criteria, such as number of books (Lai, 1993a, b; Yamazaki, 1996), number of pages (Robb and Susser, 1989; Mason and Krashen, 2006), and number of words (Pitts, White, and Krashen, 1989; Day, Omura, and Hiramatsu, 1991; Cho and Krashen, 1994). Moreover, some reported findings were drawn from a wide range of durations students spent reading (such as one year in Lai, 1993a, four weeks in Lai, 1993b, 24 weeks in Tsang, 1996, and two years in Elley and Mangubhai, 1983). It is, therefore, difficult for consumers of research work to estimate the optimal amount of ER that could yield productive results in writing skill development.

Third, divergence of studies comes from types of measurement, which can be either direct tests (e.g. Pitts, White, and Krashen, 1989) or indirect writing tests (e.g. Janopoulos, 1986; Hafiz and Tudor, 1990; Mason and Krashen, 1997), and general proficiency or standardized commercial tests (e.g. Hafiz and Tudor 1989; Hayashi, 1999). Writing skills are subtle. Whether they are measured directly or indirectly, the results may not reveal true ability of the writer. Discrete tests, for instance, though can measure what the teacher wants to know, cannot elicit real performance that students may have achieved. Likewise, for performance tests, writers are able to avoid some language features at which they are not proficient. Besides, assigning grades to the written products can be inconsistent due to the subjectivity of the raters. Therefore, both direct and indirect tests may not provide scores that reveal the true ability of the writers perfectly. Yet, at present, a direct test is preferable to an indirect test as it provides scores that are closer to real performance of students, provided that the grading system is reliable.

Fourth, the grading system for performance tests chosen by different researchers also makes the research findings incomparable. Wide ranges of scoring systems were adopted, including analytical, holistic, and primary trait. To increase complication to the research consumers, different research used different criteria in assigning grades. For example, Mason and Krashen (2006) used statistical data for number of words, clauses, error-free clauses, etc., while Tsang (1996) measured language features such as coherence, cohesion, organization, logical progression, impression, etc.

Finally, while most ER studies used an experimental design, and some made use of their intact groups, each of them differed in the details of ER activities. Such diversities are, for example, types of materials, time and places to read, supplementary activities, and whether students were assigned writing tasks. Therefore, research results drawn from these studies must be considered with great care if they are to be used as a theoretical or practical basis for implementation.

The diversity in ER research causes uncertainty among teachers and course developers. There seems to be a wide range of criteria on how much students should read in order to enhance their writing skills. Findings, either from short- to long-term reading engagement or from less to more amounts of reading, seem to report similar improvement. Can such findings be generalized to EFL students, especially in a less-valued reading culture like Thailand where the national reading rate is only five books per year as opposed to 17 books per year in Singapore and 50 books per year in the United States (National Statistic Bureau, 2005)?

It is possible that the relatively low reading rate of this society would influence the reading habits of its people. Nuttall (1996) remarks that the improvement in writing of readers who read in large quantity may be noticeable in a year or two, not overnight. It would seem, therefore, that further investigation is needed so that more insights can be provided for efficient implementation of the ER Plus activities.

Teachers and administrators in several countries have adopted the principles of ER as an essential part of their language programs. In Thailand, while studies in IR is considerable in number, very few focus on ER, i.e. Satitporn (1995), Komindr (2002), Tutwisoot (2003), and Liem (2005). Among these studies, none investigated students' writing proficiency enhanced by reading in great volumes. The effects of ER on students' attitudes and reading were reported mainly positively across students of different ages, levels, languages, and proficiency levels, though with less exceptions. Even so, there are considerable underlying attributes that may contribute to the students' reading and writing abilities as well as their motivation on each element of the reading activities. Some major sources specific to students in this research were, for instance, their relatively low English proficiency, lack of family support, low motivation to read, and low-valued reading society. Applying the ER principles into the Thai instructional

context in the form of ER Plus activities needs confirmation drawn from an investigation of its actual setting and participants. This is to ensure that the implementation of it is worth spending time, money, and efforts of all concerned. Empirical findings of this research will contribute, theoretically, to ER literature, in particular, the effects of ER Plus on EFL learners' reading comprehension ability, reading speed, comprehension of narratives, and the relation between the increased input obtained from reading and its corresponding by-product writing ability, when sources of reading motive stem from collaboration between students and students.

Objectives of the Study

1. To study the effects of ER Plus activities on general reading comprehension ability, reading speed, and comprehension of narratives of the subjects in the high and low groups, and to find the effect sizes.
2. To study the effects of ER Plus activities on writing ability, developmental patterns of reading amounts and writing scores, and the relationships between reading amounts and writing scores of the subjects in the high and low groups.
3. To explore the subjects' perceptions of their reading strategies and reading motivation as their reading skills developed over time.

Research Questions

Each of the three research objectives was sub-categorized to formulate specific questions as follows:

1. To study the effects of ER Plus activities on the subjects' reading abilities:
 - 1.1 Do ER Plus activities have a significant effect on the reading comprehension ability of the subjects in the high and low groups? If they do, what are their effect sizes?
 - 1.2 Do ER Plus activities have a significant effect on the reading speed and comprehension of the subjects in the high and low groups? If they do, what are their effect sizes?
 - 1.3 Do ER Plus activities have a significant effect on the reading comprehension of a narrative for the subjects in the high and low groups? If they do, what are their effect sizes?

2. To study the effects of ER Plus activities on the subjects' writing ability:

2.1 Do ER Plus activities have a significant effect on the writing ability of the subjects in the high and low groups? If they do, what are the effect sizes?

2.2 What are the developmental patterns of reading amounts and writing scores of the subjects in the high and low groups?

2.3 What are the relationships between reading amounts and writing scores of the subjects in the high and low groups?

3. What are the subjects' perceptions of their reading development over time?

3.1 What are the perceptions of the subjects in the high and low groups of their reading strategies?

3.2 What are the perceptions of the subjects in the high and low groups of their reading motivation?

3.3 What are the reasons given by the subjects in the high and low groups as to why they read or do not read?

Statement of Hypotheses

With respect to the research questions, hypotheses were set mainly on the basis of findings reported by the majority of previous ER studies regarding reading comprehension, reading speed, and writing ability. As was elaborated in the literature review, more often than not, gains in those three areas were made by ESL and EFL learners of all educational levels. Therefore, the hypotheses set for those issues were written as directional, i.e. gains in the posttests were higher than those of the pretests. As for the effects of ER Plus on the subjects' comprehension of narratives, the results were also predicted to be increased due to the facilitating features of the text genre to which the subjects were exposed. Hence, hypothesis number three was also set as directional.

In regard to the existing evidence of relations between reading amounts and writing scores of EFL learners, gains were rarely reported, as opposed to those in ESL contexts. Hypothesis number five was, then, written as having no association between the two sets of variables. Lastly, it should be noted that research question number two consisted of two sub-tests,

hence four sub-hypotheses. After considering relevant empirical evidence, the research hypotheses were written as follows:

1. Effects of ER Plus on reading comprehension ability

The posttest mean scores of reading comprehension of the subjects in the high group are significantly higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).

2. Effects of ER Plus on reading speed and comprehension

2.1 The posttest mean scores of reading speed of the subjects in the high group are higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).

2.2 The posttest mean scores of reading speed of the subjects in the high group are higher than those of their pretest at .05 level ($H_2 : \mu_1 > \mu_2$).

2.3 The posttest mean scores of reading speed of the subjects in the low group are higher than those of their pretest at .05 level ($H_3 : \mu_1 > \mu_2$).

2.4 The posttest mean scores of comprehension of the timed text of the subjects in the high group are higher than those of the low group at .05 level ($H_4 : \mu_1 > \mu_2$).

2.5 The posttest mean scores of comprehension of the timed text of the subjects in the high group are higher than those of their pretest at .05 level ($H_5 : \mu_1 > \mu_2$).

2.6 The posttest mean scores of comprehension of the timed text of the subjects in the low group are higher than those of their pretest at .05 level ($H_6 : \mu_1 > \mu_2$).

3. Effects of ER Plus on comprehension of a narrative

3.1 The posttest mean scores of comprehension of a narrative of the subjects in the high group are higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).

3.2 The posttest mean scores of comprehension of a narrative of the subjects in the high group are higher than those of their pretest at .05 level ($H_2 : \mu_1 > \mu_2$).

3.3 The posttest mean scores of comprehension of a narrative of the subjects in the low group are higher than those of their pretest at .05 level ($H_3 : \mu_1 > \mu_2$).

4. Effects of ER Plus on writing abilities

4.1 There are differences between the mean scores of at least one pair of the first, the second, and the third tests of writing ability of the subjects in the low group at .05 level ($H_1 : \mu_i \neq \mu_j, i \neq j$).

4.2 There are differences between the mean scores of at least one pair of the first, the second, and the third tests of writing ability of the subjects in the high group at .05 level ($H_2: \mu_i \neq \mu_j, i \neq j$).

5. Relationships between the subjects' reading amounts and writing scores

5.1 There is no relationship between reading amounts and writing scores of the subjects in the high group at .05 level ($H_1: \rho = 0$).

5.2 There is no relationship between reading amounts and writing scores of the subjects in the low group at .05 level ($H_2: \rho = 0$).

Scope of the Study

This research adopted a two-group repeated measures experimental design. The repeated measures were employed since data from an individual was collected at three time points across the experimental period. The weekly three-consecutive periods of treatment, which comprised instruction of reading strategies and practice of language features (one IR-based period) as well as motivating activities and silent reading (two ER-based periods), lasted 15 weeks, with 45 periods altogether for in class activities plus extra time for individual subjects' reading engagement outside of class. The two groups of subjects received exactly the same treatment as they took part in the experiment in the same classroom context. The only difference was the amounts of reading each group completed over the treatment period. Data were collected as before-after experiment for all the reading sub-skills, while time-series collections were adopted for data taken from reading amounts and writing tests. Figure 1.1 below displays the research design and sequence of data collections.

Figure 1.1 Research design and series of data collections

Session	Data collections in series of measurements
Pretests	Reading speed test
	Reading comprehension test
	Comprehension of a narrative test
	Writing test
15 weeks of treatment period (five weeks for each session)	1 st session: reading amounts/ perception surveys/ writing test 1
	2 nd session: reading amounts/ perception surveys/ writing test 2
	3 rd session: reading amounts/ perception surveys/ writing test 3
Posttests	Reading speed test
	Reading comprehension test
	Comprehension of a narrative test

There were some reasons why repeated measures or a time series design were employed to investigate the subjects' reading development: (1) the time series measurements could generate more reliable effects of the experiment as data were collected at several time points, and (2) using several measurements to collect data over a period of time provided more control over possible sources of internal invalidity than the design with one-group pre-test post-test (Isaac and Michael, 1984).

Population and sample

The population of this study was the second-year non-English majored students who were enrolled in the Fundamental Reading course in the first semester of the academic year 2007 at NPRU. Altogether, there were 25 majors from four faculties, i.e. Faculty of Education, Faculty of Humanities and Social Sciences, Faculty of Sciences, and Faculty of Management. Prior to the treatment, only one sample group was randomly selected from the population. However, during

the 15 weeks of reading engagement individual subjects read various amounts. Based on the amounts of reading, the subjects were then divided into two groups, i.e. high and low. The main reason for the classification of reader types was to compare the effects of their being exposed to higher and lower amounts of language input. Data drawn from the two groups with the same major were believed to create less extraneous variables than those taken from learners from different groups with different majors.

Independent variables: ER Plus activities

Dependent variables

1. Number of pages students read
2. Students' reading comprehension ability
3. Students' reading speed
4. Students' understanding of narratives
5. Students' writing ability
6. Students' perceptions of their reading strategies
7. Students' perceptions of their reading motivation
8. Students' opinions on reasons why they read or stop reading

Limitations of the study

1. Due to the need to control confounding variables that would contaminate the experimental process, the characteristics of ER Plus activities which required the teacher's time for scaffolding and the concentration of time-series data collections, only a small group size of subjects, i.e. 34, was recruited. Furthermore, evidence from the grades received in the first English course of these learners signified that the majority had low proficiency. They also came from low- to medium-income families. Results of this research, hence, may not be generalizable to EFL learners in other contexts.

2. All subjects, except two who were assigned into either of the two groups, were female. It is likely, therefore, that the results would be able to be generalized only narrowly to female learners.

3. The subjects' amounts of reading taken from simplified readers produced by different publishing companies and from various difficulty levels could be slightly different due to variations in font sizes, page sizes, and graphic illustrations. In addition, although pictures, exercises, and vocabulary explanations were excluded from the totaled reading amounts, some minor differences of reading amounts might still exist. However, since the distinction was trivial, it is believed that the effect on the subjects' language skills was not very significant.

Definition of Terms

ER Plus activities

ER Plus referred to the activities that combined intensive and extensive reading engagement into each three-period session of the Fundamental Reading course. The teacher-centered intensive-based session emphasized reading strategy and skill practice, reading process, text genre and organization knowledge, comprehension monitoring, and grammar and vocabulary enhancement. The extensive-based tasks involved two main activities, i.e., collaboration, which allowed students to suggest, share, assist, and encourage one another to increase their reading amounts, and the silent reading of simplified texts. The purpose of the ER activities was to motivate students to read as much as possible, both in and out of classes.

Amount of reading

Amount of reading referred to the extent to which individual students read simplified readers and other reading materials both in and out of class. It was identified by totaling the number of pages that each student had read during their three-consecutive period sessions and their out-of-class reading across the 15 weeks of reading engagement. The totaled pages of reading excluded pictures, exercises, vocabulary explanations, and graphic illustrations.

Reading comprehension ability

Reading comprehension ability referred to students' capability of understanding English academic texts at literal and higher-order levels of comprehension. The measurement of reading ability encompassed understanding explicitly stated information, main ideas, inferences, and

author's purposes; drawing conclusions; interpreting, analyzing and synthesizing information; and using vocabulary/syntactic and discourse skills.

Writing ability

Writing ability referred to students' ability to describe phenomena, ideas, past events, people, and places. The development of writing ability encompassed the gradual progress of all students' writing performance over 15 weeks' time. To identify the writing performance of students, the agreed scores of the two raters graded analytically were used. The discrete features that were assessed included content, organization, vocabulary, language use, and mechanics. The trend of the developmental patterns was distinguished through a time series analysis.

Reading strategies

Students' reading strategies involved the use of word-by-word translation, reading for main ideas, understanding a text in Thai or in English, amounts of dictionary use, and guessing word meaning through context clues. As for the progress of reading through time, aspects to be investigated included comprehension of the story, time spent reading the text, speed of reading, and development of reading. The evidence for the development of reading strategies and progress was identified through the subjects' rating of their frequency of use of each reading strategy.

Reading motivation

The subjects' reading motivation referred to pleasure and enjoyment from reading, confidence in reading, liking of English and reading, desire to continue reading another book and to continue reading although not assigned, the benefits of reading, and reasons for reading and not reading. The perception surveys were used to collect the data regarding the subjects' reading motivation over time for most aspects except for the last one, i.e. reasons for reading and not reading, which were identified through the subjects' reflections in open-ended questions.

Reading engagement

The subjects' reading engagement in the ER Plus activities encompassed their (1) reading of simplified readers and other English texts during the 15 weeks of the experiment both in and

out of class, (2) working on supplementary and follow-up tasks, e.g. discussing or doing exercises on vocabulary and structures, and (3) participating collaboratively in motivating activities during the ER sessions.

Reading speed

Individual subjects' reading speed was identified in words per minute measured by the time each subject spent reading a 600-word narrative. As for the reading process, the subjects were required to read the whole text rapidly, only once, with proper understanding of it and to answer comprehension questions afterwards.

High group and low group

The high group referred to the subjects who read, both in and out of class, an average of 364 pages during the 15 weeks of the experiment, while the low group referred to subjects who read 147 pages on average. Sometimes the terms 'heavy readers' and 'light readers' were used interchangeably to represent those in the high and low groups, respectively.

Expected Outcomes and Benefits

1. The research findings can shed light on the unclear issue regarding the extent to which input from reading by EFL students can lend itself to the enhancement of their reading and writing abilities. If enhancement of those two skills is found, language teachers have an alternative to improve their students' reading and writing abilities simultaneously. A separate basic writing course may not be necessary. Additionally, students can take advantage of the two skills from the beginning of their university study.

2. The research findings on the reading and writing connection can help English teachers develop reading courses more effectively and efficiently. For example, they have some guidelines as to the extent to which students are supposed to read in order to enhance their reading and, probably, writing abilities to a certain level. With such guidelines, a course developer can plan more precisely in terms of when and how reading engagement and writing practice can be enhanced.

3. A new body of knowledge derived from the students' perceptions concerning their motivational development and obstacles in reading helps stakeholders such as administrators, teachers, parents, etc. understand the sorts of barriers or difficulties that can hinder the development of reading. Such fundamental insights enable those concerned to provide more effective means in support of their young language learners more appropriately.

4. Findings on the effectiveness of collaborative activities in support of reading engagement could provide another learning channel for teachers to consider integrating them into their reading classes.

5. In case the research findings do not generate the expected outcome, the research could still be of high value both to language instruction in an EFL context and ER researchers. As for the benefits, particularly, to EFL low-ability learners, there would at least be some evidence to prove whether ER Plus is an effective means to be adopted to enhance low proficiency learners' language skills.

Overview of the study

Chapter I

The information in Chapter I provides some backgrounds to specific issues relevant to the scope of the research, i.e. limitations of the current reading instruction and variations of ER research. Other important topics encompass objectives of the study, research questions, research hypotheses, scope of the study, limitations of the study, definition of terms, and expected outcomes and benefits.

Chapter II

The information in Chapter II involves detailed description of topics directly related to the objectives of the study. These include explanations of ER, theoretical support of ER, reading comprehension, writing abilities, motivation, and collaborative language learning. Previous research findings for each topic are also reviewed.

Chapter III

Chapter III gives details of research methodology which involves sample selection, research instruments and their development, conducting the experiment, data collection procedures, and data analysis. It also reports preliminary findings of ER Plus activities regarding reading amounts produced by readers in the high and low groups.

Chapter IV

Chapter IV provides results of the research study. Four main issues of the research findings are elaborated, i.e. effects of ER Plus on reading-related abilities, effects of ER Plus on writing-related abilities, and perceptions of the subjects on their reading strategies and reading motivation. Results of each issue are also summarized following the three topics of investigation, i.e. reading ability, writing ability, and perceptions of reading strategies and motivation.

Chapter V

Chapter V gives details of the research summary and its findings, discussion of the results, implications for language instruction, and recommendations for future studies.



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CHAPTER II

LITERATURE REVIEW

The development of students' reading ability depends largely on the provision of necessary reading skills, appropriate reading materials, opportunity, and encouragement to read extensively. It is also necessary that the students be exposed to a wide range of comprehensible input so that their reading and probably writing competence may subsequently be enhanced. Several issues will, therefore, be involved in such processes if the aim is to be achieved. Major topics to be elaborated in this part comprise an overview of major issues on ER and ER Plus, theoretical support of ER, reading comprehension, writing ability, attitude and motivation, and collaborative language learning. Detail of empirical findings of each topic will be added in relation to numerous ER research conducted around the world.

Extensive Reading

ER has been established by Palmer and West (West, 1926, cited in Day and Bamford, 1998: 5-6) as an approach to foreign language teaching in general and to the teaching of foreign language reading in particular. It has received tremendous support from reading experts, previous and current theoretical constructs relevant to language acquisition/learning, and empirical research evidence. Yet, not many academic institutions implement ER on a regular basis. Several components need to be fulfilled if a success in the implementation is the goal. These include some budgets to buy sufficient reading materials, consent from the authorities, dedicated teachers, somebody to take care of and provide book services, a place for the activities to fit in such as a course, time, scoring, etc.

The benefits of wide and broad reading experience are worthwhile. As Eskey (1986) expresses, “[Reading]... must be developed, and can only be developed, by means of extensive and continual practice. People learn to read, and to read better, by reading” (p. 21). In addition, ER has been recognized as a means to a life-long reading habit. In terms of pedagogical value, it is a cheaper approach to facilitate learners to cope with an influx of information that can be consumed until the rest of their lives, as Renandya and Jacobs (2002: 300) put it:

ER represents much more than a teaching device. It represents a life-long habit, a habit that brings with it the power and wealth that language offers in such large quantities. By encouraging our students to read extensively and showing them how to do so, we help them strengthen their grip on the efficacious tool of reading.

Just recently, Grabe (2004) proposes ten implications for academic reading instruction and curriculum design that have emerged from his extensive review of research literature of the past and present. He suggests that all suggested aspects (except the last one) are the expected attributes of learners that are required to be developed for the effectiveness of their reading comprehension. Interestingly, out of ten, five aspects can be developed through ER. These include (1) ensure word recognition fluency, (6) promote the strategic reader rather than teach individual strategies, (7) build reading fluency and rate, (8) promote extensive reading, and (9) develop intrinsic motivation for reading. The concept of ER is, thus, congruent with the current trend in reading methodology. In fact, ER is a gateway for EFL students to the world of English. By being assigned lengthy reading, these students are exposed to much more English than the amounts they encounter in their normal classes.

As for pedagogical implications, Nation (2006) concludes that ER is attractive for several reasons. First, reading is essentially an individual activity and therefore learners of different proficiency levels can learn at their own level without being locked into an inflexible class program. Second, it allows learners to follow their interests in choosing what to read and thus increases their motivation for learning. Third, it provides the opportunity for learning to occur outside the classroom. ER seems to fit in modern trend in methodology reasonably well. However, in order to organize ER activities, its principles and theoretical basis, along with existing knowledge drawn from previous studies, are central to the success. In this part, principal attributes of ER to be described include definitions, principles, curriculum, ER Plus activities, amounts of reading, and theoretical support.

What is Extensive Reading?

Although a great number of scholars have defined ER differently, there is some common ground to agree on when it comes to the definition of ER. This includes the fact that reading is

practiced widely and in quantity. The purpose of reading is both for information and enjoyment, and the goal is to achieve a general, overall understanding of the text. However, some educators include other aspects in the main ground. For example, Hafiz and Tudor (1989) assert that ER does not require students to produce or practice additional language tasks. Grabe and Stoller (2002: 259) specify ER as “an approach to the teaching and learning of reading in which learners read large quantities of material that is within their linguistic competence...”

Though ER is defined in various dimensions, general practitioners adopt a combination of these different aspects in their implementation. The framework on which ER activities in this study was based also encompassed such concepts as reading comprehensible materials, reading in large quantity, reading for information and pleasure, reading for general understanding as opposed to specific detail, and reading with no follow-up tasks except for the writing task tests.

Principles of Extensive Reading

Like the inconclusive definitions of ER, its principles also vary across practitioners and contexts. The best-known ‘top ten principles’ of ER are given by Day and Bamford (1998: 7-8):

1. Students read as much as possible.
2. A variety of materials on a wide range of topics is available so as to encourage reading for different reasons and in different ways.
3. Students select what they want to read.
4. The purposes of reading are usually related to pleasure, information, and general understanding.
5. Reading is its own reward.
6. Reading materials are well within the linguistic competence of the students in terms of vocabulary and grammar.
7. Reading is individual and silent.
8. Reading speed is usually faster.
9. Teachers orient students to the goals of the program, explain the methodology, keep track of what each student reads, and guide students in getting the most out of the program.
10. The teacher is a role model for students in terms of reading.

It seems that the word 'principle' implies that the assertions put forward by Day and Bamford should be valid for all settings of ER. However, Robb (2002), who has been experimenting with ER for more than 20 years in Japan, argues that such top ten principles may not be extendable to the teaching/learning cultures of many non-Western societies. The case of fostering attitudes for 'self-motivated learning,' for example, may not be applicable to a large number of students who favor extracurricular activities over learning. Besides, students in the Asian context may not be reading for themselves but merely for satisfying a course requirement. What is more, these students may take as many as 15 classes concurrently. Thus, asking them to read extensively would be an excessive burden.

Thai students seem to share similar circumstances with Japanese students. Essentially, there are underlying problems that lead to ineffective reading, i.e. low language proficiency, lack of background knowledge, and inefficiency in comprehension monitoring strategies (Katib, 2006). In addition, Thai students live in a socio-cultural context in which a low value is placed on reading, which may cause them to have low motivation to read. Worse than that, the use of English as a foreign language has made the phenomenon relatively unique and may be inapplicable to other groups of students. With such fundamental problems pressing on students, it is possible that several of the ER principles proposed by Day and Bamford (1998) will easily be violated. Habits such as 'students read as much as possible' or 'the purpose of reading is for pleasure' may take Thai readers, if any, a number of years to develop to that point. Besides, the concept of 'reading is its own reward' is still questionable if it is applied to Thai students. The ER activities in this study were based on the mentioned principles. However, whether they were applicable to the circumstances was a part of the investigation of the study.

Several principles of ER, such as using self-selected comprehensible materials, reading faster for an overall understanding, a tension-free environment, progress depending on individuals, and so forth are congruent with those of current second and foreign language pedagogy (Grabe, 2002). Examples can be perceived from several classroom activities such as when teachers provide a rich linguistic environment, emphasize fluency over accuracy, respect learners, or adopt cooperative/collaborative learning. It is apparent that though ER was recognized almost a century ago, its underlying concepts still equip students with various

constructive views, which have become increasingly acceptable as an appropriate form of enhancing motivation and empowering learners' potentials.

Extensive Reading Curriculum

Developing an ER project requires thorough considerations and preparations on several aspects before the project commences. Very importantly, the project needs some allocated budget to buy a large number of reading materials as well as to involve dedicated teachers who believe in the value of reading extensively. Relevant authorities in each institution should also acknowledge and allow having such activities organized. This is partly because the amounts of reading students are required to do will occupy most of the time they should spend working on other courses' works. Other fundamental issues to take into consideration in order to organize an ER project include how it can be set up, methods to motivate students to read, details of reading activities, and selection of materials.

To begin with, the initiator of the project needs to make a decision on how to organize the activities. Day and Bamford (1998), who wrote a book entitled *Extensive Reading in the Second Language Classroom*, recommend developing ER as a small project at the beginning and letting ER prove itself. They also propose four broad ways in which ER can be included in the language curriculum:

1. as a separate, stand-alone course;
2. as part of an existing reading course;
3. as a noncredit addition to an existing course;
4. as an extracurricular activity.

The stand-alone course would be an ideal model and will be most effective if it is officially permitted. This is very important as students will tend to take the activities more seriously, and, thus, the teacher's burden on encouraging them to read will be alleviated. Developing an ER curriculum is similar to that of other courses. That is, it involves consideration on course objectives, contents, activities, teachers, students, classroom, and evaluation. The major difference between an ER course and others is its flexibility in organizing course components. The course objectives will shape subsequent characteristics of the course. They must, therefore,

be considered carefully with all relevant components taken into account. For example, if the aim is to encourage reading for pleasure, then materials should be chosen out of individual readers' interests, appropriate means for evaluation must be adopted, and there should be little or no follow-up tasks, etc. On the other hand, if the purpose of the course is for language acquisition or enhancement, then learners would be encouraged to read as much as possible, with follow-up activities and on-going evaluation carried out appropriately to ensure students' achievement.

Another recommended means to organize ER is to integrate it into an existing reading course, which is the design chosen for this research. Generally, typical reading courses are IR oriented. In IR, students read fewer, shorter, and more difficult texts in detail, followed by linguistic enhancement in the form of exercises on grammar, vocabulary, and text analysis, among other things. The purpose of the reading is for a complete and detailed understanding of the texts, which is basically considered 'reading for academic purposes.' Such tasks are, however, criticized by Alderson and Urquhart (1984) and many ER supporters such as Brumfit (1984: 83), Yorio (1985: 157), and Hyland (1990: 14) (cited in Susser and Robb, 1990) as 'not reading,' but more of 'language lessons' for introducing and practicing reading skills. However, it is worth noting that such language training is also crucial in the EFL context, and ER is impossible without some grounded skills and knowledge concerning how to read effectively. As Paran (2003) asserts, ER alone is not sufficient for developing reading skills, a more focused (IR) approach, including explicit instruction of reading skills, is also needed.

With the combined reading approaches, readers learn some fundamental skills and strategies in order to read successfully. They are also supported to read in large quantities in a tension-free environment. Numerous scholars agree that the two reading approaches should not be seen as being in opposition, as both serve different but complementary purposes (such as Nuttall, 1996; Carrell and Carson, 1997, etc.). Zhenyu (1997) also confirms simultaneous utilization of both types of reading as knowing individual sentences helps readers interpret the overall meaning of the passage. In opposition, comprehension of the main idea of the text helps readers understand each sentence in the same manner.

The last two patterns to organize ER are similar in that they are additional activities, either to an existing course or on its own. Therefore, they involve no legitimate procedures. One or a group of teachers could initiate a project. Major components of the project to be considered comprise how to earn some budget to run the project, ways to motivate students to join the reading activities as much as possible, and how to manage the project on a daily basis. Most importantly, setting appropriate goals based on the desired results allows the developers to identify the project attributes that can yield an efficient outcome.

Once the ER project has secured its place in a language curriculum, the next step is for teachers to provide the appropriate environment to encourage and prolong reading engagement. In order for students to experience the real benefits of ER, Krashen (1982) proposes that ER will only lead to language acquisition provided that certain preconditions are met. These conditions include adequate exposure to the language, use of interesting materials, and a relaxed, tension-free learning environment. Plentiful opportunity to be exposed to comprehensible language is the heart of ER. Reading in class alone is, therefore, not enough to be considered 'extensive.' It is generally preferable that students read outside the classroom. This, in fact, can facilitate readers to continue reading at their disposal as they are supposed to choose books on their own, and progress at their own pace and level. By reading extensively, the use of a dictionary is minimized because the readers are expected to read for general understanding rather than identifying details of the text. Teachers' assistance is not necessary for such practice either.

Post-reading tasks can have motivating effects on students' adherence to the texts they are reading. There are two perspectives as to whether students should engage in post-reading activities or not. The first group of scholars emphasize that students spend most of their time reading as much as possible. One reason behind such a concept is that with the tentative aim to read for pleasure, students should spend most of their time reading. Post-reading tasks will take too much time and spoil readers' enjoyment. Reading alone is its own reward, similar to real life reading. Bamberger (1991), one of the advocates of this view, asserts the following: "Forget the communication aspect. Students should talk less about what they have read and, instead, use the time for reading more" (p. 35). If students are assigned to do exercises or activities to demonstrate how much they comprehend the texts, such tasks distract them from their main purpose. Besides,

they will never enjoy the story if they have to remember its relevant details. The emphasis on reading only is congruent with what Renandya, Rajan, and Jacobs (1999: 296) claim. That is, the program will not obtain optimal benefits unless students are 'hooked' on reading.

The other group of scholars supports the idea of including follow-up tasks. For them, reading is considered a means to an end (Aebersold and Field, 1997). That is, students read to complete some types of post-reading tasks such as a written summary or an oral presentation. These scholars believe that reading alone is not sufficient to help readers acquire the language. Different types of post-reading tasks, or what is called output, can help readers reinforce the language they encounter while reading, give them a sense of progress, and help them share information with others. Other benefits for including tasks come from the teachers' need to monitor students' reading, assign grades, or require readers to prove how much they understand the texts they have read.

The last but crucial aspect to be considered for an ER curriculum is the selection of reading materials. Due to the requirement that students read texts that are easy to understand, the most popular type chosen by most initiators of ER projects is graded or simplified readers. Graded readers are graded or simplified books that use high frequency vocabulary instead of those used by native speakers. They also have an arrangement of restricted structures of grammar so that readers at different levels of ability can understand the text with ease. The most common type of graded readers is stories that have been simplified for children, or for EFL readers. Proponents of graded readers argue for the value of them as opposed to those of authentic materials.

In relation to the value of simplified readers, Claridge (2005) examined the characteristics and quality of simplification in graded readers as compared to those of 'normal' authentic English. The two passages from graded readers were compared with the original passages. The comparison used a computer program -RANGE- to analyze the distribution of high and low frequency words in the passages. It was found that patterns of use of structure, discourse markers, redundancy, collocations, and high and low frequency vocabulary, are similar in both original version and simplified version. This suggests that the writing in well-written graded

readers can be, for its audience, experienced as authentic and typical of 'normal' English. However, for some reading teachers, graded readers are not considered 'authentic' though they agree that the languages represent good English.

In summary, designing an ER course or project is not simple. The combination of all components should take students' background, teachers' commitment, and school capacity into account. Besides, not only the required quantity that students should meet but also the quality of reading attainment, i.e. the pleasure in reading, language acquisition, and desire to read as a habit, need to be carefully considered. In addition, the course or project should provide students with ample opportunity to be exposed to the target language through availability of materials, time, tension-free environment, and support from teachers, parents, peers, and the wider community.

Extensive Reading Plus

ER plus has been named for a reading course designed exclusively for EFL students in this research. It has been created from a combination of theories from language acquisition, affects, and social interaction. It also takes into consideration specific characteristics of Thai learners and the reading instruction phenomenon in Thailand. Most experts suggest that IR be combined with ER so that students learn how to read and are encouraged to read as much as possible. However, ER component alone may not be sufficient to motivate less proficient learners to read on their own as much as they are supposed to in order to benefit themselves. To accelerate the reading engagement, the ER Plus also included a social aspect, i.e. the collaborative learning concept, into the combined IR and ER approach. Therefore, the reading course comprised three main components, i.e. cognitive, affective, and social factors. Practically, these three aspects were referred to as the teaching of reading strategies, the act of reading in tension-free environment, and the collaboration between teacher-students and students-students.

The first aspect has been recognized by past up to present researchers as an integral part in the reading instruction. According to Williams and Burden (1997), readers will employ specific reading strategies if they have a sense of choice, they are clear why they are using them, and they want to complete a task to achieve a goal that they have identified as worthwhile. Knowledge and skills in reading were a prerequisite for all students in this study as they were supposed to be able

to begin their extensive reading right from the start of the project. Besides, they were required to read on their own, at their own pace, to follow their own interests. Learning to read strategically and effectively is thus crucial.

As for the affective aspect, positive attitudes and motivation to read is as important as that of cognitive training, as supported by the Affective Filter Hypothesis proposed by Krashen (1982). The love of reading propels readers to acquire reading skills successfully (Brown, 2001). Major sources of tension-free environment come from the basic principles of ER. The emphasis of the ER activities is congruent with the role of affect. Therefore, seriousness from the IR sessions could be reduced by the influence of positive classroom environment. The combination might potentially establish positive attitudes towards reading among most readers. Such attitudes should influence students' motivation to read perseveringly.

Social interaction through collaboration has been chosen to integrate into the ER Plus activities because reading can be infectious through interaction among individual students. In addition, group work offers an embracing affective climate as well as promotes learner responsibility and autonomy (Brown, 2001). Thus, group members should have an incentive to help one another put forth maximum effort for the success of all. Social interaction also signifies that reading is a social activity. In real life, readers generally talk about what they have read, sometimes recommending books to one another or discussing how they read. The overall components of ER Plus signify that reading is not solely an academic activity. It is real life; people follow their purposes when they choose what to read and how to read.

Differences between ER Plus and Typical ER

ER has not yet widely been recognized among reading teachers, though it was referred to as a reading approach. Besides, although several patterns for implementation of ER have been suggested, there is no specific combination of how various activities can be integrated or organized. Therefore, most teachers apply the characteristics of ER as proposed by Day and Bamford (1998) for use in their particular contexts to serve different aims of their projects. ER Plus activities in this research, though adopt most of the ER principles, have been modified to suit

a specific context of EFL low proficiency students. Major distinctions lie in the course components and motivating techniques to encourage wide reading.

Ideally, traditional ER does not teach reading strategies; students are assumed to be able to engage in reading extensively once they join the project. Therefore, readers must be well equipped with basic reading skills, and they do not need teachers' assistance. If the ER is organized in a classroom, then, only silent reading occurs. In contrast, for ER Plus activities, two more components were added, i.e. the strategy training and motivating activities. Time allocated for reading promotion was, thus, relatively high when compared to that of typical ER. To elaborate, in the three 50-minute sessions, two-thirds was devoted to ER Plus activities, which included collaborative motivating tasks and silent reading. Approximately one-third was spent on teaching reading strategies. However, the proportion of the three major components could be divided flexibly depending on the teacher's consideration.

Different techniques were adopted to motivate students to read widely both in and out of class. Apart from being assigned class time for motivating activities, the collaborative learning concept was another means to accelerate reading engagement. Collaboration among community readers should be able to turn typical solitude reading activity into an active learning environment. By working collaboratively on tasks related to what has been read, instead of dealing on post-reading tasks, students were empowered through reflecting and sharing their reading experiences with their peers. Such exchanges should influence or inspire them to take reading more seriously so that they had something to share with other members and, eventually, should see themselves as readers, not students.

Typical ER promotes tension-free reading community. For ER Plus, the low-filter concept was adopted along the same line. The only distinction lied in the reward for reading. Relatively high scores were assigned to those who read at high amounts in order to motivate more reading. Justification for this practice is that a large number of Thai students are concerned with their grades as it is the expectation of their parents. Besides, due to constraint on students' backgrounds such as their low proficiency levels, low values on reading, low reading abilities, etc., they may not enjoy reading as they should theoretically. When reading from students' own

initiatives is impossible, requiring them to read should be another option if reading engagement is to be accelerated.

The design of the ER Plus reading instruction with all activities supported the act of reading and students not wasting time doing exercises implied that this reading course was different from what students had experienced. They, therefore, did not have to compete with their friends or being evaluated to determine how much each knew in detail about specific passages. The practice also drew students' attentions to another different stage, that is, silent reading, which emphasized reading comprehensible texts for pleasure as opposed to reading a tough one for detail.

Amount of Reading

Though ER implies reading in quantity, identifying the optimal amount to be effective for specific language improvement, until now, is still unclear. However, in order to interpret the effect of ER, a common baseline of what is meant by 'extensive reading' should be clear. The problem is that there is no agreement on how much reading should be considered 'extensive' in any particular context. Susser and Robb (1990) review numerous criteria for reading amounts proposed by reading experts and researchers. Such criteria include the following: an hour per evening (Krashen, 1981: 105); an hour of extensive for every hour of intensive reading (Williams, 1986: 44); one text per week (Stoller, 1986: 65; Eskey, 1973: 176; Brumfit, 1979; Nation and Wang, 1999); at least two books a week (Carroll, 1972: 180), to name just those proposed by well recognized scholars and researchers.

The proposed amount of reading for students in this study relied on the advice of Nation and Wang (1999). They recommend a book a week at the student's ability level as they reason that such amount is sufficient for enough vocabulary recycling to take place where learning is possible. However, the reading amounts EFL students in this study could achieve by the end of the experiment reflected a new baseline particularly for students with a similar context to adopt as appropriate.

Variations in the criterion for reading amount indicate that the extent to which reading should be done depends more on how individual readers are hooked on the text they are reading than on any specific pages per any time length. If the book is enjoyable, there is a tendency that the reader might finish it in a short time. Nevertheless, for pedagogical benefits, at least there should be some ground on the appropriate extent to which L1, ESL, and EFL students should read if certain language features are to be enhanced. Such baseline will benefit teachers in developing a fruitful curriculum. Most ER research relies on reading amount as the main criterion for determining its effects. For example, Renandya, Rajan, and Jacobs (1999) found that quantity of reading was the single most important predictor of students' gain in scores. Previous studies that reported gains from ER specify a wide range of reading amount to be effective, for example, from short texts, e.g. only 1,032 words which can be read within 30 minutes or less (Day, Omura, and Hiramatsu, 1991) to very large amounts of text, e.g. 18 graded readers in nine weeks (Yamazaki, 1996).

Regarding gains from wide reading, according to Waring (2000), "...when assessing gains from exposure to ER we should expect low gains." One reason is that the texts that are recommended for reading of this kind should be at a level where 95% to 98% of the words on the page are understandable (Nation, 1999). There should be fewer than five new or difficult words on a page as a common rule. Also, ER readers read for a general understanding, and this implies that the degree of comprehension is relatively low. Hence, it is probable that students will 'learn' only a small number of words. In order for students to gain more vocabulary, the exposure to texts should be carried out at a longer duration. A short-term study, therefore, cannot make dramatic changes in language proficiency gains. However the assumption contradicts reports on increased gains of some short-term ER studies (e.g. read four weeks in Lai (1993a), read one reader in Ferris (1988), read two chapters (6,700 words) in Pitts, White, and Krashen (1989), etc.).

Whether the gain from reading extensively is considerably high or low, apart from the amounts, which only measure the extent of reading performance, other means of measuring the increased language competence must be considered. However, the measuring methods must be congruent with the concept of ER, which emphasizes reading for pleasure or information and

readers read for general understanding, not for detail. Also, they should answer the objectives of the program, for example, whether the readers' reading ability, writing ability, spelling, or reading rate have been improved. Therefore, a wide range of measurements can be adopted. Examples include writing summary of a story or book review, measuring reading rate, narrating a story orally, answering questions about the story, etc.

To benefit from findings of ER research, apart from considering students' background, a course developer looks initially at the optimal amounts of reading that can enhance readers' abilities. For pedagogical purposes, it is essential that such indicators be as accurate as possible. Besides reporting length of students' reading, i.e. 15 weeks, this present study reports amounts of reading based on the number of pages each student had read. Though a more specific criterion should be 'word count,' which would provide the volume of the input that readers intake more accurately, it causes a lot of difficulties both for students to record their own reading and for listeners to conceptualize its volume. As for number of pages, generally publishing companies produced books of similar sizes. Only books at lower levels, i.e. from starter to level 1, differ in font sizes. Therefore, systematic means of counting must be utilized for those who read books at these levels.

Theoretical Support of Extensive Reading

The act of reading in quantity is theoretically supported by the Input Hypothesis, which explains how language is acquired. Also, the acquisition process is most effective under low-filtered environment, according to the Affective Filter Hypothesis. These two concepts have been repeatedly reported by substantial ER research from all over the world as crucial for the success of reading promotion for students of all backgrounds and contexts.

Input Hypothesis

ER, also referred to as book-based or comprehension-based activities, is well supported by the Input Hypothesis, proposed by Stephen Krashen (1982), one influential theorist in an Innatist Theory of Second Language Acquisition (SLA). The key concept of the hypothesis is as follows:

One acquires language in only one way--by exposure to comprehensible input. If the input contains forms and structures just beyond the learner's current level of competence in the language ($i+1$), then both comprehension and acquisition will occur (Krashen, 1982: 2-3).

The Input Hypothesis makes the following claim: a necessary (but not sufficient) condition to move from stage i to stage $i+1$ is that the acquirer understands input that contains $i+1$, where "understanding means that the acquirer focuses on the meaning and not the form of the message" (Krashen, 1987: 21). During the time the hypothesis was first introduced, it was criticized as not having been substantiated by empirical studies, though it appeals to the intuition of most educators. Lightbown and Spada (2003) refer to Krashen, who acknowledges that some people who are exposed to extensive comprehensible input do not achieve high levels of proficiency in the second language. However, Krashen still maintains his conviction that input is the source of acquisition.

Apart from Krashen, there are other researchers who assert that ER, which is one source of input, is a means to bridge the gap between L1 and L2 readers. Mason (2005), for example, has conducted several studies on ER and concludes that ER is an important 'bridge' in language development making more advanced stages such as academic reading possible. Similarly, Azabdaftari (1992) makes a conclusion based on his research evidence that providing the opportunity for ESL and EFL readers to read in quantity can promote them to become compatible to those of L1 in terms of language acquisition.

There are interactionists such as Lev Vygotsky and Michael Long who also believe that comprehensible input is a crucial element of the language acquisition process. The major distinction between Interactionist and Nativist Theories of SLA is that Krashen emphasizes 'comprehensible target language input,' which is one-way input, while the Interactionist Theory of SLA acknowledges the importance of 'two-way communication in the target language' (Ariza and Hancock, 2003). That is, language can be acquired when there is an interaction between people. Long (1983) agrees with Krashen that comprehensible input is necessary for language acquisition. However, he is more concerned with the question of how input is made

comprehensible. He sees modified interaction as the necessary mechanism for this to take place. In other words, input is comprehensible through modified interaction or negotiation of meaning. Therefore, the modified input that learners are exposed to is a crucial element for language acquisition. In terms of the reading process, the modified input comes from two main sources, i.e. by reading simplified languages that can ease readers' difficulty in understanding and by having conversations with peers through collaborative interaction.

The Input Hypothesis gives no reference to a time frame related to input to be effective for subsequent language acquisition to occur. However, for ER projects, the word 'extensive' itself implies a lengthy duration. Practically, ER research that adopted such hypothesis into classroom implementation varied in terms of time length, and the findings were more positive than negative. For example, in short-term research, Coll et al. (1991) studied the effects of additional reading with an emphasis on reading for pleasure of foreign language students of Spanish. The students in the ER group completed an average of 15 hours of 'after school reading.' The research instruments used to measure reading ability included a test of language skills, cloze, dictation, vocabulary, and self-assessment measures. The findings revealed no significant difference on the mean scores between the ER and NON-ER groups. The researcher concludes that this is because both the length of time and students' reading were too limited to support Krashen's Hypothesis. Another possible justification would be due to the differences between the acquisition process of EFL and of L1 and ESL students. However, another study of a three-month project of out-of-class ER in which Hafiz and Tudor (1989) investigated ESL students in the UK revealed that there was a marked improvement in the performance of the ER group, especially in terms of writing skills. This is probably due to the effects of students being exposed to comprehensible input intensively for three months. It is also possible that living in the UK affected students' language skills positively.

There is, on the other hand, a long-term case study of ER of a female adult Korean reported by Krashen and Cho (1995). The woman had lived in the U.S. for five years but had never read an English book. After she had been introduced to the 'Sweet Valley Kids' series to read voluntarily, she was able to read more than one million words of that series and of some other more difficult materials. Her L2 competence increased based on the level of the books she

had read and on her own estimation of her proficiency level. Krashen and Cho conclude that the reading itself was a valuable source of comprehensible input. Again, living in a country where English is spoken would probably increase the subject's motivation to read.

It is generally difficult to compare results of each ER project in relation to the amount of comprehensible input and its effects. The main obstacle is the differences on the background of learners, time length, and amount of reading, which have been specified on a wide range basis by researchers of each study. There are, however, some cases when the Input Hypothesis did not work well, but the empirical evidence of such studies is comparatively less when compared to those found to support the theory. Coady (1997), for example, argues against the acquisition of L2 vocabulary through ER, raising some problems that may occur with beginners. For instance, if readers have too limited knowledge of words to read extensively, how can they learn (or acquire) it?

Coady also proposes two stages to overcome the mentioned obstacles. That is, in the first stage, learners should be given explicit instruction and practice of the 3,000 most common words in the language. These words should be spontaneously remembered to the point of automaticity. In the second stage, they should then be allowed to engage in reading tasks they find enjoyable. Coady urges curriculum designers to adopt an approach in which there is comprehensible input, adequate and supportive feedback, and, above all, materials that the learner finds interesting. Coady also suggests overt instruction of vocabulary before students begin their ER session. However, practically, nearly all ER research did not mention pre-teaching of common vocabulary as, according to ER principles, students read comprehensible texts. Therefore, even though they are low-ability readers, they can choose books at lower levels that contain low frequency of vocabulary and simple structures to read. Besides, individual students read different texts. Another problem could be posed as to which words should be considered for teaching.

Though, according to Krashen, comprehensible input is sufficient for language acquisition to occur, it is not possible without language output, according to Swain's Output Hypothesis. For this perspective, post-reading or follow-up activities are important to the acquisition of language as well. The hypothesis states that although comprehensible input

supplies an essential basis for second language acquisition, it must be supplemented by the production of comprehensible output if learners are to reach a high level of proficiency in the target language. Swain (1999) highlights three functions of output:

- (1) while attempting to produce output, students may notice gaps in their understanding;
- (2) output involves students in formulating hypotheses about what works in the target language and in testing those hypotheses in the language they produce and the response they receive from interlocutors;
- (3) less frequently, output involves students in metatalk about the target language (for instance, they might discuss what a word means or how a particular grammatical construction could be untangled).

Empirical evidence to verify if output tasks can strengthen language acquisition comes from a study by Mason and Krashen (2004). The researchers sought to determine if adding supplementary writing to an ER program would increase its effectiveness for the development of grammatical accuracy. The subjects were 104 EFL first-year Japanese female English majors studying in an ER program. The three groups of participants were involved in one of the three post-reading form-focused tasks, i.e. writing a summary in Japanese, writing a summary in English, and writing summaries in English, receiving corrective feedback, and rewriting their corrected summaries. All participants read an average of 2,300 pages (about 500,000 words) in three semesters. The results revealed that all three groups improved significantly, and there were no statistically significant differences among the groups on three tests. The questionnaire revealed that the Japanese summary group, which had no writing practice, spent 150 hours reading, while the other groups spent about 300 hours reading, writing, and rewriting.

The conclusion of the study was that addition supplementary writing did not lead to greater accuracy. ER alone produced the same results, but was far more time-efficient. That is, though the ER with summary in Japanese group read less and had done no writing practice, the language improvement was the same as the other groups. The result of this study is consistent with the Input Hypothesis in that students increase writing ability just by reading. Nonetheless, it is inconsistent with the Output Hypothesis since students who were engaged in output tasks

gained language competence, which also included writing ability, similarly to those who did reading only.

The findings that writing practice does not help improve students' writing competence is in congruence with what Krashen (1993: 75) suggests, "Hypothesizing that writing style comes from reading, not from writing, is consistent with what is known about language acquisition: Language acquisition comes from input, not output, from comprehension, not production." Likewise, Tsang (1997) believes that reading is often considered relevant input in the acquisition of writing as well as general proficiency. Though output tasks have been claimed to promote language acquisition, for this study, there was no writing practice and the writing tests were not considered follow-up tasks as they were performed approximately once a month. Also, according to the findings by Mason and Krashen, practice of writing does not help students write better.

Affective Filter Hypothesis

The Affective Filter Hypothesis, also proposed by Krashen (1982) as one of the five hypotheses of his SLA theory, states how affective factors relate to the SLA process, as Krashen (1987: 32) asserts:

Learners with high motivation, self-confidence, a good self-image, and a low level of anxiety are better equipped for success in SLA. Low motivation, low self-esteem, and debilitating anxiety can combine to 'raise' the affective filter and form a 'mental block' that prevents comprehensible input from being used for acquisition.

Several ER principles provide an environment that is reader-friendly, including, for example, the following activities:

- Readers are allowed to select texts from their own choices.
- Readers can choose new books if the ones they are reading are too difficult or not interesting.
- Readers do not need to read in detail, as there will be no test concerning the story they have read.

- If they are required to speak about the book, it comes from their opinions, which can be neither right nor wrong.

- The book itself is understandable and so a dictionary is not required.

- The reading process is tentatively similar to when readers read in their native language; no struggling or painful experience involved.

Such unique characteristics of ER promote a tension-free environment, which is believed by Krashen and numerous researchers as one vital aspect that facilitates the process of SLA. Apart from attitude, Gee (1999) includes other affective variables that can have an impact on the readers' decision to read, i.e. motivation, beliefs, perceived task control, and perceived competence. The researcher puts forward ways to enhance affects and encourage a love of reading among ESL learners such as allowing them to have choice, challenge, control, collaboration, and providing them with low-risk environment with the teacher acting as a facilitator and role model, peers as supporters, and with time and space to share.

The underlying input and affective hypotheses adopted into the traditional IR class of this study might create a number of distinctions that could be observed explicitly by the students themselves. Theoretically, major changes were in terms of promotion of language acquisition and reduction of learners' anxiety. Practically, examples of such a discrepancy could be witnessed from the reading that focused on meaning rather than on form, the reading of comprehensible texts, the relaxed atmosphere among the teacher and students, the absence of evaluation concerning what had been read, etc. In fact, these aspects in combination made the IR class of this study completely different from an ordinary reading class and had caused dramatic changes in learners' attitudes and behaviors as were revealed by the research results in Chapter 4.

Reading Comprehension

In the majority of ER research, reading amount has been used commonly, but superficially, to identify the extent to which input is supposedly acquired during a specific time length. However, to prove if such input has, in fact, affected readers' language proficiency, a more precise means of measuring would be to rely on readers' comprehension ability. Measurement of reading ability requires the test developer to define the constructs to be evaluated

theoretically. Next, it is necessary to know some underlying factors that affect students' reading comprehension so that the results of the measurement can be interpreted more precisely. Besides, comprehension from ER is basically different from that of IR, which emphasizes reading in detail and may involve assessing both detailed contents and language features. However, understanding a piece of text that is read globally cannot be assessed on the same basis as that of the IR. Such issues are elaborated in this section, along with other aforementioned topics.

What is Reading Comprehension?

Generally, comprehension is the goal of the reading process and the main concern of most EFL readers whose purpose is to know what the text is about. Defining the concept of reading comprehension is necessary for subsequent decision making relevant to instruction and measurement of it. However, until presently, such a definition is not yet conclusive. For instance, a definition of reading comprehension given by Maria (1990: 14-15) reads, "...the holistic process of constructing meaning from written text through the interaction of: (1) the knowledge the reader brings to the text, i.e. word recognition ability, world knowledge, and knowledge of linguistic conventions; (2) the readers' interpretation of the language that the writer used in constructing the text; and (3) the situation in which the text is read." Comprehension in reading, thus, involves the collective interpretation drawn partially from the text, the writer, and the readers themselves.

Similarly, Urquhart and Weir (1998) note that comprehension is not the product of reading alone; it is fluctuated following the readers' schema, reading goals, interaction with the writer, etc. Both Urquhart and Weir also suggest that the word 'comprehension' makes its distinction from the word 'decoding' clear; the latter is the product of a reading task and the evaluation of it is done accordingly. Based on such views, comprehension of the same text deriving from different readers can be different mainly due to individual discrepancies in language proficiencies and backgrounds. Such diversity of the interpretations, however, makes the after-reading tasks or sharing sessions of the ER project interesting as everybody has something to express, no matter right or wrong. The comprehension from reading stories that each reader brings to the group would, therefore, create a sharing arena and promote autonomy, motivation, and confidence among all members.

What Constitutes Reading Comprehension?

Several factors are involved simultaneously when one tries to make sense of a piece of text. These include the reading model one is using, as well as individual factors such as the purpose of reading, schema, interests, motivation, language abilities, skills, strategies, and interaction with the writer. Thus, in order to prepare students to read, these factors must be taken into consideration.

For EFL readers, especially at beginning levels, reading assignment often becomes a laborious decoding process. This is mainly because readers lack knowledge of the code or knowledge of the cultural context of the reading material (Hadley, 2001). These low-ability readers, therefore, tend to use the so-called ‘bottom-up’ model. According to Katib (2006), readers cannot apply the higher-level processes until they have completed those of the lower level. Afterwards, it is possible that the more students read, the more they combine their decoding process, which relies largely on linguistic factors, with their background knowledge. That is, they use the combination of bottom-up and top-down models, which has been referred to as the ‘interactive model’ by most reading teachers.

According to Strothman (2006), reading is a cognitive, developmental, and socially constructed task that goes beyond understanding the words on a page. Readers, therefore, play a more active role in the reading process while they interact with the text. In fact, comprehension abilities are relatively complex, and they differ in various dimensions based on tasks, motivations, goals, and language abilities (Grabe and Stoller, 2002). Therefore, as Hadley (2001: 204) puts it, “no one model or type of model is sufficient in itself to explain what happens when language learners try to comprehend written texts.”

Another repeatedly mentioned factor that plays a key role in comprehending a text is schema, or sometimes referred to as background knowledge. According to McNeil (1992), schemata consist of the reader’s concepts, beliefs, expectations, processes, i.e. almost all past experiences a reader uses to make sense of a text. When reading teachers select materials for classroom practice or evaluation purposes, it is, therefore, necessary to consider readers’ background as it can facilitate their comprehension of the texts. Regarding readers’ purposes,

those who read with different purposes will use different strategies while reading. Their speeds as well as levels of comprehension also vary. For example, in reading for pleasure, which is the emphasis of ER, readers are concerned less with the accuracy with which details are understood or the amount of detail related to that information. Reading speed is also faster as opposed to that of reading for information. In contrast, those who read for information use different strategies. They read the text slowly and carefully with specific purposes in mind. They need a complete understanding, so accuracy is very important.

For Grabe and Stoller (2002), when fluent readers read for general comprehension, they process words very rapidly and automatically, use skills efficiently to interpret the meaning, and integrate various processes within limited time. These authors propose ten processes involving in fluent reading comprehension, i.e. a rapid process, an efficient process, an interactive process, a strategic process, a flexible process, an evaluating process, a purposeful process, a comprehending process, a learning process, and a linguistic process. According to both experts, any of these processes cannot define reading comprehension by itself; a combination of all can give a more accurate interpretation of a text.

Sources of difficulty in interpretation of a text lie in various attributes of the text and the reader. Recognizing the roles different attributes play in facilitating comprehension helps reading teachers understand problems that may arise and provide some assistance and solutions more effectively. In addition, teachers may be able to identify aspects that promote or impede their students' comprehension of a text accurately. Finally, measurement of reading comprehension can be conducted convincingly once the test writer recognizes its process.

Levels of Reading Comprehension

Due to the dynamic process of reading, specifying the extent to which one comprehends a piece of text is also complex, and different scholars provide different perspectives related to its components. Urquhart (1987, cited in Urquhart and Weir, 1998: 87), for example, summarizes the common assumption behind the pedagogical view of comprehension that there is such a thing as 'total' or 'perfect' comprehension of a text. That is, the understanding of the text must be fully accurate. Therefore, being able to answer questions 100% correctly means perfect

comprehension. If this view is correct, then skimming and scanning, which can lead one to attain lower levels of comprehension, do not constitute reading. Besides, both types of reading are downgraded when compared to the careful intensive reading type.

From another perspective, comprehension is viewed in terms of the meanings that readers bring to texts. This dimension also poses a number of problems for both instruction and evaluation of reading. That is, there can be variations in identifying the correct answers in a comprehension test if answers are to be taken from different background knowledge that each reader brings to constructing the meaning of a text. As for ideal comprehension, a reader should provide meaning that is closest to the writer's intention. This would be impossible to achieve as well, and different types of reading have different purposes.

Comprehension of reading that is classified into different levels is easier to measure. Again, levels of reading comprehension are classified differently. For example, Day and Park (2005) categorize reading comprehension into six types. They are literal comprehension, reorganization, inference, prediction, evaluation, and personal response. For Burns, Roe, and Ross (1999), comprehension can be divided into only two main levels: literal and higher-order comprehension. The literal comprehension is the most basic type, whereas the higher strand involves specific types of comprehension. Among these are interpretive, critical, and creative comprehensions. These two levels of comprehension are commonly referred to in the context of measurement of reading ability, whereas differentiation of specific types of comprehension is for teaching purposes. Also, Grabe and Stoller (2002: 20) share similar views concerning these levels of comprehension:

The lower-level processes represent the more automatic linguistic process and are typically viewed as more skills orientated. The higher-level processes generally represent comprehension processes that make much more use of the reader's background knowledge and inferencing skills.

Additional explanation of each level of reading comprehension is elaborated as follows:

1. Literal Comprehension

At this level, readers are able to understand surface meaning or the information that is stated explicitly in the text. Such literal understanding is basically a prerequisite for higher-level comprehension. According to Burns, Roe, and Ross (1999), main ideas, cause and effect relationships, inferences, and so on are built from general information in specific paragraphs or passages. Readers should be able to answer specific questions concerning what, when, where, why, and how. Knowledge of vocabulary also falls into this level of comprehension as readers need to make use of word meaning in order to understand the text.

2. Higher-order Comprehension

Understanding texts at this level is based on the higher-order thinking process of interpretation, analysis, and synthesis of information. Readers need to go beyond what is said in the text and be able to see the relationship among ideas that are stated or unstated (Burns, Roe, and Ross, 1999: 227). To further clarify, according to Mohamad (1999), interpretive or referential comprehension includes thinking processes such as drawing conclusions, generalizing, and predicting outcomes. On the whole, the three reading experts, Burns, Roe and Ross (1999), share similar concept but extend it slightly. For them, interpretive reading or reading between the lines includes making inferences about main ideas of passages, implicitly stated cause-and-effect relationships, referents of pronouns and adverbs, and omitted words. In addition, reading at this level encompasses ability to detect the mood of a text and the author's purpose in writing, draw conclusions, and interpret figurative language. Readers who are using skills at this level must play an active role in constructing the meaning. They may predict and revise their postulation in order to organize their thinking before rejecting or confirming the original ideas.

Extensive Reading and Comprehension: Research Findings

A reader who reads extensively commonly gains automaticity of word recognition, which facilitates reading comprehension. The accumulation of skills and language elements makes the meaning construction much easier. Based on reading research in the L1 and L2 contexts, Grabe (2002: 56) contends that "...[g]iven that reading efficiency is dependent on rapid and automatic

word recognition and a large recognition of vocabulary, extensive exposure to L2 texts through reading is the only learning option available to L2 students.” Grabe (1991) also encourages teachers to make use of sustained silent reading in particular because of its benefits in terms of building fluency, confidence, and appreciation of reading. Moreover, the concentration while readers are reading silently helps them build vocabulary and structural awareness, enhances background knowledge, improves comprehension skills, and promotes confidence and motivation.

Engaging in extensive reading behavior is a prerequisite for developing reading skills. The more students read, the better their fluency and confidence. Eskey (2002: 9) recommends that apprentice readers read a lot. Eskey (1987, cited in Devine, Carrell, and Eskey, 1987: 92) proposes an effective means to increase reading efficiency by concluding that because reading is such a complex, interactive, and multifaceted process, sustainable progress can only be achieved via a large quantity of reading of texts of increasingly greater difficulty. Simply put, wide reading, i.e. reading a large amount of materials and breadth of reading, i.e. reading a variety of texts, are essential for reading comprehension. A considerable number of empirical evidence confirms this. For instance, Mashuhara, Kimura, Fukada, and Takeuchi (1996) compared two approaches of reading that facilitate reading comprehension. They studied 91 English major Japanese university students for eight weeks and found that both strategy training and ER approaches were effective to improve comprehension, but ER seemed more effective. In conclusion, based on the research results, by reading extensively students can have their understanding of the text increased the same way as when they receive strategy training.

Similar findings were also found in regards to vocabulary acquisition resulting from reading extensively. Yamazaki (1996), for instance, studied incidental vocabulary acquisition through the extensive reading of 86 third-year Japanese high school students. The two groups, ER and translation method, were experimented for nine weeks. The ER group engaged in faster reading activities in class and read two graded readers a week outside class. They focused on the comprehension of stories but did not attend to vocabulary items. The translation group translated passages taken from the graded readers, memorized vocabulary items in class, and were provided with assignments for translating other passages. The results indicated that there was no

statistically significant difference between the two groups. Both groups of learners had measurably improved their vocabulary. This result was unexpected, because the translation group had focused explicitly on the words tested, whereas the ER group had not attended to specific words but instead had focused on comprehending the texts. However, both groups attained equally large increases in vocabulary.

Empirical evidence from questionnaires indicated that ER also benefited most of the Japanese high school learners in other ways. For example, some learners stopped word-by-word translation in their regular reading, some found pleasure from reading in English, and most learners appeared to attack new English paragraphs more confidently. The results imply that even for students who read graded readers for two months, their vocabulary knowledge improved, and this helped facilitate the interpretation of the text to a great extent.

Findings from most ER studies seem to be conclusive in terms of positive gain in reading abilities across readers at different age levels. For children, Lai (1993a) reported the effects of a four-week summer reading program on learners' reading comprehension, reading speed, and writing development. Graded readers and short passages were used to supply comprehensible input for 226 subjects of grades 7-9 from Hong Kong secondary schools. Results showed that there was improvement in all three areas tested for those subjects who had reached a certain level of proficiency. Depending on the area of emphasis by the research, the quantity of reading done had a significant relationship with reading comprehension gains in one course and with reading speed in another course. Despite caution that reading comprehensible texts does not make remarkable gains in language features, especially for short-term exposure, it is worth noting that, from this research, even only one month could cause some changes in the students' reading proficiency.

In the university-level EFL context, Hayashi (1999) investigated the effects of ER on 100 Japanese university students' proficiency in English. There was no control group; only pre- and post-tests were used. Students read self-selected books and wrote reports on these books, on which feedback was provided by teachers. The researcher found that those students who read

more experienced significantly greater improvement in reading ability and vocabulary knowledge, although apparently not in text reading comprehension.

For ESL learners, Pilgreen and Krashen (1993) investigated 125 high school ESL students who participated in a 16-week sustained silent reading program. It was found that the students demonstrated remarkable gains in reading comprehension. The research also reported greater frequency and enjoyment of reading, and students utilized more sources of books after the program. Because of the lack of a control group, results are only suggestive, but the large gains suggest that free reading is an effective means of promoting literacy development among ESL students.

When ER activities are compared with other types of reading approaches, more positive results in reading abilities in favor of ER are reported. Empirical evidence is mainly from ESL or EFL contexts with students at different levels of proficiency. For non-academic readers, Bell (2001) studied young adult students working in various government ministries in the Yemen Arab Republic. The aim of the study was to measure both reading speed and comprehension in two groups of learners exposed to 'intensive' and 'extensive' reading programs. The ER group was exposed to a regime of graded readers, while the IR group read short texts followed by comprehension questions. Results indicated that the subjects exposed to ER significantly achieved both faster reading speeds and significantly higher scores on measures of reading comprehension.

As for the university level in Asia, Sims (1996) examined and compared the improvement in reading comprehension of Taiwanese university freshmen taught with either a skill-based or ER for pleasure approach. Two classes of mid-level proficient students were instructed using a skill-based approach, and the other two were exposed to an ER for pleasure approach. Achievements in reading comprehension were measured via written recall protocols and multiple-choice tests. There were no significant differences in reading comprehension between the four groups at the onset of the experiment. However, there were significant differences in both the multiple-choice and recall protocol measurements after the treatment period. Subjects in the ER groups scored significantly higher than those in the skill-based groups.

In the case of remedial classes, ER is also proved to be effective in enhancing learners' reading ability. Evidence for this was clear when Lituanas, Jacobs, and Renandya (1999) examined the effectiveness of an English-language ER program for remedial students at a public secondary school in the southern Philippines. Sixty students, 30 females and 30 males, were matched based on similar IQ, sex, socio-economic status, reading level, and past achievement. One member of each pair was then randomly assigned to the experimental remedial reading class, and the other was assigned to the control class. Reading proficiency was assessed via two instruments: the Informal Reading Inventory (IRI), which yielded scores from 0 to 100 on reading comprehension, and the Gray Standardized Oral Reading Test (GSORT), which measured reading speed and accuracy and indicated the grade level at which the student was reading. During the six months of the study, both groups received 40 minutes of regular English class daily, plus an additional 40-minute remedial reading class. In their remedial reading class, the control group was taught in a conventional method from a textbook, which included various lessons related to reading skills. The only silent reading the control group did and they did this infrequently was short selections from their textbook. In contrast, the experimental remedial reading group took part in an ER program, the core of which consisted of students reading texts of their choice and doing a variety of post-reading activities. Post-test scores showed that the treatment group outperformed their control group peers to a statistically significant extent.

Though the results from most ER research are impressive, a year-long study of the effects of ER on reading comprehension did not seem to yield positive results. Lai (1993b), for example, examined Krashen's theory of second language acquisition through the implementation of an ER scheme. In this study, 1,351 secondary students were used as subjects either in a year-long reading scheme or in a summer reading program. Results indicated that Krashen's theory was only partially supported. There were significant gains in the experimental group in terms of vocabulary recognition, listening comprehension, and reading speed, but no superior gain over the control group in reading comprehension and writing was exhibited. It could be possible that gains in terms of reading comprehension and writing ability may not be enhanced substantially by reading comprehensible texts. Therefore, those two skills were not as significantly improved as they should have been.

As has been reviewed, engaging in ER was mainly found to be effective in enhancing ESL and EFL learners across age levels. Yet, the extent to which certain reading amounts can yield certain improvement in reading ability for EFL students is not yet clear. Most previous studies have reported positive gains in reading comprehension, even in as short as 15 hours of reading engagement. It is possible that such findings were collected from measurement of different levels of reading comprehension. It is necessary, therefore, that researchers specify the particular detail of their evaluation so that practitioners can make full use of the research results or replicate the investigation with different groups of learners.

Assessment of Reading Comprehension Abilities

Like other types of assessment, reading comprehension tests involve the measurement of students' performance against a set standard. Being able to tell what constitutes reading comprehension helps teachers identify the aspects to be extracted from readers. Such aspects must be explained as precisely as possible. There are two levels of considerations when writing test items to assess reading comprehension, i.e. a broader level and a specific level. On a broader level, the general characteristics of reading should be borne in mind. These include aspects such as the purposes and types of reading, evaluation of interpretation, and the role of schema that each reader brings to his or her reading process. Different purposes of reading require different traits of measurement. Reading for enjoyment, for instance, cannot be assessed on a regular basis because of its nature. Comprehension for interpretative reading, which relies partly on the different schema of each reader, is also a problematic area for assessment. In order to determine whether an answer is correct, the test writer needs to justify why the test taker's idea is wrong when, generally, opinions can be neither right nor wrong. Test types such as multiple choices, if used to evaluate the interpretative skills of readers, would be considered poor discriminators of reading ability.

The background knowledge each individual reader possesses is known to facilitate his or her understanding of reading per se. It is therefore necessary to consider if such knowledge should be assessed or not since individual readers bring different background knowledge to the reading process. However, it is necessary that test writers select texts that are unfamiliar to all

candidates. Urquhart and Weir (1998) recommend that the test writers include items that can be related to each other in the text and excludes those that require information from outside.

At a more specific level of reading comprehension assessment, the literal level involves measuring what is actually stated in the text, such as facts and details. Tests in this category are mainly objective tests dealing with true/false, multiple choice, and fill-in-the-blank questions. Questions commonly used to illicit this type of thinking are who, what, when, and where. Assessing interpretive ability is subjective, and the types of questions asked are open-ended, thought-provoking questions like why, what if, and how. For measuring ability to analyze or synthesize information and apply the concepts or ideas beyond the situation, free writing that allows students to express their view in reflection to their knowledge is most appropriate.

In brief, in order to measure the progress of a reader, the teacher needs to understand the underlying attributes of reading comprehension. Besides, knowledge concerning levels of comprehension and evaluation of them makes the measurement process easier and more reliable. Reading comprehension ability is not the only skill that can be enhanced through ER as writing skill has also been found to improve in a similar vein.

Writing Abilities

Measuring the development of writing abilities necessitates an understanding of what constitutes such skills and their previous traditions. Also, interpretation of the growth of writing abilities resulting from reading engagement of a reader requires some knowledge on the connection of both skills. These issues will be described in this part, along with topics relevant to measurement of writing abilities and the research related to reading and writing connection.

What Constitutes Writing Abilities?

Generally, writing cannot be acquired naturally; it must be learned. All native speakers across languages are not necessary good writers or, simply writable. In this global literate and informative culture, writing skills have increasingly become a way of life or a skill in need for academic and professional success of learners at all levels. However, in terms of research evidence, from an applied linguistic perspective, writing “remains one of the least well-

understood, if not misunderstood, subjects” (Silva and Matsuda, 2002: 251). Similarly, in the area of second language acquisition, writing is still marginalized in the mainstream (Leki, 2002). Even so, writing has been conceptualized differently partly due to the beliefs drawn from its pedagogical perspectives. Traditionally, writing was considered the graphic representation of speech. That is, when language was viewed as consisting only of speech, writing was a reinforcement of grammar and lexical features of language. For that reason, writing skills could be learned when students had mastered spoken language and orthographic conventions. Accordingly, writers only needed knowledge of spelling and grammar to write.

More recently, writing has been recognized as a much more complex phenomenon. For example, Brown (2001: 334) believes that writing is “culturally specific, learned behaviors.” Written products are the results of thinking, drafting, and revising procedures that require specialized skills, skills that not every speaker develops naturally (Brown, 2001). Also, for Canale and Swain (1980), writing should be viewed as a manifestation of, as well as the process of manifesting, sociolinguistic, strategic, and grammatical competences, mediated by the use of orthographic systems.

Fundamentally, several factors influence the way one composes a piece of text. Besides, while in the process of composing the writer employs a number of sub-skills and thoughts in order to finish the final product that serves the expected purpose and audience. For example, when a piece of text is to be constructed, the writer is obliged to consider some rhetoric elements, readers, and texts. According to Silva and Matsuda (2002), writing is always embedded in a rhetorical situation, i.e. the combined elements in the context of writing. Therefore, while composing, the writer always negotiates with the reader(s) and the text to make the message understandable. With such specific contexts in mind, the writer’s genre knowledge is crucial for the development of or response to a piece of text in a particular situation. This knowledge helps the writer plan, develop, and organize ideas, as well as choose proper linguistic features to suit any particular rhetorical context (Silva and Matsuda, 2002).

Apart from rhetorical contexts, other elements related to the process of writing also make the task of creating a written text even more complicated. Examples are apparent when the writer

is required to co-author with others or when peers, teachers, or editors must edit the work. These intended readers can make the construction of meaning even harder. According to Ede and Lunsford (1984, cited in Silva and Matsuda, 2002: 254), readers may take real or imagined roles, such as that of a friend, critic, coach, evaluator, learner, or bystander. The last complicated source of writing is the text. A writer who generally writes for his or her existing members or 'local discourse community' (the term used by Silva and Matsuda, 2002) necessitates a change in textual features when addressing topics in a new rhetorical situation.

In order to understand why students write in such a particular pattern, what contributes to their writing abilities, and maybe, how best to benefit from different approaches to writing, the teacher needs to understand the existing traditions of writing.

Traditions of Writing

Both the instruction and research pertaining to writing have progressively shifted from the emphasis of "texts to process (i.e. composing) to disciplinary and sociopolitical contexts (i.e. social construction)" (Leki, 2002: 60). The three major approaches or traditions apparently still in practice will be described in order of their pedagogical appearance.

1. Controlled composition, or text- and classroom-based orientations (the term referred to by Leki (2002))

This tradition of writing has been derived from the audiolingual approach, which regards language as speech and learning as habit formation. Writing is, therefore, a reinforcement of oral habits and is not the primary concern of language learning. The focus of composing is on formal accuracy rather than ideas, organization, and style. As a result, writing is merely a collection of vocabulary and sentence patterns. The emphasis is on errors, not the messages to the audience or the purpose of writing because the teacher will act as an editor. In classrooms, teachers provide systematic habit formation exercises so that students learn them step by step, beginning from imitation and progressing towards composing more constructed passages. With this method, errors can be avoided and the error analysis is a means to detect mistakes (Silva and Matsuda, 2002).

2. The paragraph pattern approach

Writing in this tradition moves away from the focus on grammatical sentences to a higher level of organization. It involves arranging sentences and paragraphs into certain patterns. The writer's first language is believed to interfere his or her construction of the text in the target language. According to Kaplan (1966, cited in Silva and Matsuda, 2002: 259), the differences in the writer's cultural and linguistic backgrounds can be perceived in their rhetoric, which is inherent in the structure of the written text. "Different cultures produce culturally influenced and rhetorically distinguishable types of text" (Kaplan, 1966, cited in Leki, 2002: 62). Such a hypothesis suggests that when students write, they bring with them existing literate experience, also called 'formal schema.' English discourse, for instance, is described as proceeding in a straight line (Kaplan, 1996, cited in Brown, 2001: 337). Such schema adhering to the native English speakers may affect the way they compose a piece of text. Similarly, Thai students could be interfered by Thai rhetoric styles when they write in English. In terms of pedagogy, the focus of this tradition is still on form and organization of text. Teachers provide model texts for students to analyze and imitate; their concern is still on the final product of all genres of writing. Evaluation is based on a list of criteria, which include content, organization, vocabulary use, and mechanics such as spelling and punctuation (Brown, 2001).

3. The process approach

The process approach is a "complex, recursive, and creative process" (Silva and Matsuda, 2002: 261). Practically, the writer must plan, draft, and revise until the text becomes satisfactory, which is similar to writing in a natural context. For this approach, the written text or final product is not the primary concern as its form is determined by the content and purpose, which is dependent on the writer's decision. For pedagogical implication, students are intrinsically motivated to create languages to express more freely as the content, rather than form, becomes the focus of the writing. Besides, readers could be peers, teachers, parents, etc. It is, therefore, necessary that teachers provide and maintain a positive, supportive, and collaborative atmosphere. Sufficient time is also crucial as students are expected to make a number of drafts,

revision, and editing to compose their pieces of texts. According to Brown (2001: 335), process writing involves most of the following:

- a. focusing on the process of writing that leads to the final written product;
- b. helping student writers to understand their own composing process;
- c. helping them to build repertoires of strategies for prewriting, drafting, and rewriting;
- d. giving students time to write and rewrite;
- e. placing central importance on the process of revision;
- f. letting students discover what they want to say as they write;
- g. giving students feedback throughout the composing process (not just on the final product as they attempt to bring their expression closer and closer to intention);
- h. encouraging feedback from both the instructor and peers;
- i. including individual conferences between the teacher and students during the process of composition.

Responses from readers are believed to influence or motivate writers to improve or revise their composing styles. However, the impact of response to writing is complex as Leki (2002) cites empirical evidence from a number of studies. For instance, L2 student writers advanced in their disciplines may resist the teacher's suggestions for errors that are beyond the level of grammar or mechanics (Radecki and Swales, 1988), and they may also oppose to advice on the revision of macro text features (Leki, 1990), etc. Moreover, peer response can be of limited use. For example, the response is sometimes too gentle (Nelson and Carson, 1998), sometimes too forceful (Nelson and Murphy, 1992), or sometimes ignored in preference to the teacher's response (Zhang, 1995). For Thai students with low proficiency in English, their feedback given to their friends' works can be limited due to constraints on English proficiency and content knowledge. According to Leki (2002: 63), "just as there is no prototypical good text, there is no simple relationship between response and writing improvement," and "writing response is crucially embedded in complex and inescapable disciplinary, social, and political contexts that may be out of the control of both the writer and the teacher."

Silva and Brice (2004) review research in writing assessment and assert that direct writing composed within limited time underpredicts ESL students' writing abilities as opposed to

writing under natural condition. Therefore, providing low-filtered conditions such as allowing several drafts of composing or offering flexible time to write should be introduced into the testing context to reduce the writers' anxiety. Though the process approach is supported basically from its resemblance to that of real writing, Brown (2001) recommends the balance between process and product. When teachers put too much emphasis on the process, the importance of the final product would be weakened as "process is not the end; it is the means to the end" (p. 337).

The Connection between Reading and Writing

Traditionally, reading has been considered as receptive, whereas writing as productive. Researchers have increasingly noted the connection between reading and writing since the early 1980s through a technique called protocol analysis. According to Olson (2003), both reading and writing share a similar process of meaning construction, i.e. drafting and redrafting, as well as negotiating with each other, i.e. the reader keeps the writer in mind and vice versa. Also, both skills are strategic and active as the writer and reader use skills automatically, apart from being motivated and self-confident to read and write. Olson also exemplifies cognitive strategies that underlie the reading and writing process as including "planning and setting goals, tapping prior knowledge, asking questions and making connections, constructing the gist, monitoring, revising meaning, reflecting and relating and evaluating" (Olson, 2003: 17). Moreover, Tierney and Shanahan (1991, cited in Olson, 2003: 4) contend that, "whether we are in the role of reader or writer, we make sense -either of or with print- and to make sense we activate our prior knowledge of the topic and the genre, our personal experiences, our reader/writer-based expectations as well as our culturally based expectations, and our contextual frames of reference."

Researchers propose the use of reading as a resource to elaborate on ideas or to understand opposing views, which will lead to better writing performance. Likewise, the use of writing as a learning tool in the teaching of reading will lead to better reading achievement (Tierney and Shanahan, 1991; Tierney et al., 1989, cited in Olson, 2003: 16). For a language course to be most beneficial, Tierney and Shanahan (1991) suggest that it is important to teach reading and writing together so that students are engaged and use a wider variety of cognitive strategies than they do in the separated courses.

However, reading is not the only way to improve one's writing skills. Several techniques and methods that have been proved successful in ESL writing classes can be applied in EFL classes in the same way. These methodologies include cooperative/collaborative and group work writing among community members; integration of language skills; use of relevant, authentic materials and tasks, and use of technology which involves students' access to on-line writing centers or virtual classroom (Reid, 2002).

In Thailand, many universities offer either reading or writing courses, with both skills taught separately rather than a combination of them. Justification for teaching of writing skills are confirmed by Silva and Matsuda (2002) who point out that understanding some of the writing strategies through practice is helpful especially for less experienced writers. Understanding strategic writing also helps teachers teach 'writing' rather than teach 'about writing.' However, for teaching and practice of writing, the available lesson time does not lend itself for teachers to cover all necessary rhetoric features of all genres. Yet, as Krashen (1984: 23) theorizes, "if second language acquisition and the development of writing ability occur in the same way, writing ability is not learned but is acquired via extensive reading in which the focus of the reader is on the message, i.e. reading for genuine interest and/or pleasure." Simply put, it is possible that chance for the improvement of writing ability comes along with that of reading. By encouraging reading for genuine interest in large quantities, students can increase their writing abilities simultaneously.

Assessment of Writing Abilities

According to Brown (2004), there are four types of writing performance, i.e. imitative, in which form and mastery of the mechanics of writing is of primary concern; intensive or controlled, in which meaning and context determine the correctness and appropriateness of the text; responsive, in which writers use discourse conventions to create sequences of paragraphs; and extensive, in which the writers achieve the purpose of the text through multiple drafts in the process of writing long texts. This classification is similar to classroom writing put forward by Brown (2001). Such writing performance is categorized into four types, i.e. imitative or writing down (e.g. writing letters, words, and sentences to learn the conventions of the orthographic code); intensive or controlled (e.g. controlled grammar exercises, guided writing, and dicto-

comp); self-writing (e.g. writing with only the self in mind as an audience, diary, or journal); and display writing (e.g. short answer exercises, essays, and reports).

The writing tests for students in this ER Plus study were categorized as 'responsive' since they required writers to perform freely but at a limited discourse level. The students were asked to write a few paragraphs by creating a logically connected sequence. Generally, for non-English majored students at NPRU, writing skills limit themselves to only imitative and intensive types. The emphasis is on writing for specific purposes such as form filling, letters, notes, messages, etc. In case free writing is involved, it becomes self-writing or display writing. That is, students are required to display their writing abilities with either the teacher or writers themselves as the audiences, rather than to express their thoughts for real communicative purposes. Therefore, it is assumed, based on the students' learning experience, that they have mastered the fundamentals of sentence-level grammar and discourse conventions. As a result, they should be able to write aspects related to the assigned context and meaning, more or less.

A number of variables that may affect students' written work must be taken into account in order to reliably and validly measure students' writing ability. Major aspects include linguistic variables, such as lexical and syntactic, rhetorical variables, and the writers' subject matter knowledge, cultural expectations, nationality, reading comprehension, and amount of reading done both in L1 and L2 (Silva and Matsuda, 2002). Some of these variables can be assessed explicitly, but others cannot. In addition, there are several scoring methods to be adopted as criteria for assigning grades to the written products. For example, three methods, i.e. holistic, primary trait, and analytic are commonly adopted for writing at 'responsive' and 'extensive' levels. For these scoring systems to work, the written products will be assessed based on a number of subcategories such as organization, structure, vocabulary, style, mechanics, etc. before assigning scores for each aspect. However, this does not mean that these subcategories represent the students' true writing ability. In fact, in order to specify the real performance of a writer, several pieces of writings of the same genre are required.

Writing a good prompt is crucial if the objective is to be accomplished. According to Brown (2004), to assess students' writing abilities, the objective and criterion must be clearly

identified beforehand. Also, the teacher needs to make a decision regarding “genres of written language (so that context and purpose are clear), types of writing (so that stages of the development of writing ability are accounted for), and micro- and macro-skills of writing (so that objectives can be pinpointed precisely)” (p. 219). Brown (2004: 221) differentiates micro- and macro-skills of writing as follows:

Microskills:

1. Produce graphemes and orthographic patterns of English.
2. Produce writing at an efficient rate of speed to suit the purpose.
3. Produce an acceptable core of words and use appropriate word order patterns.
4. Use acceptable grammatical systems (e.g. tense, agreement, pluralization), patterns, and rules
5. Express a particular meaning in different grammatical forms.
6. Use cohesive devices in written discourse.

Macroskills:

1. Use the rhetorical forms and conventions of written discourse.
2. Appropriately accomplish the communicative functions of written texts according to form and purpose.
3. Convey links and connections between events and communicate such relations as main idea, supporting idea, new information, given information, generalization, and exemplification.
4. Distinguish between literal and implied meanings when writing.
5. Correctly convey culturally specific references in the context of the written text.
6. Develop and use a battery of writing strategies, such as accurately assessing the audiences' interpretation, using prewriting devices, writing with fluency in the first drafts, using paraphrases and synonyms, soliciting peer and instructor feedback, and using feedback for revising and editing.

Both writing prompts and scoring methods can affect students' performance and scores. It is necessary, therefore, that test writers understand how to design test tasks and choose a suitable scoring method so that the scores can reflect true ability of the writers.

Research Related to Reading and Writing Connection

Research that examined the effects of ER on readers' writing abilities has a tendency to support positive relation of both skills. Empirical evidence ranges from surveys to experimental studies. A number of surveys reported positive relationship between amounts of reading students had made and their writing abilities. For instance, Janopoulos (1986) asked 79 L2 students at a U.S. university to write a composition on one of three open-ended topics. They were, then, asked to provide data on their age, sex, L1, years of English study, and time spent weekly on pleasure reading in their L1 and in English. The findings were that writing proficiency positively correlated with quantity of time these students spent on pleasure reading but not on L1 pleasure reading. Moreover, numerous studies revealed similar findings (e.g. Kaplan and Palhinda, 1981; Janopoulos, 1986; Salyer, 1987; Polak and Krashen 1988; Tudor and Hafiz, 1989; Hafiz and Tudor, 1990; Constantino, 1995; Al-Rajhi, 2004, to name the more prominent ones).

As for ESL learners, positive results on languages used for reading and writing skills were found as a result of engagement in wide reading. Tudor and Hafiz (1989), for example, investigated whether a three-month ER program involving the use of graded readers could improve ESL learners' language competence. Results showed improvement in reading and writing skills and a simpler but more correct use of syntax in L2. One year later, both researchers (Hafiz and Tudor, 1990) explored the effect of a 90-hour ER program using graded readers on the language development of 25 ESL learners in Pakistan. Results showed significant gains in both fluency and accuracy of the subjects' expressions, though not in range of structures used. It is suggested that ER can provide learners with a set of linguistic models, which may then, by a process of over-learning, be assimilated and incorporated into learners' active L2 repertoire. Similarly, Constantino (1995) investigated a one-semester reading class of adult lower intermediate students in the U.S. The class focused on pleasure reading, and students wrote and responded to questions about the texts they had read, or, optionally wrote journal entries. As the

course progressed, more and more students wrote journal entries and the length of these entries increased.

As regards the EFL context, research results provide different conclusions concerning reading and writing association. In the case of positive connection, for instance, Al-Rajhi (2004) explored the experiences of five Saudi female and five male learners in doing ER through the Internet. Based on the data collected qualitatively, the participants stated that Internet reading had many benefits, features, and some problems and that Internet reading had a positive impact on their writing styles as well as cultural awareness.

With regard to negative results derived from both short- and long-term reading engagement in several EFL contexts, it was found that amounts of reading and writing ability were correlated at a lesser extent, if not at all. For example, Lee and Krashen (1996) found a positive but very modest relationship between measures of free voluntary reading and writing ability of 318 high school students in Taiwan. Caruso (1994) also reported similar results though the duration of students' reading was much shorter. That is, for nine weeks, eight classes of Spanish 4 students read and summarized a variety of interesting materials during the first 15 minutes of each class. Control groups spent the first 15 minutes of class practicing productive skills involving speaking or writing. After the experiment, writing complexity in the texts students produced was evaluated by comparing pre- and post-test mean T-Unit lengths. It was found that there was no significant difference in writing scores of students in both groups.

The increase in writing ability of ESL students though engaging in reading in a relatively short duration as opposed to that of the EFL groups reflects the distinction in language experiences between these two groups of learners. It is possible that EFL learners are less fortunate in terms of exposure to the context where English is used than their ESL fellows. As a result, with short-term reading engagement, EFL learners were unable to significantly improve their writing ability. Otherwise, it would be that their writing abilities may not be developed to the point where changes could be observed. What indeed deserves rethinking is that why, in long-term reading engagement, readers' writing ability was not significantly improved, according to

the aforementioned studies. The research hypotheses concerning the relation between reading and writing abilities of this study were set based on such existing evidence.

Most ER research that explored the relationship between reading and writing skills measured students' final products in comparison with their performance prior to the treatment. Such a design is not sensitive enough to detect minor improvement of students' writing performance. Besides, several factors such as measuring methods, scoring systems, reliability of raters, etc. can be sources of unreliability or invalidity and, thus, the research findings may be distorted. A more effective research design that can capture the accumulative improvement of both skills is needed. A time-series research design, which measures students' reading and writing skills simultaneously at a series of intervals, is expected to yield more reliable results. In addition, the design is appropriate because any unnoticeable errors that may occur at any intervals in the process of analysis can be observed and corrected in time for the following measurements to take place.

It is worth noting at this point that the growth and success of reading and writing abilities cannot be successfully developed without some powerful drives from inside; that is, attitude and motivation to read. These two issues will be elaborated along with their relevant empirical evidence in the following section.

Motivation

Motivation has been recognized as important but is not generally taken into account in traditional reading instruction. Most teachers are concerned more with the teaching of reading skills rather than encouraging the love of reading among learners. Motivation is not directly observed. Rather it must be inferred from behavior and actions with degrees of intensity, ranging from strong to weak. Motivation can be used as powerful pedagogical tools in helping students read more and read better, similarly to the teaching of skills.

Day and Bamford (1998) consider motivation as 'making people do or not do something.' When applied to reading behaviors, motivation makes readers decide whether to continue or stop reading. From a cognitive perspective, the Expectancy + Value Model can

explain reading motivation reasonably well. The model hypothesizes that people do what they expect to accomplish successfully and tend to avoid what they expect they cannot accomplish (Feather, 1982, cited in Day and Bamford, 1998: 27-30). If such a concept is applied to the reading context, what happens is readers estimate their capability as whether they are able to understand the text or not before making a decision to read. From that theoretical basis, one reason simplified readers is chosen as a major source of reading materials in numerous studies is due to its versatile traits that readers at any levels can understand them without relying too much on a dictionary. When the readers acknowledge that they can make sense of the contents, they continue reading. However, in some cases, such as when students read for grades or when they read because of recognition of its value, they may try hard to figure out meanings on the pages and become successful eventually. For such cases, the value would outweigh the readers' expectation.

According to Feather (1982, cited in Day and Bamford, 1998: 27-28), based on the Expectancy + Value Model of ESL reading motivation, in order to motivate one to read, four variables are involved. They are materials, reading ability, attitudes, and sociocultural environment. The first two variables relate to the expectation of success in reading, while the other two relate to the value attached to reading. As for Day and Bamford (1998: 28-29), the primary variables of reading motivation, which includes materials and attitudes, are equally important to the readers' decisions to read (or not read). They comment that either a low reading ability or an inappropriate sociocultural environment can be compensated for by positive second language reading attitudes and appropriate materials. The authors' belief coincides with the current situation Thai students are facing. That is, the majority is less proficient readers, and the society does not recognize the value of reading. It is, therefore, possible that appropriate materials provision and supportive environment would be able to motivate them to read, more or less.

With reference to the distinction between intrinsic- and extrinsic-oriented activities, for the former, there is no apparent reward except the activity itself. People seem to engage in the activities for their own sake, not because they lead to any extrinsic incentive. In the case of reading, students intend to read books on their own, not for any particular award. Intrinsically motivated behaviors bring about certain internally rewarding consequences, namely feeling of

competence and self-determination. On the other hand, learners with extrinsically motivated behaviors expect rewards from outside such as grades, money, medals, certificates, etc. For instance, a large number of Thai students tend to read because they want to get good grades rather than to increase their knowledge. They also participate in or perform some activities to meet the expectation of the teacher or the course requirements, all for grades instead of gaining lifelong experience. Such incentives can be used as a starting point to involve students into reading engagement. Later on, hopefully, the drive from the ER activities as well as students' own positive attitudes towards reading would inspire them to read voluntarily. Though a considerable number of research studies strongly favor intrinsic drives for long-term continuance, it takes time before the results can be observed. Therefore, especially in the university level where teachers only meet certain groups of students once in a semester, extrinsically motivated behaviors would be easier to achieve and its results easier to evaluate.

Both intrinsic and extrinsic motives are influential sources of reading. As for the case that intrinsic motivation proved more powerful, Takase (2003) investigated the motivation of 220 EFL Japanese high school students who engaged in ER by examining the relationship between their attitudes/motivation and the amount of reading they did. Among the seven factors used to predict the students' motivation to read English books, it was found that intrinsic motivation towards reading English and intrinsic motivation towards reading Japanese were determined to be the best predictors of reading amount.

Despite the fact that intrinsic motivation seems to be more powerful in attracting people to conform to order, extrinsic motivation can also influence reading in quantity in a similar manner. For example, Kitao, Yamamoto, Kitao, and Shimatani (1990) found that extra credit points helped motivate students to read. That is, grades for the course were assigned by totalling groups' weekly scores, with some minor individual adjustments if a student was particularly diligent or particularly unparticipatory. The researchers found that while some students continued to lack motivation, overall, the reward system was a success, as the class became a scene of active group cooperation and communication. Heal (1998) also reported that rewards could increase motivation in a reading class of 50 second-year students at a women's junior college in Japan.

In the present research, similarly to other ER projects, several sources that presumably motivated students to continue reading were incorporated into a conventional IR course. These motivation sources were classified either as intrinsic or extrinsic in the last stage. Examples of external incentives attributable to the decision to read were grades, tension-free environment, materials, peers' or teacher's encouragement, etc. Intrinsic justification might comprise the joy from stories, the value of reading as a source of English enhancement, the increased confidence in reading, etc. Other sources of motive also emerged from students' experience through their ongoing reflections. The findings eventually revealed whether intrinsic or extrinsic incentives were more important for Thai students, in order to attract them to continue reading. However, acknowledging only motivating sources does not sufficiently support ER projects. Thus, sources that limited or reduced readers' enthusiasm in reading were also explored concurrently in this study. Investing time, budget, and efforts of teachers and administrators at the expense of sources that limit students' reading could ruin a well-planned ER project. If students do not read, then language acquisition does not occur, and neither does any subsequent enhancement of language features and skills.

Although the concept of collaborative language learning involves students working together in groups, it can be integrated into the ER process, which emphasizes individualism and silence. Collaborative activities work effectively with a wide variety of teaching approaches, and its underlying characteristics should be able to support reading among community members as well.

Collaborative Language Learning

The term 'collaborate' generally implies working with others. Collaborative learning, therefore, means students working in pairs or small groups to achieve shared learning goals. According to Barkley, Cross, and Major (2005), such activities have several terms, i.e. cooperative learning, team learning, group learning, or peer-assisted learning.

What Constitutes Collaborative Language Learning?

The terms ‘collaboration’ and ‘cooperation’ can be used interchangeably as involving students working interdependently on a common learning task. Specific characteristics of ‘collaboration’ will be explained in terms of definition, classroom activities, sources of knowledge, and the roles of teachers and students.

A number of scholars seem to pose similar views regarding the definitions of collaborative learning (henceforth CL). Panitz (1996), for example, defines collaboration as a philosophy of interaction and personal lifestyle. From this viewpoint, collaborative activities are not limited only in the classroom but can be applied into a way of living and dealing with other people such as in various meetings or family events. In those situations, consensus can be reached through sharing of abilities, responsibilities, and contributions of group members. Collaboration generally contains some essential features. These are its intentional design, i.e. structure of learning chosen by faculty members, co-laboring, and meaningful learning. The essence of the philosophical underpinnings of CL is “collaborative learning occurs when students and faculty work together to create knowledge... It is a pedagogy that has at its center the assumption that people make meaning together and that the process enriches and enlarges them” (Matthews, 1996: 101).

In terms of dictionary definitions, ‘collaboration’ focuses on the process of working together. In line with such meanings, Myers (1991) compares CL as a qualitative approach that focuses on the analysis of students’ learning experience. He also believes that a collaborative class promotes student talk as a means to work things out, while interpersonal skills are learned through discovery and contextual approaches.

In terms of source of knowledge, according to Brufee (1993), the collaborative concept maintains that knowledge is derived from a social construct and learning process of all group members. Therefore, CL assumes that knowledge is not ‘out there waiting to be discovered,’ but it is socially produced through consensus among knowledgeable peers, along with the teacher who acts as one of the group members.

In terms of teachers' roles, after setting the task, the teachers transfer their authority to the group. Ideally, the tasks are open-ended. Another duty is to help students learn negotiation strategies to be used among themselves and with the teacher. The appropriateness of the group product relies on the process of acquiring knowledge such as students' participation in small groups, whole class, or knowledge community. As for students' role, individual students belong to knowledge community and are empowered to produce solutions, which may be different from that of the teacher's expectation.

Pedagogical Attributes of Collaboration

The pedagogical contribution of CL is widespread, and positive findings have been confirmed across all ages of learners and subject areas. The power of peers and group activities plays a significant role for language learners in the enhancement of their self-esteem, higher-level thinking, social relations, and achievement. In practice, the concept of CL can be applied to a wide range of contexts provided that principles and activities are adjusted appropriately. According to Jacobs and Hannah (2006), language learning theoretical perspectives such as Behaviorism, Socio-Cultural Theory, Humanist Psychology, Cognitive Psychology, Social Psychology, and Piagetian Developmental Psychology have developed different approaches to CL. When the two scholars continued to examine hypotheses, theories, and perspectives on language pedagogy that overlap or are in congruence with CL, they came up with eight of them, namely, the Input Hypothesis, the Interaction Hypothesis, the Output Hypothesis, Socio-cultural Theory, Content-based Instruction, individual differences, learner autonomy, and affective factors. In conclusion, both CL and ER seem to incorporate numerous productive attributes. Those who adopt them in their learning contexts must modify or create appropriate changes so that both concepts work well in harmony.

Kagan (1994) proposes four basic principles for collaboration among peers, which, according to Jacobs and Gallo (2002), are appropriate for underlying the ER activities. Such techniques include positive interdependence, individual accountability, equal participation, and simultaneous interaction, or abbreviated as PIES. To elaborate each aspect, positive interdependence, the key to collaborative learning, is the feeling of "one for all, and all for one"

(the phrases used by Jacobs and Gallo, 2006). In short, what one group member feels, and so do others. Individual accountability involves what individual members learn from the others, as “the team’s success depends on the individual learning of all team members” (Kagan, 1994: 3). That is, the group will be considered successful when each member learns, displays what has been learned, and participates in the group’s learning. Next, equal participation involves the roles that individual members share equally, i.e. neither being too active nor too passive. Lastly, simultaneous interaction concerns group activities that allow members to speak at the same time as simultaneously as opposed to one person speaking at a time as in the traditional teacher-centered class. These principles have been adopted as a basis for designing group activities to enhance extensive reading among readers in this research.

ER seems to work best as an individual performs tasks in solitary surroundings, whereas CL requires interaction among peers and groups. For this reason, they do not seem to be in congruence. However, Jacobs and Gallo (2002) point out that both activities can go together smoothly. Both researchers also put forward practical suggestions for adding the element of cooperation into ER among L2 learners. These include activities in which peers may be able to enhance the width and breadth of reading by ways of modeling enthusiasm for reading, acting as resources for finding existing reading materials, creating more reading materials, facilitating comprehension, and serving as an interactive audience for sharing what has been read. Adding collaborative techniques into the ER activities is beneficial to a great extent. Such advantages, as shared by Jacobs and Gallo (2002), are the interaction among group members in several forms such as through one’s enthusiasm to reading that can be infected to one another, through advice for good ER materials among themselves, through one’s capability as a source of ER materials for one another, through the assistance that more proficient students can give to the less capable ones, and through sharing of stories that each member has read.

Despite its solid establishment in a wide range of disciplines, CL has received very little attention from ER researchers even though such mixed approaches have been implemented in some academic institutions. Research into the integration of ER and CL as the main focus is scarce, though peers have been found to increase reading amounts, in part because peers present a more accessible model among themselves (Murphey, 1998). The combined approaches were

explored by Manning and Manning (1984) in the context of L1 elementary students. Both researchers investigated the effect of ER and peer interactions on students' attitudes towards reading and reading achievement. Students were assigned randomly to one of the four conditions: NO-ER, ER without follow-up activities, ER accompanied by individual teacher-student conferences on student reading, and ER plus interaction with peers regarding the reading. The researchers found that students who did ER accompanied by peer interaction significantly outperformed students in the three other conditions in terms of gains in reading achievement and that ER with teacher-student conferences and ER plus peer interaction conditions were related to significant gains on the attitude variable. The findings led to a conclusion that ER alone is less effective than ER plus collaborative interactions, either between teacher-students or students-students, in influencing positive attitudes.

Collaborative techniques are also good for low proficiency students. Fader (1971, cited in Jacobs and Gallo, 2002) suggests that in order to increase motivation among weak readers, instead of organizing remedial classes, heterogeneous classes that incorporate cooperative learning are more appropriate. It is challenging to use CL as a means to support reading in a low-valued EFL community. However, whether it works effectively is worth exploring as the result will be extremely valuable to the future of the whole society.

Based on the existing body of knowledge, reading comprehensible materials is one crucial source of language acquisition. Reading a vast volume of simplified readers of students in this study, thus, should strengthen the acquisition of the narrative genre, among other language features. Influence of ER extends also to the improvement of reading and writing skills, according to numerous research exploring L1, ESL, and EFL learners. However, students with different backgrounds cannot be assumed to acquire language at the same amounts, pace, and quality. To prove whether the Input Hypothesis and the reading-writing connection are applicable to EFL students in this specific context, the researcher investigated the development of both skills holistically and rigorously.

The research involved a periodical collection and analysis of data quantitatively and qualitatively so that the interpretation revealed the overall picture of how students developed

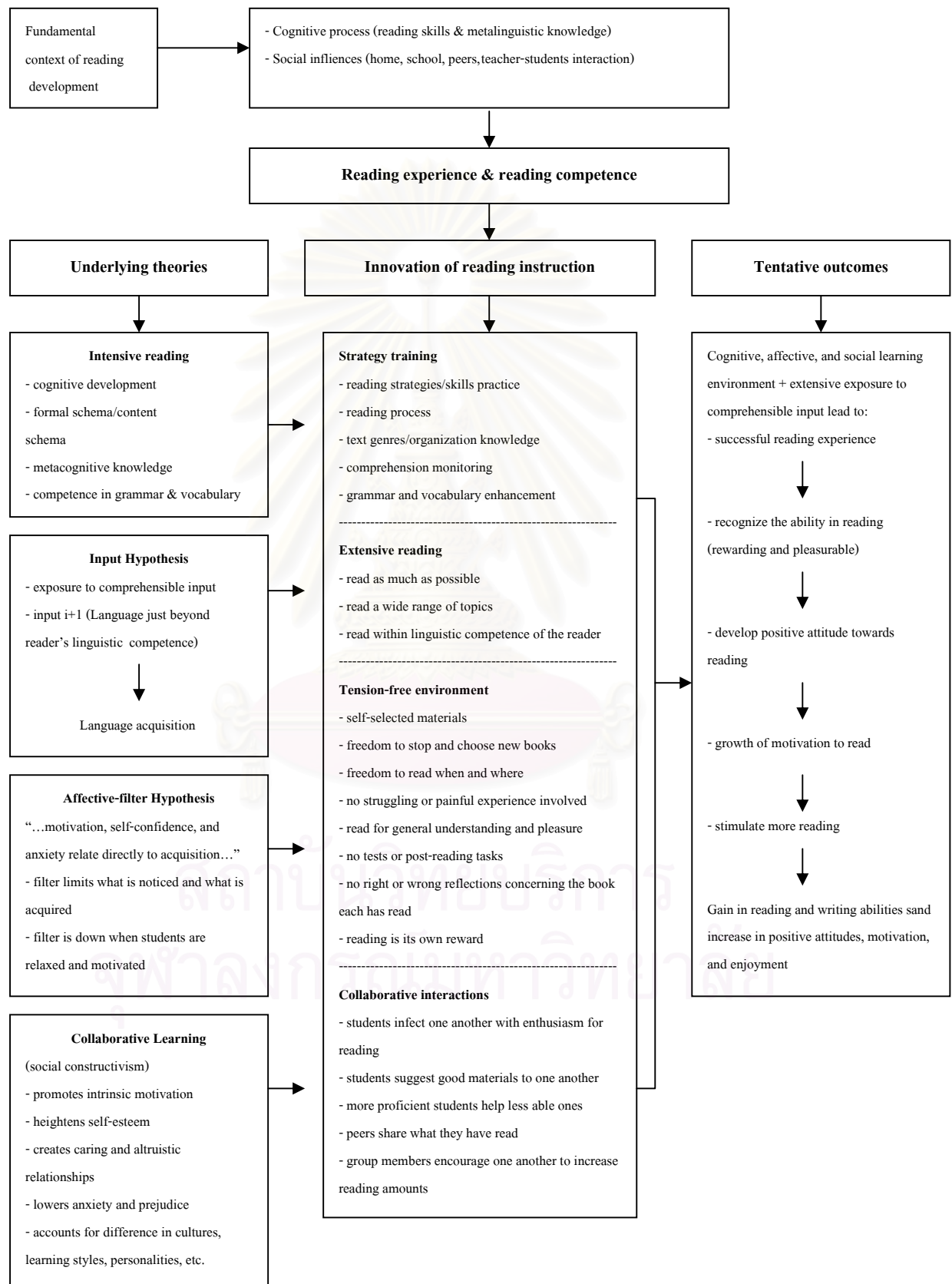
cognitively and psychologically. The exploration of the effects of ER on reading comprehension, reading speed, and reading of narratives is useful particularly for the development of reading courses. The combined knowledge derived from the research results when considered together with students' background helps a course developer plan to foster their reading skills effectively. Essentially, at present, English printed materials are easily accessible, and, coming along with the Information era, the majority of youngsters are addicted to the Internet. Therefore, teachers should make use of such occurrences to improve the quality of EFL learners' competence while English is consistently recognized by all stakeholders as a subject deserving investment (in terms of money and time to develop skills).

The following figure conceptualizes the framework of this ER Plus study. It explicates how different theories merged and might influence reading engagement among low proficiency EFL learners before yielding expected outcomes.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Figure 2.1: Conceptual framework of the study



CHAPTER III

RESEARCH METHODOLOGY

This research studied the consequences of EFL students being exposed to different quantities of language input with the focus on improvements in their reading abilities, writing abilities, and perceptions on reading development. The research methodology to be described in this chapter therefore concerns the process of how data were collected and how inferences can be drawn regarding those three areas of interest. Different stages of the research procedures will provide details regarding what, when, where, why, and how reading and writing abilities and reading perceptions were investigated. Major stages of the experiment described in this chapter comprise sample selection, research instruments, experimental implementation, data collection, and data analysis.

Sample Selection

Population

The population of the study was the second-year non-English majored EFL students who were enrolled in the Fundamental Reading course in the first semester of the academic year 2007 at Nakhon Pathom Rajabhat University. There were 725 students from 25 majors. As indicated by their grades in their first English course taken in their first year, most students were post-beginners, while around one-third were pre-intermediate in English proficiency. This specific group of learners was chosen because (1) they did not take any other English course during the treatment period and only took an English for Communication course in their first year; thus, extraneous variables in terms of exposure to other English input could be controlled; (2) they were required to study the Fundamental Reading course, which was considered appropriate for the integration of the ER Plus activities--the focus of this research; and (3) most students had relatively low English proficiency as determined by their pretest scores of reading and writing abilities, the level which represents the competency of the majority of students in this university.

Sample

One group of students was randomly selected from the population who were enrolled in the Fundamental Reading course. Although the aim of the selection was to find a sample that could represent the target population, the nature of ER Plus activities, the control over the exposure to language input, and the time-series design of data collection restricted chances to explore the reading engagement of a larger sample size. According to Krejcie and Morgan (1970), the appropriate sample size that could represent 725 students in the population is 234 students. As a result, the number of subjects in this study was not a sufficient representation of the population and, therefore, did not allow generalization of the findings to other groups of students in different contexts. However, results of the research were drawn from a homogenous group with strict controls over extraneous variables; hence, they are valuable to language instruction, particularly in the specific context of NPRU. In addition, in order for each and every group of the population to have an equal and independent chance of being selected, simple random sampling was used. By drawing lots from 25 class numbers, the Finance and Banking major from the Faculty of Management was picked. There were 34 students altogether, with two males and 32 females. Although only one group of sample was selected initially, by the end of the experiment, the group was divided into two sub-groups due to the differences of reading amounts individual subjects have achieved.

Research Instruments

This study employed two types of instruments, i.e. research instruments and experimental instruments. The former, which included tests of reading and writing abilities, perception surveys, reading records, and verifying interviews, were used to collect scores, opinions, and reading amounts; the latter, reading materials and lesson plans for ER Plus activities, were for the experimental purpose. The semi-structured interviews, though not used to collect data, were an important tool to validate reading amounts and reading engagement of individual subjects in the study. All instruments were developed by the researcher except for the reading materials which were ordered commercially from a number of book stores.

The development of each research and experimental instrument involved a similar series of procedures. Significantly, the overall stages signified justification that was used to assure a high degree of validity, reliability and usefulness for all the tools. For example, in the developmental procedures listed below, the first through sixth stages represented priori validation, while the seventh through ninth were for posteriori validation processes. Both issues, i.e. the development and validation of research instruments were, therefore, interrelated. They will, then, be described from the outset of this section. Moreover, since all the instruments were used with the same subjects of the study, the characteristics of the test takers, which should be described as a part of each instrumental blueprint, will be described further from those two issues. Subsequently, major details of how all instruments were developed will be elaborated.

1. Developing procedures

The following are the developmental stages of all the research and experimental instruments employed in this research.

1. Identifying the objectives of each instrument.
2. Defining the theoretical constructs to be measured by way of literature reviews on key aspects associated with the objectives of each instrument.
3. Selecting types and question formats for each research instrument.
4. Writing items/contents for each test measurement, survey, and lesson plan.
5. Validating all the measurement instruments by having a panel of experts consider the appropriateness of the contents, items, and formats. Among the three experts, two specialized in language instruction and one in statistics.
6. Incorporating all comments and suggestions from the experts into each instrument and improving it accordingly.
7. Trying out the multiple-choice reading comprehension test with six groups of second-year students who shared similar profiles with those of the subjects of the main study. Then, the difficulty and discrimination indexes and reliability coefficients of the test items were computed for subsequent improvement of the inappropriate items.
8. Consulting experts and test takers for overall quality improvement of all the instruments.

9. Making final improvements of the test items and language in all the instruments.

2. Validation procedures

The quality of all the research instruments employed in this study had been verified through priori and posteriori validation processes to ensure a high degree of usefulness. As previously mentioned, systematic procedures in the development of all the research instruments were part of the validation scheme. As for the priori validation, all of the experts were asked to qualitatively examine the instruments for language appropriateness, face validity, construct validity, and content validity. Details of the verifying process are elaborated below.

2.1 Priori validation

1. The researcher defined the constructs of the reading and writing tests, perception surveys, reading records, verifying interviews, and lesson plans based on either theoretical grounds or in congruence with the objectives of each instrument. In fact, after some aspects were modified, all test constructs were considered appropriate for use as a basis for developing research instruments by a visiting professor of the English as an International Language Program from the University of Utah, USA, who is a renowned author of numerous publications in the field of language testing and evaluation. Later, these instruments were approved by the three Thai experts.

2. The researcher devised the instruments following the certified construct definitions. Then, the three Thai experts verified all of them by considering: (1) the test items or contents in terms of their appropriateness in measuring what they were said to assess or verification of face validity and (2) the congruence between the specifications of the test constructs and the test items and if the tests included representative samples of the language or skills specified by the test constructs, or verification of content validity (Brown, 1996).

3. Individual experts made comments or suggestions as to what could be done to improve the quality of all the instruments. Details of how the test items and formats were improved are elucidated in the 'Qualitative Validation of the Instrument' section of each instrument.

4. The researcher made revisions to all the research tools following recommendations from the experts before trying them out to observe statistical quantitative values.

2.2 Posteriori validation

The posterior validation process involved considering the appropriateness of statistical values to make decisions whether to keep, improve, or delete some of the contents or items in the tests or questionnaires. Most of the quantitative data were computed for the reading tests, which included the following:

1. Readability levels: Two indexes were identified for the reading passages, i.e. the approximate representation of the U.S. grade level needed to comprehend the selected text or Flesch-Kincaid Grade Level and the Flesch Reading Ease, which indicates how easy the text is to read, with the higher the score, the easier the text. Both indicators were calculated using a Reading Index Calculator online (Test document readability and improve it, 2007).

2. Difficulty and discrimination indexes: For the multiple-choice test items, the ones with appropriate difficulty levels (p value ranging from .20 to .80) and discrimination index (not lower than .20) were kept, whereas those that were outside the ranges were modified.

3. Reliability levels: Kuder-Richardson (KR 20) was identified for the reading comprehension test, while the Cronbach correlation coefficient was utilized for the rating-scale questionnaires in the perception survey.

Detailed statistical values of each instrument will be provided in the 'Quantitative Analysis of the Instrument' section of each tool as well as in the Appendices B and C. Apart from the quantitative data, the researcher administered the tests herself and ensured the test takers understood how to do the tests or complete the surveys so that the validation process was strengthened. Finally, the results of the statistical analysis were used in combination with comments from the test takers and statisticians in order to accomplish another round of the test revision.

3. Characteristics of the test takers

Since all of the instruments were used with the single sample of the study, the characteristics of the test takers to be described were applied to all of the test situations. The test takers were EFL second-year undergraduate students majoring in Finance and Banking. From the researcher's frequent meetings with these students during the interview sessions, it was found that most of them came from middle to low economic backgrounds. Regarding topical knowledge, it was assumed that each test taker had expertise in one or more areas depending on their experiences and interests. However, these subjects shared knowledge in finance and banking business due to their chosen major. As for their profiles of language ability, the majority was considered post-beginners, based on their reading and writing pretest scores and from individual interviews with them. All had studied English for Communication in their first year. All the instruments adopted in this study were developed with these underlying profiles of students in mind.

As regards the test takers for the trial of the reading comprehension test, they were considered comparable to the subjects of the study. That is, they were second-year, non-English majors from middle to low income families and they took a course in English for Communication in their first year. The majority had relatively low to pre-intermediate English competence.

4. Developing research instruments

Details of the development of each instrument to be elaborated in this section are grouped around five major themes, i.e. purposes and definitions of constructs; description of the instrument, which encompasses test structures and some major traits such as characteristics of input or scoring methods; qualitative analysis; quantitative analysis; and test administration. The sequence of the description will begin with reading tests, then writing tests, perception surveys, reading records, verifying interviews, lesson plans, and reading materials. The last two are, in fact, experimental instruments. The lesson plans followed the same process of the development of instruments, while the reading materials were not developed by the researcher but ordered directly from several publishing companies.

4.1 Reading comprehension ability test

4.1.1 Purposes and definitions of constructs

The reading ability test was devised as a proficiency test and used as a pretest and posttest in the study. The proficiency test type, according to Brown (1996), is most suitable for measuring language ability in general. It was also considered appropriate to measure reading ability of all subjects who read different types of story. The measurement of reading comprehension ability was measured at two levels, i.e. literal and interpretative. The definition of reading comprehension ability was taken from the one proposed by Burns, Roe, and Ross (1999). Also, the test measured reading ability as a unitary or global approach, as was proposed by Alderson (2002). Thus, assessment of the readers' vocabulary/syntactic skills and discourse skills were included in the form of gap-filling or cloze test. These theory-based constructs involved the following components:

Literal Comprehension

- using vocabulary/syntactic skills and discourse skills
- understanding surface meaning or the information that is stated explicitly in the text (involving factual questions)

Higher-Order Comprehension: Interpretive

- understanding main ideas and cause and effect relationships; interpreting inferences; and analyzing and synthesizing information
- identifying the mood of a passage, detecting the author's purpose, drawing conclusions, and interpreting figurative language

4.1.2 Description of the test

There were two test types in the reading comprehension test: multiple choices and gap-filling, with three passages in the first and one in the second. Altogether there were 45 items, all with four alternatives. The passages comprised articles concerning health, science,

memory, and culture taken from three reading textbooks at the pre-intermediate level, i.e. Active Skills for Reading Book 2 and 3 (Anderson, 2003), and Content Area Literacy: Interactive Teaching for Active Learning (Manzo, Manzo, and Estes, 2001). The combination of the two test types used in measurement of the subjects' reading ability should provide information that can indicate the subjects' performance more accurately than using only one test type.

4.1.3 Qualitative verification of the test

The original version of the test consisted of 58 multiple-choice questions and 12 rational cloze blanks, which focused on global comprehension of the text. However, two experts suggested that one passage, 'Smoking in Public: Live and Let Live' required knowledge of cultural differences, which was too difficult for the target subjects, so it was deleted. Other improvements to the test were on some detail of contents, questions, and alternatives. Complex sentence structures were simplified, so they became understandable to low-ability readers. Changes made to questions included rearranging items following the organization of contents and rewriting so that all became concise and easy to understand. Improvements in alternatives involved rearranging them according to length of sentences, parallel structures, and meanings, making some less obvious, and easing the difficulty of some.

Blanks for the cloze test were advised to have systematic deletions, such as leaving space for every n^{th} word such as every 7th, 8th, 9th, or 10th word. However, because the intended test takers had relatively low proficiency in English, the researcher decided to change the test type from cloze test to gap-filling. The gap-filling is similar to the cloze test, but it allows the test developer to delete longer phrases or sentences so that they reduce the difficulty of the test items. After all the first round of changes were made according to the experts' comments and suggestions, there were altogether 63 items, with 40 multiple-choice questions and 23 gap-filling items.

4.1.4 Quantitative verification of the test

Three sets of data involved in the quantitative analysis of the reading comprehension tests consisted of the readability levels of the reading passages, the difficulty and discrimination indexes of the test items, and the reliability values of the test.

First, the readability indexes of the four texts in the reading comprehension test specifying from equivalent U.S. grade levels were 5.48, 9.02, 10.45, and 11, with reading ease of 76.92, 59.70, 51.66, and 41, respectively. The test was basically difficult for the majority of the subjects when considering the grade levels of the texts, the reading ease indexes, and the subjects' language abilities.

Second, the test was tried out with 165 non-English majored second-year students who were mainly at post-beginner and pre-intermediate levels of English. According to Brown (1996), for a norm-referenced test (in this case the proficiency test), the developers should try to get the largest sample of test takers possible so that the chances of getting a normal distribution are maximized. However, most non-English majors at NPRU have relatively low proficiency in English; thus, the test appeared too difficult for them, and this affected the difficulty and discrimination indexes of the test.

Statistical calculations for item analysis showed that the test had a mean difficulty index that equaled .37 and a discrimination index that equaled .30. Most items had discriminating problems, especially the gap-filling type, which measured knowledge of vocabulary/syntactic skills and discourse skills. Such figures provided evidence that most students were considerably low in English competence, especially in those two areas. Items that were appropriate for use, i.e. difficulty and discrimination levels higher than .20, were kept, while changes were made to those with inappropriate values. According to Issac and Michael (1984), the difficulty level of the test can be adjusted to the purposes of the testing. The average difficulty level at .37 of this reading comprehension test implied that the test was rather difficult for this specific group of test takers.

Third, the reliability value of the test was .78 for KR 20 for the trial with 165 students. After deleting all problematic items and improving some mediocre ones, it was believed that the reliability values, if tested with the same group of students, should be higher.

After all the amendments, the final version of the test consisted of 45 items, with 32 multiple-choice items and 13 gap-filling items. The proportion of the reading comprehension at a literal level to the reading comprehension at an interpretative level was 22 and 23 items, respectively.

4.1.5 Administration of the test

The reading test was administered in the first and last sessions of the Fundamental Reading course (14 June and 1 October 2007) in the regular classroom of the subjects. The pretest and posttest were of the same version. The two test types, i.e. multiple choices and gap-filling, were scored objectively, with one mark for the right answer and none for the wrong answer. Time allocation for the test administration was one and a half hours.

4.2 Reading speed test

4.2.1 Purposes and definition of constructs

The reading speed test was developed to measure the subjects' reading speed and comprehension of a narrative, which were deemed crucial consequences of the extensive reading activities. The constructs of the reading speed test comprised two areas, i.e. speed and comprehension of the recount. The speed was represented by fluency of reading specified in words per minute. Comprehension of the text was measured at two levels, i.e. literal and higher-order. The first aspect was emphasized more because the test takers read the text only once and then had to answer the questions only from their memory of the content.

4.2.2 Description of the test

The reading speed test consisted of a 600-word recount written in an authentic style following by ten multiple-choice questions to measure comprehension of the text. The text entitled 'Stuck in the Desert: By Saeed Al-Qamzi' was narrated as a journey recount of a man and

his cousins. It was taken from an Internet source. The test takers were required to read the whole text rapidly, only once, with proper understanding. Then, they returned the text to the teacher assistant who is an English lecturer at NPRU and continued with the comprehension questions. Interpretation or analysis of language features was not assessed due to the nature of speed reading, taking into account that contents were read considerably fast and superficially. However, two questions concerning main ideas and synthesis of the content were considered to measure high level of comprehension.

4.2.3 Qualitative verification of the test

The text itself had a readability level equivalent to grade 3.69 (Fleshch Kincaid) and reading ease of 86.38, which was rather easy for tertiary students since the closer the reading ease is to 100, the easier the text (Test document readability and improve it, 2007). However, the experts considered it appropriate due to its length and the purpose it served for testing. As for the comprehension questions, the original version contained seven multiple-choice items with four to five alternatives. The researcher wrote three more questions and modified some alternatives so that there were only four choices for each item. The purpose of the comprehension check was to ensure that the test takers did the reading properly, i.e. read fast with sufficient comprehension to be able to answer the follow-up questions. However, they did the test from their memory of the text. Therefore, only qualitative analysis by the experts was performed.

4.2.4 Administration of the test

The reading speed test was administered first, before the other pretests, since the test takers were required to begin at the same time. It was performed in the first and last sessions of the reading course as the pretest and posttest of the experiment. Once individual subjects began their reading, they were timed. Subjects were told to raise their hands when they finished reading the text. The teacher/researcher recorded the finishing time of each test taker in the name list. After the subjects finished reading the text, they returned it to the teacher assistant and received the multiple-choice comprehension-check questions to complete. The time taken reading the text depended on the individual subjects' fluency in reading and ranged from five to 15 minutes plus

approximately ten minutes for the comprehension questions. The multiple-choice questions were scored objectively, with one mark for the right answer and zero for the wrong one.

4.3 Reading comprehension of narrative test

4.3.1 Purposes and definition of constructs

The purpose of the test was to measure the subjects' understanding of a narrative resulting especially from their experience engaging with simplified readers for a period of four months. The emphasis of the measurement was only on comprehension at literal level, demonstrated through translation of the text in Thai. The readers were not required to interpret, analyze, or synthesize the contents.

4.3.2 Description of the test

The four-page story 'Picture of Tara,' written by Joyce Hannam, was taken from a simplified reader entitled 'The Teacher's Secret and Other Folk Tales,' Oxford Domino One (Hannam, 2001). It approximated a pre-intermediate level with 400 headwords. No subject had seen it before. The test takers were required to read the text with full comprehension and then narrate it, from their understanding, in Thai.

4.3.3. Qualitative verification of the test

The story was considered appropriate by all the Thai experts due to its length, interesting content, and level of difficulty. Requiring the test takers to narrate the story in Thai from their understanding of the story was also considered appropriate for low ability readers as asking them to tell the story verbally would have caused more problems. In addition, writing in Thai ensured that there were no barriers for any test takers in terms of English writing abilities. Therefore, no improvement was made to the test.

4.3.4 Administration of the test

The test was administered as a pretest and posttest and both were the same version. The time allotted for the test was 30 minutes. The test takers' answers were scored by the

researcher twice, based on a model answer. Scoring criteria were based on meaningful thought units of sentences, one mark for each unit. Half a mark could be assigned if the test takers understood the text only partially.

4.4 Writing tests

4.4.1 Purposes and definition of constructs

The purpose of the tests was to make inferences about the writing abilities of the subjects of the study. Constructs of the written work to be measured were based on the scoring profile proposed by Jacobs et al. (1981), which included content, organization, vocabulary, language use, and mechanics.

4.4.2 Description of the test

Altogether, the tests consisted of four writing prompts, each with its own administration. For each task, the test takers were required to demonstrate their ability to write a narrative essay on certain topics. The series of topics comprised relating an experience of a place, recounting an experience with a familiar person, describing their own language backgrounds, and telling about good and bad experiences. Each prompt provided a detailed context for the writer to follow, such as intended readers or addressees, an outline of what to write, the length of the essay (150 words), detailed features of the language to be assessed, and how writers should manage their time to complete the essay.

Regarding the scoring method, the criteria for assigning scores were based on analytic aspects of language features, i.e. content, organization, vocabulary, language use, and mechanics. Scores for the categories were 3, 20, 13, 13, and 17, respectively, thus making a total score of 68. After trying out the scoring scheme with a number of pieces of written work, both raters considered the five areas of measurement and the division of sub-scores for each that were appropriate for use with the written work of the subjects in this study. Procedures for scoring the essays were as follows:

1. Two well-trained raters: one, the researcher, and the other, a Thai English university lecturer with a master's degree from an Australian university, assigned grades based on the analytic method.
2. All written work was read and rated independently.
3. The raters reviewed the scales before each rating session.
4. No rating session lasted longer than 45 minutes.
5. The scores from the two raters were averaged. If the scores were more than ten marks apart, both raters independently rated the essay once again.

4.4.3 Qualitative verification of the test

From the comments by one expert, out of the five writing prompts initially proposed by the researcher, two were advised to be deleted due to their imaginary nature. After adding one more writing prompt and revising some details of all the writing tasks, the tests were considered appropriate in terms of face validity and construct coverage.

4.4.4 Administration of the test

All the test tasks were administered in the subjects' usual reading classroom, one as a pretest and the other three as a time-series measurement, each taken about five weeks apart. Time allotted for writing was fairly flexible, i.e. at least half an hour for writing 150 words per piece of work. A number of controls were used to reduce the effects of confounding variables that may have arisen from the test procedures; these included:

1. **Control the genre:** Students' writing performance can vary due to changes in the genres on which they rely. Thus, writing scores drawn from a wide range of genres may fluctuate and do not represent the real abilities of the writers. In this study, the test takers were required to compose pieces in only one genre, i.e. narrative, which was the discourse mode commonly found in the fiction they read. This was designed to reduce variations that might have affected the test takers' writing performance and which could have invalidated their assigned scores.

2. Use multiple measurements: Students were required to compose four pieces of written work in total, each written at different intervals. With multiple tasks, basically, the writers could not conceal some of their weaknesses in the language features they used in their essays. Therefore, the scores could be more reliable in signifying the writing competence of each test taker.

3. Control the test administration: All writing test tasks were administered in the subjects' usual classroom, with all test takers under the same environment. This was to make certain each piece of written work was produced by the test taker, without any outside assistance. Additionally, the researcher personally supervised the test administration to ensure the test procedures followed the set guideline.

4. Create a natural setting for writing: Although the subjects could submit their final products within half an hour, those who could not finish were allowed to continue with their work for a maximum of one hour. This was to provide sufficient time for the test takers to write in a low-stress environment, similar to their real writing conditions. They might make several drafts, and, hopefully, their anxiety, which could affect their true performance, might be reduced.

5. Control any deviation from the norm: The comparison of scores taken from pieces of work written at different intervals helped ensure that the research findings should be reasonably reliable. This is because results from each comparison were verified among themselves so that any deviation from the tendency could be systematically identified. Furthermore, relatively high inter-rater reliability values could prove consistency between the two raters across all measurements.

6. Use analytical scoring system: An analytical scoring system was adopted because “different aspects of writing ability develop at different rates for different writers” (Weigly, 2002: 114). Some test takers may have good memory of vocabulary lists but lack structural knowledge; others may fail to organize a reasonable piece of text but can remember all details of contents, for instance. Basing the grading assignment on separate

language features helped the researcher discriminate and observe the improvement of specific features in an individual's writing better.

7. Explain the prompts in Thai: The researcher administered all of the tests and translated the tasks into Thai. The explanation in Thai ensured that the test takers understood what to write, who to write to, how they could organize their written work, and how they would be scored. Although the translation might have provided some clues to the meanings of some words in the prompts, in reality, most-test takers did not make use of them in their writings.

4.5 Perception survey

4.5.1 Purposes and definition of the survey

The perception survey periodically collected the subjects' opinions on their own reading development, over time, in three major aspects, i.e. reading strategies and progress, reading motivation, and reasons for reading or not reading. Constructs related to reading strategies comprised decoding, identifying main ideas, using a dictionary, and guessing word meanings, while those of reading progress involved comprehension, speed, development, and time spent reading. Constructs of reading motivation encompassed pleasure, enjoyment, confidence, enthusiasm to continue reading, liking of reading and the English language, and usefulness of reading. Reasons for reading and not reading were the readers' sources of motivation and discouragement relevant to ER Plus activities. They were attributable to reading materials, personal characteristics, affect-related environment, collaborative interaction, English proficiency, reading skills, classroom context, the teacher, peers, etc.

4.5.2 Description of the survey

The perception survey consisted of two parts, i.e. rating-scale and fill-in question types. In the first part, the subjects were required to rate degree of intensity of their opinions regarding their strategies and motivation related to reading. The scale of 1 referred to the lowest degree and 5 to the highest degree. In the second part, the subjects were required to supply the reasons that made them engage in the reading and the reasons that prevented them from doing

so. They could provide up to four reasons for each topic and write them in Thai. Examples of reasons were provided on a different piece of paper during the orientation session.

4.5.3 Qualitative verification of the survey

The rating-scale survey was originally modified from an open-ended type following the advice from the expert in statistics with the purpose to ease complexity in statistical calculation. It was content verified by the other two experts in instruction before being tried out with 30 non-English major students who shared similar profiles with the subjects of the study to determine if they understood the language used in it. The reliability level of the survey by Cronbach taken from 30 subjects of the study was .90. The checklist format not only lessened the time for data analysis, but also increased the effectiveness of data gathering as it was used in combination with qualitative data from the semi-structured interviews. After all the improvements had been made, the survey was approved by all the experts.

4.5.4 Administration of the survey

The perception survey was completed each time a subject finished reading a book. The survey was then submitted to the teacher/researcher when the subject came for an individual interview. The teacher/researcher used the information in the survey as a basis for eliciting further details about each subject's reading behaviors. The language used in the interviews was Thai to ensure the information was understood correctly. The subjects could complete the survey either at the university or at home, depending on their preferences. Similarly, the opinion parts were given to the teacher/researcher during each interview session.

4.6 Reading records

4.6.1 Purposes and definition of construct

The reading records were periodically used to gather the amount of reading each subject had completed. The quantity of reading from the simplified readers was recorded on the basis of the number of pages specified in the book, with pictures and exercises excluded.

4.6.2 Description of the reading record

The reading records given to each subject at three intervals were in the form of fill-in surveys. Data were gathered three times across the term, each five weeks apart. Details of information to be completed included readers' beginning date and finishing date (of each book), title and level of the book, publishing company, total pages read, total pages of pictures, and total reading amounts, which could be calculated by subtracting the number of pictures from the total pages read.

4.6.3 Qualitative verification of the records

The reading record format and contents were approved by all three experts and thus no improvements were made.

4.6.4 Administration of the reading records

Reading amounts were recorded once each reader finished a book, and the total amounts were added up by the end of each time series of the experiment. They were then verified again by the teacher/researcher during the interview sessions. The records were collected three times altogether across the experimental period. The subjects could complete the survey either at the university or at home, depending on their preferences.

4.7 Verifying interviews

4.7.1 Purposes and definition of constructs

The verifying interview script was constructed to verify (1) the reading amounts and (2) the performance of reading engagement as specified or claimed by the readers. The interview script, thus, consisted of two parts: one for verifying reading amounts and the other for proving if each subject did the reading.

Variables or constructs to be elicited comprised:

- (1) amounts of reading, and

(2) details about the stories, e.g. characters, settings, plots, conflicts, crucial events, contents, etc.

4.7.2 Description of the interview script

The semi-structured interview script was divided into two parts, i.e. Part A: straightforward questions for examining the amounts of reading against the ones recorded by the subjects, and Part B: various questions concerning plots, characters, settings, vocabulary, pictures, etc. to check if the reading was actually done.

4.7.3 Qualitative verification of the script

The script was verified by all the Thai experts, and it was unanimously approved.

4.7.4 Administration of the interview script

By the end of each reading class, the teacher/researcher generally asked if any readers had finished books and wanted to have interviews, which were scheduled twice a week. The interview was then arranged on a one-on-one basis in the teacher's office, with approximately five to ten minutes for one reader.

Experimental instruments

4.8 Lesson plans for ER Plus activities

4.8.1 Purposes and definition of themes

The lesson plans were devised for use as a guideline for instruction of the ER Plus activities in the Fundamental Reading course. The themes for the ER tasks were modified from Bamford and Day (2004), particularly from the activities in their book entitled 'Extensive Reading for Teaching Language,' in combination with a concept of collaboration. There were altogether six themes, i.e. knowing how to choose books, expanding knowledge of vocabulary and structures, improving reading skills, encouraging purposeful and critical reading, encouraging

sharing among community readers, and promoting reading engagement. As for the IR tasks, major themes included knowledge and practice of reading skills and strategies, text genres and organization, comprehension monitoring, and grammar and vocabulary enhancement.

4.8.2 Description of the lesson plans

There were 17 weeks for the whole term. The first week was devoted to the administration of three sets of pretests, i.e. reading speed test, reading comprehension ability test, and reading narrative test. The second week was reserved for a writing pretest, an orientation to the ER Plus project, an introduction to the simplified readers, and how to choose and read them. For the rest of the 15 weeks, the subjects were engaged in three types of ER Plus activities, i.e. learning how to read effectively, participating in motivating reading tasks, and reading books silently in class. Altogether, there were 15 tasks for the IR sessions and 30 tasks for the ER sessions. Major components of the lesson plans comprised objectives, contents, teaching procedures, and evaluation.

For the skill-based IR lessons, only the tasks and reading passages that could serve the purposes of this study were selected from the reading course book that was devised by a group of NPRU teachers who were responsible for the instruction of the reading course. Topics that the subjects were required to read included music, movies, food, exercise, festivals, table manners, superstitions, love and adventure, tourist attractions, ecodestinations, impact of the internet, and job seeking. The emphasis of each IR lesson was on reading skill practice, such as skimming, scanning, guessing unknown words, making inferences, interpreting, etc.

Regarding ER activities, a number of tasks were created to fulfill the purposes or themes set beforehand. Example task topics were match genres and titles, match blurbs and titles, increase your vocabulary, vocabulary quizzes, increase your reading rate, solve reading problems, my favorite characters, dramatic group conversations, favorite books, interview readers, book report, oral reading competition, etc.

4.8.3 Qualitative verification of the lesson plans

Originally, the ER activities were developed with three sets of tasks for each week. However, one expert suggested that, due to time constraints, all tasks might not be able to be accomplished. As a result, the activities were reduced to only two tasks per lesson. After all the revisions were made to the lesson plans, they were approved in terms of content coverage.

4.8.4 Administration of the lesson plans

The lesson plans were put into practice in the second week of the first term (21 June 2007) beginning with an orientation session. The implementation was performed throughout the semester until the 15th week (27 September 2007).

4.9 Reading materials

The simplified reading materials with a variety of topics were provided for the subjects to choose based on their own preferences. All books were classified into two categories: fiction and non-fiction. The difficulty levels ranged from beginner to intermediate, or from starter and levels 1 to 6, depending on publishing companies. Fiction encompassed all types of text genre such as adventure, comedy, drama, horror, romance, etc. while those of non-fiction generally involved traveling, history, people, etc. The readers were bought from several well recognized publishing companies such as Oxford, Macmillan, Penguin, and Heinemann. There were approximately 300 titles with headwords ranging from 250 to 1,500. All were provided in the Self-Access Learning Center, associated with the Language Center at NPRU, with a university officer providing free borrowing services.

Conducting the Experiment

The experiment was conducted in the first term of the academic year 2007 with 34 second-year Finance and Banking students. The researcher was the only teacher for this course. The overall experiment covered 17 weeks of the term with the first and last sessions used for the pretests and posttests. Three types of reading-related activities were integrated into a session consisting of three consecutive 50-minute periods, i.e. skill training, motivating activities, and

silent reading. This sequence held true for all lessons, but with flexible time management. The details of activities for each session are subsequently explained.

1. IR-based activities

For each reading lesson, the subjects learned how to read effectively and practice specific reading skills and strategies through various text genres in the reading textbook. Major themes of the text genres consisted of entertainment, health, culture, superstitions and myths, travel, and the Internet, each with two sub-topics. Activities at this stage lasted for at least one period or approximately 50 minutes. A frequent teaching method was teacher-centered with a combination of topic-based and skill-based lessons plus some think-aloud techniques. The emphasis was on practice of reading skills such as skimming, scanning, guessing word meanings, finding main ideas and supporting details, making inferences, text genres and organization, comprehension monitoring, etc. Follow-up exercises that checked the readers' understanding of the texts were completed in class, while supplementary grammar and vocabulary tasks were generally assigned as homework. Not all of the exercises presented in the book were covered since the main purpose of the IR session was not on language practice but on development of reading strategies.

2. ER-based motivating activities

The ER motivating tasks normally lasted around one period. The teacher's roles were both facilitator and manager. Therefore, she gave commands, assigned and managed tasks, and gave conclusions, while students worked collaboratively in large or small groups to complete particular assignments. Activities were designed based on the principles of ER and collaborative language learning. Most activities were in the form of pair-work, group work, and whole class participation, which encouraged sharing and learning together among all readers. The aim of the collaboration was for peers to motivate and assist one another to read as much as possible, both in and out of classes. Students were engaged in different tasks that allowed them to read more purposefully and sometimes critically, with specific attention to characters, phrases, sentence structures, vocabulary, etc. In reality, motivating activities at this stage combined what the readers had read with what they had learned during the IR sessions. Therefore, the tasks became much easier and more fun as all readers generally worked in teams.

3. Silent-reading activity

Approximately one period or less was spent on silent reading performed in the subjects' regular classroom. Each subject was asked to bring the book he or she was reading (outside of class) to continue in class. Generally, the teacher/researcher only acted as a reading model and read, just like all subjects. However, she was also observing students' reading behaviors and providing assistance when some readers had problems. The subjects were allowed to sit in groups and, if they were asked, could provide some explanations to friends. They kept their voices low and sat in the corners of the room, away from the other groups. Apart from reading in class, students were required to read outside of class as much as possible, so that they had something to present, negotiate, discuss, and share with their group members in the following weeks during the ER-activity sessions.

Approximately 45 minutes of the silent-reading period were used for the teacher/researcher to administer writing tests, which were carried out only three times in the 15 weeks. The administration of the test was conducted in the subjects' usual classroom with the teacher/researcher proctoring the process. The purpose was to collect data, not to evaluate writing skills.

Figure 3.1 Outline of ER Plus activities

Period	Approximate time in minutes	ER Plus activities
1	50: IR-based lessons	<ul style="list-style-type: none"> • Learning reading strategies • Practicing reading strategically • Doing follow-up exercises
2	50: ER-based lessons	<ul style="list-style-type: none"> • Doing motivating activities • Working collaboratively with peers
3	50: ER-based task	<ul style="list-style-type: none"> • Doing in-class silent reading

Data Collection

Data collected in this study were mostly quantitative in nature. In this part, details of how specific sets of data were obtained will be described chronologically, i.e. prior to, during, and after the experiment.

1. Before the experiment

Two types of measurements were administered prior to the treatment, i.e. reading tests and a writing test. The reading tests comprise three sub-tests: a reading comprehension ability test, a reading speed and comprehension test, and a narrative comprehension test. The first writing test was considered a pretest, as there were three more collected over time. The order of the test administration in the first week was reading speed and comprehension test, reading comprehension test, and narrative comprehension test. On the second week, only the writing test was administered. Details of how the data from each test were collected are as follows:

1.1 Reading speed test: The reading speed test was administered first, as it required that all test takers start the reading at the same time. After explaining the testing procedure, the teacher/researcher asked the subjects to begin reading, and they were timed from that point. Students who finished their reading (with sufficient understanding) raised their hands, and the teacher/researcher recorded the time in the name list. The teacher assistant then took the text away from those who had finished the reading part and handed them the question sheet so that they could continue with it. The test takers were required to finish the ten questions within ten minutes.

Scores from the reading speed test revealed two aspects of reading skills, i.e. reading speed and comprehension of the text. The former was identified in words per minute, while the latter was evaluated by scores out of ten. Both sets of scores were recorded for subsequent comparison with those of the same version used as the posttest.

1.2 Reading comprehension ability test: The test takers were given a reading comprehension ability test together with an answer sheet. The teacher/researcher explained major test components and wrote the time allotted for the test on the board. Students who finished

before the set time could hand in their answer sheets and return the tests. They could leave the classroom, and all students took a ten-minute break before continuing with the last-test.

Scores from the multiple-choice test were assigned objectively, with one mark for the right answer and zero for the wrong one. They were, then, recorded for successive comparison with those of the posttest of the same version.

1.3 Narrative comprehension test: The teacher assistant distributed the test and the teacher/researcher explained how to complete the test. The test takers were required to demonstrate their understanding of the text by describing it in Thai within at least 30 minutes.

The subjects' Thai descriptions of the narrative were scored analytically by one rater at a time based on a model prescribed as thought units of the text. The answer sheets were read by the same rater once again, and scores were averaged. If the range between scores was larger than five, then the works were assessed once again by the researcher. After averaging the two sets of pretest mean scores of individual test takers, intra-rater reliability values from the Cronbach correlation coefficient was considerably high, i.e. .99. The mean scores were then recorded for subsequent comparison with those of the posttest of the same version.

1.4 Writing test: The writing test was administered first thing in the second week of the experiment, when all subjects had not begun their reading yet. After the writing prompts were distributed to all test takers, the teacher/researcher explained in Thai what the assignment was, based on the directions of the test. Then, the test takers were allowed at least half an hour to finish their written work.

Scores from each piece of written work were assigned by two raters based on an analytical scoring method. Language features measured included content, organization, vocabulary, language use, and mechanics, each with different full scores, i.e. 17, 13, 13, 20, and 3 points, respectively. Scores assigned by both raters were then compared and averaged. If the range was wider than ten points, the paper was evaluated again by both raters. This first set of writing ability scores was recorded for comparison with the three subsequent tests.

2. During the experiment

Three sets of data were gathered during the treatment period, i.e. scores from writing ability tests, number of pages read, and responses from the perception survey. The writing tests were collected at three sessions, each five weeks apart. Overall, the measurements of writing ability were collected four times (including the pretest). The other sets of data, i.e. reading amounts and a perception survey, were gathered concurrently during the verifying interview sessions over 15 weeks. That is, when a subject came for an interview, he or she brought along a reading record and a perception form. Both sets of information were double-checked by the teacher/researcher during those interview sessions.

With regards to reading amounts, the total number of pages of all the books each subject read during a five-week session was added up on the reading record form provided specifically for each session. The forms were then collected by the end of each session with the grand total of pages each subject had read. Similarly, for the perception survey, once each subject finished one book, he or she completed the survey, which consisted of two parts. The first required the readers to rate the degree of intensity of the statements; the second asked them to reflect on the reasons they continued reading or stopped reading. Once each subject came for an interview, the perception survey was checked and collected by the teacher/researcher.

Reading amounts of individual subjects were added up to make grand totals of all the reading for 15 weeks. All data were then ordered so that the researcher could make appropriate decisions concerning how best to categorize the amounts and reader groups. Reading amount data were used to calculate relations with results from the reading tests, writing tests, and perception surveys.

Data from the perception surveys were also compiled according to number of pages each subject read. Only the forms corresponding to reading amounts of 50, 100, 150, 200, 250, 300, 350, and 450 pages were used to further calculate the subjects' reading development.

3. After the experiment

As the 15th week was the final week of the term and the following week was the final exam week, the subjects were arranged to meet to complete all the measurements by the 17th week. The purpose was to reduce the stress of most subjects who were worried about their other courses' exams, some of which had already been taken during week 15. Data to be collected for the posttests were in the same series as those of the pretest. All subjects were required to complete the four measurements, i.e. reading speed test, reading ability test, narrative comprehension test, and writing test. Mean scores from all the tests were used to compare with those of the pretest to calculate the increased reading and writing abilities and their significant differences.

Data Analysis

The description of the statistical procedures for data analysis will begin with reading skills, writing skills, and reading perceptions, the same series as those of the research questions. In addition, the questions that adopted similar statistics will be combined; therefore, only four corresponding sets of statistical formulas remain to be explained. These included (1) t-test statistics to examine the effects of the ER Plus on reading comprehension, reading speed, and reading comprehension of narratives; (2) repeated measures ANCOVA (henceforth RMANCOVA) and trend analysis to examine the effects of the ER Plus on writing abilities and their developmental patterns; (3) correlation coefficient to examine the relationship between reading amounts and writing abilities; and (4) descriptive statistics and content analysis to examine the subjects' perception of their reading strategies, reading motivation, and reasons for reading. The results of all statistical computations are detailed in Chapter IV.

First of all, for each statistics to be correctly adopted, its basic assumptions must be met, because if not, other formulas must be considered and used instead. Therefore, the basic requirements of each statistics employed in this study will be of primary concern. Additionally, further calculations of effect sizes of all the data with significant differences were performed to determine if the values were, in fact, meaningful, important, or even useful for practitioners. Measurement of the effect-sizes tells the relative magnitude of an experiment or the size of its effect, which can be used to compare the results of two or more treatments. An effect's size is not

affected by the size of the group; thus, the small sample size of this study had nothing to do with the reported values. The effect sizes calculated through Cohen D's formula, which is represented by 'd,' are considered small at .20, medium at .50, and strong at .80 or greater (Sprinthall, 2000: 245). Details of each set of data analysis are as follows:

1. Effects of ER Plus on reading comprehension, reading speed, and comprehension of narratives

The independent t-test was used to address the first set of questions that sought to determine if, between the low and high reading groups, there were any differences in the mean scores of the pretests and posttests of reading comprehension ability, reading speed, and reading comprehension of narratives. The pretests were only computed, since the separation of readers into two groups was decided after the treatment was finished, not before. Thus, it was not known if readers in both groups had equal mean scores in those three sub-skills of reading. Details of statistical findings of all the reading-related pretests, which revealed that both groups were not different prior to the treatment, are presented as the part of the results of the study in Chapter IV. As for the posttests, the research questions that required independent t-test statistics included:

- Do ER Plus activities have a significant effect on the reading comprehension ability of the subjects in the high and low groups? If they do, what are their effect sizes?
- Do ER Plus activities have a significant effect on the reading speed and comprehension of the subjects in the high and low groups? If they do, what are their effect sizes?
- Do ER Plus activities have a significant effect on the reading comprehension of a narrative for subjects in the high and low groups? If they do, what are their effect sizes?

The t-test statistics between groups was adopted to test against the research hypotheses, which were set as directional, signifying that the posttest mean scores of all reading-related tests of the subjects in the high group were higher than those of the low groups. These concepts were applied to all the three sets of dependent variables of the reading abilities. Statistical terms of those hypotheses were: $H_1: \mu_1 > \mu_2$ as follows:

The following procedures were performed to test the aforementioned hypotheses:

1. Considering if the obtained data of the three variables meet the basic requirements of the independent t-test, which, according to Sprinthall (2000: 242), comprises:

- the samples have been randomly selected;
- the traits being measured do not depart significantly from normality within the population;
- the standard deviations of the two samples must be fairly similar;
- the two samples are independent of each other;
- comparisons are made only between measures of the same trait; and
- the sample scores provide at least interval data.

Based on the scores from the three sub-skills reading tests, five conditions met the requirements clearly, i.e. items 1, 2, 4, 5, and 6. Among these, the normality assumption (item 2) resulting from Kolmogorov-Smirnov test showed that all sets of data were normally distributed (results of the tests are shown in Appendix E). For the distribution of mean or variance assumption (item 3), the exploring procedure of the SPSS program, which produces the t values, generates both equal and unequal variance values for users to choose as appropriate. In sum, the independent t-test statistics could be employed to test equality of the posttest mean scores of the high and low groups' reading-related ability tests.

2. Through the SPSS program, computing the pretest and posttest data from the high and low groups regarding reading comprehension ability, reading speed, and reading comprehension of narratives.

3. From the output, considering the F test values provided by the Levene's test for equality of variance, which yield both equal and unequal numerators. Then, interpreting the findings in order to reject or accept null hypothesis of equal variance by examining the probability (Sig.) of F.

- If the value exceeds .05, use the t-test results of 'equal variances assumed' (accept a null hypothesis for the F test).

- If the value is less than or equal to .05, use the t-test results of 'equal variances not assumed' (reject the null hypothesis of F test).

4. Examining the probability of the t values:

- If the t value (Sig.) exceeds .05, the difference is not statistically significant, $\mu_1 = \mu_2$ (accept the null hypothesis).

- If the t value is less than or equal to .05, accept the H1: $\mu_1 \neq \mu_2$ (reject the t-test's null hypothesis).

5. Calculating the effect sizes when the differences between means are statistically significant using Cohen D's formula, i.e. $d = |t| \sqrt{\frac{n_1 + n_2}{(n_1 + n_2)}}$.

Additional statistics to test mean differences within each group

The two types of readers in this study were not meant to signify the control and experiment groups. Rather, they represented EFL readers who read fewer pages and those who read more pages when compared with the group as a whole. Therefore, in some cases, apart from using the t-test between groups to investigate differences between the two groups' means, the t-test within groups was also computed to examine, particularly, if low volumes of reading had any influence on the dependent variables of interests. This is due to the belief that the amounts of reading, either more or less, may generate some effects on the readers, and such findings could be useful to practitioners. The exploring procedure of the dependent t-test is similar to those of the independent t-test, which are as follows:

1. Considering if the basic assumptions are met. These include:
 - The scores of the pretest and posttest are related since the same participants have contributed to them.
 - The scale of measurements for the difference score is interval.
 - The difference scores should be normally distributed.

Again, the attributes of the obtained data were found to meet all the basic requirements. The t-test formula could be employed to examine the differences between pretest and posttest of

the low and the high reading groups for the reading comprehension ability test, reading speed test, and reading comprehension of narratives test.

2. Performing the computation of the dependent t-test through the SPSS program.

3. Examining the probability of the t values:

- If the probability (Sig.) of the t value exceeds .05, then the null hypothesis will be accepted. The difference is not statistically significant, $\mu_1 = \mu_2$.
- If the probability of the t value is less than or equal to .05, then the t-test null hypothesis is rejected and H1 is accepted. The difference is statistically significant, $\mu_1 \neq \mu_2$.

4. Calculating the effect sizes through Cohen D's formula, i.e. $d = |t| \sqrt{\frac{n_1 + n_2}{(n_1 + n_2)}}$.

2. Effects of ER Plus on writing abilities and the developmental patterns of reading amounts and writing scores

To answer the two research questions of research objective number two, two statistical formulas were required. In both cases, however, the SPSS programs were utilized; thus, they will be explained as one continuing process. The research questions are as follows:

- What are the effects of ER Plus activities on writing ability of the subjects in the high and low groups? If they have a significant effect, what are the effect sizes?
- What are the developmental patterns of reading amounts and writing scores of the subjects in the high and low groups?

The two sets of dependent variables, reading amounts and writing scores, were collected at the identical series of three time points, all taken from the same subjects. Therefore, there was a repeated use of the same subjects who produced two response variables sequentially over time with equal intervals in between each. With such data on hand, together with the first research aim, i.e. to find the effects of the ER Plus by way of simultaneous analysis of means, the Repeated Measures Analysis of Covariance (RMANCOVA) was adopted for data analysis. With

this statistics, all sets of the categorical mean scores could be treated concurrently, with the pretest scores of writing used as a covariate. Moreover, to address the second question, the RMANCOVA could produce the developmental patterns of the existing data via the options of trend analysis. Finally, the end products of the RMANCOVA processes, i.e. the effect sizes, were produced by the program through the Partial Eta Square formula.

The RMANCOVA was used to test the null hypothesis that specified equality of all mean differences or $H_0 = M_1 = M_2 = M_3$ and the alternative hypothesis stating that there was at least one pair of variables that was not equal or $\mu_i \neq \mu_j, i \neq j$. The following were statistical procedures already performed for data analysis of the subjects' writing abilities:

1. The data to be run were tested to determine if they difference it they met the assumptions of RMANCOVA. The underlying requirements to be considered were as follows (ANCOVA, 2008):

- The data in the population from which the samples were drawn were normally distributed.
- The dependent variables in each sample were independent of each other; that is, there were no systematic relations between pairs of scores in each group.
- The variance between means for any pair of different groups was the same or the so-called homogeneity of variance assumption.

First of all, for multivariate normality assumption, the Kolmogorov-Smirnov Test revealed that all sets of the writing scores were normally distributed (results are presented in Appendix E). Regarding the relationship between dependent variables, each series of writing scores was collected at different time points with an interval of five weeks apart; thus, each was not dependent on one another. Lastly, before being able to make use of the findings from either multivariate or univariate tests of RMANCOVA, it was necessary to observe the variance of difference between the means of any pair of different groups. To serve that purpose, the SPSS was run via General Linear Model (GLM) and univariate test. The results of Mauchly's test of Sphericity were generally run automatically when there were three or more levels of factors. The table below displays the output of Sphericity test computed via the SPSS program:

Table 3.1 Mauchly's Test of Sphericity

Within-Measure Subjects Effect	Mauchly's W	Approx. Chi- Square	df.	Sig.	Epsilon(a)		
					Greenhouse- Geisser	Huynh- Feidt	Lower- bound
writing scores	.929	2.205	2	.332	.934	1.000	.500

* $p < .05$

The significance values for homogeneity of variance shown in the table were used to test the null hypothesis, which stated that data of writing scores were spherical. As from the above results, the significance value of means for writing scores exceeded .05; thus, the null hypothesis was accepted.

2. Based on the sphericity results, the output of the tests of within-subjects effects was further considered. The significance levels of F test were used to test another set of hypotheses regarding the within-subjects effects. Then, the researcher identified and concluded the main and interaction effects of the variables.

3. From the output of the RMANCOVA, the effect size values of the variables found significant by the F ratio could be observed. When it was not significant, the effect size was zero since there was no effect.

4. Further analysis of the post hoc through t test statistics for equality of means was conducted to specify the pairs of writing scores that were significantly different.

5. Trend analysis was carried out through the curve fits to find the developmental patterns of reading amounts and writing scores. To find the trend, the mean scores of the writing tests of an individual in the high and low groups and his/her corresponding reading amounts collected from the first to third series were plotted. After that, the line graphs representing reading/writing relations of the high and low groups were considered and the patterns were identified.

3. Relationships between reading amounts and writing scores

The correlation coefficient was adopted to measure the degree to which the two sets of variables, reading amounts and writing scores, were associated so as to answer the research question: “What are the relationships between reading amounts and writing scores of readers in the high and low groups?”

Through correlation analysis, both reading amounts and writing scores, which were collected simultaneously at three intervals, could be compared for quantitative values although they differed in general traits. Since both sets of the compared variables of the two groups were interval, the Pearson’s Correlation was applied for computations. Statistical procedures were accomplished to test the hypothesis, $H_1 : \rho = 0$. The following were the statistical procedures performed in the present study:

1. Examining if the means scores of reading amounts and writing tests were appropriate for use with Pearson’s Correlation. According to Sprinthall (2000), the following requirements must be met:

- The sample has been randomly selected from the population.
- The traits being measured are normally distributed.
- Measurements of both distributions are in the form of, at least, interval data.
- The variation in scores in both the X and Y distributions must be similar. This property, known as homoscedasticity, may be assumed unless either of the distributions is markedly skewed.

Based on the requirements above, the two sets of variables were found to be valid for all except for the fifth requirement. Computations of the data through the SPSS program generally provide correlation levels; the interpretations, according to Guilford (1959, cited in Sprinthall, 2000: 217), may only be used when the correlation coefficient is significant. When that occurs, it means the relation between two sets of variables is linear; when there is no correlation, it is not,

thus indicating nonlinear relationships. Therefore, the linear assumption was already included in the results of the computation, and there was no need to test it beforehand.

2. Performing the computation of correlation coefficients using the SPSS program.

4. Perceptions of the subjects' reading development over time

Two sets of dependent variables were investigated in response to the last research question, "What are the subjects' perceptions of their reading development through time?" The first set, in which the subjects rated degrees of magnitude from their opinions in a rating-scale survey, specified the subjects' growth of reading strategies and progress and reading motivation, whereas the other set, which was open-ended questions, provided reasons for reading and not reading at the subjects' discretion. Both types of data were collected after each subject finished reading one book; therefore, it appeared that the obtained evidence covered every single range of reading quantities. However, for convenience in making generalization in terms of logical sequences of progress in reading ability of the readers in both groups, only data drawn from specific amounts of reading were chosen for analysis. The chosen amounts were data gathered when readers read 50, 100, 150, 200, 250, 300, 350, and 400 pages, respectively.

For the analysis of the five-point scale data, the SPSS program was used to generate descriptive statistics for the answers supplied by the subjects in each reading group. The emphasis of the calculation was on measurement of central tendency, standard deviation, and coefficient of variation, which provided percentage of dispersion of the respondents' responses. The description of data (in Chapter Four) is in the form of tables comparing the extent to which the high and low reading groups developed their readiness for reading. Data were analyzed based on certain ranges of specific degrees of intensity, i.e. 1.00-1.50 for the lowest degree, 1.51-2.50 for low degree, 2.51-3.50 for moderate degree, 3.51-4.50 for high degree, and 4.51-5.00 for the highest degree.

With regards to the reflected justifications for continuing and stopping reading engagements and reasons for reading over 15 weeks, the data were obtained from content analysis based on recurring themes. Most of the obtained responses contained no more than three relatively brief reasons for each topic. These responses, first of all, were categorized, according to

reader types and page numbers following the same grounds as those mentioned above, i.e. from 50, 100, 150, 200, 250, 300, 350, and 400 pages, respectively. After that, all reflections were content analyzed through tallying frequency of recurring themes. Each theme, then, was identified either as an intrinsic or extrinsic type of motivation before finalizing the subjects' overall perceptions regarding their reasons for reading or not reading.

Preliminary findings

Although the experiment began with one group of subjects, by the end, when all the reading amounts were totaled, the group was divided into two groups due to the distinction between quantities of reading individual subjects had completed. Such different volumes of exposure to language input, according to previous evidence, affect readers' language ability differently. Therefore, data drawn from those who read higher and lower amounts were used for comparison in order to differentiate their language improvements. All statistical formulas adopted were, therefore, based on the amounts of reading done by readers in the high and low groups and on the results of differences between the pretest mean scores, which, again, were computed by the end of the treatment. It is, therefore, essential that the conclusion of reading amounts done by readers in both groups be described as a preliminary finding from the outset as they affected the subsequent statistical procedures.

1. Reading amounts

The total amounts of reading done by readers in this study comprised a combination of number of pages drawn from the reading course book and the simplified books. The 44 pages from the first source or IR were added to the total pages from the ER done by each reader. After both sources of reading amounts were totaled by the end of the semester, the figures suggested that two groups of readers, one high and one low, should be distinguished. The lowest and highest reading amounts performed by all subjects, i.e. 79 and 481 pages, allowed the researcher to separate the groups based on the medium (250 pages), which was at the center of the data distribution. With that division, the number of readers in each group became equal (17), yielding a favorable condition for subsequent comparison, both in terms of reading amounts and number of data for further analysis. Furthermore, each group comprised readers who read at a

wide range of amounts, from very low to very high. Also, as there were only two males in the original sample, it turned out that each belonged to one of the two groups, making the bias in terms of gender unproblematic. However, it should be noted that the so-called 'high' and 'low' groups are used in this study only to separate the type of readers. It does not represent any real high or low quantities of reading per se. Presented in Table 3.2 below are the descriptive data showing reading amounts completed by the two groups of readers.

Table 3.2 Amounts of reading of the low and high groups

Data collection series		N	Min.	Max.	Mean	S.D.
High	Time 1	17	23	149	68.18	34.417
	Time 2	17	54	306	172.59	69.507
	Time 3	17	252	481	364.35	52.817
Low	Time 1	17	19	60	34.88	12.155
	Time 2	17	46	141	82.59	26.975
	Time 3	17	79	247	147.41	49.223

As can be seen from the table, the highest reading amounts of IR and ER readers in the low and high groups made by the end of the semester were 247 and 481, respectively. Therefore, the division could be made roughly at 250 pages. Noticeably, the average pages at the first two sessions made by the high group were twice higher than those made by the low group. However, for the last session, the amounts the high group could complete were more than two times of those made by the low group. On average, the low group read 147 pages in 15 weeks or approximately one and a half pages a day, whereas the high group read 364 pages or three to four pages a day.

The consequence of the subjects' reading amounts, apart from affecting the research design and statistics to be adopted, reduced the weakness of the original one-group design. Simply put, even though there was no control group, the low reading group could compensate for such deficiency. The only difference is that, instead of having done no reading at all, the readers

in the low group experienced less exposure to language input. As a result, it allowed the researcher to investigate the effects of the ER Plus activities between those who read more and fewer amounts of reading. Furthermore, although eventually there were two groups of readers, the majority shared most of the necessary traits since they were of the same major. Particularly, these subjects had been through the same academic phenomenon from their first year. Errors that would contaminate or diminish the reliability of the findings due to variations on the subjects of the study could, then, be lessened.

2. Equality of pretest scores of the high and low groups

The two groups of readers were not prepared to be equal prior to the treatment the same as do other experiment and control group designs per se. In fact, all the pretest data were computed after the groups were formed, which was at the end of the experiment. As a result, it was necessary that statistical analysis be performed to examine if such data were actually equal so that statistical formulas could be chosen correctly and appropriately. Also, if it was found that the pretest variables of both groups were equal, then the researcher could feel fairly confident in making all other crucial conclusions regarding the effects of the ER Plus activities and in comparing the two groups on the same basis.

In responding to such requirements, the independent t-test was run first to examine the equality between the mean scores of all the pretest measurements of the high and low reading groups. The results of the computations revealed no difference between all pairs of the pretests of the high and low groups for reading-related abilities, which included reading comprehension ability tests, reading speed and comprehension tests, and comprehension of narrative tests. In sum, although initially the two groups of readers were not statistically prepared to have equal reading abilities, it turned out that they were equivalent after being grouped based on the amounts of reading they had done. However, for writing ability, readers in the two groups were not equal before receiving the treatment. Thus, they could not be compared between groups. Detailed data of all the analyses are illustrated in the result section of each statistical computation.

CHAPTER IV

RESULTS OF THE STUDY

This research strove to explore the effects of ER on low-ability EFL learners in relation to their reading comprehension ability, reading speed, reading comprehension of narratives, and writing ability. As regards writing ability, the study also sought to discover whether there were any relationships between the increased reading amounts versus their corresponding writing scores and patterns of writing development over time. Essentially, the study intended to exhibit the development of reading strategies and motivation of readers who had spent time reading extensively in a series of four months' time. In this chapter, the results of data analysis in response to the three main research objectives will be elaborated. The emphasis will be placed on displaying the results of the quantitative analyses with some support from qualitative findings.

Results of the Study

The subsequent section involves explanations of the research results, which will be classified into three main topics in accordance with the research objectives, from reading-related ability, to writing-related ability, and to reading development issues.

Figures 4.1 List of data collection to measure the effects of ER Plus activities

Topic	Data collection
Reading	Reading comprehension abilities
	Reading speed and comprehension
	Comprehension of a narrative
Writing	Writing abilities
	Developmental patterns of reading amounts and writing scores
	Relationships between reading amounts and writing scores
Perceptions	Reading strategies
	Reading motivation
	Reasons for reading and not reading

1. Effects of ER Plus on reading-related abilities

The first set of research results addresses the first question that looks for mean differences of reading tests of readers in the two groups. The findings revealed the effects of the ER Plus activities on the subjects' reading comprehension ability, reading speed, and reading comprehension of narratives.

1.1 Effects of ER Plus on reading comprehension ability

The first series of research question states, "Do ER Plus activities have a significant effect on the reading comprehension ability of the subjects in the high and low groups? If they do, what are their effect sizes?" The research hypothesis to be tested is as follows:

- The posttest mean scores of reading comprehension of the subjects in the high group are significantly higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).

To address the questions, the t-test between groups statistics were adopted to first analyze the differences between the average pretest scores of readers in both groups. When it was found that both groups were equal in such measures, then, their posttest mean scores could be compared by the same statistics. Detailed results as displayed in Table 4.1 below show descriptive statistics of the pretest and posttest mean scores of the readers in both groups.

Table 4.1 Descriptive statistics of reading comprehension ability test

Group	Test	N	Mean	S.D.	Std. Error Mean	Mean Diff.
High	Pre	17	15.71	4.499	1.035	
	Post	17	19.65	4.269	1.091	3.94
Low	Pre	17	13.76	2.705	.656	
	Post	17	15.06	3.816	.925	1.29

As can be seen from Table 4.1, for the pretests, the subjects who read less had their average mean scores only two points lower than those who read more. However, at the posttests, the heavy readers gained twice the mean scores achieved by the light ones. However, the variations of all scores were not large, as evidenced by the S.D. values. To further determine whether the increased scores of both groups are, in fact, significantly different, the output is displayed in Table 4.2.

Table 4.2 Differences between groups in reading comprehension tests

Test types	Levene's Test for Equality of Variances			t-test for Equality of Means				
	Variances	F	Sig.	t	df.	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretests (High & Low groups)	Equal variances assumed	2.191	.149	-1.584	32	.123	-1.94	1.226
Posttests (High & Low groups)	Equal variances assumed	1.118	.298	.298	32	.003*	.298	.298

* $p < 0.05$

According to Table 4.2, the results of the F test for significance of variances of the pretests and posttests mean scores revealed that the data had equal variances ($p > .05$). Based on such indicators, further observations for the probability of the t-test values relied on numerators of the 'equal variances assumed' row to determine the equality of each pair of the average scores. From the display, the probability values of t-test differed between the pretests and posttests. For the pretests, the t value of .123 pointed out that, between the two groups, there was no difference.

To put it simply, statistical analysis revealed that prior to the treatment the readers in both groups had equal reading comprehension ability.

However, the probability value of the posttests showed different results. The t value was .003 indicating that the mean scores of both groups were significantly different ($p > .05$) with the high group scoring higher. Hence, the research hypothesis was accepted. Since the two groups were of equal ability at the beginning, the treatment, in this case the subjects' exposure to an average of 364 pages of language input, certainly contributed to the increased reading comprehension ability of readers in the high group.

Nevertheless, for the sake of usefulness for practitioners, the effect size was calculated for the significant differences of the posttests. Results derived from Cohen D 's formula revealed that the effect size was relatively large ($d > .80$), i.e. 1.10. Such an indicator signifies the high value of practicality and usefulness of the higher volumes of exposure to language input resulting from the effects of the ER Plus activities.

Subsequently, to address the second and third series of research question number one, the results of two skills of reading, i.e. reading speed and reading comprehension of narratives, will be illustrated. The first skill comprised two parts: the timed reading (measured number of words per minute the subjects had accomplished) and the assessment of comprehension of the timed reading text (measured by means of multiple-choice questions). The second skill, reading comprehension of a narrative, measured the extent to which the subjects understood a story, so they were required to translate the story into Thai solely from their understanding. Overall, there were three sets of findings run by t -test statistics to compare sample means of the three measurements: timed reading, comprehending the timed reading text, and comprehension of a narrative, all of which related closely to the measurement of the ER engagement.

1.2 Effects of ER Plus on reading speed

The research results addressed the questions, "Do ER Plus activities have a significant effect on the reading speed of the subjects in the high and low groups? If they do, what are their effect sizes?" The research hypotheses to be tested are as follows:

- The posttest mean scores of reading speed of the subjects in the high group are higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).
- The posttest mean scores of reading speed of the subjects in the high group are higher than those of their pretest at .05 level ($H_2 : \mu_1 > \mu_2$).
- The posttest mean scores of reading speed of the subjects in the low group are higher than those of their pretest at .05 level ($H_3 : \mu_1 > \mu_2$).

The details of scores of the high and low groups' reading speed are illustrated through descriptive statistics in Table 4.3 below.

Table 4.3 Descriptive statistics of reading speed tests

Group	Test	N	Mean	S.D.	Std. Error Mean	Mean Diff.
High	Pre	17	61.76	20.894	11.160	
	Post	17	133.65	46.015	5.068	71.88
Low	Pre	17	57.71	15.795	3.831	
	Post	17	83.65	35.392	8.584	25.94

As shown in Table 4.3, the mean scores, i.e. number of words individual subjects could read in one minute, in the pretests of both groups were rather close from the outset (around 58 and 62). In fact, they were not different statistically, based on the results of the independent t-test. However, after four months of reading, each with different amounts, the mean scores in the posttest of the low group increased by 25.94, whereas those of the high group increased by almost three times from their pretest. Table 4.4 provides detail of whether such discrepancies led to any significant values.

Table 4.4 Differences between groups in reading speed tests

Test type	Levene's Test for Equality of Variances			t- test for Equality of Means			
	Variances	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Pretests (High & Low groups)	Equal variances assumed	.565	.458	-.639	32	.527	-4.06
Posttests (High & Low groups)	Equal variances assumed	1.675	.205	3.551	32	.001*	-50.00

* $p < 0.05$

According to Table 4.4, the probability values of the F test were .565 and 1.675 for the pretests and posttests, respectively, indicating that the t-test equal variances assumed values must be used. Further observations of the probability of the t-test between groups of the pretests indicated clearly that there was no difference between reading speed of the readers in both groups (sig. = .527). That is, they were equal statistically in their speed of reading before they received the treatment.

In contrast, for the results of the posttest differences between the high and low groups, the significance level at .001 ($p < .05$) suggested that the posttest mean scores of both groups were statistically significantly different. To clarify, the mean scores of the high group were statistically significantly higher than those of the low group. The first research hypothesis was, therefore, accepted. It is highly possible (95%) that the discrepancies in reading speed of EFL students in this study were due to the fact that the high group read an average of 217 pages more than the low group.

Further calculation of the effect size to estimate the practicality significance of the results also showed that the size of the experiment effect was rather large ($d > .80$), i.e. $d = 1.22$. This indicated that the higher volumes of exposure to language input resulting from the effects of ER Plus were truly useful in accelerating reading speed among EFL learners.

It seemed that, when a comparison was made between groups, the low reading amounts may not yield any benefits to the readers' speed of reading. It would, thus, be useful to look further whether such amounts, when compared within its own attributes, provided similar information. Below are the findings of mean differences within each group of readers run by dependent t-test statistics.

Table 4.5 Differences within groups in reading speed tests

Group/Test	Mean	S.D.	t-value	df	Sig.(2-tailed)
High (post-pre)	71.88	50.365	5.885	16	.000*
Low (post-pre)	25.94	32.318	3.310	16	.004*

* $p < 0.05$

According to the table, when the mean scores of the pretest and posttest of each group were compared on its own, the t values for the low and high groups were at 3.310 and 5.885 with an associated significance level of .004 and .000, respectively. The probability levels signified that the posttest mean scores of both the high and low groups were significantly different from those of their corresponding pretests ($p < .05$), thus indicating that the second and third hypotheses set previously for both groups were accepted. It can, then, be concluded that being exposed to language input from approximately 147 pages upward favorably affected the speed of reading of EFL readers in this study. However, the ranges of improvement could be different.

Again, to determine whether the above statistical values of the computed data provided usefulness in terms of practicality, the effect sizes were calculated. Results demonstrated large

effect sizes for the significant values of both groups as well, i.e. $d = 1.14$ and 2.02 for the low and high groups, respectively. Such indicators signified the effectiveness of the ER Plus in enhancing the reading speed of readers who read for at least approximately 150 pages.

1.3 Effects of ER Plus on comprehension of the timed text

The findings were to answer the research question, “Do ER Plus activities have a significant effect on the comprehension of the timed reading text for the subjects in the high and low groups? If they do, what are their effect sizes?” The research hypotheses are set as follows:

- The posttest mean scores of comprehension of the timed text for the subjects in the high group are higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).
- The posttest mean scores of comprehension of the timed text for the subjects in the high group are higher than those of their pretest at .05 level ($H_2 : \mu_1 > \mu_2$).
- The posttest mean scores of comprehension of the timed text for the subjects in the low group are higher than those of their pretest at .05 level ($H_3 : \mu_1 > \mu_2$).

Details of scores of the high and low groups are described in the form of descriptive statistics in Table 4.6 below.

Table 4.6 Descriptive statistics of comprehension of the timed text tests

Group	Test	N	Mean	S.D.	Std. Error	Mean
					Mean	Diff.
High	Pre	17	2.29	1.896	.460	
	Post	17	3.76	1.602	.389	1.47
Low	Pre	17	2.06	1.713	.415	
	Post	17	3.41	2.063	.500	1.35

Since the multiple-choice test items that measured comprehension of a one-page narrative were small in number (only ten) and the subjects did the test from their memory, the mean scores achieved by readers in both groups were relatively low. In addition, as shown in

Table 4.6, the mean scores of the high and low groups were very close as were the standard deviation values. However, to determine whether such discrepancies caused any significant differences, the results of the independent t-test statistics are presented in Table 4.7 below.

Table 4.7 Differences between groups in comprehension of the timed text tests

Test type	Levene's Test for Equality of Variances			t- test for Equality of Means			
	Variances	F	Sig.	t	df	Sig. (2-tailed)	Mean Dif.
Pretests (High & Low groups)	Equal variances assumed	.003	.957	.380	32	.707	-.24
Posttests (High & Low groups)	Equal variances not assumed	4.202	.049	-.557	30.148	.582	-.35

According to Table 4.7, the probability of F test for the compared pretests and posttests were .957 and .049, respectively, indicating that the variances of the former were equal, whereas those of the latter were not. Different types of t values were required, then. Further consideration of the t-test for equality of means revealed that the probability values of t for the pretests and posttests were .707 and .582, respectively. The significance values of both tests exceeded .05, meaning that the mean scores of pretests and posttests of both groups were not different. As a result, the first research hypothesis was rejected. It can be inferred that after being engaged in the ER Plus activities and read at different quantities, the subjects in both groups had similar gains in scores in comprehension of the timed reading text. Put another way, the quantities of reading did not affect their understanding of the story they had read.

The aforementioned results provided data between groups but did not signify whether reading at different amounts affected comprehension of narratives of the readers in each group. Below are the findings computed by means of dependent t-test to compare differences between mean scores of each group's pretest and posttest.

Table 4.8 Differences within groups in comprehension of the timed text tests

Group/ Test type	Mean	S.D.	t-value	df	Sig. (2-tailed)
High (post-pre)	1.47	2.401	2.525	16	.022*
Low (post-pre)	1.35	2.621	2.129	16	.049*

* $p < 0.05$

According to the table, the differences between the mean scores of the pretests and posttests of the readers in both groups were almost identical as did the probability values, which were .049 for the low and .022 for the high. Those significant levels ($p < .05$) suggested that, within each group, their pretest and posttest mean scores were significantly different. Thus, for both groups, the posttest scores were statistically higher than those of the pretest, signifying that the second and third hypotheses were accepted. Since the t-test between groups revealed that both groups were not different from the beginning and by the end of the treatment, then the readers of both groups must have gained at almost the same range of scores. In conclusion, even being exposed to language input at relatively low amounts (147 pages) in 15 weeks could contribute to the improvement of EFL students' comprehension of the timed reading of a short narrative when measured by a multiple-choice test.

The significant differences within means of readers of both groups required additional calculations of effect sizes to specify practical effects of the results. Findings deriving from the calculation by Cohen D's formula revealed moderate size for the low group, i.e. $d = .73$, and large size for the high group, i.e. $d = .87$. It can be inferred that reading larger amounts is

more effective in enhancing the readers' comprehension of a narrative than reading lower amounts.

1.4 Effects of ER Plus on reading comprehension of a narrative

The research results address the third series of research questions stating "Do ER Plus activities have a significant effect on the reading comprehension of a narrative for subjects in the high and low groups? If they do, what are their effect sizes?" The research hypotheses were set as follows:

- The posttest mean scores of comprehension of a narrative for the subjects in the high group are higher than those of the low group at .05 level ($H_1 : \mu_1 > \mu_2$).
- The posttest mean scores of comprehension of a narrative for the subjects in the high group are higher than those of their pretest at .05 level ($H_2 : \mu_1 > \mu_2$).
- The posttest mean scores of comprehension of a narrative for the subjects in the low group are higher than those of their pretest at .05 level ($H_3 : \mu_1 > \mu_2$).

Details of data regarding comprehension of a narrative test of the high and low groups are described through descriptive statistics below.

Table 4.9 Descriptive statistics of comprehension of narrative tests

Group	Test	N	Mean	S.D.	Std. Error	Mean
					Mean	Diff.
High	Pre	17	16.11	16.483	3.998	
	Post	17	37.41	26.255	6.368	21.30
Low	Pre	17	11.23	11.970	2.903	
	Post	17	31.05	28.403	6.889	19.82

As shown in Table 4.9, prior to the experiment, the mean scores of comprehension of a story of readers in both groups differed slightly, and they were proved to be statistically equal by the t-test between means analysis. As regards the posttests, both the high and low groups gained approximately two times from their pretest mean scores. The independent t-test results in Table 4.10 illustrate if such differences are actually significant.

Table 4.10 Differences between groups in comprehension of narrative tests

Test type	Levene's Test for Equality of Variances			t- test for Equality of Means			
	Variances	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Pretests (High & Low groups)	Equal variances assumed	.549	.464	-.988	32	.331	-4.88
Posttests (High & Low groups)	Equal variances assumed	.016	.900	-.678	32	.503	-6.36

According to the table, the probabilities of F test for the pairs of pretests and posttests were at .464 and .900, respectively, both of which exceeded .05, indicating that the results of the t-test equal variances assumed must be used. Based on the t-test for equality of means, similar results have been found. The significance t values of the pretests and the posttests, .331 and .503, respectively, exceeded the p value of .05. Thus, the mean scores of both groups were not different both before and after the treatment, based on the t-test independent run. As a result, the first research hypothesis was rejected. It could be inferred that the effects of ER Plus in terms of exposure to language input from an average of 147 to 364 pages did not make any difference in the readers' comprehension of a narrative, if measured by means of translation. The results, though sufficient to answer the research question, did not signify if such diverse quantities of reading had any impacts on reading comprehension of the readers in each group. The

dependent t-test that calculated the within means of both groups provided more information, as displayed in Table 4.11 below.

Table 4.11 Differences within groups in comprehension of narrative tests

Group/Test type	Mean	S.D.	t-value	df	Sig. (2-tailed)
High (post-pre)	21.30	19.034	4.614	16	.001*
Low (post-pre)	19.82	27.426	2.980	16	.009*

* $p < 0.05$

When the pretest and posttest of each group were compared, the t values for the low and high groups were at 2.980 and 4.614 with an associated significance level of .009 and .000, respectively. The probability levels indicated that the pretest and posttest of the readers in each group were significantly different at the level of .05 ($p < .05$). For both groups, the posttest mean scores were statistically higher than those of the pretest, thus indicating that the second and third hypotheses set previously for them were accepted. It could, then, be concluded that reading from approximately 147 pages could contribute to the enhancement of EFL readers' reading comprehension of a story.

Further calculations for the effect sizes of the significant differences were performed. Results demonstrated that the obtained significance values of both groups had considerably large effect size ($d > .80$), i.e. $d = 1.02$ and 1.59 for the low and high groups, respectively. Therefore, the effects of ER Plus on the subjects' comprehension of a narrative have a high practical value when the amounts of exposure to language input exceed 150 pages on average.

1.5 Summary: Effects of ER Plus on reading-related abilities

Based on the overall statistical analyses, the three sub-skills of reading were found to be enhanced differently by the effects of ER Plus when EFL learners were engaged in reading

ER Plus materials at different volumes. First, reading approximately 147 pages for 15 weeks did not help readers increase their reading comprehension ability when measured by a reading comprehension test, while reading about 364 pages did. Therefore, reading more leads to better comprehension. Second, low and high amounts of reading affected the enhancement of the readers' reading speed differently. In other words, reading one and a half pages could help readers increase their reading speed approximately 26 word per minute, while reading three to four pages could increase that to 72 word per minute. Third, the ability in reading comprehension of narratives of the readers in both groups was the same for within and between groups means comparisons. That is, all readers statistically increased their abilities in understanding of narratives measured by a multiple-choice test and by translation of the story. For the three measurements, the effect sizes were relatively large, i.e. 1.37 (comprehension test: high group only), 2.02 (reading speed: high group only), and 1.59 and 1.02 (comprehension of narratives: high and low groups). Those effect sizes signify a relatively high value of the ER Plus activities as a means to enhance each area of reading ability among EFL learners in similar contexts to this study.

2. Effects of ER Plus activities on writing-related abilities

In this part, results of data analysis regarding the subjects' writing abilities involve three different statistical formulas. First, RMANCOVA was used to find equality of categorical mean differences. Second, trend analysis was utilized to predict the developmental patterns of writing scores in relation to their corresponding reading amounts. Third, correlation coefficient was employed to determine correlations between reading amounts and writing scores, all of which responded to research question number two.

2.1 Effects of ER Plus on writing abilities

The research results to be described will respond to the first series of research question number two, "Do ER Plus activities have a significant effect on the writing ability of the subjects in the high and low groups? And, if they do, what are the effect sizes?" The RMANCOVA was adopted to test the research hypotheses set as follows:

• There are differences between the mean scores of at least one pair of the first, the second, and the third tests of writing ability of the subjects in the high group at .05 level or $H_1: \mu_i \neq \mu_j, i \neq j$.

Table 4.12 Descriptive statistics of writing ability tests

Group	Test	N	Mean	S.D.	Std. Error Mean
High	Pre	17	47.59	6.246	1.515
	1 st	17	50.94	6.129	1.486
	2 nd	17	51.97	7.821	1.897
	3 rd	17	52.32	7.506	1.821
Low	Pre	17	41.71	7.726	1.874
	1st	17	42.09	7.523	1.825
	2nd	17	46.21	8.378	2.032
	3rd	17	45.44	10.247	2.485

From Table 4.12, the differences between the pretest mean scores of the readers in both groups were somewhat large, and the findings of the t-test between groups confirmed that they were statistically different prior to receiving the treatment. Although the categorical mean scores performed by the subjects in both groups displayed a tentatively steady increase, particularly for the heavy readers, the differences were trivial in numbers. Results from subsequent computations of RMANCOVA could indicate whether all the differences of mean scores were significant.

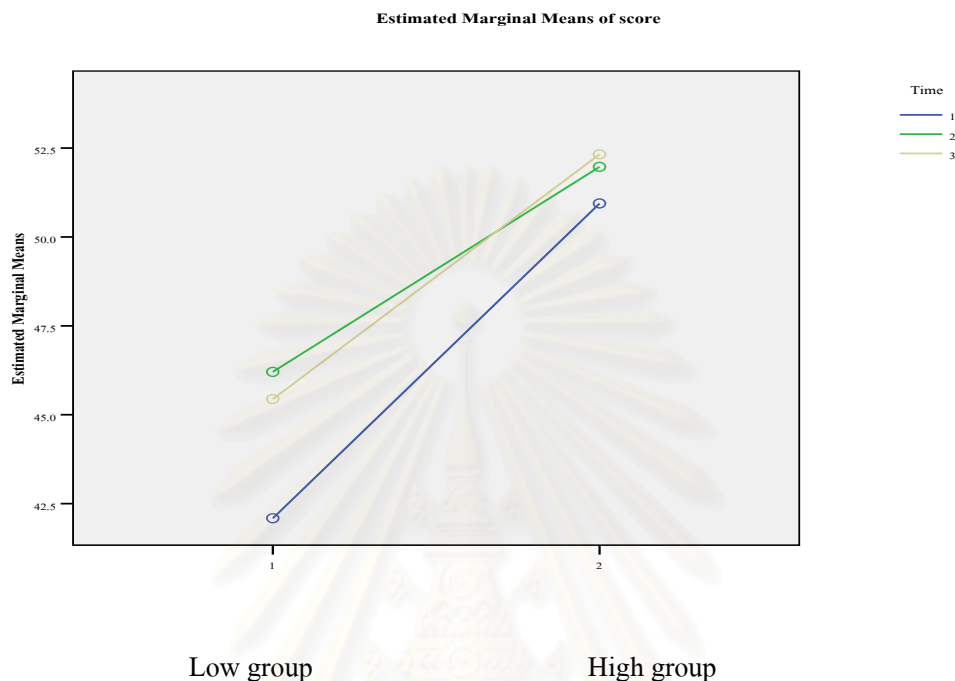
Table 4.13 Test of within-subjects effects of writing scores

Source	Measure	Sphericity test	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Writing scores	Score	Sphericity Assumed	17.649	2	8.825	1.002	.373	.193
Writing*	Writing pretest	Sphericity Assumed	35.143	2	17.572	1.996	.145	.067
Writing*	Group	Sphericity Assumed	63.448	2	31.724	3.603	.033*	
Error (Writing)	Score	Sphericity Assumed	545.886	6	8.805			

* $p < 0.05$

The output for within-subjects effects above displays the findings in relation to the main and interaction effects of the three sets of writing scores of the readers in both groups. From the table, there is an interaction between the three sets of writing scores and group types as signified by the significant values ($p < .05$). This means the subjects' ability (based on high and low pretest scores) affected their writing ability. The effect size of the interaction shown by Partial Eta square gave a relatively small value (.10) for practical significance, thus signifying low effect of such relations. It should be noted that the time differences (1st series, 2nd series, and 3rd series) did not affect the subjects' writing scores. Since group types influenced the subjects' writing ability, their effects must be examined separately. The graph below displays the influence of reading amounts at three intervals on writing ability of the readers in each group.

Figure 4.2 The interaction effects of ER Plus on writing scores



According to the line graph, writing scores of the subjects in both groups showed an increase pattern. However, for the high group, the range of writing scores was narrower than that of the low group although their reading amounts at three series were much higher, i.e. 68, 172, and 364 pages compared to 34, 82, 147 pages of the low group. For the low group, their second and third sessions' writing scores were very close and showed a reverse direction. From the graph, it could be concluded that reading more amounts did not signify an increase in writing scores. Further computation of post hoc analysis to examine mean difference of writing tasks performed by readers in both groups at three time points indicated that, for the high group, all the immediate pairs of writing scores were not significantly different at all. However, for the low group, scores of the first writing task were significantly different from those of the second and third tasks. Table 4.14 displays the results of post hoc analysis of writing mean scores of the readers in the low group.

Table 4.14 Mean differences of writing scores of the low group

	1 st Writing	2 nd Writing	3 rd Writing
1 st Writing	46.515	49.088*	48.882*
2 nd Writing			
3 rd Writing			

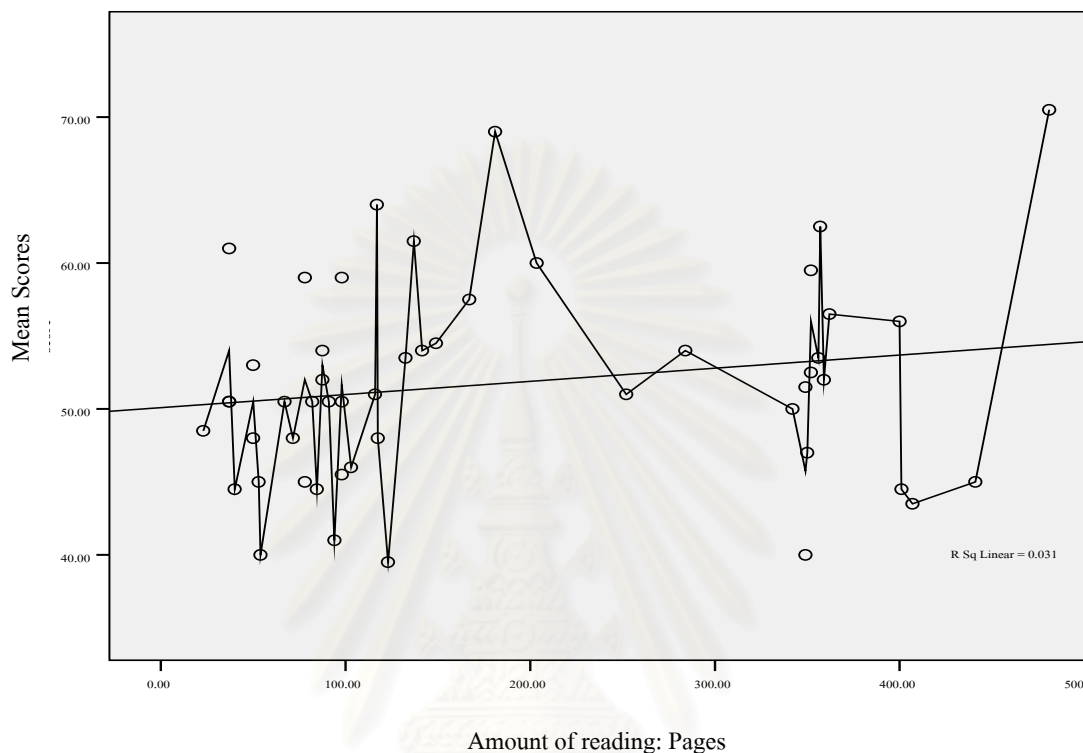
* $p < 0.05$

According to the post hoc analysis which is a procedure of RMANCOVA, among all the immediate pairs of writing mean scores performed by the readers in the low group, there were two pairs that were significantly different ($p < .05$). That is, the mean scores of the first and the second series and the first and the third series of writing tasks were statistically different. As a result, the hypothesis set for the low group was accepted, while that of the high group was rejected. The findings seem to suggest that reading less than 100 pages could contribute to the enhancement in the readers' writing abilities. If that is true, the findings did not support the connection between reading input and writing production since writing mean scores of those in the high group who read many more pages did not show any significant difference. However, the findings confirmed the results of the correlation computations (to be subsequently reported) that yielded trivial correlation coefficients between reading amounts and writing scores.

2.2 Effects of ER Plus on the developmental patterns of reading amounts and writing scores

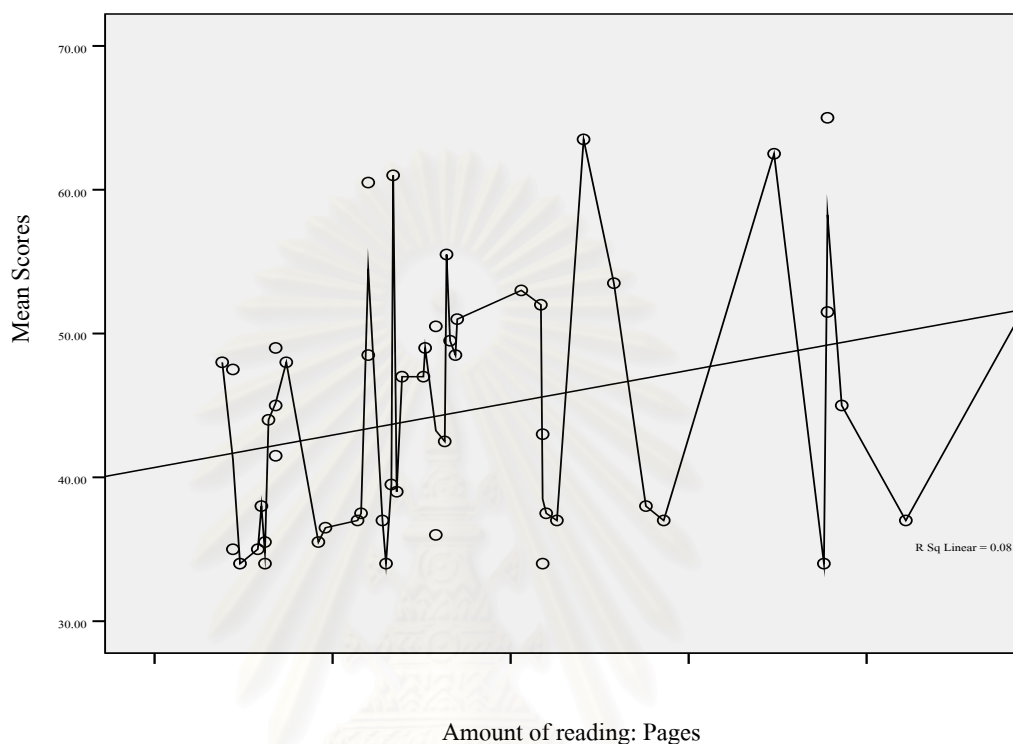
The effects of the language input resulting from the ER Plus activities on the development of the subjects' writing ability were computed through trend analysis of the SPSS program. The results of the computations for the high and low groups will be illustrated through line graphs to address the research question, "What are the developmental patterns of reading amounts and writing scores of the subjects in the high and low groups?"

Figure 4.3 Developmental patterns of reading amounts and writing scores: High group



As displayed in Figure 4.3 above, the graph portrays how writing ability of the subjects in the high group had been developed in correspondence with the different ranges of reading amounts they had made throughout the 15 weeks of the treatment period. It was seemingly clear from the line graph that the wide ranges of reading quantities, i.e. from 23 to 481 pages, and of the writing scores, from around 40 to 70, produced no systematic pattern of graphic development. Also, the significant level at .007 and .017 of the linear and quadratic patterns confirmed that the development of writing scores were neither of both types. In other words, no systematic pattern was found; writing scores could be either high or low across different quantities of readers' exposure to language input. Furthermore, the R square level or Sq of .03 could predict the dependent variably by only less than 3 %.

Figure 4.4 Developmental patterns of reading amounts and writing scores: Low group



According to Figure 4.4, the developmental pattern of the writing abilities of the subjects in the low group across 15 weeks of different volumes of reading was similar to that of the high group. The different extents of reading amounts performed by the subjects, i.e. from 19 to 247 pages, and of their writing scores, from 34 to 65 pages, may have affected the graph similarly. As a result, there was no systematic sign to indicate any patterns of improvement in writing abilities of those who read fewer than 200 pages. Scores could be either up or down at any ranges of the reading volumes. Besides, the regression line could predict only 8 % of the dependent variables, according to the R Sq value.

2.3 Relationships between reading amounts and writing scores

The correlation coefficient was adopted to answer the third series of the research question number two, “What are the relationships between reading amounts and writing ability of the subjects in the high and low groups?” The following hypotheses were set for testing:

- There is no relationship between reading amounts and writing ability of the subjects in the high group at .05 level ($H_1 : \rho \neq 0$).

- There is no relationship between reading amounts and writing ability of the subjects in the low group at .05 level ($H_2 : \rho \neq 0$).

Results of the relationship between reading amounts and writing ability of the subjects in the high and low groups are displayed in the form of correlation matrix in Tables 4.15 and 4.16, respectively.

Table 4.15 Correlation matrix of reading amounts and writing scores of the high group

	1 st Reading amounts	2 nd Reading amounts	3 rd Reading amounts
1 st Writing	.356		
2 nd Writing	.530*	.273	
3 rd Writing	.432	.050	.187

* $p < 0.05$

The table displays the results of the correlation of the writing scores and reading amounts of the high group. As can be seen, the mean scores of the pre-writing task, which was collected before the subjects began their reading engagement, correlated highly (.727) with the first series' amounts of reading. However, this may not indicate anything since the subjects may have performed their writing without being influenced by the language input. Nevertheless, the more the subjects read during the second and third series of data collection, the less the coefficient values, i.e. from .356, .273, to .187, respectively. The findings indicated that the research hypothesis was rejected. As a consequence, it could be concluded that between the two variables that were collected simultaneously, there was no statistical correlation. It seemed that

the amounts of exposure to language input did not indicate the improvement of the scores in writing tasks of the EFL readers in this study.

Table 4.16 Correlation matrix of reading amounts and writing scores of the low group

	1 st Reading amounts	2 nd Reading amounts	3 rd Reading amounts
1 st Writing	.417		
2 nd Writing	.426	.543*	
3 rd Writing	.134	.395	.246

* $p < 0.05$

Table 4.16 displays the results of correlation coefficients of the readers in the low group's writing scores and their corresponding reading amounts collected at the three different sessions. As can be seen, the results do not seem to support the belief that the more one read, the better one's writing ability. This is because among the three pairs of variables collected at the same series, only one (the second-session pair of reading amounts and writing scores) was significantly correlated at a moderate level, i.e. .543. This positive relation signifies that about 25 percent of the variation in writing scores was accounted for by variation in the reading amounts. In such a case, the first hypothesis was rejected as there was at least one correlated pair. The other two pairs of variables were not correlated statistically. Based on such findings, there was no sufficient evidence to show that the larger the reading amounts, the higher the writing scores of these EFL learners who were exposed to language input of approximately 147 pages.

2.4 Summary: Effects of ER Plus on writing-related ability

Results from the computations of three different statistical formulas aiming to address the reading-writing relationship were somewhat similar in support of the inconsistent relation of the two variables. First, the RMANCOVA and post hoc analyses demonstrated that

reading fewer than 100 pages affected the readers' writing ability positively, while reading more than that did not. Second, results from the trend analysis using the SPSS program provided more detail of the relationships between the effects of increased language input and writing scores collected concurrently. That is, no systematic pattern of relationship between the two variables was revealed in the plotted graphs no matter what ranges of input the readers were exposed to. Third, results from the correlation coefficients confirmed those generated through the trend analysis. To clarify, among the six matching pairs of reading amounts and writing scores, both of which were collected simultaneously, only one was found to correlate at a moderate level. For the others, the findings suggested that the more exposure to language input, the less the values of correlation coefficients. Based on the correlated pair, reading fewer than 100 pages also enhanced the readers' writing ability statistically. In conclusion, although some small degrees of relationship were found between reading and writing, findings from the three sources of statistical computations did not suggest that higher exposure to language input led to the improvement in writing abilities of EFL readers in this study.

3. Perceptions of reading development over time

The description of research results drawn from the perception surveys explains how readers who read at different ranges of quantities differed in their perceptions of their own reading development over time, which responded to research question number three. The three main aspects of reading development included reading strategies, reading motivation, and reasons for reading or not reading.

3.1 Reading strategies and motivation

The subjects' perceptions of reading strategies and progress and reading motivation were measured by five-point rating scale surveys and collected over time during a 15-week period. Therefore, there were all ranges of data to be analyzed. Nevertheless, it is noteworthy that only data collected at some specific amounts of reading were used so that the subjects' reading development could be identified over time. Results of the surveys will be displayed, firstly, by comparing responses from the two groups of readers. However, since the light readers read only 147 pages, the compared results will only comprise three sets of data taken

from the reading engagement of 50, 100, and 150 pages. In contrast, the highest amounts the heavy readers could achieve were 481 pages. Accordingly, the remaining sets of data will be displayed in one table informing the readers' perceptions when they read at 200, 250, 300, 350, and 400 pages, respectively. The analysis of the data was based on these certain ranges of intensity, i.e. 1.00-1.50 for the lowest degree, 1.51-2.50 for low degree, 2.51-3.50 for moderate degree, 3.51-4.50 for high degree, and 4.51-5.00 for the highest degree. Such ranges were used to explain (1) the degree of frequency that each reading strategy was used and (2) the level of agreement (from the least to the most) with each of the statement regarding reading motivation.



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Table: 4.17 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 50 pages on average

Reading strategies	High group	Low group
	Mean (CV)	Mean (CV)
(How often did you use these strategies while engaging in ER?)	Meaning	Meaning
	N = 17	N = 17
1. Word for word translation	3.00 (26.73)	2.65 (29.66)
	moderate	moderate
2. Reading for main ideas	3.00 (23.57)	3.00 (28.87)
	moderate	moderate
3. Understanding or translating story in Thai	3.00 (26.37)	3.24 (25.65)
	moderate	moderate
4. Understanding story in English	2.71 (28.49)	2.29 (25.68)
	moderate	low
5. Using a dictionary	3.06 (21.54)	3.35 (20.96)
	moderate	moderate
6. Guessing word meanings from contexts	2.88 (24.20)	3.00 (16.67)
	moderate	moderate
Self improvement in reading over time		
(To what extent do you agree with these statements?)		
7. I can understand the text better.	3.18 (25.44)	3.18 (27.77)
	moderate	moderate
8. I read faster.	2.88 (20.83)	2.71 (25.31)
	moderate	moderate
9. I am able to read better than previously.	3.18 (22.89)	3.24 (23.21)
	moderate	moderate
10. I spent less time on reading.	3.12 (19.23)	3.12 (22.34)
	moderate	moderate

Table: 4.17 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 50 pages on average (continued)

Reading motivation	High group	Low group
(To what extent did you experience these thoughts through time?)	Mean (CV)	Mean (CV)
	Meaning	Meaning
	N = 17	N = 17
11. Pleasure from reading	3.35 (25.73) moderate	3.24 (17.35) moderate
12. Enjoyment from reading	3.35 (23.46) moderate	3.24 (17.35) moderate
13. Confidence in reading	3.00 (26.37) moderate	2.76 (24.06) moderate
14. Desire to continue reading another story	3.59 (17.21) high	3.29 (17.87) moderate
15. Liking of English	3.12 (22.34) moderate	3.06 (18.17) moderate
16. Liking of reading	3.18 (22.89) moderate	3.00 (23.57) moderate
17. Desire to read although not assigned	3.06 (21.54) moderate	2.76 (32.72) moderate
18. Benefits of reading	3.76 (27.47) high	4.18 (25.69) high

According to the table, for the first 50 pages, the majority of readers rated themselves as users of both effective and ineffective strategies at a moderate degree of frequency. The strategies that readers in the high group used more frequently than those in the low group included word by word translation and understanding stories in English, whereas those that the light readers used more than the heavy ones were translating the texts into Thai, use of context clues to guess word

meaning, and use of a dictionary. As regards the progress of reading through time, both heavy and light readers recognized themselves as developing their comprehension, speed, progress, and time used in reading at a moderate level. Interestingly, all rated themselves exactly the same for their comprehension of the texts and the time they spent reading. Based on the coefficients of variation, the dispersion of scores most subjects rated for all aspects were not very wide as shown by the percentage extents of the CV values, which ranged from 20 to 30. This could be implied that the majority considered their utilization of reading strategies during their first stage of reading similarly.

Likewise, for the perception of reading motivation, the readers in both groups rated all motivational aspects at a moderate degree except for two issues. These included the benefits of reading which was rated by the readers in both groups at a relatively high degree, i.e. 3.76 for the low group and 4.18 for the high group. As for having a desire to continue reading another book, the high group perceived themselves at a relatively high degree (3.59). Based on some evidence from the reflection part, several readers, particularly those in the low group, had a number of reading problems at this early stage of reading, for instance, (S1) *"I could not translate so I did not understand the story,"* (S2) *"I am lazy to read, the story is so complex and difficult to understand,"* (S3) *"I feel hopeless when I know all the words but still can not make sense of the text,"* (S4) *"It's boring and not fun at all,"* etc. All these obstacles could affect the perceptions of the subjects' reading motivation and so it was rated mostly at a moderate level.

The coefficient of variations provided more evidence that the majority of the subjects rated 'desire to continue reading another book' at a relatively narrow range (about 17 %), while those in the low group rated for pleasure and enjoyment from reading and liking of English around that same degree. For the remaining aspects of the reading motivation, the percentage of score dispersion ranged from 21 to 32, which was not very wide either.

Table 4.18 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 100 pages on average

Reading strategies (How often did you use these strategies while engaging in ER?)	High	Low
	Mean (CV)	Mean (CV)
	Meaning	Meaning
	N = 17	N = 15
1. Word for word translation	3.12 (22.34) moderate	2.87 (17.98) moderate
2. Reading for main ideas	3.12 (15.54) moderate	3.07 (22.98) moderate
3. Understanding or translating story in Thai	3.06 (21.54) moderate	3.47 (21.41) moderate
4. Understanding story in English	2.88 (20.83) moderate	2.67 (23.11) moderate
5. Using a dictionary	3.06 (27.03) moderate	3.33 (27.03) moderate
6. Guessing word meanings from contexts	3.18 (25.44) moderate	2.73 (16.78) moderate
Self improvement in reading over time		
(To what extent do you agree with these statements?)		
7. I can understand the text better.	3.41 (25.51) moderate	3.13 (20.45) moderate
8. I read faster.	3.29 (17.87) moderate	2.67 (18.28) moderate
9. I am able to read better than previously.	3.35 (20.96) moderate	3.60 (14.08) high
10. I spent less time on reading.	3.00 (28.87) moderate	3.00 (25.20) moderate

Table 4.18 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 100 pages on average (continued)

Reading motivation (To what extent did you experience these thoughts through time?)	High	Low
	Mean (CV) Meaning N = 17	Mean (CV) Meaning N = 15
11. Pleasure from reading	3.65 (19.23) high	3.27 (14.01) moderate
12. Enjoyment from reading	3.71 (18.49) high	3.20 (21.13) moderate
13. Confidence in reading	3.18 (25.44) moderate	3.00 (21.83) moderate
14. Desire to continue reading another story	3.53 (22.66) high	3.40 (21.68) moderate
15. Liking of English	3.18 (25.44) moderate	3.13 (23.74) moderate
16. Liking of reading	3.29 (23.47) moderate	2.93 (20.27) moderate
17. Desire to read although not assigned	3.29 (25.81) moderate	3.00 (37.80) moderate
18. Benefits of reading	4.35 (19.82) high	4.33 (20.79) high

As can be seen from the table above, after reading for 100 pages, the readers in both groups perceived themselves as having quantitatively increased their reading abilities, although very slightly in numerators. For all aspects of the reading strategies, both groups rated themselves moderately for utilizing them. It is worth remarking that, from the detailed numerators, the high group was found to be using effective strategies at higher extents than the low group (e.g. item 2,

4 and 6), while the low group used more of the ineffective ones (e.g. items 3, 5). As for the subjects' self improvement through time in terms of reading comprehension, speed, progress, and time spent reading, all subjects rated themselves as progressing at a moderate level except for development in reading which the readers in the low group had achieved at a relatively high level. Some of the evidence from the readers' reflections signified their improved reading strategies, for example, (S1) *"I know more vocabulary and I can understand sentences that use not-too-difficult words,"* (S2) *"I read without looking up word meanings in a dictionary,"* (S3) *"Once I know how to read I know how I can manage to make sense of a text,"* (S4) *"I know more difficult words and read faster,"* etc.

According to the coefficients of variation, the readers in both groups rated most aspects around the range of 20 to 28 %, which was not very widespread. There were a few aspects that were narrowly rated (14 to 18 %), i.e. speed used in reading (high and low groups), word by word translation (low group), reading for main ideas (high group), using context clues to guess meaning and development of reading (low group).

Regarding perceptions of reading motivation, for half of all the items, the high group rated themselves at a relatively high magnitude. These included aspects concerning pleasure and enjoyment from reading, desire to continue another book, and recognizing the benefits of reading. The subjects' reflections revealed how they have developed their reading motivation positively, e.g. (S1) *"It was very difficult as I didn't know many words. When I read more, it became easier and faster. This made me feel like continuing another book,"* (S2) *"I didn't like it at all. After I could read faster and understand, then, I like it,"* (S3) *"I read better and understand more so I would like to continue with another one,"* etc. However, for the other half of the aspects, both groups of readers rated themselves similarly at moderate extents.

Again, when considering detailed numerators of all the items, the average mean scores of the high group were higher than those of the low group. Interestingly, readers in both groups recognized the benefits of reading at a relatively high degree (4.35 for the high and 4.33 for the low groups). The dispersion of scores the majority of readers rated for most aspects were also not very wide, i.e. from 20 to 25 % except for pleasure and enjoyment from reading that were dispersed at a relatively narrow range, i.e. less than 20 %.

Table 4.19 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 150 pages on average

Reading strategies (How often did you use these strategies while engaging in ER?)	High	Low
	Mean (CV) Meaning N = 17	Mean (CV) Meaning N = 7
1. Word for word translation	2.88 (29.76) moderate	3.00 (19.23) moderate
2. Reading for main ideas	3.29 (23.47) moderate	2.86 (24.13) moderate
3. Understanding or translating story in Thai	3.12 (25.03) moderate	3.29 (28.91) moderate
4. Understanding story in English	3.12 (19.23) moderate	2.57 (30.62) moderate
5. Using of a dictionary	3.12 (29.74) moderate	3.29 (28.91) moderate
6. Guessing word meanings from contexts	3.06 (21.54) moderate	3.00 (19.23) moderate
Self improvement in reading over time (To what extent do you agree with these statements?)		
7. I can understand the text better.	3.35 (22.93) moderate	3.00 (0) moderate
8. I read faster.	3.18 (22.89) moderate	2.71 (27.9) moderate
9. I am able to read better than previously.	3.29 (25.81) moderate	3.29 (22.98) moderate
10. I spent less time on reading.	2.76 (30.11) moderate	3.00 (19.23) moderate

Table 4.19 Descriptive statistics of perceptions of reading strategies and reading motivation: Reading 150 pages on average (continued)

Reading motivation (To what extent did you experience these thoughts?)	High	Low
	Mean (CV)	Mean (CV)
	Meaning	Meaning
	N = 17	N = 7
11. Pleasure from reading	3.71 (15.85) high	3.14 (12.04) moderate
12. Enjoyment from reading	3.47 (20.66) moderate	3.14 (21.97) moderate
13. Confidence in reading	3.35 (23.46) moderate	2.86 (24.13) moderate
14. Desire to continue reading another story	3.71 (20.81) high	3.29 (13.86) moderate
15. Liking of English	3.47 (23.05) moderate	3.29 (22.98) moderate
16. Liking of reading	3.41 (22.89) moderate	3.29 (23.57) moderate
17. Desire to read although not assigned	3.24 (21.54) moderate	3.14 (32.72) moderate
18. Benefits of reading	4.06 (27.47) high	4.71 (25.69) highest

According to Table 4.19, the readers in both groups employed similar reading strategies while reading as revealed by the moderate level of magnitudes they had rated each aspect. From the reflection part, some readers in the high group referred to their reading as follows: (S1) “I am very glad that I can read English books although not very fluent,” (S2) “The reading helps me learn a lot of new words. I do not need to read every word but can still guess meaning of some words,” (S3) “Reading extensively made me become competent in English. I know more difficult

words and read faster,” etc. However, when considering particularly the differences of mean scores, the low group was found to be using more ineffective reading strategies. For example, they translated word by word, understood the text in Thai, and used more dictionaries. Overall, the scatter of scores of all aspects as shown by the coefficients of variation was a bit wider than the previous stages of reading engagement, i.e. from 19 to 30 %.

As regards reading motivation, two aspects were perceived by the high group at a rather high degree of intensity. These included pleasure from reading and desire to continue with another book. Some readers said, for example, (S1) *“I’m glad that I can read a lot [of books]. I have a pleasure and would like to continue reading,”* (S2) *“I enjoyed the story very much and would like to continue with another detective story,”* (S3) *“I can understand the story and am interested to read another book,”* (S4) *“I read better and understand more so I would like to continue with another one,”* (S5) *“I am proud to be able to read hundreds of pages in English in limited time, and so I’d like to read more,”* etc.

For the rest of aspects, although all readers rated them at a moderate level, the high group was in favor of most aspects when compared with the low one. For the benefits of reading, again, both groups recognized them at a relatively high extent, with the low group rated higher (4.71 versus 4.06). The spread of scores as shown by the coefficients of variation for most aspects was not very wide (less than 25 %), with pleasure from reading the narrowest, i.e. 12 % and 15 % for the low and high groups, respectively.

Table 4.20 Descriptive statistics of perceptions of reading strategies and progress and reading motivation: Reading 200, 250, 300, 350, and 400 pages on average

Reading strategies and development over time	Mean (CV)	Mean (CV)	Mean (CV)	Mean (CV)	Mean (CV)
	Meaning	Meaning	Meaning	Meaning	Meaning
	200 pgs.	250 pgs.	300 pgs.	350 pgs.	400 pgs.
	N = 17	N = 16	N = 15	N = 14	N = 11
1. Word for word translation	3.12 (15.54) moderate	3.00 (21.06) moderate	3.07 (19.34) moderate	2.86 (23.18) moderate	3.36 (15.03) moderate
2. Reading for main ideas	3.35 (18.09) moderate	3.19 (17.05) moderate	3.40 (21.67) moderate	3.29 (22.07) moderate	3.18 (23.62) moderate
3. Understanding or translating story in Thai	3.29 (14.29) moderate	3.00 (24.33) moderate	3.07 (22.93) moderate	3.29 (22.07) moderate	3.09 (22.69) moderate
4. Understanding story in English	2.82 (25.82) moderate	3.13 (22.97) moderate	2.93 (15.63) moderate	3.14 (21.11) moderate	3.45 (19.94) moderate
5. Using a dictionary	3.29 (20.85) moderate	2.63 (23.53) moderate	3.00 (25.20) moderate	2.86 (40.80) moderate	3.09 (26.89) moderate
6. Guessing word meanings from contexts	3.06 (24.44) moderate	2.94 (23.12) moderate	3.13 (23.73) moderate	2.93 (31.3) moderate	3.36 (24.08) moderate
7. I can understand the text better.	3.53 (17.68) high	3.44 (23.66) moderate	3.53 (21.04) high	3.71 (22.24) high	3.73 (17.35) high
8. I read faster.	3.06 (21.54) moderate	3.13 (25.75) moderate	3.00 (21.83) moderate	3.50 (24.43) moderate	3.45 (15.13) moderate
9. I am able to read better than previously.	3.65 (16.60) high	3.75 (18.21) high	3.47 (18.44) moderate	3.57 (21.18) high	4.00 (19.38) high
10. I spent less time on reading.	2.82 (35.99) moderate	3.06 (27.90) moderate	3.53 (23.62) high	3.21 (27.82) moderate	3.00 (36..50) moderate

Table 4.20 Descriptive statistics of perceptions of reading strategies and progress and reading motivation: Reading 200, 250, 300, 350, and 400 pages on average (continued)

	Mean (CV)	Mean (CV)	Mean (CV)	Mean (CV)	Mean (CV)
Reading motivation	Meaning	Meaning	Meaning	Meaning	Meaning
	200 pgs.	250 pgs.	300 pgs.	350 pages	400 pgs.
	N = 17	N = 16	N = 15	N = 14	N = 11
11. Pleasure from reading	3.59 (17.21) high	3.50 (25.54) moderate	3.60 (20.47) high	3.71 (19.57) high	3.91 (17.93) high
12. Enjoyment from reading	3.65 (19.23) high	3.69 (16.31) high	3.53 (21.04) high	3.57 (23.87) high	3.82 (15.79) high
13. Confidence in reading	3.35 (25.73) moderate	3.63 (17.05) high	3.33 (21.74) moderate	3.36 (22.17) moderate	3.36 (20.06) moderate
14. Desire to continue reading another story	3.71 (20.81) high	3.69 (25.63) high	3.60 (17.55) high	3.71 (24.64) high	3.64 (18.52) high
15. Liking of English	3.65 (16.60) high	3.44 (23.66) moderate	3.53 (23.62) high	3.79 (21.16) high	3.64 (18.52) high
16. Liking of reading	3.41 (20.88) moderate	3.69 (16.31) high	3.67 (19.72) high	3.71 (22.24) high	3.55 (14.70) high
17. Desire to read although not assigned	3.29 (20.85) moderate	3.31 (23.95) moderate	3.60 (20.47) high	3.57 (26.27) high	3.36 (20.06) moderate
18. Benefits of reading	4.24 (19.60) high	4.19 (22.40) high	4.20 (22.40) high	4.21 (23.16) high	4.09 (20.32) high

As shown in Table 4.20, reading strategies adopted by those who read from 200 to 400 pages generally fluctuated across their engagement in the tasks for most aspects. These included the utilization of effective and ineffective strategies, both of which were constantly adopted by readers more or less regardless of quantities of reading. However, two aspects were rated gradually high in corresponding with the more volumes of reading engagement. These were the comprehension and development of reading, both of which were considered relatively high by the

readers themselves. Evidence from some of the subjects' reflections confirmed data from the survey, e.g. (S1) *"(I) have a feeling that I read better. I know more vocabulary and know more about how to read effectively,"* (S2) *"I read more fluently and faster,"* (S3) *"I have developed my reading skills much more than before,"* etc.

The dispersion of scores from the survey revealed by the coefficients of variation ranged from 20 to 30 % for most aspects of reading strategies, which showed that most subjects rated them somewhat similarly. However, the aspects that were rated differently at wider ranges, i.e. 35 to 36 % included times spent on reading the texts and use of a dictionary (40 %).

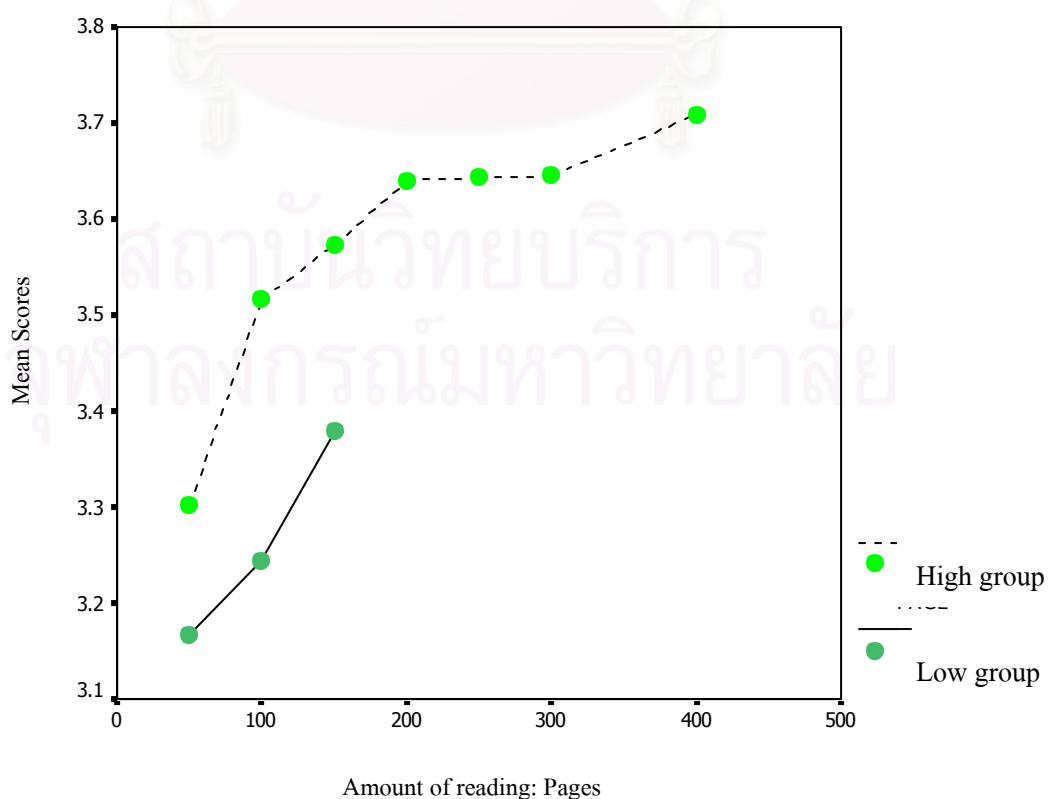
With regard to responses to the surveys of the reading motivation, readers in both groups tended to develop positive viewpoints toward most of the aspects. The high group, particularly, showed their relatively high level of preferences in the four major areas, i.e. desire to continue reading another book, liking of English, liking of reading, and benefits of reading. They rated all these aspects gradually high across the treatment period with the last aspect, benefits of reading, the highest. Enjoyment in reading was also rated progressively high from the beginning onward, except for the last few series of the reading engagement. Similarly, confidence in reading was also shown to be steadily high with only a few exceptions in the series. Likewise, the last set of aspects, pleasure in reading and reading from the readers' initiatives, was mostly found to be gradually high with a little decrease over the last few sessions. A number of subjects' reflections revealed that their motivation to read have been altered to a more positive inclination. They wrote, for instance, (S1) *"I become a reading lover unconsciously."* (S2) *"It is unbelievable that I could read in English. Before learning this subject I did not like English at all. I could not translate and did not know many words. Now I'm very glad that I can read,"* etc. In regard to the coefficients of variation of the data from the survey, the spread of scores the majority of readers rated for most aspects was relatively narrow, i.e. from 15 to 25 %, meaning that they generally shared similar opinions.

As for the low group, liking of English, reading from one's initiatives, and benefits from reading were perceived to increase gradually across the 15 weeks of reading engagement. On the contrary, enjoyment from reading was shown to be slightly declined toward the end of the reading sessions. The rest of the motivational aspects were generally perceived to increase at the

beginning but then decreased at later stages. These included pleasure from reading, confidence in reading, desire to continue another book, and liking of reading.

In general, for the readers in both groups, although some motivational aspects were not recognized consistently across all ranges of the obtained data, they were rated at relatively high degrees, particularly, the aspects of pleasure and enjoyment from reading, desire to continue reading, liking of English and reading, and recognition of the benefits of reading. The remaining aspects, i.e. confidence in reading and desire to read on one's own without assignment from the teacher, were rated at a moderate level. The figure below provides graphic illustrations showing how readers in both groups had increased their reading motivation when they read from 50 to 400 pages. Although the low group achieved only 147 pages on average and began with a lower degree of reading motivation, they developed positive perceptions similar to their counterparts who read two times more. The two lines incline upward, climbing relatively steadily and corresponding with the higher amounts of reading the subjects read.

Graph 4.1 Comparison of reading motivation of the high and low reading groups



3.2 Reasons for reading

The reasons the subjects in this study carried out the reading tasks were measured qualitatively due to the nature of the research question. Hence, individual subjects were required to reflect on reasons that made them continue reading perseveringly and also on why they stopped the engagement or did not want to read the books any more. The findings to be described were derived from the content analysis of the subjects' reflections.

Reading at 50 pages

High reading group: For the high reading group at 50 pages, reasons that stimulated readers to engage in reading, ranging from most to least, included books, comprehension of stories, stories, grades, and peers. The books that attracted readers' interests had interesting stories and pictures along with informative synopses. They also liked the chance of being able to have choices of books, for example, one said, *"It is good [that we have choice in the book] because an individual likes differently. If we are required to do the same it must be boring."* Comprehension of stories, which was of secondary importance, was due to comprehensible vocabulary and the readers' background. Those two factors could be classified as extrinsic motivation. Regarding the stories, essential aspects that supported the increased reading included enjoyment, pleasure, and desire to know the contents and how the stories ended. Another factor that prompted readers to keep reading was their interest in developing their own reading skills and vocabulary. Moreover, likely as a result of the appealing nature of the stories, some readers explained they had a desire to continue reading and regarded reading as beneficial. Both factors are, in fact, crucial components of intrinsic motivation. However, a few readers confessed that they read for better grades and one read due to peers' advice.

Low reading group: With to the low reading readers, desire to develop their reading skills was relatively strong. Most of them wanted to improve their English and reading skills, increase their vocabulary, and read fluently. The second important factor that motivated them to read was the simplified readers that helped them found themselves reading with enjoyment and pleasure. Besides, due to the interesting stories, they wanted to know more of the contents. Another crucial source of reading motivation came from the readers' comprehension of stories.

They found the language in the stories easy to understand, especially with the help of pictures. Other components of ER Plus that encouraged readers to read extensively were peers' assistance, grades, obligation to discuss what had been read, and having free time. Evidence from the subjects' reflections included, for example, (S1) *"I would like to get a good grade,"* (S2) *"I want more scores,"* or (S3) *"I am afraid my grades will be low,"* (S4) *"My friend helped me translate meanings of some words,"* (S5) *"My friend persuaded me to read along with her,"* (S6) *"We help each other with words and sentences that we do not understand,"* etc.

Reading at 100 pages

High reading group: The most important factor that fostered these readers' engagement in reading when they read at 100 pages was their comprehension of the stories they had encountered. That is, they found the stories understandable with more known words plus pictures and illustrations to ease comprehension. Some of the readers' reflections demonstrated that a number of aspects facilitated their reading comprehension, for example, knowing more vocabulary, understanding sentences better, being able to translate in English, reading faster, practicing using imagination, etc. Moreover, the readers' own desire to improve their reading skills pushed them to read more. For example, the majority wanted to increase their vocabulary bank, read fluently, and practice their English and reading skills. Other intrinsic motivation to read came from stories that they found enjoyable, pleasurable, and appealing plus their desire to know how stories ended more. More importantly, some had a strong desire to read and considered reading useful. Only few readers read due to grades, peers' encouragement, and interesting books.

Low reading group: For the light readers, enjoyment from stories outnumbered other reasons for reading when they read around 100 pages. A smaller number of readers read from their own desires and for grades. The rest justified their engagement in reading as being due to their own requirements to increase their knowledge of grammar and vocabulary, their comprehension of stories, and peers' advice.

Reading at 150 pages

High reading group: At 150 pages, readers in the high group found that interesting books increased their willingness to read most. They were enthusiastic about details of the stories

besides receiving enjoyment and satisfaction from reading. Nevertheless, a number of them confessed that they read only for grades. Others continued reading owing to easy language and comprehension of stories. Fewer readers tried to read because they wanted to improve their reading skills and vocabulary. The same number of readers kept on reading as it was the requirement of the course. Finally, very few recognized reading as a useful tool. One continued reading as a result of peers' advice.

Low reading group: For readers in the low group who read around 150 pages, books that were interesting, short, and contained fewer difficult words plus pictures to ease comprehension motivated them to read most. Other factors that inspired them to read equally were enjoyable stories, benefits of reading, competitions with peers, and discussions. It is worth noting that very few read for grades.

Reading at 200 pages (only the high reading group from this point onward)

Two major factors supported continuation of reading among heavy readers who read at 200 pages: comprehension and enjoyment of stories. Stories with easy vocabulary helped ease comprehension and thus enhanced readers' enjoyment, pleasure, fascination, interest, and enthusiasm. Almost all readers mentioned the benefits of the IR part as contributing to their improved reading comprehension, for example, (S1) "*IR session helped me learn the best method to read,*" (S2) "*I learned the reading process that helped me understand a text,*" (S3) "*[It] made me read better and faster,*" etc. However, illustrations and short contents made them read more as well. A few students read from their own initiatives, peers', or merely read to kill time.

Reading at 250 pages

About halfway through the ER project, readers found enjoyment from reading. They stated that the stories were very interesting, enjoyable, and pleasurable to read, especially those about ghosts and detectives. Comprehension of stories and the desire to learn more words and be able to read competently stimulated further reading similarly. Some of the readers said, for example, (S1) "*I'm glad that I can read a lot [of books]. I have a pleasure and would like to continue reading,*" (S2) "*I can understand the story and am interested to read another book,*"

etc. Books with pictures attracted a few readers to keep on reading. Finally, grades and peers were always the goals of very few students who kept reading.

Reading at 300 pages

Readers read approximately 300 pages continued reading mainly due to enjoyment, pleasure, and desire to know about the end of the stories. Books that were interesting and appealing (especially with illustrations) encouraged them to read more. Additionally, willingness to improve their reading skills, comprehension of stories, and longing for good grades motivated these readers to read equally. Finally, a few readers read because of their own initiative and free time.

Reading at 350 pages

At the point when the project was almost come to an end, a large number of readers continued reading for grades as much as for enjoyment of the stories. Apart from the pleasure they received from reading, they really liked to understand what was going on in the stories. Moreover, their desire to improve their English, reading skills, and vocabulary still existed. Another crucial factor that kept them reading was interesting books with lots of pictures to clarify their understanding as much as possible. Other minor aspects that motivated few readers to read included comprehending the stories, liking of reading, and having some free time.

Reading at 400 pages

By the end of the project, the major source of the readers' extensive reading came from the stories they read. They found the stories interesting, enjoyable, and pleasurable. Some kept reading so as to know the details of the stories and learn some cultures. Of secondary importance for stimulating additional reading was their comprehension of the contents. At a lesser degree, this group of readers considered the books, grades, and improvement of skills to be equally important in motivating them to read. Finally, a few readers read because they had some free time.

3.3 Reasons for not reading

Readers in both groups had similar problems regarding the reasons they did not pursue their reading tasks. Based on the content analysis of their reflections, readers in the high group

cited reading problems as their major cause of discontinuation of reading. Such problems involved difficult vocabulary and difficulty decoding or attempting to understand the texts being read. In some durations of reading, these two problems arose equally. Next in the series of reasons that caused readers to give up reading occasionally was lack of time. In other words, they had other equally, if not more, important tasks to fulfill. Other minor justifications for not reading included readers' lack of interest in reading, boring stories, time-consuming nature of reading, and long contents.

Similarly to the high group, data revealed that readers in the low group posed the same reasons for discontinuation of reading engagement; only the order of their importance differed. That is, at their first stage of reading (around 50 pages), they hardly found time to read, had problems with vocabulary, and had difficulty making sense of the texts. At a later stage, they raised trouble comprehending texts as their first reason, followed by lack of time and insufficient vocabulary knowledge. At the end of their reading engagement, the three causes of lack of time, inadequate vocabulary knowledge, and failure to understand the texts were raised equally as their major problems.

3.4 Summary: Effects of ER Plus on perceptions of reading development over time

Reading strategies and reading motivation

With to the development of reading strategies, the gradually higher average scores of readers in both groups signified positive gains in most aspects. Most importantly, from their first 50, 100, and 150 pages, readers in the low group were found using more ineffective skills than those in the high group. However, from 200 pages onward, readers in the high group were inclined to use effective strategies more often than the ineffective ones. In terms of reading motivation, both groups seemed to be concordant in their gradually increasing positive views towards reading, i.e. from average mean scores of 3.19, 3.28, and 3.32 for the low group and from 3.30, 3.52, 3.55, 3.61, 3.64, 3.63, 3.71, and 3.67 for the high group based on the lowest amounts (50 pages) to the highest (400 pages), respectively. This practice was true especially from their beginning of reading engagement toward almost the end of the 15-week experiment. Although the high reading group did not consistently increase their positive motivation very much toward the

end of their reading, the tentative ranges should have been steadily higher if more reading promotion had been initiated.

Reading motivation, although not completely congruent across all ranges of the reading series, was demonstrated to be at a relatively high level. Among these were pleasure and enjoyment from reading, desire to continue reading, liking of English and reading, and recognition of the benefits of reading. The rest of the aspects, i.e. confidence in reading and desire to read on their own given no assignment from the teacher, were rated at a moderate level.

Reasons for reading and not reading

Overall, reasons for constant reading conceptualized from the subjects' reflections can be classified as either intrinsic or extrinsic motivation. Major causes derived from intrinsic motivation encompassed understanding of stories being read, enjoyment and pleasure from reading, desire to improve language abilities, recognition of the benefits of reading, and desire to read. Examples of extrinsic motivation included grades, peers, books, and availability of free time. Overall, based on the opinions of readers in the high group during their first stage of availability of reading, the factors that made them persevere with reading, from most to least in degrees, involved correct choices of books, comprehension of stories, enjoyment of reading, desire to improve language abilities, and grades. From the second half of the task engagement toward the end of the experiment, the factor that was repeatedly mentioned as the major reason for reading was the enjoyment from the stories. It could be summarized that readers in this group read mainly from intrinsic motivation. Readers in the low group persisted in reading for reasons slightly different from those of their friends. That is, they read due to their desire to enhance language abilities, enjoyment from stories, interest in books, grades, and the requirement to participate in ER groups.

In conclusion, the major problems all readers encountered along the 15 weeks of reading engagement were insufficient knowledge of vocabulary that appeared in the texts, reading comprehension, and lack of time to read, i.e. they had other tasks to complete, including those who had part-time jobs and had assignments from other instructors in other courses. It is worth nothing that the last reason caused more problems in the low reading group than in the high.

CHAPTER V

SUMMARY, DISCUSSION OF THE RESULTS, AND RECOMMENDATIONS

This final chapter comprises a summary of the research, conclusions from the findings, discussion of the results, and recommendations for future studies. It aims to provide the overall picture of the experiment and its findings in brief, along with practical and theoretical justifications for such outcomes of the ER Plus activities. It also elaborates on how the results can contribute to the improvements of EFL learners' reading ability in particular and on issues that should be further investigated by researchers in the field.

Summary of the Study

This research was conducted due to the deficiency of traditional reading instruction in preparing skilled readers who can make use of a wide range of information through various media available. A large number of students at NPRU could not utilize their reading skills, either to fulfill their class assignments or to prepare for their future jobs. Among several means to increase readers' ability, according to well-recognized reading theorists such as Grave (2002), Eskey (2002), Nuttall (1996), Day and Bamford (1998) etc., extensive reading is one that should be encouraged. Its concept is obvious -the more reading, the better the reading ability. However, the reading materials used for a fundamental reading course, although appropriate for tertiary students, were far too difficult for NPRU students to read strategically the way they were taught and particularly too difficult to read extensively. Reading comprehensible texts, is, thus, an alternative for these low proficiency learners to gradually increase their vocabulary base and improve their reading skills. Although extensive reading is time consuming, it may be worthwhile if it eventually yields more competent and confident readers.

Reading comprehensible materials makes reading more like that of the native language. Major reason is due to the language input in the text that is merely a little bit beyond the readers' linguistic level ($i + 1$). Therefore, reading problems will be unconsciously diminished. Also, through frequent engagements with a wide range of easy texts the readers become increasingly positive to continue reading while at the same time increasing their knowledge of language

features and reading strategies. If such conditions are applicable to readers in this specific EFL context, at least students should realize that, in fact, reading in English is similar to reading in Thai. Accordingly, if engaging these students with comprehensible input turns out to be successful, they should be able to use effective strategies more naturally and thus their understanding of the text should be improved. Both aspects are crucial capabilities the students need to acquire based on the reading course objectives. Accompanying the ability to understand the texts being read are positive attitudes and reading motivation, which should pave the way for these students to read higher-level texts of their own choosing or for academic assignments with confidence.

The engagement in reading easy materials in large quantities generates optimal results when a low-anxiety environment is provided, according to the Input Hypothesis and the Affective Filter proposed by Krashen (1982). Following those key concepts, researchers in several countries have implemented ER programs, and, more often than not, reported gains, particularly in reading ability, its sub-skills, and most distinctively, reading motivation. Although most studies reveal positive gains in reading improvement, it is not certain if the concept is also valid for Thai learners, as reading is not highly valued in Thailand. Typically, reading, especially in English, is neither a common habit nor a pleasure activity for Thai university students. Instead, reading is perceived as always ending with thorough comprehension, while pleasure and language acquisition are commonly not combined. Such specific sociocultural circumstances, deficient readers, and classroom practice make the investigation of this research topic challenging. As a result, to contribute to the ER community, the present study attempted to inform practitioners whether ER could be implemented successfully in this particular context. It also sought to determine whether exposure to different amounts of comprehensible input affects reading ability, writing ability, and readers' perception on their reading development differently.

Sample of the study

The 34 participants in this study were second-year undergraduate students, majoring in Banking and Finance. They were randomly selected from a population of students required to register in the Fundamental Reading course. The majority had post-beginner English abilities, and

around ten of them were considered pre-intermediate. They came from middle- to low-income level families.

Research instruments

The researcher-developed instruments employed to measure the participants' reading and writing abilities included the reading comprehension test, reading speed test, reading narrative tests, and four writing prompts. Scores for each piece of written work were assigned and averaged by two raters who scored it analytically. All measurement instruments went through priori and posteriori validation processes. Instruments for data collection comprised interviewing scripts, reading records, and perception surveys. The interviews were for triangulation purposes; that is, to ensure all derived data were correctly and consistently informed.

Research procedures

The research procedures began with gathering data related to reading and writing abilities prior to the treatment. The ER Plus activities along with the collection of reading amounts and perceptions were then conducted and lasted for a total of 15 weeks with three series, each for five weeks. The ER Plus consisted of three consecutive periods, one for reading strategy learning, one for motivating tasks, and the last one for in-class silent reading. When individual readers finished each book, they came to an interview for the purpose of validating the self-recorded data in the reading records and responding to perception surveys. At the end of the last week of the experiment, the total amount of reading for each individual reader was totaled, and the information was used to create two groups, designated as either heavy or light readers. By the 17th week, all subjects had their reading and writing abilities measured once again, with the same versions of the test instruments.

Data analysis

After dividing readers into two groups, data analyses were performed to address the three main research questions. For the first set, investigating reading-related abilities, since the data comprised only pretests and posttests, the dependent and independent t-tests were computed to compare the mean differences between readers in the two groups related to the three sub-skills,

i.e. reading comprehension ability, reading speed, and reading narratives. Regarding the second set of questions, writing-related abilities, the data were collected in a time series, as were the reading amounts. Therefore, the RMANCOVA statistics was used to compare the categorical means of both groups of readers. Additionally, the correlation coefficient was adopted for calculation of the relations between the amounts of reading and the writing scores, while trend analysis was utilized for plotting the developmental patterns of the writing scores measured over time. Finally, the third set of questions, reading perceptions, was analyzed qualitatively and quantitatively. That is, the rating-scale surveys, which measured readers' opinions toward development of reading strategies and reading motivation, were calculated for mean scores; the reflection sections, which addressed the reasons readers engaged in reading, were analyzed in terms of content to identify the recurring themes.

Summary of Research Findings

There are, altogether, three main areas of investigation related to the effects of the ER Plus activities, i.e. reading ability, writing ability, and perceptions on reading development through time. Each area was examined at length with its associated sub-topics, i.e. reading ability: reading comprehension ability, reading speed, and reading narratives; writing: writing ability, the relationship between reading amounts and writing ability, and developmental patterns of writing ability; and perceptions: perceptions on reading strategies, reading motivation, and reasons for reading. The summary of findings will be arranged according to these aforementioned research areas.

5.1 Effects of ER Plus on reading-related abilities

5.1.1 Effects of ER Plus on reading comprehension ability

The subjects' reading comprehension abilities were measured by means of a reading comprehension test, which evaluated general competency, not exclusive to any particular curriculum. Based on the average pages of 147 made by readers in the low group and 364 by the high group, the findings of mean equality between groups' statistics demonstrated that being exposed to language input at different amounts affected the reading comprehension ability of the

subjects. To be more specific, reading an average of 147 pages was not sufficient to be able to statistically increase the readers' scores on the reading comprehension test. However, with higher amounts of reading, i.e. an average of 364 pages, the readers increased their scores significantly with the alpha level of .05; that is, there is only a five percent chance that the analysis contained errors.

Therefore, with a reading test comparable to other standardized tests, EFL readers are advised to read simplified texts and some higher-level texts approximately three to four pages a day (364 pages in 15 weeks) in order to score higher statistically. To conclude, low and high quantities of exposure to language input affected the reading comprehension of the readers differently. The effect size of the practicality significance, which is rather strong (1.10), signifies the effectiveness of the research results.

5.1.2 Effects of ER Plus on reading speed

The findings from the independent t-test indicate that, although readers of both groups read at the same speed prior to the treatment, they were not equal by the end. That means, the higher quantity of reading had an impact on the subjects' speed of reading. Simply put, the more they read, the faster they became, which made the two groups distinct. However, reading lower quantities was not without value as, according to the t-test run within groups, such amounts also proved beneficial for speed enhancement. In summary, being exposed to language input at different amounts assisted EFL learners in accelerating their reading speed but at different paces. The effect size of significance was at a relatively strong level, at 1.22, which proved the practical value of the research results.

5.1.3 Effects of ER Plus on comprehension of narratives

Although the subjects' comprehension of narratives was measured by different test types (multiple-choice and translation), the results were the same despite the readers' exposure to different volumes of language input. Statistical computation of the independent t-test that was used to compare mean scores between groups showed that both types of readers did not differ prior to and after the treatment. As a result, it can be inferred that reading lower amounts (147

pages) and higher amounts (364 pages) did not have any impact on the readers' comprehension of narratives. Results from the t-test within subjects also confirmed that reading 147 pages helped the readers improve their comprehension of stories similarly to those who read in higher quantities. In summary, data analyses demonstrated that being exposed to language input from 147 to 364 pages in 15 weeks resulted in similar improvements in the subjects' reading comprehension of narrative texts. The effect size of significance was moderate for the low group (.73) and strong for the high group (.87), thus implying different efficiency of the research results when put into practice.

5.2 Effects of ER Plus on writing-related abilities

5.2.1 Writing abilities

The results of differences among the mean scores of writing tests of readers in both groups, which were collected at three time points, were revealed through the post hoc analysis of RMANCOVA. It was found that, of the six pairs of writing mean scores, only two were statistically different ($p > .05$), i.e. the first and second and the first and third pairs of the low group. Thus, it can be inferred that reading fewer than 100 pages could affect EFL readers' writing ability.

5.2.2 Developmental patterns of reading amounts and writing scores

The trend analysis of SPSS showed that, among all the categorical data of reading amounts and writing scores collected over 15 weeks, there was no apparent systematic pattern of development. Similar to the results revealed by the post hoc analysis of RMANCOVA and correlation coefficients, the plotted graphs representing readers' data in both groups showed that, at any reading amount completed by the two groups of readers, their writing scores could be high or low inconsistently over time. In addition, the r square levels of regression proved that reading amounts could predict writing scores only 3 % of the time for the low group and 8 % for the high group. The three sets of statistics were partially in agreement that, for the duration of 15 weeks of EFL readers' reading engagement, there was not sufficient evidence to support whether higher amounts of language exposure led to higher scores in their writing tests.

5.2.3 Relationships between reading amounts and writing scores

Relationships between the reading amounts and the writing scores rarely existed, according to the correlation coefficient values. That is, among six corresponding pairs of reading amounts and writing mean scores, only one pair, i.e. the second series of reading amounts and writing mean scores, correlated at a moderate level ($r = .543$). The rest had no statistical correlation sign, and the values of correlation showed more of a reverse sign between the two variables. That is, while reading amounts increased in relation to longer periods of reading engagement, the correlation values kept decreasing, e.g. from .417, .534, to .246, for the high group, and from .356, .273, to .187, for the low group, respectively.

Results from the correlation coefficients were similar to those from the post hoc of RMANCOVA in that no specific baseline of reading amounts readers were supposed to read could be estimated precisely if certain volumes of writing ability were to be enhanced. In fact, it seems that lower amounts of reading input (e.g. fewer than 100 pages) could enhance the readers' writing scores, while reading higher amounts than that did not help. Similarly, for correlation analyses, reading fewer than 100 pages could statistically influence the subjects' writing scores, whereas reading at higher amounts than that did not. Both sources of findings seemingly did not provide any clues to prove that more exposure to language input leads to better writing ability. Therefore, it is difficult to estimate the exact extent of reading amounts that affect the readers' writing ability statistically. It could, thus, be safely summarized only that reading amount may be one indicator that can be used to predict the writing ability of the EFL low proficiency readers. There could be other factors that contributed more to the writing competence of these learners.

5.3 Effects of ER Plus on the subjects' perceptions of reading development

5.3.1 Reading strategies

Findings derived from rating-scale surveys collected when readers read specific amounts, i.e. 50, 100, 150, 200, 250, 300, 350, and 400 pages, clearly demonstrated that the readers gradually developed their reading strategies over time. Strategies that were found with tentative signs of enhancement that corresponded with higher amounts of reading included understanding texts in English, using contexts to guess word meanings, and reading for main

ideas. Ineffective reading strategies such as reading word by word, understanding texts in Thai, and using dictionary frequently, although rising steadily at the first half of the treatment, gradually fell around the second half. However, the development of reading ability through time was rated relatively high, i.e. ranging from 3.18 when readers in the high group first began the reading engagement to 4.00 by the end of the 15 week. The data were derived mainly from the high group since the low group had only three series of data (reading at 50, 100, and 150 pages), which typically made it hard to generalize or make predictions. Overall, readers had a tendency to utilize more effective reading strategies when they read at higher quantities.

5.3.2 Reading motivation

Among the eight aspects in the rating scale surveys that represented readers' reading motivation, the findings could be classified into three groups. Aspects that were rated relatively high following the readers' corresponding reading amounts consisted of desire to continue reading although not assigned, liking of English, and liking of reading. Other aspects that showed rising tendencies but at a lower degree were confidence in reading (moderately high) and reading from one's own initiative (considerably high). The last set of reading motives were shown to have an inclination to go up, but the degrees were less consistent across the 15 weeks of treatment. These included enjoyment and pleasure from reading and benefits of reading.

Although the data were drawn mainly from the high group due to their wider range of accumulation, the low group also displayed gradually more positive views but to a lesser degree for all aspects of investigation. Interestingly, these readers considered benefits of reading relatively high, even higher than those in the high group. Overall, readers of both groups demonstrated increased positive viewpoints in corresponding with their increased volumes of reading.

5.3.3 Reasons for reading and not reading

The major reasons that inspired readers in the low group to read, ranked from their first 50, 100, and 150 pages, were their desires to improve their language skills, enjoyment from the stories, and availability of appropriate books. Aspects that motivated readers in the high group

to read during their initial stage of engagement were appropriate books, enjoyment from reading, and desire to improve language skills. From 200 pages onwards, enjoyment from stories was the only reason that stimulated readers to continue reading. On the whole, although EFL readers in this study were low in their proficiency, their motivation to read could be enhanced through enjoyment from reading a wide range of fiction.

Discussion of the Results

1. Effects of ER Plus on reading-related abilities

In this section, the findings of the three sub-skills of reading resulting from the impact of ER Plus will be justified. These comprise results of reading comprehension ability, reading speed, and comprehension of narratives. Details of the explanations for the research results include direct effects of ER Plus activities, some major theoretical grounds, and supporting clarification from previous ER research.

1.1 Effects of ER Plus on reading comprehension abilities

From the study, two conclusions could be drawn as there were two experimental groups being studied concurrently. Firstly, being exposed to approximately three to four pages a day of language input over 15 weeks enhances EFL learners' comprehension ability. Secondly, engaging in one and a half pages of reading texts does not help. In other words, exposure to different amounts of language input affected reading comprehension ability of EFL readers differently. Justification for the improvement of the readers' comprehension ability should have stemmed from the three sources of ER Plus activities, i.e. the IR lessons, the ER motivating tasks, and the silent reading of simplified readers.

Firstly, in this study, the IR-based lessons equipped learners with knowledge of how to read effectively and allowed them to enhance their language repertoire through various exercises. Such main components should contribute to the effectiveness of readers in making sense of a text as well as provide more opportunities for them to consciously notice specific language. Evidence taken from the reflections of individual subjects in both groups indicated the usefulness of the IR sessions. For example, the majority agreed that the lessons on reading

strategies helped them learn the best ways to read and interpret meanings, read correctly and strategically, e.g. set a purpose before reading and choose appropriate strategies, etc. It also made them read faster and better and be able to conceptualize a text more easily. Some subjects mentioned the benefits of the practice session which improved their vocabulary knowledge to some extent. Overall, most subjects were in favor of the IR component as a means to help them improve their reading comprehension.

Secondly, the motivating activities, although not affecting the comprehension of the subjects' directly, promoted sharing and learning among group members. Parts of the reflections signified that the collaborative tasks also helped increase knowledge of vocabulary among members. Although learning and being able to use new vocabulary words takes time, and sharing during the ER sessions may not be very helpful for improving reading comprehension, such experience was valuable in promoting out of class reading.

Lastly, comprehension of reading may have been increased mainly due to the language input the subjects, particularly the high group, were exposed to and the characteristics of the simplified readers. Almost all subjects referred to the silent reading of many books as helping them increase vocabulary knowledge, which should directly affect their comprehension of the texts they read. A number of the reflections confirm the value of such reading experience in enhancing the readers' comprehension.

Theoretically, several aspects of ER Plus activities are referred to as contributing to the progress in reading comprehension. First, the increased reading comprehension ability of the subjects in this study should be due to the intensity of exposure to language input and speed of reading, both of which mutually contribute to the ease of reading comprehension. Evidently, the heavy reading group, who had higher rates of encounters with words, was found to have statistically improved their reading comprehension ability. The increased frequency and repeated exposure to comprehensible input certainly sustained their retention of the meanings of frequent words, which could ease understanding of a text in a certain range. Moreover, fast reading, which was another gain this group attained, facilitated the conceptualization process better than slow reading, which occurred with readers in the light group. Therefore, when compared the readers

who shared almost everything except for individual differences, different volumes of exposure to simplified materials had a quantifiable impact on these EFL learners' reading comprehension abilities.

Next, for the improvement of reading proficiency, Krashen (2005) asserts that reading challenging texts helps students master academic language. In addition, he believes that light reading (of comprehensible texts) is a bridge to heavier reading (of academic texts) as it provides competency that is crucial for understanding more demanding texts. What Krashen infers is that the higher the amounts of light reading, the higher the comprehension of academic texts. The differences between the increased reading proficiencies of the subjects in this study confirm Krashen's statement, as those who read twice as much obtained higher competency that was significantly different from that of their fellow classmates who read less.

In addition, quantity of input is crucial for advancement to comprehension of texts at higher levels. According to Nation (2005), to achieve learning gains, students should read close to 500,000 running words a year, or 25 graded readers, or six unsimplified novels. Furthermore, continuity is important. Therefore, if EFL students plan to pass a certain level of reading proficiency on standardized tests such as TOEFL or IELTS, they need to spend several years reading consistently to accomplish such aim. For example, in this study, the subject who read the most read 18 graded readers. If she continues reading significant amounts, it is highly likely that she will be able to achieve a high score on those standardized tests.

The last source of language input that could contribute to the gain in reading comprehension of the high group could stem from the influence of 'noticing' language readers were exposed to during the IR sessions. Specific tasks/activities that provided chances for consciousness raising of certain language features including teachers' instruction (by drawing readers' attention to certain language) and readers' engagement in exercises (by strengthening knowledge of vocabulary and structures) could help the subjects become aware of the noticed language. According to Schmidt (1990), noticing is necessary particularly when the exposed language is about to turn into the language intake. In such a situation, if learners do not notice the new language, they will not process it, and language acquisition may rarely occur. This concept

contradicts Krashen's belief, which emphasizes the unconsciousness of language acquisition while readers read comprehensible language. Apart from Schmidt, Harmer (2001) also believes that the awareness of language helps learners acquire language. That is, once the language has been noticed and a language user wants to use it, the gained knowledge will be produced accurately and fluently. Although readers in both groups of this study were exposed to language in the IR sessions equally, the fact that the high group read more meant they then advanced more in reading speed, word repertoire, and structures, all of which assisted the conceptualization or comprehension process. Therefore, when language intakes from the IR and ER sources were combined, they contributed to the readers' growth in reading comprehension of the academic texts in the reading test.

Attempting to compare previous studies of ER with this study in terms of the effects of quantities of language input is almost impossible. As mentioned earlier, several factors are involved in organizing an ER project. Existing research findings provide some advice based on their own detailed combinations, which, for example, involve learners, materials, reading activities, follow-up tasks, teachers, availability of and accessibility to materials, etc. Factors related to learners alone are in countless variations, such as environments, learning styles, family backgrounds, language proficiencies, L1 reading abilities, motivation, and many more. Among these, different combinations of ER were found to contribute to improvement in reading comprehension. Therefore, the reported gains of all studies may not be comparable as each is based on different origins. Major problems pertaining to the database of knowledge on the extent to which learners should read, therefore, still lie in the widely divergent amounts of reading that yield efficient outcomes for enhanced reading comprehension ability.

However, more often than not, considerable experimental studies in the contexts of ESL and EFL report findings in support of the positive effects of reading in large quantities on readers' reading comprehension ability. Such gains, e.g. Lai (1993a), Hayashi (1999), Pilgreen and Krashen (1993), Sims (1996), etc., were drawn from readers at different levels ranging from elementary school up to university. Most importantly, low and high volumes of reading engagement were reported as similarly effective. Additionally, length of time, which was reported by most studies as another criterion for the reading to be in effects, may not provide so much

information to reading teachers as it did in the present study. Within the same duration, different quantities were produced by the subjects from the same major. Therefore, being exposed to languages at similar durations but with different amounts, or in reverse, possibly results in a wide range of language acquisition.

If comparisons are to be made at all, three consecutive experiments conducted by Lee (2007) are worth mentioning. Lee (2007) was also doubtful about the baseline for quantity of input exposure that could produce effective results for unconscious language learning. For that reason, three experimental studies of ER were conducted, all with students from the same university but with different groups. The sociolinguistic environment of Lee's study is similar to this current study: non-English, first-year university EFL student, little exposure to English outside the classroom, etc. The results of the shortest duration, i.e. 12 weeks, revealed that the ER group did slightly better than the traditional reading instruction group but inferior to the other on vocabulary and cloze test. The researcher explained that the ER group read graded readers written at the 2,000-3,000-word level, so they achieved low gains on less frequent words on a 5,000-word level test. The results also indicated that the levels of reading materials students read could be used to predict the gain they should have achieved. The learners' acquisition of language in Lee's study could be similar to that of this study, as the lower-level books did not help them learn many new words; thus, gains on the reading test, particularly for the low group, were reasonably low. Also, in Lee's study, since the duration was relatively short, the effects of wide reading did not lend itself to the acquisition of less frequent vocabulary.

According to Lee, 12 weeks of ER was at least as effective and efficient as that of formal instruction (Lee, 2005; Hsu and Lee, 2005). The researchers, thus, continued with two additional year-length studies (studies II and III, each lasting one year). The researcher concluded, after the end of the studies, by quoting Krashen's (2004) words that 'the longer the duration of the study, the better the result.' That is, the ER groups (one assigned SSR and the other self-selected SSR) did as well as their counterparts taught by experienced professors on the 2,000-word level and academic word tests, but significantly outperformed their counterparts on the 3,000-, 5,000-, and 10,000-word level tests (Lee, 2007). The year-long exposure to simplified language via reading alone, thus, seems to be more effective than the taught method in word retention. The

findings also signify that academic words are not easily acquired through exposure to comprehensible language, even when the exposure lasts as long as one year.

In relation to measurement of knowledge on academic vocabulary, in fact, the reading proficiency test used in the present study contained more of academic words due to the genres of the chosen published articles, and the readers in the high group were found to increase their comprehension on it although they read much less than those in Lee's study. It is possible that the vocabulary test in Lee's study might not have allowed the subjects to make full use of their reading abilities as much as in this study's traditional reading test. This could explain why readers' performance on the academic-word test was not as high as that on the other vocabulary range tests. If academic words had appeared in reading passages, different results might have been revealed.

Based on the distinctiveness of the extensive reading, a number of aspects are involved when considering learners' reading comprehension ability, e.g. levels of reading materials, intensity of exposure to language input, and speed of reading. In regard to levels of reading materials, for instance, the participants in Lee's studies not only read large amounts, they also read high-level books. Such reading engagement resulted in their success in retaining words at levels as high as those of the texts they read. Alternatively, in this study, the light readers, who represented very low proficiency EFL learners, read an average of one and a half pages per day over 15 weeks, and they had no improvement in their reading proficiency test scores. In reality, the majority read very limited ranges of texts, i.e. from beginner to level one, both of which covered frequent vocabulary of no more than 400 words, depending on the publisher. The gains in density of vocabulary plus simple English structures that readers supposedly acquired did not ease comprehension of the texts, especially at interpretative levels, although some known words appeared infrequently on the proficiency test. Therefore, the knowledge the readers were able to derive from their engagement in the texts was not sufficient to facilitate their reading process, as was confirmed statistically.

In summary, variations in each mixture of ER activities in a wide range of school contexts make it hard to identify the optimal dose of input exposure that is effective enough to

enhance reading comprehension ability of EFL students. For EFL learners in the context of a low - reading community like Thailand, because the two groups of readers in this study shared more similarities than other separated studies, some guidelines have emerged. That is, in order to increase low proficiency readers' reading comprehension ability within a modest range, they should read approximately 364 a semester. The exposure of such language input outside of class should be consistent, i.e. at least three to four pages a day for 15 weeks to be sufficiently effective.

In addition to those aforementioned quantitative findings, the noticeably strong effect sizes of the mean difference between the two groups support the practicality value of the experiment. According to Thalheimer and Cook (2002), effect size indicates the size of the experimental effect. Therefore, based on such numerators, the reading engagement performed in this study unquestionably affected the subjects' improvement in reading comprehension ability. However, discrepancies in exposure to simplified language affected the readers differently, as was discussed above.

Based on empirical evidence of this study, additional assumptions could be proposed for contributions to the research in the field. Since the separation of the readers in this study was done following their final reading engagement session, it is possible to make some suppositions from this formation of groups based on reading amounts. First, it is very likely that a lower proficiency level (identifiable from the pretest mean scores of the low reading group) leads to, or is one factor, that causes lower reading amounts. This same assumption can be applied to the relationship between an initially higher proficiency level and higher reading amounts of the high reading group. Second, like two sides of the same coin of the previous assumption, it is possible that, by the end of the experiment, readers' low proficiency is caused in part by their low amounts of reading. That is, since they were rarely exposed to language input, their English abilities were not high, as evidenced by the posttest mean scores of the low reading group. Similarly, for the heavy reading readers, their chances of language acquisition were higher from more exposure to the language input, so their reading comprehension abilities were higher.

1.2 Effects of ER Plus on reading speed

The average reading amounts achieved by the low reading group (an average of 147 pages or one and a half pages a day) are seemingly too low to cultivate any growth in any language feature. Nevertheless, the statistics show that such volumes could significantly transform the reading speed of these low-motivation readers. Although reading approximately 147 pages did help the light readers enhance their reading speed to a certain level, it was not statistically comparable to those who read 364 pages. In fact, the speed by which the heavy readers outperformed their counterparts was 46 word per minute. The contributions to the increased reading speed by major components of the ER Plus activities were most likely made more by the silent reading of simplified readers than by the IR sessions, with not very much influence from the motivating activities. Although a few readers mentioned competition with friends or some reading-together tasks as reasons that made them read more, such activities rarely extended throughout the 15 weeks of experiment.

The effects of the IR sessions, when combined with the ease of reading comprehensible texts, that facilitated the reading process included the teaching of strategic reading methods and how sentences were structured, the practice of reading through think-aloud technique, etc. The knowledge and experience the students obtained from those activities facilitated their understanding of the texts and thereby accelerated their speed in reading. Almost all subjects, both in the high and low groups, said the IR lessons helped them understand the text faster. Therefore, their speed of reading increased in correlation with the number of books they read.

In regard to the effects of the ER sessions, typical characteristics of the simplified readers and the nature of extensive reading prominently facilitated and accelerated the speed of reading. This type of reading allowed the readers to use several strategies to facilitate their reading process, which in turn made them read faster. Example of strategies, according to the subjects' reflections, included previewing of the story, considering graphic illustrations, rereading the story, guessing unknown words, reading the text of interest, meeting with words

repeatedly, etc. Most subjects used a combination of those strategies to help them understand the text as fast as possible, so their reading speed was enhanced.

As regards the characteristics of simplified readers, according to Hill (1997), at the volume of 300-400 keywords, writers of simplified materials cannot express themselves as freely as desired. They are controlled by limited lists of frequency words and simple structures. Such attributes, however, facilitate low proficiency readers who are not yet ready to read long and more complicated texts. Essential elements of these texts are, for example, the consistency of meeting with repeated words and structures in longer durations, which could turn unfamiliar words into more familiar ones and make possible automaticity of word recognition, both of which facilitate rapid reading as well as comprehension. According to Taguchi, Gorsuch, and Sasamoto (2006), automatic and efficient use of lower-level skills of the reading process, i.e. word recognition and speed, is necessary for the success of reading comprehension. This, in turn, increases motivation to read more, and the reading speed is accelerated accordingly.

The distinctiveness of the texts the subjects read, e.g. the simplicity of language, predominantly of vocabulary and structures and the focus on general comprehension, makes possible improvement in fluency in reading. Almost all readers in this study realized that they read faster after their first few books as was proved by the time they spent reading per book of the same length. According to Hirsh and Nation (1992), readers who want to read the easiest unsimplified fiction text written for teenagers need a vocabulary size of over 2,000 words. Therefore, specially prepared graded readers will be most appropriate for students to do extensive reading at elementary and intermediate stages of proficiency (Nation, 2005). Although in this study not all readers were able to choose books that were appropriate for their language ability, all found them much easier to read than their reading textbooks, and this further enhanced their fluency.

Theoretically, the nature of the ER, most of which follow similar underlying principles proposed by Day and Bamford (1998), lends easiness to the advancement of reading speed of most readers who read in large quantities. These include the focus on reading for general comprehension, the self-selected texts of interests, the stress-free follow up tasks, etc. Moreover,

such pleasurable reading environment signifies that the ER activities differ from the readers' usual reading lessons. In general, aspects related to the simplified readers and ER circumstances organized for the subjects in this study made possible their reading speed acceleration.

Apart from the reading materials and nature of ER, the distinction in quantities of exposure to language input must have contributed to the readers' progress in their reading speed. Such effects of reading easy books infer that, even among EFL learners whose environment does not allow much exposure to the target language, reading speed can be enhanced much more easily than reading comprehension. Evidently, when both types of readers started at the same point, in terms of both reading speed and comprehension, the speed was enhanced significantly, while comprehension was not, according to the results of the statistical calculation.

The findings could be used as a guideline for reading-lesson planning to increase reading rate among EFL learners. In this case, by the end of the engagement, the light readers gained 26 word per minute over 15 weeks of reading, while the heavy ones increased almost three times as much. Their final reading paces were 83 and 133 word per minutes for the low and high groups, respectively, with the latter reading nearly two times the quantity of the former. The proportion of such numerators is reading two times the amount might be able to generate three times the reading speed. Such a baseline is appropriate exclusively for EFL low proficiency learners in this low-valued reading society. According to Nation (2005), untrained readers generally read at least 100 word per minute, while a good reading speed is around 300-400 word per minute. Based on such guideline, it is highly possible to accelerate the reading speed of learners in this context to, at least, an average level performed by good readers. Such aim, if possible, not only increases speed but also comprehension of the texts being read as reading faster supports the conceptualization process of contents.

ER research that explored the reading speed of EFL learners was relatively limited when compared to that of reading comprehension ability. Nevertheless, the findings are often positive with ER groups outperforming groups with other types of reading activities. Examples of successful studies are college students who read an average of 600 pages plus SRA materials in class (Robb and Susser, 1989), 11-15-year-old students who read an average of 16 graded readers

over four weeks (only two out of three groups increased reading speed) (Lai, 1993), high school learners (Bell, 2001), and young adults (Tanaka and Stapleton, 2007). Existing evidence seems to confirm the effectiveness of ER engagement in heightening EFL readers' speed of reading.

In terms of practical values, although reading speed was found to be easier to improve than comprehension, encouraging students to read just to increase their pace at the expense of their understanding is not sufficient for producing skilled readers, especially in the EFL context. However, from the findings of the present study, speed may have contributed substantially to the conceptualization of contents, which, then, promoted comprehension. This is observable, as with the outcome of the high group, that higher speed readers' comprehension scores differed notably from those with lower speed. Alternatively, as in a virtuous circle similar to the one suggested by Nuttall (1996), increased quantity increases speed, which facilitates even greater quantity. The increased quantity also increases sighted words, some new vocabulary, familiarity with structures, and fluency, which then increase comprehension. Therefore, the best solution, if ER happens to be the only option for improving learners' reading skills, is to encourage a great volume of exposure to comprehensible input. Most importantly, quantity is as important as consistency of engagement. This is the reason why ER takes time to achieve results and the same reason why not so many institutions adopt the practice, despite the sufficiently solid basis of gains repeatedly reported.

Finally, the values of the effect sizes, calculated both for the independent and dependent t-test, were found to be around 1 to 2, which yielded further evidence to demonstrate the positive effects of the book-based activities. Overall, the research results imply that reading speed can be accelerated by exposing learners to a large amount of comprehensible language. In addition, different exposures lead to different rates of improvement in reading speed, as was revealed by the research results and their effect sizes.

1.3 Effects of ER Plus on comprehension of narratives

The results from measurements of the ability to comprehend narratives revealed that the mean scores of both groups of readers were not different, regardless of assessment types. To clarify, the results drawn from multiple-choice questions to assess readers' recall of the recount

they had just read in limited time repeated exactly those from the translation task. The high group readers increased their posttest results over their corresponding pretests by approximately the same percentages as those in the low group. These included their increased mean scores and the significance values both from the within and between groups statistics, despite the discrepancy in readers' reading amounts.

Such effects of ER Plus on all of the readers' comprehension of narratives yielded interesting results. The light readers could do the tasks as well as the heavy readers. This enhancement of comprehension of the narrative for all of the subjects' in this study was made possible by the following four aspects of ER Plus activities.

Firstly, from the influence of the IR sessions, comprehension of a narrative was facilitated through the teaching of reading strategies and how to interpret meanings. The training of reading strategies, although unfortunately not helping the subjects read their reading course book strategically, could be applied to the graded readers reasonably well. This is mainly due to the simplicity of language in the graded readers that allowed the low-ability readers to guess the meaning from the contexts more effectively than when they read more difficult books.

Secondly, the stress-free environment and collaboration with peers, based on the subjects' own accounts, encouraged them to read more on their own, and this helped them read better. Several conditions of ER Plus allowed the subjects to read under a carefree state. Most subjects were positive toward the ER motivating sessions. Although sometimes their friends did not help very much with the questions about the language in the book, they felt that the overall environment promoted their reading.

Thirdly, the contribution from the language input the readers were exposed to during their silent reading greatly assisted them in understanding a narrative better. The other factor that influenced the subjects' comprehension of a narrative could be the recount in the tests that closely resembled what the subjects were exposed to during their 15-week reading engagement period. These included similarities in genre, language (especially vocabulary and structures), text organization, illustrations to ease complexity, etc. The combination of all these components made the stories more or less easy for readers to understand.

Several aspects of the ER Plus activities lend themselves to the improvement of the readers' comprehension of a text in a narrative genre. However, the research findings were unusual in that there was no difference between the extents to which both the high and low reading groups comprehended the narrative. Justifications for such findings would best begin with considerations of the measurement tools adopted in the study. From the readability levels, the chosen texts were not very difficult for tertiary level learners, i.e. equal to the U.S. grade level 6.59 for the multiple-choice questions and grade level 5 for the translation task. Nevertheless, considering from the mean scores that readers in both groups could achieve, it seems that both tests were considerably difficult for them as the best test takers could successfully respond to approximately 30 % on the tests. As a result, the measurement instruments were neither too easy nor too difficult for use.

If the test instruments were at the appropriate level, then, the major factor that may have contributed to the readers' ability in comprehending narratives would rely mainly on the uniqueness of the simplified readers. Although the texts are written exclusively for non-native learners and support them in many ways to be able to reach a level that they can read authentic texts with confidence, they are not without deficiency. The major reasons believed to influence readers' ability in understanding narratives comprise general comprehension of the texts, fragility of learning, limitations of language, and levels of texts.

First, regarding comprehension that allows readers to be able to read extensively, Hu and Nation (2000) put forward the optimum density of known words at 98 %. That is, in every 100 running words, there should be no more than two unfamiliar words to make comprehension of the text rapid and complete. All subjects in this study began their first book at the lowest level (starter), which should be relatively easy for them. Even so, most found as few as five up to more than ten unknown words on a page. Consequently, they could not fully comprehend the story. Despite incomplete comprehension, the subjects could pursue their goal since extensive reading required only general understanding of the texts. With this type of reading, specific details were overlooked by most readers, as there were no follow-up tasks for evaluation of detailed comprehension. The interviewing sessions made the researcher realize that, quite often, a number of readers understood the stories incorrectly, although they could finish the text. Such

characteristics of ER resulting in incomplete comprehension of texts could be one source of unclear language input. Generally, after the first encounter with a new word, readers need many additional exposures to the word before they can learn it by heart. Since specific details in the stories were not emphasized, many readers were not motivated enough to find out the meanings of unknown words they came across. Therefore, the increased pages of reading may not lead to increased acquisition of word meanings.

Second, typical reading engagement based on ER principles, according to Nation (2005), is incidental learning, i.e. the focus is not placed on items to learn. Accordingly, gains in terms of language learning are fragile. This is why readers need to have ample opportunities for repetition of vocabulary and to strengthen their recall. The aspects of comprehension and weakness of learning from extensive reading could be major explanations why both light and heavy readers in this study obtained similar results in the measurement of comprehension of narratives. Although the heavy readers read more and, thus, should have more familiar words in their vocabulary repertoires, their understanding of the story was just slightly better than those who did smaller amounts of reading. Also, with the relatively short period of the experiment, plus the inconsistent frequency of exposure to comprehensible input (many of them did not read everyday, and some stopped reading for weeks or a month), their word retention was not strong enough to differentiate the high from the low readers. Furthermore, looking from the light readers' angle, it is also possible that they read more slowly but thoroughly since they emphasized on word-by-word translation; they would, therefore, comprehend the stories better. The chances of noticing for longer periods and active learning of language could probably contribute to the understanding of the texts as well.

Third, the reason readers in the high and low groups were not different in their comprehension of narratives is subject to the control over the language used in the simplified materials. Generally, the number of new words accumulated at each level, as arranged by most publishers, is not very large. For instance, in the Oxford Bookworms series, from levels 1, 2, and 3, the numbers of new words are 400, 300, and 300, respectively. Though these quantities of new words seem promising for EFL learners to enhance their supply of vocabulary, not all words will be acquired or learned when the reading ends. In fact, very little is retained in short-term memory.

From the self-learning of Spanish through extensive reading, Harvey (2007), a reading teacher who decided to undertake a study in L2 individualization, found that the unpredictability of memory was very frustrating, especially when he found that the word being looked up had already been done only a few minutes before. Therefore, it is not only the constraint on language but also the acquisition of new vocabulary that have an effect on the readers' comprehension.

Last but not least, the ranges of books readers read affect their reading comprehension ability as well. From this current study, the highest stage of texts the low group could reach was level one, while all except two in the heavy group only reached level two. Those two readers were highly motivated and confident to choose books from level three, which was a successful choice. Towards the end of the study, all of the light readers and more than half of the heavy ones kept searching for more level-one books to read mainly because their English abilities were not appropriate for level-two books. Consequently, in terms of knowledge of less frequent words, these two groups of readers did not differ to a great degree. Given that recall of a word requires it to be encountered and noticed several times, it is highly possible that most readers in this study could not remember most vocabulary items they had encountered in the texts they had previously read. Therefore, it is likely that more exposure to language is needed if comprehension of narratives is to be improved significantly.

Finally, with regard to the effect sizes drawn from mean differences within each reader group, the relatively large sizes signify the practical effect of the experiment and the different amounts of language readers were exposed to. It is, thus, possible to conclude that reading large quantities of narratives influences readers' comprehension positively.

2. Effects of ER Plus on writing-related abilities, developmental patterns of reading amounts and writing scores, and relationships between reading amounts and writing scores

The three sets of research questions attempting to examine writing abilities of EFL readers are looking for a linkage between reading and writing competence. Thus, different means to investigate such relations were used: mean differences of writing scores, developmental patterns of and relationships between reading amounts and writing scores. Due to connections

among the researched variables and results, discussions of all the results will be made in concert in this part.

The findings from the three consequences of the investigation, i.e. test of means equality, trend analysis, and correlation coefficients, suggest that reading amounts and writing abilities did not generally increase or decrease concurrently. In the correlation case, for example, only one pair, out of six of reading-writing data collected at the same time point, correlated at a moderate level. Such a relation occurred when reading was done at only 82 pages on average. In addition, the time series analysis confirmed such inconsequential relations between reading and writing as no systematic pattern of those two sets of variables became apparent. Furthermore, the post hoc analysis of RMANCOVA provided additional evidence that, among all the immediate pairs of writing mean scores, only two sets of writing tasks written when the reading was done lower than 100 pages were found significantly different, while the rest were not.

The findings from the three sources of data analysis seem to suggest that the quantities of language input learners were exposed to may not influence their writing abilities. The main reason could be due to lack of formal instruction and practice of writing skills while the subjects were in the experimental process. In fact, it is the purpose of the study to prove whether the effects of ER Plus could be extended to the improvement of writing ability as were reported by a number of previous studies. Thus, there was neither instruction nor practice of writing skills in the experiment.

The findings suggested that amounts of language input from reading to which the subjects were exposed could not be used to predict their writing scores. However, across the 15 weeks, both groups of subjects' writing scores were increased. This would probably be due to the fact that some aspects of ER Plus have influenced the subjects' writing ability, though at relatively low ranges. The major source that contributed to the subjects' performance would be their exposure to language input. A number of subjects recognized the benefits of their reading on their writing ability. Furthermore, the majority of readers pointed out that their vocabulary knowledge increased. Such knowledge definitely improved the quality of a written work.

Apart from the effects of ER tasks, the IR lessons were also referred to as partly helping the subjects improve their writing ability. The effect from another aspect of ER Plus, the collaborative activities, might not have any influence on the subjects' writing ability as there was no practice of writing among peers in class at all. The last reason that could explain no relationship between reading amounts and writing scores would be due to the range of data collection. For the immediate pairs, it is possible that the timing of data collection, i.e. each at five weeks apart, was not long enough for the input from reading to be acquired or noticed and subsequently produced in written forms. Thus, no significant difference was detected.

On a theoretical basis, the findings derived from this study are not in congruence with the beliefs in reading–writing connections, particularly the one put forward by Krashen (1987) in his Input Hypothesis, which emphasizes reading comprehensible texts in large quantities to improve one's writing ability. A number of previous studies in different contexts, such as in L1, ESL, or EFL situations provide inconsistent results regarding the influences of reading on the writing ability of individual learners. For example, in the cases when L1 and L2 were investigated by the same researchers, different relations were reported. Hedgcock and Atkinson (1993) reveal that there are contrasting results concerning relations in those two contexts. In the case of L1, the school-based writing proficiency of 157 university students could partly be accounted for by learners' extensive reading experience. This indicates that reading engagement in the early school years may be particularly important. In contrast, for 115 ESL learners enrolled in intermediate and advanced ESL writing courses (more than 90% were native speakers of Mandarin, Lao, Indonesian, Japanese, and Thai), there were no significant correlations between writing scores and variables from questionnaires about English language reading habits such as amounts of pleasure reading done during elementary and high schools, frequency of reading, and students' self-assessment of reading and writing skills.

Hedgcock and Atkinson conclude that, based on the results of the studies, at most the extensive exposure to written texts may have little impact on non-native writing proficiency. In addition, they posit that maybe L1 and L2 literacy acquisition needs to be reconceptualized. Both authors question all proposed underlying theories which assume that L2 literacy is acquired by the same processes as that of L1. Although comparisons between the contexts of L1 and L2 in terms

of opportunities for exposure to the target language are of fewer differences, it is possible that families of language between reading and writing of the compared languages could affect the research results. For instance, the languages used by those participants in Hedgecock and Atkinson' study bear little resemblance to English, and this may explain why no relation has been found.

The situations of ESL and EFL learners are, in fact, too far different to compare in terms of exposure and motivation to learn the target language. Such discrepancies could also be major reasons why a wide range of studies investigating the effects of reading on writing abilities of these learners report different, or even contradictory, findings in some cases. Among studies that found positive relations between reading amounts and writing abilities, a wide range of quantities and durations of exposure to input were reported. Given that more emphasis was placed on quantities alone, writing abilities were reported to be increased based on a wide range of exposure to the target input. The following studies are examples and are ordered from the least amount of reading onward. Hong Kong students who read 14.2 graded readers in four weeks and had gain scores of only 1.1 in the reading comprehension test showed an increase in their writing scores (Lai, 1993a). In Japan, 100 university sophomores who read 90 minutes per week and read an average of 759 pages outside of class were found to have improved their writing ability (Hayashi, 1999). Mason and Krashen (in press) also report similar findings as 104 English major students who read an average of 1,500 pages of graded readers had gain scores in writing with impressionistic measures. In another case, Japanese college students who read an average of 2,300 pages over three semesters without any practice or additional instruction in writing showed an improvement in their writing ability over the groups with writing practice (Mason, 2004). All of the mentioned studies, except for the first one, have one thing in common: their participants read much more than the readers in the present study. From such reports, it would be possible to hypothesize that relatively high reading amounts lead to improvement in writing ability.

Apart from reading amounts, length of time spent reading is generally reported as another factor/criterion that affects relations of reading and writing abilities. Short durations of reading that were found to partly contribute to improvement in writing ability were also shown to be unproductive. For instance, after reading for nine weeks, students who were required to read and

summarize what they read in Spanish did not improve their writing ability statistically. Interestingly, the control group that spent their time practicing speaking and writing (while the experiment group read alone) had no improvement in writing either (Caruso, 1994). Although the claim that 'more reading leads to better writing skills' seems logical, the study by Lai (1993b) has proven that it is not always applicable to all types of EFL readers. It was reported that four groups out of eight of 345 Hong Kong secondary students who read extensively for one year gained vocabulary recognition, listening comprehension, and reading speed; however, they did not outperform the control group in reading comprehension and writing ability. The experimental groups were taught intensive reading for one lesson, and the other one was spent on reading on their own in a low-filtered environment, whereas those in the control groups were taught intensive reading for two lessons. Measures of sentence writings showed that two ER groups significantly outperformed the control groups, while the other two did worse. Thus, it was concluded that there was insufficient evidence to prove that increased exposure to comprehensible input can improve writing abilities.

The inconsistent results taken from just a part of empirical evidence of what is known about the relationship between the reading of comprehensible texts and writing competence probably suggest that there is no systematic correlation between the two variables. This seems applicable particularly among EFL learners. Previous findings report both positive and negative relations following either short- or long-term exposure to the language as well as either more or fewer quantities of reading. In other words, the volumes of exposure to language input cannot be used to identify a reader's writing ability or levels of improvements. Alternatively, writing scores do not develop in relation to amounts of reading. The findings confirm the remark made by Nuttall (1996) stating that the improvement in writing of readers who read in large quantity may be noticeable in a year or two, not overnight.

From theoretical grounds, it is possible that there are other factors that affect writing skills other than reading input alone. In fact, there are quite a few major sources that are claimed to contribute to growth in writing abilities. However, only aspects relevant to the study, i.e. the influence of input and output practice, the characteristics of simplified readers, and the conscious learning of language will be discussed.

In relation to the effects of comprehensible input, Krashen is the most influential theorist who supports extensive reading as a way to improve writing competence. He hypothesizes, for instance, that "writing ability is not learned but is acquired via extensive reading in which the focus of the reader is on the message, i.e. reading for genuine interest and/or pleasure" (Krashen, 1984: 23). In addition, he asserts that the acquisition of language will be most effective when the readers' filters are down so that input can be acquired unconsciously. Most importantly, the language to be exposed to must be at the $i+1$ level, i.e. just a little bit above the readers' language ability. If Krashen's criteria need to be met to successfully increase the readers' writing ability, this study provided almost the entire necessary environment that was appropriate to the context. For instance, the environment encompassed various strategies to reduce performance anxiety, including allowing readers to choose appropriate books on their own, not testing what was read, and focusing on general comprehension only. In addition, evidence from the perception surveys showed that readers of both groups rated enjoyment and pleasure from reading at moderate to high degrees of magnitude across 15 weeks, with the higher amount of engagement corresponding with the higher degrees of enjoyment.

However, the condition that was not easy to manage was having readers receive the $i + 1$ input, which is generally comprehensible to them. The main reasons for this incomplete provision stem from the relatively low English proficiency of most subjects. Although all readers started with the beginner level, many still found the books too difficult to read extensively. Thus, these readers only partially understood the stories, and this was when their enjoyment diminished. All readers from the low reading group and some from the high group revealed that they had reading problems, especially with vocabulary which affected their understanding of the stories. Simply put, they found more than five unknown words in a page even though they did choose books at the beginning level. Furthermore, the requirement of only general understanding from the texts allowed readers to read at a superficial level. Such practice across 15 weeks, even with some increased vocabulary, may not have been adequate to enable them to reach the threshold level of producing language in sentences. If Krashen's presuppositions are applicable to EFL learners in this context, then this situation, which was not adequately satisfied, could be major justifications for the lack of relations between reading and writing abilities.

Regarding the production of language, according to Silva and Matsuda (2002), understanding some of the writing strategies through practice is helpful especially for less experienced writers. In fact, a number of ER studies prove that writing practice partly contributes to the improvement in readers' writing ability such as Mason (2004), Caruso (1994) etc. However, writing progress is also claimed despite formal instruction or practice at all, e.g. Mason and Krashen (2004), etc. The idea of writing practice is in line with the Output Hypothesis proposed by Swain (1999). That is, production of language is also necessary as, while creating a piece of work, writers can hypothesize and take notice of the language they use in writing. Unfortunately, in this study, there was neither writing instruction nor practice during the treatment period. Therefore, there is no evidence to prove if practice on writing has any impacts on the production of written work among EFL learners. It is possible that only reading input may not have been sufficient to provide solid foundations for writing skills to be improved.

In addition, in the case where writing practice is not performed on a regular basis, it is highly likely that language is not noticed adequately. The acquired knowledge readers gain from comprehensible input that is easily lost may not be sufficient to help them create a piece of text as desired. It could also be that the vocabulary they encounter while reading, be they familiar or unfamiliar words, does not come to mind when they are about to write down whatever they would like to express. Evidence from Yamazaki (1996) demonstrates that nine weeks of engagement in reading 18 graded readers with a 26% gain in vocabulary did not increase competence much because, according to a delayed posttest, there was a vocabulary loss, though not to pretest levels. If such acquisition of language is so delicate, then it could explain why readers do not improve their writing ability significantly.

Despite those theoretical justifications, the characteristics of simplified language could be other sources of scarceness of reading/writing relations. It is likely that the pleasurable nature of engagement in extensive reading of simplified language may not be contributable to growth in writing competence. That is, while reading, readers focused more on plots and role of characters in the stories, not on the language. Although acquisition may occur at any moment, that may not happen over night.

With such distinctive traits of the language input particularly from simplified readers, it is possible that higher volumes of language engagement may not commonly indicate higher language acquisition. Possibly, the readers' incidental and fragile learning from comprehensible language mentioned previously may not be strong enough to enable the production of written language. It is also hypothesized that there is a threshold level of reading input that facilitates a reproduction of language in written form. Therefore, a combination of all the mentioned aspects could limit the influence of reading on writing abilities.

Similarly, in respects to the conscious learning of language readers experienced during their IR sessions, Harmer (2001) points out that the noticed language infers neither to the acquisition of language nor the ability to use it immediately. The production of the acquired/learned language spontaneously takes longer period since it needs sufficient processing time in the learners' memory through noticing and may be restructuring before being available for use. In addition, according to Batstone (1994), there are stages when the noticed language is structured and restructured before the learners adjust it to their existing hypothesis of language. Therefore, it is necessary that the learners try the language in different contexts before they feel more confident to produce it in a written form.

In a more practical perspective, it was also apparent that many readers did not improve their writing ability since they were not yet capable of constructing basic sentences in English. This is possible since most subjects had neither been taught nor practiced writing in class before, so they had no background on how a piece of written work could be organized or even how a sentence can be formulated. It would, thus, probably take them over a period of several months or even years to acquire or learn how to put words into logical sentences. The lack of relationship between the subjects' language input and writing ability was also confirmed by the effect sizes yielded via Eta Square of the RMANCOVA. The considerably small size of effects (.193) signified both variables' practicality significance when put into practice.

3. Perception of reading development through time

3.1 Reading strategies

Empirical evidence from the perception surveys regarding reading strategies development of ER readers showed that the majority used both effective and ineffective strategies at a moderate level. However, with greater volumes of exposure to language input, the high group used ineffective skills e.g. translating texts into the native language, at a lesser extent, and used helpful skills, e.g. understanding texts in English and using contexts to guess word meanings, more and more. Effective strategies that the heavy readers used inconsistently across 15 weeks included using a dictionary and reading for main ideas, while the ineffective strategies they used included translating word by word. On the contrary, those who read less adopted more of the ineffective strategies. One strategy that they adopted more prominently, e.g. translating word by word, suggested that they may have been reading texts that did not match their language ability. They also used several strategies inconsistently, e.g. translating texts into the native language, reading for main ideas, translating texts in English, and using contexts clues to guess word meanings.

It is quite clear from the subjects' reflections that the teaching of reading strategies plus some outstanding components of ER, e.g. reading comprehensible texts, reading for general understanding, choosing texts from the readers' interests, etc., helped them improve their reading strategies. However, it is noteworthy that since there was a recycling of words, these readers were found to use dictionaries less often. The majority readers mentioned their increased knowledge of new vocabulary.

The fluctuation of strategies used among all readers, particularly the utilization of more and less effective reading strategies across 15 weeks, may have arisen from several causes. First of all, reading materials can greatly affect readers' use of strategies. The books that are far beyond readers' ability could influence them to revert to ineffective strategies, such as using a dictionary more frequently since the contexts do not provide enough information for guessing to work effectively. Those who chose texts at the right level, which were comprehensible to them, could decode them in English and tolerate more ambiguity with the use of word guessing strategies,

because there were fewer unknown words. When readers chose difficult texts, they could not read quickly as several unfamiliar words in each sentence impeded their understanding. A large number of subjects read difficult books, i.e. books with more than five unknown words on a page, owing to their low ability in English. Having to read books above their level could be a major reason most readers were still frequently struggling, trying every means to facilitate their understanding of the texts they were reading.

Although all readers still adopted some ineffective strategies, it is clear from their increased reading speed that they read more fluently by the end of the experiment. This implies that they must have utilized more effective strategies that facilitated their understanding and increased their reading speed. Readers themselves noticed such constructive changes in their own reading process as shown by the increased degrees of recognition of their reading development regarding time, speed, and comprehension. Most of them expressed positive perceptions on their skill development.

According to Grabe and Stoller (2002), when a text is successfully and rapidly read, various processing components of reading are likely to operate better. Although all readers used both effective and ineffective skills inconsistently, it is likely, from the trend of the average mean scores, that they are going to use more of the effective and less of the ineffective strategies in the future, providing that reading is promoted. An important sign of positive attitudes towards reading is that both types of readers steadily perceived their reading development progressing at higher degree following their increased quantities of reading. Such evidence reflects how readers perceived the progress of their reading.

The attributes of simplified readers also promote strategic reading. Clearly, such materials allow low proficient readers to read similarly to that of their native language. Most importantly, the nature of pleasure reading and the low expectations from teachers in terms of comprehension of the texts allow them to read for overall understanding. Such practice makes the reading flow at a faster rate, unlike that of intensive reading. This is because low comprehension signifies faster speed and vice versa. In intensive reading, readers are required to understand almost every single detail, as the follow-up tasks comprise not only questions on the contents but

also on language features. Thus, comprehension is at a considerably high level, and reading speed is at a slower rate. Moreover, salient characteristics of graded readers, i.e. the limited grammatical structures and vocabulary ranges plus graphic illustrations, lessen the complexity of the texts when compared to standard reading texts that are not graded. Besides, the fun from fiction heightens readers' motivation and enthusiasm to finish the texts as soon as possible to discover how the story ends.

ER research studying the development of reading skills over time is scarce. Generally, what have emerged from most studies are by-products of extensive reading. One indicator of development in reading strategies is the speed that individual readers has achieved by the end of the project. Faster paces of reading signify that readers must have utilized efficient strategies such as, in this case, understanding texts in English rather than in the native language, using contexts to guess word meanings, or reading for main ideas instead of word by word. The findings prove that less experienced readers, in this case reading lower quantities, use less effective strategies and so they read at slower paces. Although the differences between improvements in reading strategies of these two types of readers are not distinct or large enough, they provide some guidelines regarding the extent to which reading speed can be accelerated among EFL readers.

In summary, the improvements in terms of reading strategy development found by this study demonstrated that low ability EFL learners can become strategic readers through extensive reading of simplified reading materials. Being able to read a foreign language the same way as reading the native language is an essential foundation for engagement in higher-level texts. At the very least, learners recognize that reading is similar in all types of languages and that there are various means to make sense of texts. Readers with experience encountering only difficult texts lack this realization. As a result, they depend more on word-by-word translation and frequent use of dictionaries. Such practice slows reading and hinders comprehension. Therefore, reading teachers should make use of simplified readers to hook their students on the pleasures of reading right from the first stage. Once basic strategies and motivation to read or confidence are firmly established, it should be much easier for students to deal with texts at higher levels.

As regards contributions to research in the field, two assumptions based on the findings of this study have emerged after learning that readers in the high group tended to adopt more effective strategies than their peers in the low group. First, those who use more effective strategies should outperform their peers who adopt more ineffective ones, especially in reading comprehension and speed. Second, the higher volume readers have higher motivation or more positive views towards their own reading than the lower volume readers. This may allow a general conclusion that higher motivation leads to more reading and vice versa. These assumptions will be discussed in further detail in a subsequent topic.

3.2 Reading motivation and reasons for reading

The results of two major issues, reading motivation and reasons for reading, since they are complementary to one another, will be discussed together in this part. Considerable empirical evidence found that all types of readers, be they L1, ESL, or EFL, and youths or adults, participating in all ranges of reading engagement, were typically reported as having positive attitudes towards reading for pleasure (e.g. Mason and Krashen, 1997; Evans, 1999; Hayashi, 1999; Yang, 2001; Takase, 2003, etc.). This study is no exception; the high and low reading groups gradually signaled their similar positive perceptions toward the activities, although those who read less had lower degrees of motivation.

According to the perception surveys of this study, readers in the high group carried on reading mainly because of their enjoyment of the stories, their ability to understand the contents, their interest in the books, their hopes to improve their language skills, and their desire for better grades. In contrast, for the low reading group, longing to enhance their language skills came first, followed by enjoyment from stories and interest in the books, respectively. If those justifications are classified either as intrinsic or extrinsic motivation, then both types of motivation influenced readers' endurance in performing the tasks. From existing theories, intrinsic motivation is superior to extrinsic motivation. Numerous studies seem to agree that the incentives that come from learners last longer and are more effective than those provided by outside forces. Results from this study did not contradict the existing theoretical grounds

(Takase, 2003) as the higher quantity readers cited increased enjoyment, an intrinsic motivation, as a reason that made them keep reading on their own.

The main reason the subjects in the high and low groups developed their positive attitudes toward reading and this heightened their motivation to reading was due to the components of ER Plus, particularly the ER sessions. Several task types differed from the ones the subjects got used to and those activities helped alleviate their stress when having to cope with questions that required their expertise in language. Examples of such tasks were working collaboratively with peers, discussing about the stories they had read, no test on the books they had read, reading comprehensible texts, choosing books that they liked, etc. Evidence from the subjects' reflections which revealed their positive perceptions toward those tasks.

If readers in the high group are considered successful in terms of progress in reading when compared to the other half of their classmates who shared all academic circumstances, the findings of this study yield support to Nuttall's belief. According to Nuttall (1996), enjoyment and quantity are keys to success in reading. Based on the subjects' reflections after reading from 200 pages up to 400 pages, the number one factor that motivated them to read most was enjoyment from the stories. These EFL readers were also hooked on the interesting narratives even though they admitted having difficulties understanding the texts. Students' reflections confirm such a claim. As a result, it is highly likely that if they continued reading for a longer period, enjoyment would still remain the major source of reading motivation.

In addition, Nuttall's vicious circles and virtuous circles explain what happened with readers in this study reasonably well. That is, readers (especially in the low group) were caught in a vicious circle as their English abilities were generally lower than the graded readers at the beginner level. Therefore, they found more than ten unknown words per page, which made their reading slower and more troublesome. Several of them felt under pressure, hopeless, and bored, and some wasted a substantial amount of time looking up the meaning of all unknown words. According to the subjects' reflections, they did not seem to enjoy the reading process because they could not comprehend the stories, or they misunderstood them. This resulted in the reduction of their motivation to read even further. When they did not read more, their ability did not

improve, thereby keeping them stuck in the vicious circle of low reading ability. On the contrary, for those with higher proficiency in English, reading graded readers seemed to be more of a positive challenge. In fact, these readers shared similar problems with those in the low group. For example, across 15 weeks of reading engagement, the majority always cited insufficient knowledge of vocabulary and inability to comprehend the texts as major reasons that caused them to give up reading from time to time. However, it could be postulated that such problems were solved partly due to a smaller gap between these readers' language knowledge and the simplified language. Therefore, they could still find some enjoyment from the stories. These feelings of enjoyment should create a virtuous circle that helped increase their positive attitudes toward both the language and their own reading performance, motivated them to read more, and provided positive reinforcement as their abilities continue to improve.

Data from the survey demonstrated that higher amounts of exposure to the language led to several positive attitudes toward the ER Plus activities and, therefore, an increase in their motivation. Such motivation aspects included desire to continue with another book, liking of English and reading, feeling like reading on their own, and seeing reading as beneficial. This last factor was rated relatively high and was the highest in degree. Confidence in reading, which was rated higher nearly every time the reading amounts increased, seemed to suggest that, based on Nuttall's virtuous circle, these readers were likely to have continued reading, even without any assignments, had reading been promoted longer.

The conclusions from the data that have emerged from this study also partially support the Expectancy and Value Model of motivation proposed by Feather (1982). According to this model, four variables motivate the desire of ESL students to read. These include materials that are interesting, linguistically appropriate, attractive, and available; reading ability; attitudes towards reading in ESL; and sociocultural environment, which includes influence of family and friends. For EFL learners in this study, enjoyment from the stories came first, followed by comprehension of the texts, interest in the materials, and desire to improve language ability. Particularly, wanting to receive good grades and being influenced by peers were referred to as trivial incentives, but still were able to stimulate some readers in this study to read.

When considering the sociocultural factor, it was discovered that families seemed to play critical roles in increasing or retarding learners' wide reading. Since most readers came from middle-to-low income families, almost half of them were required to share the responsibility of taking care of themselves and their families. Some of them worked part-time, so their weekends were occupied. During the day, some complained that they had several assignments from other instructors to fulfill and all were equally important. Although readers in both groups posed 'no time' as their reason for not reading, the high group ranked it mostly as the third in importance in a series, while the low group considered it as the first, second, and third following their reading amounts of 50, 100, and 150 pages. As a result, for EFL learners, specifically those in this context, shortage of time, which is rarely reported as a problem in the majority of ER research, seems to be a major factor that all teachers should take into account, apart from common reading problems. If readers have no time to engage in reading, the ER project is unachievable and becomes a waste of all that has been invested. Unfortunately, among those with limited time, there are some whose English abilities are good enough to pursue the task. However, ER activities are time consuming. Hence, time for reading should be placed as priority if achievement in language enhancement is the aim. Many readers, thus, have succumbed to the time challenge in pursuit of good grades.

In addition to families, friends were mentioned by some readers as a source of encouragement to pursue reading engagement. However, it was obvious, from all responses, that peer assistance was not very important among readers in both groups. In fact, it was ranked the last among all factors that boosted the reading engagement. Among Kagan's (1994) four basic principles for collaboration adopted as underlying the organization of the ER tasks, i.e. positive interdependence, individual accountability, equal participation, and simultaneous interaction, the second and third aspects did not work effectively with this specific group of learners. As for individual accountability, the group will be considered successful when each member learns, displays what has been learned, and participates in the group's learning. Nevertheless, most readers in this study considered themselves low in proficiency, therefore, they could not share or provide assistance to others very well. Sometimes, they could have helped, but their friends did not trust them. Generally, weaker readers asked for help from those with moderately low ability, not those with high ability. It seems that more skilled readers were confident in themselves and

tended to read alone, while the low ones did not dare to approach them for help. They frequently read far more than the others, which was another cause that set them apart from all peers.

As regards equal participation, through observations both in class and at the interview location, it was found that low ability readers approached some capable readers mainly to clarify unclear parts in the texts. Besides, among the low ability readers, they translated the stories into Thai to one another. Such assistance was allowed as the higher ability reader could be exposed to language repeatedly and the low ability reader could learn in a low-filtered environment. In fact, sharing among peers should be an effective means to support the commitment as it directly solved the main reasons readers did not read, i.e. inability to make sense of the texts and unfamiliar words. However, the major problem that caused inequality of members' participation in certain tasks was the low ability in English of the majority. Such a problem lessened their confidence to share, particularly, knowledge about language. It is possible that if there are more capable learners in this group, peers' assistance would be a more effective means to facilitate their reading engagement.

The empirical evidence of the readers' reading motivation in this study suggests that the ER activities deserve to be integrated in language classes. As the statistics showed, although readers were not very competent in reading, their reading motivation rose steadily across the treatment period. Even the low group had gradual increases in almost all aspects, except for enjoyment from reading and liking of reading which decreased slightly toward the end of their reading engagement. This could be due to the choices of books they had read, the reading problems they encountered, the stress arising from low amount of engagement, etc. If more amounts had been achieved, more evidence should shed light on whether enjoyment was also increased among these readers. Other than that, the positive aspects that increased and were crucial signs of continuation of the tasks included confidence in reading, desire to continue reading from one's initiative, liking of English, and realization of the benefits of reading. Substantial gains in motivation suggested that ER activities should be adopted in language class to increase learners' enjoyment of their engagement in another language. The activities were also proved to be effective in improving EFL learners' reading abilities in this specific context. The findings, thus, confirm the claim made by Davis (1995) that "any classroom will be the poorer for

the lack of an extensive reading (ER) program, and will be unable to promote its pupils' language development in all aspects as effectively as if such a program were present."

Theoretical Contribution to the ER Research

The consequences of this study should be able to shed light on some theoretical grounds in the ER research community. First of all, it is most likely that the optimal amount of reading to be used as a baseline for EFL learners to improve their reading ability may not exist. The quantity each particular group of learners should read depends largely on their personal backgrounds, sociocultural factors, reading materials, and the extent of their inspiration. The amounts of reading suggested by this study, for instance, would be appropriate to generalize only to EFL learners who share most of the contexts with those of this group, not the majority of EFL learners, even in the same context as Thailand. The best way to estimate the proper quantity and frequency of reading engagement that yield productive results is to let the project run, then, provide the best support, and in one or two months, some criteria could be estimated. Specific groups of students have their own problems that, more or less, affect their reading potentials. As a result, the best criteria for ER to work effectively could be informed most accurately by the current teacher of that particular group of learners.

Another postulation that has emerged from this experiment involves the essence of ER tasks that future researchers should inform practitioners. Results of this research imply that, if norm is to be established, acknowledging only reading quantities and reading extents are not sufficient to give light to those who are devising lesson plans to enhance certain groups of learners' reading ability. Consider these two research findings: in Lai's four-week study, students read one or two books a day; and another one, in Lai's one-year experiment, students read 20 books on average. The first report, which contains reading amount, reading extent, and frequency of reading, should provide better information both for teachers and researchers in making further use of it. On the contrary, the second report, although providing the intensity of reading on average, would benefit consumers of the research results much less because it is difficult for them to estimate the frequency of reading engagements readers were involved. Similarly, the two groups of readers in this study, although they had 15 weeks to read equally, were not equal in

their frequency or intensity of reading engagement. In another example, reading three and a half hours in class weekly may affect the readers' competence differently from reading half an hour every day although the volumes of reading per week are equal. In summary, it seems that the frequency of exposure to language input should be another crucial factor that influences readers' language enhancement. Thus, it should be reported on a regular basis along with the usual aspects of reading amounts and extents of reading engagement.

Overall, despite the controversy over how much readers should read to best facilitate their reading competence, it would be useful if the three aspects of research findings: amounts of reading, frequencies of reading, and extents of reading are identified. All these combined should better inform practitioners the optimal dose that may be appropriate for enhancement of their students' reading ability. It is also much easier for the consumers of research findings to estimate and make decisions as to which norms would be most effective with their specific types of learners. Then, controversy over which dose works more effectively should end.

Implications for language instruction

It is undeniable that ER is a valuable method that can be used particularly to motivate students to, first of all, develop interest in reading, then, continue to read on their own, and still be willing to continue reading longer, as has been revealed by readers themselves. That seems effective enough to start with as, once students want to read, then language features or skills can be enhanced just from their exposure to language in the books. The following are suggestions derived mainly from the research results and the subjects' reflections provided at the end of the experiment. In addition, there are some guidelines for improvements of ER projects to be organized for EFL learners who share similar contexts with this group of language learners.

1. Organizing ER activities as part of a language curriculum

It is advisable that ER tasks be integrated into a language course rather than separate as extra-curriculum activities. The major reason is due to the nature of reading development, which cannot be accomplished in a short time. Readers themselves can be discouraged and given up at any moment especially those with low proficiency who commonly face considerable difficulties

making sense of the texts. There are numerous reasons readers stop reading. In this study, for example, half of the subjects were not successful and could manage only 147 pages on average although they genuinely wanted to receive better grades. Difficulties in reading cause anxiety among readers, and if there is nothing so important that is worth their attempts, they can stop the task at any point. Therefore, if the reading assignment is not integrated into a course, and there is no regular teachers to take responsibility, students can disappear easily at any time.

Additionally, incorporating reading of comprehensible texts makes readers realize that they are able to read English books using the same strategies as when they read in their native language. Most readers in this study recognize their weaknesses as they generally mention their poor competence and limited word resources. This, in turn, implies that if they know more vocabulary, they could read more effectively and strategically. Hence, it could be claimed that ER activities help readers realize their reading problems and know how to alleviate some of them.

2. Incorporating ER into a reading course

The courses that can take most advantages from the supplementary reading can be any reading-related subjects, although previous research found that several skills can be enhanced by reading in quantities. There are a number of benefits resulting from integrating this pleasure-oriented reading.

First, for lower-ability readers, ER allows them to use reading strategies properly. Although readers in this study revealed that the instruction of reading strategies was useful and helped them read better and faster, most complained that they could not make full use of them with the course book. For example, they could not guess word meanings, read for main ideas, interpret or summarize some parts, etc. The text was too difficult for them to apply the taught strategies. Instead, with their *i+1* texts, they could read more strategically similarly to their L1's reading. For instance, they could guess meanings of words as there were more known words than unknown ones, they could read for general comprehension, there are some illustrations to help confirm their guess, etc. Besides, they could identify the subjects, main verbs, and some modified phrases as the structures were not very complicated. The confidence arising from readers'

experience with fluent reading of comprehensible texts can then be extended to the reading of their course books, which is the main purpose of the course.

Second, additional reading is like a bridge for transferring readers' motivations, and language knowledge. In brief, despite reading easy books, most readers had negative attitudes toward reading in English during their initial stage of reading. After their frequent engagement with the narratives, they became more and more positive to continue reading. That is, their motivation to read was higher along with their increased knowledge of language features. Although these readers still stored limited vocabulary, the reading experience made them feel more confident to manage their course books.

Third, for high proficiency readers, additional reading is also recommended as it allows them to make full use of their potential. Apart from beginning with comprehensible texts to accelerate fluent reading, they should be encouraged to read authentic materials with a wide range of text types accessible via the Internet. Such a valuable source should reduce problems of shortage of reading materials that many underprivileged who come from remote areas or poor families encounter. The frequent and higher quantities of reading will boost the readers' confidence to expose themselves to more challenging texts, thus increasing their attitudes and motivation to read.

Finally, a combination of strategy training and reading texts of interests strengthens the effectiveness of the reading course in making preparation for skillful readers. Generally, typical reading courses are intensive-reading oriented, i.e. students read fewer, shorter, and more difficult texts in detail, followed by linguistic enhancement in the form of exercises on grammar, vocabulary, and text analysis, among other things. The purpose of the reading is for a complete and detailed understanding of the texts, which is basically considered 'reading for academic purposes.' The benefit of inclusion of ER into an IR course is apparent from the advice made by Carrell and Carson (1997). That is, while students learn how to use effective reading skills overtly from the IR class, they also need the practice of reading in large volume to coordinate and organize the skills and strategies already acquired in order to read texts from a wide range of sources to achieve academic requirements (Carrell and Carson, 1997).

3. Estimating optimal reading amounts based on students' backgrounds

Although the answer to the question 'whether ER is applicable to EFL low proficiency learners in a low-reading society' is positive, pedagogical strategies must be adjusted. For example, teachers' expectations in terms of quantity of reading that students are supposed to accomplish should be reduced so that they are most appropriate to specific groups of learners. In this study, for example, the target quantity of reading was not set from the outset. Rather, it was mentioned toward the end of the experiment using the highest amounts performed by the readers in the group as a baseline that the others should be able to achieve. In fact, most ER studies conducted with EFL learners report total reading amounts several times higher than the ones in this study. However, readers in this study encountered several obstacles when it to their low English abilities, their less fortunate sociocultural context, and particularly their availability of time to read, among many other things. Any combination of these aspects could affect the readers' quantity of reading as were mentioned in their reflections to address the question 'why they were not engaged in reading.' As far as the researcher is concerned, the average reading amounts of 147 and 364 pages are the best volumes the readers in the two groups could manage within a number of aforementioned constraints. These volumes, although seemingly too small when compared with others, are appropriate and can be generalized to students with similar characteristics and contexts. In summary, after all concerned circumstances are considered, it is recommended that ER activities can be implemented for EFL low proficiency learners in a low-reading community with some adjustments so that learners' potentials can be maximized properly.

4. Providing appropriate materials for readers to choose according to their interests

Books are the focal point that effectively created a center of attention and motivated readers in this study to read extensively. According to these readers, books that are appealing are, in particular, easy to read and also contain easy vocabulary, reasonable plots, and lots of useful illustrations. In fact, what the readers demanded from the books can be achieved just by making the correct choices. When individual readers choose appropriate books; that is, those containing

i+1 input, they will find their reading experience a much happier one. For example, when stories are comprehensible, readers can find reading to be interesting, enjoyable, and even pleasurable. Conversely, those who face all the difficulties with, for example vocabulary, comprehension, boredom, etc., generally made the wrong choices of books. A number of readers revealed that following their own interests helped them read more effectively and with enjoyment.

To serve readers' various interests, availability and sufficient stocks of reading materials are very important. There should be a variety of text genres, each with all levels of difficulty. If there are enough books for readers to choose from, reading problems will be reduced. Books at beginning levels should contain interesting and sensible graphic illustrations to ease comprehension. Most low ability readers in this study relied heavily on pictures as a means to understand the story. However, a number of them made complaints about the length of some books. In fact, short stories of about 30 pages are good particularly for low ability readers. They will have a sense of accomplishment once they finish a book and are stimulated to continue with another book. On the contrary, the longer ones could make them bored and lose concentration easily. Hence, it is very important to ensure individual readers are satisfied with the collection of books available.

5. Using collaborative activities as appropriate

Sharing among peers has both advantages and disadvantages. In fact, peer assistance was raised throughout the 15 weeks of reading engagement as a reason for some readers' continuations of reading. Responses from readers in this study showed that peers inspired them to read books recommended by one another; generated cooperation among group members; and created enjoyment, sharing, and a learning community. However, assembling from time to time in class was not always productive as a number of unwanted behaviors occurred including inequality of knowledge (the higher quantity readers felt disadvantaged when sharing with the lower quantity readers), uncooperative relations among group members, doubts of peers' explanations/knowledge, nonsense chatting, and disagreement over some issues. The pros and cons of collaboration among friends signify that the activities should be adopted with great care, so as to produce efficient outcomes.

Recommendations for adopting peer cooperation in terms of pedagogical preparations include:

- setting clear purposes for implementing the tasks, e.g. to motivate more reading, to share knowledge of language or of what has been read, etc.;
- limiting time and specifying procedures of each task;
- emphasizing the individuals' contributions to the group work, so all members are required to participate;
- making the tasks closely related to the books students are reading, so each has to read in order to share something from his/her own perspectives;
- organizing the activities systematically, so students will learn that the teachers are serious about their performance, and
- providing some advice on how group work can be organized efficiently.

6. Teachers providing support

It is of paramount importance that teachers take the reading seriously and be ready to provide assistance when readers encounter some reading problems. Only when the teachers lower their expectations will students intuitively realize this and lessen their efforts accordingly. Organizing meetings with individual students regularly is an effective way to ensure that all are attended to. It is possible that low-ability readers will avoid talking with teachers; therefore, making them realize that the purpose of the meeting is to provide assistance, not to check on their comprehension or performance, is crucial. Giving moral support, expressing sympathy, and suggesting ways to solve the readers' problems are always effective in helping these low proficiency ones. If they are not too low in language ability (real beginners), nor do they have problems with time constraints, and particularly if they want to improve their language skills, then problems are solvable. Although close guidance is necessary as some students may just disappear and give up engaging in reading, practically, teachers can be flexible in dealing with them. For example, they can give some advice to students in small groups, manage group works

so that students learn from one another, get students summarize what they have read to check whether the reading has been done, etc.

7. Giving the reading engagement continuity

Teachers should make reading and its follow-up activities a routine. It is reasonable to organize a sharing arena for all readers weekly so that when each finishes one book, he or she shares it with other members. Sharing in any form, e.g. writing reports, drawing and narrating, discussing, etc. makes the reading meaningful and encourages more reading. It would be best if the ER project is organized across all levels of students, both in schools and universities. At a university level, for instance, students should be encouraged to read from their first year, as the exposure to English texts increases the chance of language acquisition. Also, they may be asked to read online, which stimulates even more enthusiasm. Good and low-level students can read authentic texts from all over the world, and eventually English will no longer be unfamiliar. This will benefit them when they search academic texts for their own assignments. Teachers should keep yearly files of each student and pass them on to the next teacher who will take responsibility for the reading promotion. The information that is kept on records detailing types of reading materials, as well as amounts and frequencies of reading engagement each students have experienced, all of which help the teachers plan or promote reading that can successfully serve their purposes or future careers.

8. Teaching writing overtly

Based on the research findings, language input to which the subjects were exposed did not affect their writing ability. It is, hence, recommended that, particularly for EFL low proficiency learners, the teacher teach writing overtly, either as a separate course or as an integration with a reading course. Although reading at the amounts done by the subjects in this study did not help improve their writing ability, the exposure to language should still be useful. This is because while reading, the readers see examples of how sentences or discourses are put together to form a piece of text. When the reading segment is combined with formal instruction of language structures or rhetorical features, the readers are required to consciously notice the language they have just encountered. Such experience would be even more helpful if learners

were asked to write a piece of text similarly to the genre they had just read. With such an integration, reading and writing would complement each other and the enhancement of both skills would be more successful.

9. Ensuring students have time to read

According to the readers' reflections, availability of time to spend on reading was a major factor that affected their amounts of reading. For instance, a few readers who read more than 400 pages disclosed that the main reason they read substantially was their free time. They had nothing to do, and reading was one way to kill time. Moreover, a number of readers mentioned that reading in class was good in that they had more time to read, which implies that they hardly find time to read out of class. Accordingly, sometimes it is necessary that free time at school or university should be reserved for this purpose, e.g. half an hour after lunch, before the class begins, or after class everyday. Besides, in the context where the majority of students take financial responsibility for themselves by working outside of the university, expectations in terms of amounts of reading must be adjusted to meet their time availability. In contrast, where students have less financial burdens and more time to spend, the teachers should set more demanding expectations.

10. Incorporating ER in a school language policy

Since the incorporation of ER is apparent by promising in the enhancement of low-ability EFL learners' reading comprehension ability, reading speed, comprehension of narratives, and most distinctively in reading motivation, it should be considered to be included in a school language policy. However, since ER is considered a flexible means of language learning, how it is organized depends mainly on the purpose it serves. Thus, it can be run just temporarily to motivate learners to become interested in reading and in books, or permanently to enhance readers' knowledge and skills in the target language.

Most importantly, it is necessary that the administrators agree to the utilization of ER as a means to improve students' reading skills in academic institutions. This is due to the fundamental requirements for establishment of an ER project, e.g. a large sum of money to be allocated for

arranging and maintaining reading centers and purchasing reading materials, as well as the school time to be assigned for reading engagement purposes. It is worth mentioning that availability, quantity, and quality of reading materials are very important, particularly during the orientation process to introduce students to the project. After being orientated to the benefits and necessity of ER, schools can choose to provide reading materials online. With sources available via the internet, students can read where they like and problems with places and books for students to borrow can be solved.

Overall, ER should be positioned as a major supporting part of a language curriculum, particularly in reading courses. Other essential components that help strengthen the effectiveness of the activities include availability of appropriate materials, teacher support, peer collaborations, continuation of the activities, and availability of time to read. All seem to be equally important; emphasizing some aspects at the expense of the others could reduce the overall achievement.

In summary, to help low-ability learners catch up with the majority of the class, teachers can integrate supplementary reading into a reading course, set appropriate expectations, provide sufficient reading materials and regular support, and ensure all activities are attainable. The extent to which the bridge (ER) can reduce the gap between the low-ability readers' current ability and the expected-level ability depends mainly on the quantities of their exposure to the language input. Such quantities can be made possible through four main components: comprehensible input, low-filtered environment, quantity, and enjoyment of reading.

Recommendations for Future Studies

There is some evidence, based on the findings of this study, that requires additional verification, particularly in the context of EFL learners in low-reading societies. Detail is as follows:

1. Future studies should experiment with more participants who vary in levels of language proficiency and gender. Such studies could provide more efficient guidelines for generalization to wider-ability groups made up of both male and female students and would help teachers devise more effective plans to deal with students with different abilities.

2. Studies with longer duration of reading engagement such as one to three years should be conducted. This study lasted only one semester, which for EFL students is not long enough for language acquisition to be clearly noticeable. With longer engagement in reading, more evidence concerning specific progress in language features or skills can be observed at different time points, particularly with the emphasis on the use of qualitative data collection. Additionally, more questions can be researched, for instance:

- Is students' motivation still increasing steadily similar to readers in this study's first few months of reading?
- Does reading comprehension, reading speed, vocabulary retention, etc. keep increasing in accordance with the higher amounts of reading engagement?
- If some groups of students stop reading for a while, to what extent will vocabulary loss occur?

Long-term experiment is more beneficial particularly to the teachers, course developers, and administrators. These people can devise a long-term plan based on the findings to improve their students' reading ability systematically. They should know, for instance, how long it will take for their students to become skilled readers so that realistic course objectives can be set.

3. More research should be conducted using strict $i+1$ reading materials with all participants. The findings may help shed light on the extent to which students' reading ability can be enhanced through comprehensible input. Some subjects in this study did not read books at the $i+1$ level, which is appropriate to their language ability; thus, it is hard to argue for or against the Input Hypothesis proposed by Stephen Krashen.

4. It would be interesting to investigate the strategies readers with equal ability use while reading books at a wide range of difficulties. It is possible that readers' strategies vary in proportion to difficulty levels of the books they are reading. Therefore, following each group of readers with certain abilities through a time series would help the researcher identify strategy changes that occur over time. Changes of strategies used by readers in this group are not obviously distinct as they read books with a mixture of difficulty levels and the reading engagement lasts only 15 weeks. Findings from such research should inform reading teachers of how they can arrange reading lessons to provide students with fluent use of reading strategies or if

certain strategies are required to be learned, which type of texts should be used to fulfill the purpose.

In summary, more research on a similar topic should consist of more participants, particularly male, more levels of reading amounts, more levels of language abilities, and a longer duration. In addition, several types of reading materials should be investigated in case they yield different outcomes, e.g. authentic materials, strict *i+1* comprehensible texts, features or academic texts, and cartoons. Lastly, investigation could also be made when reading strategies versus texts at various difficulty levels are used. All these, if can be researched further, should be of tremendous values to the improvement of reading instruction, particularly in the EFL context in Thailand.



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Appendices

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Appendix A

Measurement Instruments

1. Reading Comprehension Test

Directions: Read the following three passages and choose the best answer for the questions after each passage.

Passage 1: Sleeping Less in the Twenty-First Century

Today, people are getting less sleep than they need. Most people need to get 8 hours of sleep each night. But today, many of us are not getting enough hours of sleep. People use their sleeping time to do other things such as work longer, go to meetings at night, eat supper late, go food shopping, watch television, spend hours on-line, or stay out late. Some people wake up early to study, do housework, go to the fitness center, or cook food for later in the day. In today's society, it is easier to do more at night. Stores stay open 24 hours a day for shopping; companies want their employees to work late. Television stations broadcast all day and all night. People can stay up and watch it any time. There are many reasons that people today are not getting the sleep they need.

Getting enough sleep is important to your health. When you sleep, your body produces chemicals called hormones. These hormones help the body to rest and to keep healthy. If you do not get enough sleep, your memory will not work well. You will feel worried and in a bad mood. The body uses sleep to make energy for **itself**. Without enough sleep, you feel tired and your body **ages** at a faster rate. That is, you may look older than your real ages. Sleeping reduces the effects of aging.

Our need to sleep changes as we get older. Newborn babies sleep from 16-20 hours a day. Teenagers need about 9 or 10 hours of sleep. Adults need about 8 hours, and the elderly need about 6 or 7. As we get older, we lose our ability to sleep. We do not sleep as long or as deeply. Older people can spend a lot of time in bed, but they do not sleep well. It takes them longer time to **fall** asleep, and they do not have a deep sleep. Deep sleep is the sleep that refreshes our bodies.

Sleep problems can be serious. People with serious sleep problems might need to see a doctor or to change their lifestyles.

- 1) Which of the following is NOT a reason people get less sleep?
 - a. Exercising.
 - b. Buying food.
 - c. Working on-line.
 - d. Eating sleeping pills.

- 2) According to the passage, which is not true?
 - a. hormones are chemicals
 - b. hormones are made by the body all day
 - c. the body needs hormones to help it rest
 - d. hormones are important to staying healthy

- 3) The word “itself” in line 13 refers to
 - a. mood
 - b. body
 - c. memory
 - d. health

- 4) The word “ages” in line 14 could best be replaced by.....
 - a. gets older
 - b. moves
 - c. loses weight
 - d. waken

- 5) The word “fall” in line 20 is closest in meaning to
 - a. reduce the size
 - b. go down on the ground
 - c. close his/her eyes
 - d. enter a state or condition

- 6) Which of the following is NOT true?
- Newborns need the highest amount of sleep.
 - The elderly need the least amount of sleep.
 - Teenagers need less sleep than adults.
 - Adults need more sleep than the elderly.
- 7) What type of sleep is the most important to our bodies?
- Deep sleep
 - Light sleep
 - Fresh sleep
 - Long sleep
- 8) According to the passage, which is not true?
- if you work overtime, you will have less time to sleep
 - if you sleep enough, you will have more energy
 - if you don't sleep enough, you will look older
 - if you go to the doctor, you won't have problems with sleeping.
- 9) What is the main idea of the passage?
- Working late at night reduces your sleeping time.
 - If you don't sleep enough, you won't be happy.
 - People do many things during day and night so they get less sleep.
 - Enough sleep is important for good health but many people cannot make it.

Passage 2: Numerology –Using Numbers to Predict the Future

Some people think that certain numbers are lucky or unlucky, others believe that we can use numbers to understand our personalities, or **predict** what will happen to us in the future. Numerology is a way of using numbers to describe a person's character, and to make predictions about their future lives. Numerologist (a person who uses numbers to make prediction) uses the numbers 1 to 9, 11 and 22 (or '**master**' numbers) to help a person understands his or her

personality, life goals, and destiny. There are two main types of numbering calculation, i.e. Life Path number and Expression number.

Life Path number is used to describes your character. To find this number, add all the numbers in your date of birth altogether. For example, a person born on April 25, 1985 would add the month (4), to the numbers of the date (2+5), plus the numbers of the birth year (1+9+8+5). If the final number has two numbers, it is added again until a number between 1 and 9, 11 or 22 is reached. In this case, the total is 34, so this person's Life Path number is $(3+4) = 7$. Numerologists believe that people with this number are peaceful, warm, and do not like to show their feeling.

Expression number explains your **talents** and predicts how you should use **these** to complete your destiny in life. Numerologists assign a number (between 1 and 9) to each of the letters in your name. Then, these numbers are added together. Numerologists can also do calculations to predict when the most challenging periods of your life will be.

Numerologists also believe that the day a person is born is important. Each day of the month has a character description. People born on the 4th are said to be responsible, honest, and stubborn. People born on the 15th have very strong attachments to family and home. Those who celebrate their birthday on the 30th are artistic, creative, and imaginative, and often make good writers.

If we calculate the numerical value of our name, birth date, and day of the month, numerologists believe that we can learn more about ourselves. They also believe that we can predict our destinies, how our lives will progress, and what problems we may **face** along the way. To the numerologists, numbers can be used in many more ways than we think.

- 10) The word "predict" in line 2 is closest in meaning to.....
- talk about
 - describe
 - involve
 - say in advance

- 11) According to the passage, all of the following are ‘master’ numbers EXCEPT.....
- a. 6
 - b. 10
 - c. 11
 - d. 22
- 12) People with their Life Path number 7 are NOT
- a. friendly
 - b. reserved
 - c. calm
 - d. nasty
- 13) The author uses the birth date of April 25, 1985 in order to.....
- a. give an example of a lucky birth date
 - b. demonstrate how difficult it is to find a Life Path number
 - c. prove that Life Path numbers could predict the future
 - d. show an example of a Life Path number calculation
- 14) If you were born on January 3, 2004, your Life Path number would be.....
- a. 1
 - b. 4
 - c. 6
 - d. 11
- 15) The word “talents” in line 15 could best be replaced by.....
- a. special abilities
 - b. personalities
 - c. problems
 - d. performance

- 16) The word “these” in line 15 refers to.....
- people
 - talents
 - letters
 - prediction
- 17) Which of the following can be inferred from the passage?
- People who were born on the 4th should not work at a bank.
 - People who were born on the 4th may change their mind easily.
 - People who were born on the 15th would enjoy studying in a foreign country.
 - People who were born on the 30th might be the author and illustrator of children’s books.
- 18) Numerologists use all of the following to calculate EXCEPT.....
- your name
 - your date of birth
 - the day of the week you were born
 - the day of the month you were born
- 19) What is the author’s purpose in writing this passage?
- To explain what numerology is.
 - To describe a life of a numerologist.
 - To explain how to calculate the numbers.
 - To make known a new way of making prediction.
- 20) What is the main idea of the passage?
- Numerologists use the master numbers to calculate and predict future.
 - Numerology is the best way to predict the future and to understand your life.
 - Your Life Path number is calculated from your date of birth.
 - Numerologists convert your name and birth date into numbers to describe your characteristics and predict your life.

Passage 3: Memory

Some people have very good memories but some always forget where they put their door keys, or recalling the names of people they have recently met for the first time. The process that our brains **store** and **retrieve** information has been researched for many years. However, the brain is a highly complex organ so we cannot understand it fully. What scientists know is that one area of the brain called “hippocampus” is important in the process of recalling information. When we experience something, the information is sent through our **senses** to the hippocampus, where it is processed.

There are three main steps in the process of creating memories. First, the brain cells called “neurons” **transform** the sensory stimuli into images in our immediate memory. Second, these images are sent to the “hippocampus” and stored temporarily in short-term memory. In the “hippocampus” the information is organized. During this process some parts of the image of our experience are lost so we forget something. Finally, some information is transferred to long-term memory in the “cerebral cortex”. Scientists think this process may happen while we are sleeping, but exactly how the information is transferred from one area of the brain to **another** is not known.

Research suggests that the ability to get information back can be influenced by food and sleep. Vitamin E, for example, is able to break down chemicals that damage brain cells. Studies suggest that eating foods containing vitamin E, such as green vegetables, is one way of reducing age-related memory loss. Though there is no proof, some people believe that herbs such as ginseng and ginkgo help to improve both concentration and memory retention. Research on short-term memory found that getting a good night’s sleep can also help people remember more clearly.

The exact process of memory coding and retrieving is not understood. However, **there is no doubt** that eating the right foods and getting **enough amounts of sleep** can help us benefit from the brain in storing and recalling information.

- 21) The word “store” in line 3 could best be replaced by.....
- a. change
 - b. keep
 - c. make
 - d. know
- 22) Which of the following is closest in meaning to the word “retrieve” in line 3?
- a. To reject
 - b. To review
 - c. To get back
 - d. To delay
- 23) Information from our senses comes from all of the following EXCEPT.....
- a. the eyes
 - b. the mouth
 - c. the nose
 - d. the heart
- 24) Short-term memory stores in.....
- a. neurons
 - b. sensory parts
 - c. hippocampus
 - d. cerebral cortex
- 25) From paragraph 2, where are long-term memories stored?
- a. In the cerebral cortex
 - b. In the hippocampus
 - c. In the sensory organ
 - d. In the neurons

- 26) When does the transferring process occur?
- While people are working.
 - While people are reading.
 - While people are sleeping.
 - When people concentrate on something.
- 27) Scientists believe that the final step in the memory creation process is.....
- transforming sensory information into images
 - storing information in short-term memory
 - sending images to store in long-term memory
 - transferring information to long-term memory
- 28) The word “another” in line 15 refers to.....
- neurons
 - hippocampus
 - cerebral cortex
 - area of the brain
- 29) It can be inferred from the passage that if students want to do well on tests, they should do the following EXCEPT.....
- take ginkgo or ginseng
 - eat green vegetable
 - get enough sleep
 - eat multiple types of vitamins
- 30) Having “enough amounts of sleep” (line 24) means you have.....
- more hours of sleep
 - a lot of sleep
 - the right amount of sleep
 - not too much sleep

- 31) From the passage it can be inferred that.....
- ability of memory reduces when people get older
 - age and memory has some relationship
 - older people can have memory problems
 - memory loss can be caused by foods and amounts of sleep
- 32) What is the main idea of the passage?
- If you have a bad memory, you should eat foods with a lot of vitamin E.
 - The brain and memories are important to good health.
 - Information is transferred into short and long-term memory in the brain.
 - Memories are made in three main steps and they may be affected by vitamins, herbs, and sleep.

Directions: Choose the best alternative to complete each of the following blanks.

A Cultural Difference: Being on Time

In the United States, it is important to be on time, or punctual, for an appointment, a class, a meeting, etc. However, this may not be true in all countries. An American professor discovered this difference while teaching a class in a Brazilian university. The two-hour class was scheduled to begin at 10 a.m. and end at 12 p.m. On the first day, when the professor arrived on time, no one ____ (33) ____ in the classroom. Many students came after 10 a.m., several arrived after 10.30 a.m., two students came after 11 a.m. ____ (34) ____ all the students greeted the professor as they arrived, few ____ (35) ____ for their lateness. Were these students being impolite? He decided to study the students' ____ (36) ____.

The professor talked to American and Brazilian students about lateness in both an informal and a formal ____ (37) ____, i.e. lunch with a friend and in a university class. He gave them an example (having a lunch appointment with a friend) and asked them how they would ____ (38) _____. He found that the average American student defined lateness as 19 minutes after the agreed time. ____ (39) ____ the average Brazilian student felt the friend was late after 33 minutes.

- 41) a. senses b. spirits c. feelings d. requirement
- 42) a. possible b. probably c. being probable d. possibly be
- 43) a. at time b. over time c. on time d. of time
- 44) a. pleased b. angry c. content d. unbelievable
- 45) a. reading b. participating c. researching d. learning

.....

2. Reading Speed Test

Directions: Read as fast as you can, if possible, only once, with maximum comprehension of the content. Then return the text and continue with the multiple choice questions to measure your understanding of it.

Stuck in the Desert by Saeed Al-Qamzi

Three years ago on the last day of January, I had a big problem. I can't forget this day forever. The story began when my uncle, my cousin, and I went to the desert. My uncle was the oldest at 72 years old, but he was still strong. My cousin at that time was 10 years old, and I was 25 years old. All of us liked hunting. Usually we went hunting on the weekend, especially in winter, because winter is the hunting season.

On the 25th of January, we decided to go hunting. All things were ready in the car, a Range Rover with four-wheel drive. We began on Thursday afternoon, and it took us three hours by car. We reached the place we were looking for at 5:15 P.M. First, we fixed the tent, then we made coffee and had a few minutes of rest. After that, we left to go on the hunt. We hunted using a falcon. Often, we hunt birds and rabbits. We spent two hours without finding anything. We decided to go back to the camp. On our way back, my cousin saw a rabbit. He cried, "Rabbit!! Rabbit! Quick!" I took the falcon's head cover and flung it off aggressively. When the rabbit saw the falcon, it ran fast, but my falcon was a professional hunter. He flew up and came down to trick

the rabbit. After two minutes, the rabbit was caught. We took it and went back to the camp where we started to cook our dinner. We ate the delicious food, drank Arabic coffee, and sat around the fire talking until 10:30 P.M. Then we went to bed.

We left camp the next day at 7 o'clock in the morning. We went north and found two kinds of birds and caught them. However, we faced trouble at 10:00A.M. because the car got stuck in the sand! We spent about three hours trying to pull out the car without any progress. Finally, we decided to walk. I talked with my uncle about how hard it is for an old man or a young boy to walk more than 40 km. in the desert. He agreed with me. So I took a bottle of water with me and started to walk south alone. I knew the way well, but it was a long way in the sand. I walked more than four hours without stopping. I felt tired and thirsty. I drank all the water which was in the bottle. I stopped to rest, sleeping around two hours.

When I got up, darkness had covered the area. "What should I do?" I asked myself. I continued to walk south. I was worried about my uncle and cousin, and they were worried about me also. Suddenly, I met a Bedouin man who was riding his camel. He took me to his house. When I had had enough rest, I asked him to take me to the road and he did. After that, I found a car which took me to the city to get help. I had one day to get back to my uncle and cousin. When I got back to them, they were so happy because I had gotten help and they were able to see me again.

Eventually, I learned a lesson from this story, which was that the desert is very dangerous. Next time, when we go hunting, we must go in groups with two or more cars. If we go together, we can keep each other safe. We know the desert is dangerous, but we will never quit hunting.

Choose the best answer for each of the following items.

1. Which of the following is NOT true?

- a. Saeed's uncle was over 70 years old.
- b. Saeed was younger than his uncle and his cousin.
- c. Three males went hunting.
- d. Winter is the hunting season, so they went hunting in January.

2. Choose the correct answer.

- a. The Range Rover had front-wheel drive.
- b. The group left for the hunting trip at 2:15 P.M.
- c. After resting, they fixed their tent.
- d. During the first two hours, the group found animals to hunt.

3. Which happened last?

- a. On their way back to camp, Saeed's cousin saw a rabbit.
- b. The group sat around the fire talking.
- c. They ate delicious food and drank Arabic coffee.
- d. The falcon flew up and down and caught the rabbit.

4. Which animal is not mentioned in the story?

- a. rabbits
- b. birds
- c. eagles
- d. falcons

5. Which is NOT a reason that Saeed had to walk forty kilometers.?

- a. The car got stuck in the sand.
- b. It was hard for an old man or a very young boy to walk 40 km.
- c. Saeed did not know the way and he became lost.
- d. The group spent 3 hours trying to pull the car out of the sand, but could not.

6. Which is not true about Saeed when he walked south to get some help?
- He walked more than 40 km.
 - He walked more than four hours.
 - He drank all the water in the bottle.
 - He slept around two hours.
7. Which is NOT true about the Bedouin man?
- He took Saeed to the road.
 - He took Saeed to get help.
 - He took Saeed to his house.
 - He allowed Saeed to rest.
8. Which is the correct order?
- Saeed asked a Bedouin man to take him to the road.
 - A Bedouin man took him to his house.
 - Saeed took some rest at Bedouin's house.
 - Saeed found a car that took him to the city.
- 1, 2, 3, 4
 - 2, 1, 4, 3
 - 2, 3, 1, 4
 - 3, 1, 4, 2
9. What lesson did Saeed learn from his experience?
- Hunting is dangerous and he will not hunt again.
 - When hunting, Saeed will use a different type of car.
 - When hunting in the desert, people should go in groups with two or more cars
 - Bedouins are not helpful to strangers in the desert.

10. What is the main idea of the story?

- a. You must train a falcon well to hunt in the desert.
- b. Saeed loved his family and loved to go hunting with them.
- c. Because their car got stuck in the sand, the hunters learned that the desert can be dangerous.
- d. Saeed was strong enough to walk 40 km. in the desert

.....

3. Reading Comprehension of a Narrative

Read the story below and demonstrate your understanding of it by describing it in Thai in the paper provided.

A Picture of Tara

Princess Tara loved riding her horse in the forest near her father's palace. But one day her horse stopped suddenly. She saw smoke in the trees in front of her.

"Fire!" she thought. "I must go up a tree to see it better."

From the tree she could see everything. The fire moved east very fast. In front of it ran many animals and birds. Princess Tara watched one family of birds: father and mother birds wanted to carry the young birds because they can't fly. But it wasn't easy, and the fire came nearer and nearer. In the end, the father bird flew away from the fire. But the mother bird stayed with the young birds and died with them.

After that Princess Tara rode sadly back to the palace and she thought about the birds, and about men and women.

"We're no different from those birds," she said. "Women think of her children first. But men don't. I'm never going to marry one of them."

So she told everybody in her country: "I'm never going to marry."

After some time, a man arrived at the palace and painted some pictures for the king. One day he saw the princess in the garden with a book. He painted her secretly because he liked her face. The next morning he left the palace, and he took the picture of Tara with him.

Some months later, a rich king in a far country bought the picture of Tara. He put it in his palace for everyone to see. "What a beautiful girl!" they all said.

Now this king had a son. He was called Vikram. Vikram looked at the picture of Tara every day, and one day he said to his father, "I'm going to find that girl and marry her."

"But my son," answered the king, "who is she? Nobody knows."

"The painter knew her," said Vikram. "Where is he?" but nobody could say.

Vikram was very sad and the prime minister's daughter, Lata, was sorry for him. "Prince Vikram," she said, "I can paint well. You know that. So I'm going to paint a small picture of the girl's face and then I'm going to look for her."

"Thank you, Lata," said Vikram, "And good luck!"

So the next day Lata painted a new, smaller picture of Tara's face and she left the palace with it. She went to many countries, but nobody knew the girl in the picture. In the end, very far from home, she came to a new country.

When the people there saw the picture, they said, "oh yes, that's our Princess Tara. She doesn't want to marry, you know. It's a very good picture of her!"

"why doesn't Tara want to marry?" Lata asked. But nobody knew.

So Lata went to Tara's palace. "I'm a painter," she said to Tara's father, the king. "can I do some work for you?"

"what can you paint?" asked the king.

"I like painting people," answered Lata. "Shall I paint your children?"

“I have only one daughter.” answered the king sadly. “Can you paint her?”

“Of course,” said Lata.

At first Tara wasn't interested, but Lat talked to her and in the end the princess said, “All right! You can paint my picture. But you must talk to me when you are painting.”

So every morning Lata came to paint the picture of Tara and they talked. Soon they were friends.

The day before she finished the picture, Lata asked Tara. “Why don't you want to marry?”

Tara smiled. “Everybody asks me that. They don't understand me,” she said. “But perhaps I can tell my secret to you.” And she told Lata all about the forest fire and the birds. Lata thought quickly.

“I know a prince in a far country,” she said. “he saw a forest fire, and it changed him, too. Before he saw the fire he was a happy young man, but now he is sad and he doesn't want to marry. I can't tell you about it because it's a secret. But I can paint a picture of it for you.”

“Can I see your picture tomorrow?” said Tara.

Lata painted all night. In her picture she painted a big forest fire and many animals. At the front of the picture stood Prince Vikram and not far from him was a family of deer. The father deer was near the fire with the young deer. But the mother deer stood far away from the fire and from her family.

Early next morning, the picture was ready, and Tara came to Lata's room.

“where's your picture?” asked Tara, “I couldn't sleep last night because I want to see it.”

“Here it is,” answered Lata. “Do you like it?”

Tara looked at the picture carefully. “But the mother deer is not with her family!” she cried. “Is this picture true?”

“The prince saw this happen,” answered Lata. “And so now, for him, all women are bad.”

“But not all women are bad,” said Tara. “The prince is wrong!”

“Is he?” asked Lata. “Then perhaps you are wrong about men!”

Tara went to her room at once, and nobody saw her again all day.

The next morning she called Lata to her room.

“I would like to meet your prince,” she said. “Perhaps I can help him.”

Lata smiled. “you can. I’m sure,” she said. “Come with me to visit him.”

So what happened when Tara met Vikram? It was true love, of course. And soon after they met, they married and were very happy.

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4. Writing Tests

Writing prompt 1

Directions: On the paper provided, write one to two paragraphs for a total of at least 150 words on the issue described below. You can spend 30 minutes planning, drafting, and revising your essay. Your essay will be graded specifically on five categories, i.e. content, organization, vocabulary, language use, and mechanics.

Choose a few vivid events from your first-year experience in the university. You might think of the first time that you made friends with your classmates, the time when you interacted with the seniors, the first A (B, C, D, or E) you earned on a test or paper, the meeting with someone you were really impressed with, and so on. Detailed descriptions should include what, when, where, why and how such events occurred. Narrate the events related to those recent memories that you have chosen so that your friends will understand why the events were important and memorable.

Writing prompt 2

Directions: On the paper provided, write one to two paragraphs for a total of at least 150 words on the issue described below. You can spend 30 minutes planning, drafting, and revising your essay. Your essay will be graded specifically on five categories, i.e. content, organization, vocabulary, language use, and mechanics.

Write about a special experience you have had with someone and that you would like to share with others. The person could be your mother or father, your sister or brother, your sweetheart, your close friend, your teacher, etc. As you write your story, be sure to include details of what, when, where, how and why you were impressed by such an incident. Add enough details to your story so all your classmates will be able to enjoy this experience with you. When you have finished writing, read your story over carefully to be sure that it tells the readers what you want them to know.

Writing prompt 3

Directions: On the paper provided, write one to two paragraphs for a total of at least 150 words on the issue described below. You can spend 30 minutes planning, drafting, and revising your essay. Your essay will be graded specifically on five categories, i.e. content, organization, vocabulary, language use, and mechanics.

Each student has different abilities in English language skills. Some are at lower level; some are intermediate or advanced. This is because each has got different school experiences, personalities, and support from family. Write about how your English skills have been developed with support from those three sources just mentioned. Give examples when you refer to each source. For example, what kind of school background helped you improve your English; what kind of person you are that makes you good at English; and who in the family makes your English better and how. Your writing will be posted on the notice board so make sure you write neatly and formally for both students and teachers to read.

Writing prompt 4

Directions: On the paper provided, write one to two paragraphs for a total of at least 150 words on the issue described below. You can spend 30 minutes planning, drafting, and revising your essay. Your essay will be graded specifically on five categories, i.e. content, organization, vocabulary, language use, and mechanics.

Generally all people have experienced both good and bad occurrences in their lives. Narrate two incidents that occurred to you, one representing a delightful or happy moment; the other a miserable or unhappy event. Give details of what, when, where, why, and how such incidents brought happiness or sadness to you. The best five pieces of writings will be published in the Journal of Humanities and Social Sciences. The readers will be both instructors and students of your age. In such a case, you are required to write in a formal style. Also, summarize the story by sharing with the readers some lessons you learned from both incidents. You may use the compare and contrast written pattern. Choose exact vocabulary to express your feeling or tone of the story.



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Research Instruments

1. Reading Records

Reading Record: June 2007

Directions: Record detail of your reading every time you finish each book by filling in these blanks.

Name.....no.....

Beginning date..... Finishing date.....

Book 1

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 2

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 3

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 4

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 5

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 6

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 7

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 8

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 9

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Book 10

Title level.....

Publishing company Total pages

Pictures =pages / Real reading amounts.....

Total pages of reading in June:

Records reading from other types of English materials

Specify details of other English materials you have read each week in June.

	Name of books	Number of pages
--	---------------	-----------------

Week 1

1.
2.
3.
4.

Week 2

Name of books

Number of pages

1.
2.
3.
4.

Week 3

Name of books

Number of pages

1.
2.
3.
4.

Week 4

Name of books

Number of pages

1.
2.
3.
4.

Total pages.....

2. Perception Survey

June 2007

Part A: Giving opinions about reading strategies and motivation

Name No.

Book no. Level: Number of pages read.....

Please put a mark \surd to show your opinions in degree of volume on the following sub-topics.

	Lowest extent (1)	Low extent (2)	Moderate extent (3)	High extent (4)	Highest Extent (5)
Reading strategies : How often did you use these strategies while engaging in ER?					
1. Word by word translation					
2. Reading for main ideas					
3. Understanding texts in Thai					
4. Understand text in English					
5. Amounts of dictionary use					
6. Use of context clues to guess word meanings					
Self improvement in reading through time: To what extent do you agree with these statements?					
7. I can understand the text better.					
8. I read faster					
9. I am able to read better than previously.					
10. I spent less time in reading.					

	Lowest extent (1)	Low extent (2)	Moderate extent (3)	High extent (4)	Highest Extent (5)
Reading motivation: To what extent did you experience these thoughts					
11. Pleasure from reading					
12. Enjoyment from reading					
13. Confidence in reading					
14. Desire to continue reading another book					
15. Liking of English					
16. Liking of reading					
17. Desire to read although not assigned					
18. Benefit of reading					

Part B: Reasons for Reading

Directions: When you finish one book, please write some reasons that have caused you to keep reading the story and, sometimes, either for short or long durations, stop reading it. The reasons should be arranged from most to least importance. You may write as many as five reasons in the space provided.

.....

Why did you pick up the book to continue reading?

- 1.
- 2.
- 3.
- 4.
- 5.

Why did you stop reading when you were supposed to continue with it?

- 1.
- 2.
- 3.
- 4.
- 5.

Other comments:

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Part C: Additional Guidelines for Perception Survey

Directions: The following are examples of reasons you may use for your perception survey part. In case any of these reasons are identical to your thoughts, just use them to specify in the perception survey.

What made you keep reading?

Reading materials

The book suits my interests.

Stories are enjoyable.

The title is interesting.

Stories are easy to read.

There are lots of pictures.

The design looks good.

The story is exciting.

What made you stop reading?

The book is not interesting.

The book is too thick.

The story is not enjoyable.

Books are difficult to read.

I did not understand the story.

The book is not academic-related.

English proficiency

I am able to improve my English.

To practice my English skills

To practice my reading skills

To know more vocabulary

To learn grammar

It is difficult to improve my

English competence

It is discouraging to read.

I cannot translate into Thai.

Vocabulary is too difficult.

I cannot read.

Reading skills

Stories are understandable.

I am able to read fluently.

I don't have to read in detail.

Reading a story is pleasurable.

Stories are not understandable.

I read very slowly.

Too many unknown vocabulary items

Stories are not pleasurable.

Classroom context

There are choices of what to read.	Gain no knowledge on grammar.
To prepare for subsequent discussions	There is no test.
Tension-free environment	Class is not seriously controlled.
To compete with friends	Cannot catch up with friends.

Teacher-based group

Teacher's encouragement	Too much expectation from the teacher
Believe in the teacher's advice.	Do not believe in the teacher's words.
Able to interact with the teacher	Dislike interaction with the teacher
Follow the teachers' model.	The teacher is not serious.

Peer-based group

Peers' encouragement	Do not believe in peers' advice.
Follow peers' behaviors.	Do not like to follow what peers do.
Need to share with friends.	Dislike sharing and expressing opinions.
Group members are helpful.	Lack of acquaintances in group
My group wants to reach the highest amount.	Other members read far too many books.

Others

The story used to be in a movie.	I have no time.
For being accepted in high society.	It is time consuming.
It is the requirement of the course.	It is in English language.
Reading is valuable.	I hate English.
I can increase my scores .	I have too much work.
I like reading books.	I do not like reading.
For future success	
The story is famous.	

Perception survey (Thai version)

เดือนมิถุนายน

ตอนที่ 1 : แบบสำรวจความคิดเห็นเกี่ยวกับกลวิธีการอ่านและแรงจูงใจในการอ่าน

ชื่อ เลขที่

หนังสือเล่มที่ ระดับ จำนวนหน้าที่อ่าน หน้า

จงทำเครื่องหมาย \checkmark เพื่อแสดงระดับความเห็นในเชิงปริมาณที่มีต่อข้อความต่อไปนี้

	น้อยที่สุด (1)	ค่อนข้างน้อย (2)	ปานกลาง (3)	ค่อนข้างมาก (4)	มากที่สุด (5)
การใช้กลวิธีในการอ่าน: ขณะอ่านหนังสือ ท่านใช้กลวิธีต่อไปนี้มากเพียงไร					
1. การแปลแบบคำต่อคำ					
2. การอ่านโดยใช้วิธีจับใจความสำคัญ					
3. การทำความเข้าใจเนื้อเรื่องเป็นภาษาไทย					
4. การทำความเข้าใจเนื้อเรื่องเป็นภาษาอังกฤษ					
5. ปริมาณการใช้พจนานุกรม					
6. การใช้บริบทเดาคำศัพท์ยาก					
พัฒนาการในการอ่าน: ท่านเห็นด้วยกับข้อความต่อไปนี้มากเพียงไร					
7. ฉันเข้าใจเรื่องดีขึ้น					
8. ฉันอ่านเร็วขึ้น					
9. ฉันสามารถอ่านได้ดีกว่าเดิม					
10. ฉันใช้เวลาในการอ่านน้อยลง					
แรงจูงใจในการอ่าน: ขณะอ่าน ท่านมีความรู้สึกต่อไปนี้มากเพียงไร					
11. ความเพลิดเพลินจากการอ่าน					
12. ความสนุกในการอ่าน					
13. ความมั่นใจในการอ่าน					
14. ความต้องการที่จะอ่านหนังสือเล่มต่อไป					
15. ความรู้สึกชอบภาษาอังกฤษ					
16. ความรู้สึกชอบการอ่าน					
17. ความรู้สึกอยากอ่านภาษาอังกฤษ (แม้ไม่มี การกำหนดให้อ่าน)					
18. การอ่านมีประโยชน์					

Part B: Reasons for reading (Thai version)

แบบสำรวจเหตุผลในการอ่านและการหยุดอ่าน

คำชี้แจง:

เมื่ออ่านหนังสือจบแต่ละเล่ม จงบอกเหตุผลที่จูงใจให้ท่านอ่านอย่างต่อเนื่อง และเหตุผลที่ทำให้ท่านหยุดอ่าน ไม่ว่าจะหยุดเพียงระยะเวลาสั้นๆ หรือระยะเวลานาน ขอให้เขียนเหตุผลดังกล่าวโดยเรียงตามลำดับจากเหตุผลที่สำคัญที่สุดก่อน โดยเหตุผลในแต่ละหัวข้ออาจเขียนได้มากถึง 5 ข้อ

ท่านหยิบหนังสือขึ้นมาอ่านด้วยเหตุผลใด

- 1.
- 2.
- 3.
- 4.
- 5.

เหตุใดท่านจึงเลิกอ่าน หรือไม่อยากหยิบหนังสือขึ้นมาอ่านอีกทั้งๆที่ยังอ่านไม่จบ

- 1.
- 2.
- 3.
- 4.
- 5.

ความเห็นเพิ่มเติม

.....

.....

.....

3. Verifying Interviews

Semi-structured interview scripts

Part A

Directions: Use the following questions to verify the amounts of reading each student has recorded in his/her reading records.

1. Please show me the book you have read. (check the number of pages)
2. Are there any other books besides the graded readers that you have read so far?
If yes, what book? Can you name it/them? Can I see the book? Please specify the passages you have read. (check the number of pages)

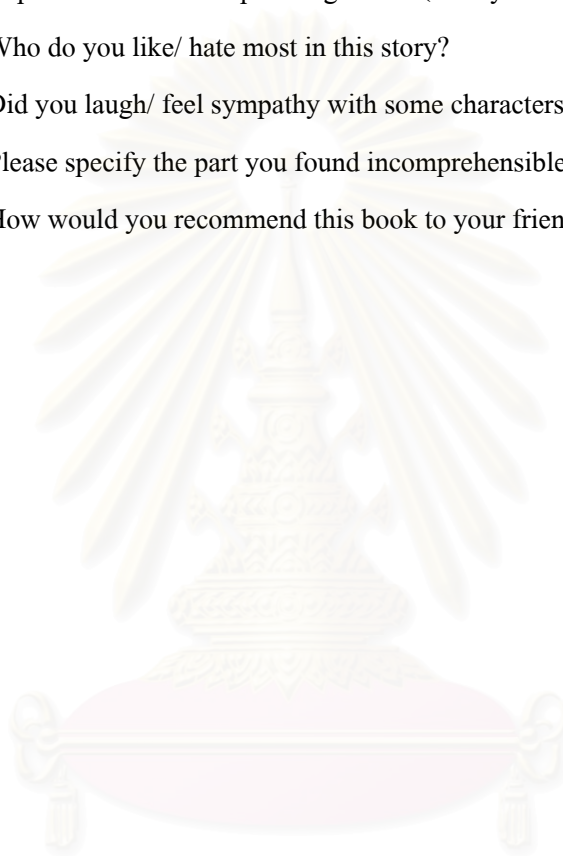
Part B

Directions: Use the following questions to verify if students actually read the books specified in their reading records.

Each student will be probed to ensure they indeed read the books. Different patterns of questions will be used with different students so that they cannot prepare the answers in advance. Questions to check their understanding of the story are as follows.

1. Who is the author of the book?
2. What is the genre of the story?
3. Please briefly narrate the story.
4. What does the title of the story imply/ mean?
5. What are the distinctive characteristics of the hero and heroine?
6. Are there any exciting parts that made you continue reading?
7. Please explain this picture, who are these people, what has happened before? What will happen next?
8. Who is/are(name of some characters)?
9. Where does the story take place?
10. Which part of the story did you find most impressive?
11. Is there any part in the story that resembles your way of life?

12. What do you learn from this story?
13. What words/vocabulary you have learnt by reading this story?
Can you explain this paragraph; what is it about?
14. Please explain the characteristics of(name of some characters).
15. Explain the relationship among the.....(family name)'s family members?
16. Who do you like/ hate most in this story?
17. Did you laugh/ feel sympathy with some characters? Who? Why?
18. Please specify the part you found incomprehensible.
19. How would you recommend this book to your friends?



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Example of Lesson Plan for ER Plus activities

Overview of ER activities

Components	Objectives	Themes	Number of tasks utilized in class
- Objectives	To provide guidelines for managing and motivating students to engage in reading extensively both in and out of classes	1. Knowing how to choose books	3 (in weeks 2, 3)
- Contents		2. Expanding knowledge of vocabulary and structures	5 (in weeks 4, 6,7, 11, 12)
- Teaching procedures		3. Improving reading skills	4 (in weeks 5, 6, 8)
- Evaluation		4. Encouraging reading purposefully and critically	4 (in weeks 4, 7, 10, 13)
		5. Encouraging sharing among community readers	5 (in weeks 9, 12, 13,14, 15)
		6. Promoting reading engagement	5 (in weeks 5, 9, 10, 11, 13)

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Outline of ER Plus activities

Week	First task (topic-based IR)	Second task (motivating ER)	Third task (motivating ER)	Theme number
1.	Pretests of speed and comprehension reading tests	Pretest of reading comprehension ability test	- Pretest of narrative reading test - Explain course outline and expectations	-
2.	Pretest of a writing test	Orientation of ER Plus activities and collaborative techniques	How to choose books for pleasure reading	1
3.	Chapter 1: Music	Match genres and titles	Match blurbs and titles	1, 1
4.	Chapter 2: Movies	Increase your vocabulary	My favorite expressions/ quotations	2, 4
5.	Chapter 3: Food	Reading problems	Interview readers	3, 6
6.	Chapter 4: Exercises	Reading strategies	Vocabulary quizzes	3, 2
7.	Chapter 5: Festival	My favorite characters	Shared dictation	4, 2
8.	Chapter 6: Table Manners	Increase reading rate	Reading problems	3, 3
9.	Chapter 7: Superstitions	Favorite stories	What I get from reading extensively	5, 6
10.	Chapter 8: The story of love and adventure	My favorite characters	Oral reading competition	4, 6
11.	Chapter 9: Tourist attractions	Vocabulary quizzes	Book report	2, 6
12.	Chapter 10: Ecodestination	Increase your vocabulary	Favorite books	2, 5
13.	Chapter 11: Impacts of the Internet	Dramatic group conversations	Lessons from reading	4, 5
14.	Chapter 12: Jobs Seeking	Book report	Interview readers	6, 5
15.	Reflections on ER via focused groups	Top ten books	The best reader	5

Example lesson plan of ER Plus activities

Course title: Fundamental Reading (1500107)

Course duration: Three periods a week

Class schedule: 28 June 2007 (week 3)

IR-based tasks (one period): Previewing, skimming, and practice reading

ER-based tasks (one period): Matching blurbs and titles and matching genres and titles

ER-based task (one period): In-class silent reading

Objectives	Contents	Teaching procedures	Evaluation
<p>1. To teach ways to preview a story before beginning to read in detail.</p> <p>2. To provide chances for students to practice previewing, skimming, and strengthening their vocabulary knowledge.</p>	<p>IR-based activities</p> <ul style="list-style-type: none"> • Previewing • Skimming • Practice reading 	<p>Pre-reading tasks</p> <p>1. T brings in a piece of news. She asks the students to look at pictures and a title of the news and guess detail of the news. Students discuss about the possible organization of the news.</p> <p>2. T tells students how they can make use of their background knowledge of text genres to help them predict the content of the written work.</p>	<p>1. Listen to the students' answers.</p> <p>2. Check from the exercises in the course book.</p>

Objectives	Contents	Teaching procedures	Evaluation
<p>1. To teach ways to preview a story before beginning to read in detail.</p> <p>2. To provide chances for students to practice previewing, skimming, and strengthening their vocabulary knowledge.</p>	<p>IR-based activities (continued)</p> <ul style="list-style-type: none"> • Previewing • Skimming • Practice reading 	<p>While-reading tasks</p> <p>1. T asks students to consider pictures, title, and sub-titles of the story ‘Nang Songkran’ in the course book and predict the detailed content.</p> <p>2. T asks a main-idea question and encourages students to find the answer. Then, she asks the students who finish the task earlier how they read. T explains how students can skim the text to get the gist of a paragraph.</p> <p>3. T continues the same task by getting students to practice finding the main ideas of the rest paragraphs.</p> <p>Post-reading tasks</p> <p>1. T gets students to answer the comprehension questions following the text they have read and to complete vocabulary exercises.</p> <p>2. T calls individual students to give answers to the exercises.</p>	<p>1. Listen to the students’ answers.</p> <p>2. Check from the exercises in the course book.</p>

Objectives	Contents	Teaching procedures	Evaluation
<p>1. To familiarize students with simplified readers</p> <p>2. To expose students to texts with different genres</p>	<p>ER-based activities</p> <p>1. Matching blurb and titles</p> <p>2. Matching genres and titles</p>	<p>Content1 (25 mins.)</p> <p><u>Pair work</u></p> <p>- Each pair gets five blurbs to read, they must try to match them with the books displayed around the room.</p> <p>When they find the book, write the title below the blurb. They are allowed to look at the titles only, not the blurbs at the back of the books.</p> <p>When all the blurbs have been found, the pairs can check the results from the books themselves.</p> <p>Content 2 (25 mins.)</p> <p>T explaining the meaning of 'genre.'</p> <p><u>Pair work</u></p> <p>Each pair chooses five books and read blurbs, chapter headings, and illustrations and decides the genre each book belongs to. Then, they tell the class about the genres of the books.</p>	<p>1. Checking students' works</p> <p>2. Listening to students' report</p>

Appendix B
Test Specification and Item Analysis
of Reading Comprehension Test

Item analysis of reading comprehension ability test (before the final revision)

Items	Difficulty index	Discrimination Index	Items	Difficulty index	Discrimination index
01*	0.473	0.397	33*	0.564	0.553
02**	0.412	0.418	34*	0.558	0.408
03*	0.618	0.385	35*	0.521	0.721
04*	0.473	0.485	36*	0.212	0.206
05**	0.236	0.189	37	0.170	0.097
06	0.303	-0.001	38**	0.442	0.333
07*	0.509	0.678	39*	0.497	0.271
08*	0.606	0.512	40*	0.503	0.269
09**	0.418	0.165	41	0.345	0.108
10**	0.527	0.060	42*	0.315	0.256
11	0.473	-0.013	43*	0.412	0.283
12*	0.188	0.247	44*	0.400	0.414
13*	0.491	0.491	45	0.176	0.053
14*	0.200	0.317	46*	0.297	0.558
15*	0.448	0.589	47*	0.382	0.499
16*	0.436	0.719	48**	0.236	0.214
17*	0.388	0.394	49	0.145	0.183
18*	0.455	.400	50**	0.279	0.300
19	0.248	.079	51*	0.333	0.410
20	0.188	-0.032	52	0.170	0.100
21*	0.479	0.547	53	0.315	0.187

22	0.206	0.058	54	0.200	-0.050
23*	0.412	0.375	55	0.327	0.151
24	0.309	0.042	56*	0.418	0.157
25**	0.206	0.208	57**	0.291	0.233
26*	0.473	0.608	58*	0.400	0.675
27**	0.291	0.297	59	0.152	0.097
28*	0.333	0.299	60	0.176	-0.014
29*	0.503	0.351	61**	0.339	0.282
30	0.200	0.186	62*	0.455	0.268
31*	0.685	0.301	63	0.248	-0.074
32*	0.709	0.581			

* represents items that were chosen

** represents items that were modified

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Specification of reading comprehension test

Final version of reading comprehension test

Overview of the test items measuring the defined constructs

Literal comprehension					Higher-order comprehension						
Passage	Surface meaning	Grammatical cohesion	Lexical skills	Discourse skills	Main idea	Cause & effects	Inference interpretation	analysis	Synthesis/ drawing conclusion	Mood of passage	Author's purpose
1	3, 9	2	5, 8		1		4, 7		6		
2	11, 17		12, 20	10, 15, 18			19	14		13	16
3	22, 28		27, 31	23			30	29	24, 25	21	26, 32
4	40	39, 42	33	34		35, 43, 44	36, 37	38	41, 45		

Number of items measuring literal comprehension: 22

Number of items measuring higher-order comprehension: 23

Appendix C

Reliability Coefficients of the Perception Survey

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Scale Total Correlation	Corrected Item-Alpha if Item Deleted
T_1	52.1333	56.3264	.7016	.8920
T_2	52.5000	58.7414	.8004	.8919
T_3	52.4333	61.3575	.2941	.9055
T_4	52.2333	59.9782	.4992	.8985
T_5	52.4000	7.2138	.6540	.8937
T_6	52.7000	60.4241	.3998	.9017
T_7	52.3333	62.7816	.2201	.9065
T_8	52.3333	59.8851	.4859	.8989
T_9	52.1333	56.9471	.7364	.8912

T_10	52.2000	65.6138	-.0124	.9097
T_11	52.1000	57.3345	.6414	.8941
T_12	52.1333	56.3264	.7016	.8920
T_13	52.3667	58.9989	.5956	.8958
T_14	51.8000	60.3724	.5738	.8969
T_15	52.2667	59.3057	.6461	.8948
T_16	52.2000	58.9241	.6340	.8948
T_17	52.3000	59.1828	.6946	.8939
T_18	51.5333	2.8782	.7548	.8900

Reliability Coefficients

N of Cases = 30.0 N of Items = 18

Alpha = .9022

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Appendix D

Scoring system of writing tests

Analytical scoring system used for assigning grades to writing tests

ESL COMPOSITION PROFILE			
STUDENT	DATE	TOPIC	
SCORE	LEVEL	CRITERIA	COMMENTS
CONTENT	30-27	EXCELLENT TO VERY GOOD: knowledgeable • substantive • thorough development of thesis • relevant to assigned topic	
	25-22	GOOD TO AVERAGE: some knowledge of subject • adequate range • limited development of thesis • mostly relevant to topic, but lacks detail	
	21-17	FAIR TO POOR: limited knowledge of subject • little substance • inadequate development of topic	
	16-13	VERY POOR: does not show knowledge of subject • non-substantive • not pertinent • OR not enough to evaluate	
ORGANIZATION	26-18	EXCELLENT TO VERY GOOD: fluent exposition • ideas clearly stated/ supported • succinct • well-organized • logical sequencing • cohesive	
	17-14	GOOD TO AVERAGE: somewhat choppy • loosely organized but main ideas stand out • limited support • logical but incomplete sequencing	
	13-10	FAIR TO POOR: non-fluent • ideas confused or disconnected • lacks logical sequencing and development	
	9-7	VERY POOR: does not communicate • no organization • OR not enough to evaluate	
VOCABULARY	20-18	EXCELLENT TO VERY GOOD: sophisticated range • effective word/ idiom choice and usage • word form mastery • appropriate register	
	17-14	GOOD TO AVERAGE: adequate range • occasional errors of word/idiom form, choice, usage but meaning not obscured	
	13-10	FAIR TO POOR: limited range • frequent errors of word/idiom form, choice, usage • meaning confused or obscured	
	9-7	VERY POOR: essentially translation • little knowledge of English vocabulary, idioms, word form • OR not enough to evaluate	
LANGUAGE USE	25-22	EXCELLENT TO VERY GOOD: effective complex constructions • few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions	
	21-18	GOOD TO AVERAGE: effective but simple constructions • minor problems in complex constructions • several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured	
	17-11	FAIR TO POOR: major problems in simple/complex constructions • frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletions • meaning confused or obscured	
	10-5	VERY POOR: virtually no mastery of sentence construction rules • dominated by errors • does not communicate • OR not enough to evaluate	
MECHANICS	5	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions • few errors of spelling, punctuation, capitalization, paragraphing	
	4	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured	
	3	FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing • poor handwriting • meaning confused or obscured	
	2	VERY POOR: no mastery of conventions • dominated by errors of spelling, punctuation, capitalization, paragraphing • handwriting illegible • OR not enough to evaluate	
TOTAL SCORE	READER	COMMENTS	

Source: Jacobs et al.(1981).

Appendix E

Statistical data of the experiment

Test of normality distribution from Kolmogorov-Smirnov Test

Data sources	High group		Low group	
	statistics	Sig.	statistics	Sig.
Reading comprehension test				
Pre	.735	.652	.477	.977
Post	.690	.728	.594	.872
Reading speed test (timed paper)				
Pre	.853	.460	.745	.635
Post	.762	.607	.602	.862
Reading speed test (questions)				
Pre	1.077	.196	1.162	.134
Post	.680	.745	1.332	.057
Reading a narrative				
Pre	.857	.455	.898	.396
Post	.964	.311	.549	.924
Writing time 1				
Writing time 2	.903	.388	1.004	.266
Writing time 3	.754	.620	.833	.491
Writing time 4	.582	.887	.437	.991
Reading amounts time 1	.976	.297	.485	.973
Reading amounts time 2	.968	.306	.780	.577
Reading amounts time 3	.732	.658	.781	.576
Reading amounts time 3	.472	.979	.641	.806

Inter-raters reliability for evaluation of writing tests

		Rater 2			
		Writing 1 st	Writing 2 nd	Writing 3 rd	Writing 4 th
Rater1	High group				
	Writing 1 st	.862*			
	Writing 2 nd	.934*	.928*		
	Writing 3 rd	.948*	.897*	.891*	
	Writing 4 th	.857*	.829*	.775*	.923*
	Low group				
	Writing 1 st	.943*			
	Writing 2 nd	.530*	.831*		
Writing 3 rd	.578*	.729*	.899*		
Writing 4 th	.362	.645*	.723*	.842*	

*Correlation is significant at the .01 level (2-tailed).

Intra-rater reliability for evaluation of narrative works

Scoring sources	Pretests	Posttests
High group		
1 st vs 2 nd scoring	.995*	.997*
Low group		
1 st vs 2 nd scoring	.997*	.997*

*Correlation is significant at the .01 level (2-tailed).

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Appendix F

Raw scores of writing tests, translation work, and reading amounts

1. Writing scores of high and low groups assigned by two raters

Table 1: Writing scores of the high reading group assigned by two raters

High group	Rater 1				Rater 2			
Student list	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Student 01	46	50	51	49	44	51	53	53
Student 02	50	50	55	55	48	51	53	53
Student 03	46	43	44	50	46	37	38	50
Student 04	45	49	51	49	39	52	56	54
Student 05	47	47	43	44	47	43	36	36
Student 06	45	50	51	51	41	47	45	43
Student 07	50	51	54	57	51	51	61	62
Student 08	45	51	54	51	42	50	54	54
Student 09	45	52	47	51	47	54	45	56
Student 10	40	65	61	64	39	57	57	61
Student 11	49	48	51	53	45	48	50	51
Student 12	59	60	64	60	60	58	59	53
Student 13	55	56	62	57	56	53	58	55
Student 14	47	48	47	47	41	42	44	42
Student 15	47	49	49	46	46	52	47	41
Student 16	45	46	47	48	40	43	42	42
Student 17	60	60	67	70	65	68	71	69

Table 2: Writing scores of the low reading group assigned by two raters

Low group	Rater 1				Rater 2			
	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Student 01	34	34	34	38	34	34	34	34
Student 02	45	47	43	51	47	48	51	60
Student 03	48	43	50	57	41	45	48	49
Student 04	41	38	49	42	46	35	48	44
Student 05	34	34	41	34	36	34	34	34
Student 06	45	44	47	40	37	39	47	35
Student 07	36	36	40	40	34	34	34	34
Student 08	49	49	50	54	42	49	49	53
Student 09	35	42	44	42	34	34	34	34
Student 10	36	37	42	37	34	34	37	37
Student 11	58	59	63	63	67	62	64	62
Student 12	34	34	38	34	34	36	36	34
Student 13	45	48	52	54	41	42	49	49
Student 14	49	49	62	64	47	47	60	66
Student 15	46	49	54	44	41	48	50	46
Student 16	34	37	47	39	34	34	38	35
Student 17	50	50	50	54	50	46	52	52

Table 3: Average scores of writing tasks of the low and high reading groups

Average scores of two raters					Average scores of two raters				
Low group	1 st	2 nd	3 rd	4 th	High group	1 st	2 nd	3 rd	4 th
Student 01	34	34	34	36	Student 01	45	50.5	52	51
Student 02	46	47.5	47	55.5	Student 02	49	50.5	54	54
Student 03	44.5	44	49	53	Student 03	46	40	41	50
Student 04	43.5	36.5	48.5	43	Student 04	42	50.5	53.5	51.5
Student 05	35	34	37.5	34	Student 05	47	45	39.5	40
Student 06	41	41.5	47	37.5	Student 06	43	48.5	48	47
Student 07	35	35	37	37	Student 07	50.5	51	57.5	59.5
Student 08	45.5	49	49.5	53.5	Student 08	43.5	50.5	54	52.5
Student 09	34.5	38	39	38	Student 09	46	53	46	53.5
Student 10	35	35.5	39.5	37	Student 10	39.5	61	59	62.5
Student 11	62.5	60.5	63.5	62.5	Student 11	47	48	50.5	52
Student 12	34	35	37	34	Student 12	59.5	59	61.5	56.5
Student 13	43	45	50.5	51.5	Student 13	55.5	54.5	60	56
Student 14	48	48	61	65	Student 14	44	45	45.5	44.5
Student 15	43.5	48.5	52	45	Student 15	46.5	50.5	48	43.5
Student 16	34	35.5	42.5	37	Student 16	42.5	44.5	44.5	45
Student 17	50	48	51	53	Student 17	62.5	64	69	70.5

2. Scores assigned analytically by two raters at four time points

Table 4: Scores assigned to the high group by the first rater (1st and 2^d tasks)

(con = content; org = organization; voc = vocabulary; gra = grammar; mec = mechanics)

High group: Rater 1	1 st writing task: Language to be evaluated						2 nd writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	15	8	8	10	3	44	18	12	9	9	3	51
Student 02	16	9	9	11	3	48	17	10	10	11	3	51
Student 03	17	10	8	8	3	46	14	8	7	6	2	37
Student 04	13	8	8	7	3	39	17	12	10	10	3	52
Student 05	14	10	9	11	3	47	13	9	8	10	3	43
Student 06	14	8	8	8	3	41	17	10	9	8	3	47
Student 07	17	10	10	11	3	51	17	10	10	11	3	51
Student 08	15	8	8	8	3	42	17	10	10	10	3	50
Student 09	16	10	8	10	3	47	20	13	8	10	3	54
Student 10	13	8	8	8	2	39	20	13	10	11	3	57
Student 11	15	9	8	10	3	45	16	10	8	11	3	48
Student 12	17	12	13	15	3	60	17	11	13	14	3	58
Student 13	14	13	13	13	3	56	13	11	13	13	3	53
Student 14	14	8	9	7	3	41	15	8	9	7	3	42
Student 15	16	9	8	10	3	46	17	12	10	10	3	52
Student 16	14	8	8	7	3	40	15	9	8	8	3	43
Student 17	21	13	13	15	3	65	22	14	14	15	3	68

Table 5: Scores assigned to the high group by the first rater (3rd and 4th tasks)

High group: Rater 1	3 rd writing task: Language to be evaluated						4 th writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	18	13	13	12	3	59	15	8	13	10	3	49
Student 02	18	11	10	11	3	53	18	11	10	11	3	53
Student 03	14	8	7	6	3	38	18	11	9	9	3	50
Student 04	18	13	11	11	3	56	17	12	11	11	3	54
Student 05	13	7	7	6	3	36	13	7	7	6	3	36
Student 06	16	9	9	8	3	45	15	9	9	7	3	43
Student 07	17	13	13	15	3	61	18	14	13	14	3	62
Student 08	18	11	11	11	3	54	19	10	11	10	3	53
Student 09	15	9	9	9	3	45	21	14	8	10	3	56
Student 10	21	12	10	11	3	57	21	13	13	11	3	61
Student 11	17	11	8	11	3	50	17	12	8	11	3	51
Student 12	18	12	14	15	3	59	17	10	13	13	3	53
Student 13	15	14	13	13	3	59	14	13	13	13	3	56
Student 14	16	9	9	7	3	44	16	9	8	6	3	42
Student 15	17	9	9	9	3	47	15	8	8	7	3	41
Student 16	15	9	8	7	3	42	15	9	8	7	3	42
Student 17	22	14	15	16	3	71	22	14	14	15	3	69

Table 6: Scores assigned to the low group by the first rater (1st and 2nd tasks)

Low group: Rater 1	1 st writing task: Language to be evaluated						2 nd writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	13	7	7	5	2	34	13	7	7	5	2	34
Student 02	16	9	9	10	3	47	16	10	9	10	3	48
Student 03	15	8	8	7	3	41	16	9	9	8	3	45
Student 04	15	9	8	11	3	46	14	7	7	5	2	35
Student 05	14	7	7	5	3	36	13	7	7	5	2	34
Student 06	13	8	8	6	2	37	13	8	8	7	3	39
Student 07	13	7	5	5	2	34	13	7	7	5	2	35
Student 08	15	9	8	7	3	42	16	10	10	10	3	49
Student 09	13	7	7	5	2	34	13	7	7	5	2	34
Student 10	13	7	7	5	2	34	13	7	7	5	2	34
Student 11	22	14	13	15	3	67	21	13	12	13	3	62
Student 12	13	7	7	5	2	34	14	7	7	6	2	36
Student 13	16	8	8	6	3	41	16	8	8	7	3	42
Student 14	17	8	9	10	3	47	17	8	9	10	3	47
Student 15	15	8	8	7	3	41	17	9	9	10	3	48
Student 16	13	7	7	5	2	34	13	7	7	5	2	34
Student 17	16	11	11	9	3	50	17	10	8	8	3	46

Table 7: Scores assigned to the low group by the first rater (3rd and 4th tasks)

Low group: Rater 1	3 rd writing task: Language to be evaluated						4 th writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	13	7	7	5	2	34	13	7	7	5	2	34
Student 02	16	9	9	10	3	47	15	9	9	9	3	45
Student 03	17	10	9	12	3	51	20	13	12	12	3	60
Student 04	15	10	9	11	3	46	14	9	8	10	3	46
Student 05	13	7	7	5	2	34	13	7	7	5	2	34
Student 06	16	9	9	10	3	47	13	7	7	5	2	34
Student 07	13	7	7	5	2	34	13	7	7	5	2	34
Student 08	16	10	9	11	3	49	18	11	9	12	3	53
Student 09	13	7	7	5	2	34	13	7	7	5	2	34
Student 10	14	7	7	6	3	37	14	7	7	6	3	37
Student 11	22	13	13	13	3	64	21	13	14	17	3	68
Student 12	14	7	7	6	2	36	13	7	7	5	2	34
Student 13	17	9	9	11	3	49	17	9	9	11	3	49
Student 14	20	13	13	11	3	60	20	15	13	15	3	66
Student 15	18	10	9	10	3	50	16	9	9	10	3	46
Student 16	14	8	7	6	3	38	13	7	7	5	3	35
Student 17	17	11	10	11	3	52	17	12	10	10	3	52

Table 8: Scores assigned to the high group by the second rater (1st and 2nd tasks)

High group: Rater 2	1 st writing task: Language to be evaluated						2 nd writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	15	10	9	9	3	46	17	10	9	11	3	50
Student 02	15	11	10	11	3	50	16	10	10	11	3	50
Student 03	14	10	9	11	2	46	14	9	9	9	2	43
Student 04	14	10	8	10	3	45	16	10	9	11	3	49
Student 05	15	8	10	11	3	47	15	10	9	10	3	47
Student 06	14	7	10	9	3	45	15	11	11	10	3	50
Student 07	14	11	11	11	3	50	15	11	11	11	3	51
Student 08	15	8	9	10	3	45	17	10	10	11	3	51
Student 09	14	9	8	11	3	45	18	10	10	11	3	52
Student 10	14	9	7	8	2	40	16	13	14	14	4	61
Student 11	16	10	9	11	3	49	16	10	9	10	3	48
Student 12	17	13	12	14	3	59	18	13	12	14	3	60
Student 13	16	11	12	13	3	55	17	11	12	13	3	56
Student 14	14	10	9	11	3	47	15	10	9	11	3	48
Student 15	14	10	9	11	3	47	15	10	9	12	3	49
Student 16	14	10	10	9	2	45	14	10	10	10	2	46
Student 17	18	13	13	13	3	60	19	13	13	11	4	60

Table 9: Scores assigned to the high group by the second rater (3rd and 4th tasks)

High group: Rater 2	3 rd writing task: Language to be evaluated						4 th writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	17	10	10	11	3	51	16	10	10	10	3	49
Student 02	18	11	11	12	3	55	18	11	11	12	3	55
Student 03	15	9	9	9	2	44	16	10	10	11	3	50
Student 04	17	10	10	11	3	51	16	10	10	10	3	49
Student 05	13	9	9	9	3	43	15	9	9	8	3	44
Student 06	17	10	10	11	3	51	17	10	10	11	3	51
Student 07	16	12	11	12	3	54	17	12	11	14	3	57
Student 08	17	10	11	13	3	54	17	10	10	11	3	51
Student 09	15	10	10	9	3	47	18	9	10	11	3	51
Student 10	21	13	13	16	4	67	21	13	13	14	3	64
Student 11	17	10	10	11	3	51	17	11	11	11	3	53
Student 12	20	13	13	15	3	64	17	13	13	14	3	60
Student 13	20	12	13	14	3	62	17	12	13	12	3	57
Student 14	15	10	9	10	3	47	15	10	9	10	3	47
Student 15	16	11	9	10	3	49	14	10	9	10	3	46
Student 16	15	10	10	10	2	47	15	10	10	11	2	48
Student 17	21	13	14	16	3	67	21	14	14	17	4	70

Table 10: Scores assigned to the low group by the second rater (1st and 2nd tasks)

Low group: Rater 2	1 st writing task: Language to be evaluated						2 nd writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	13	7	7	5	2	34	13	7	7	5	3	34
Student 02	15	9	7	11	3	45	16	10	7	11	3	47
Student 03	14	10	10	11	3	48	13	9	9	9	3	43
Student 04	14	9	7	8	3	41	14	8	7	7	2	38
Student 05	13	7	7	5	2	34	13	7	7	5	2	34
Student 06	14	10	8	10	3	45	14	10	8	10	2	44
Student 07	13	7	7	5	2	34	13	7	7	5	2	34
Student 08	14	10	10	12	3	49	14	10	10	12	3	49
Student 09	13	7	7	6	2	35	15	8	8	8	3	42
Student 10	13	7	8	6	2	36	14	8	7	6	2	37
Student 11	17	12	12	14	3	58	18	12	12	14	3	59
Student 12	13	7	7	5	2	34	13	7	7	5	2	34
Student 13	14	10	9	10	2	45	14	10	10	11	3	48
Student 14	16	10	9	11	3	49	17	10	8	11	3	49
Student 15	15	9	7	11	3	45	16	10	7	11	3	47
Student 16	13	7	7	5	2	34	14	8	7	6	2	37
Student 17	16	10	10	11	3	50	16	10	10	11	3	50

Table 11: Scores assigned to the low group by the second rater (3rd and 4th tasks)

Low group: Rater 2	3 rd writing task: Language to be evaluated						4 th writing task: Language to be evaluated					
	Student list	Con	Org	Voc	Gra	Mec	Total	Con	Org	Voc	Gra	Mec
Student 01	13	7	7	5	2	34	13	7	7	5	2	34
Student 02	14	9	9	8	3	54	13	10	9	10	2	44
Student 03	15	10	10	12	3	50	17	11	12	14	3	57
Student 04	15	10	10	11	3	49	13	9	8	9	3	42
Student 05	14	9	8	8	2	41	13	7	7	5	2	34
Student 06	15	10	9	11	2	47	12	9	8	9	2	40
Student 07	12	9	8	8	3	40	12	9	8	8	3	40
Student 08	14	11	10	12	3	50	16	11	11	13	3	54
Student 09	15	9	9	8	3	44	13	9	9	8	3	42
Student 10	15	8	8	8	3	42	13	7	7	7	3	37
Student 11	19	13	13	15	3	63	19	13	13	15	3	63
Student 12	14	8	8	5	3	38	13	7	7	5	2	34
Student 13	16	11	10	12	3	52	16	11	11	13	3	54
Student 14	19	13	13	14	3	62	20	13	13	14	4	64
Student 15	16	11	11	13	3	54	13	10	9	10	2	44
Student 16	15	10	9	10	3	47	14	9	7	6	3	39
Student 17	16	10	10	11	3	50	17	11	11	12	3	54

3. Scores from translation work of the high and low groups

Table 12: Scores of translation work of the high group assigned by one rater twice

High group	Pretest Rate 1 st	Pretest Rate 2 nd	Posttest Rate 1 st	Posttest Rate 2 nd	Pretest Mean	Posttest Mean
Student 01	4	5.5	5.5	7.5	4.75	6.5
Student 02	12	10.5	23.5	23.5	11.25	23.5
Student 03	8	6.5	12.7	17.2	7.25	14.95
Student 04	14	13	30.5	30.5	13.50	30.5
Student 05	3.5	3	10	9.5	3.25	9.75
Student 06	8.5	7	16.5	13	7.75	14.75
Student 07	32	31.5	44.5	41.5	31.75	43
Student 08	23	23	51.8..	52.7	23	52.25
Student 09	8	7	29.5	27.5	7.5	28.5
Student 10	6.5	6.5	22.5	23.5	6.5	23
Student 11	7	7.5	52.7	52.7	7.25	52.7
Student 12	23	21.5	37	33	22.25	35
Student 13	73.6	69	100	98	71.3	99
Student 14	4	3	42	43	3.5	42.5
Student 15	15.5	17.5	12.5	12.5	16.5	12.5
Student 16	13	10.5	85.5	81.5	11.75	83.5
Student 17	26	23.5	66	62	24.75	64

Table 13: Scores of translation work of the low group assigned by one rater twice

Low group	Pretest Rate 1 st	Pretest Rate 2 nd	Posttest Rate 1 st	Posttest Rate 2 nd	Pretest Mean	Posttest Mean
Student 01	0	0	0	0	0	0
Student 02	5	5	12.5	11.5	5	12
Student 03	12.5	14	25.5	22	13.25	23.75
Student 04	3.5	4	5	5	3.75	5
Student 05	21.8	20.9	6.3	7.2	21.35	6.75
Student 06	2.5	2	15.5	16.5	2.25	16
Student 07	1.5	2	39	35.4	1.75	37.2
Student 08	10.5	10.5	27.5	27	10.5	27.25
Student 09	8	8	10.5	9.5	8	10
Student 10	5	6	17.5	21.5	5.5	19.5
Student 11	49.5	47.5	48	50.9	48.5	49.4
Student 12	3.5	2	26.5	24	2.75	25.25
Student 13	13.5	12.5	100	97	13	98.5
Student 14	13.5	13	100	95	13.25	97.5
Student 15	23.5	26.5	33	36.5	25	34.75
Student 16	2	2.5	38.5	36.5	2.25	37.5
Student 17	15.5	14	27.5	27.5	14.75	27.5

4. Reading amounts of high and low groups in pages

Table 14: Reading amounts of simplified readers and reading amounts of simplified readers plus course book of the high group

High group	Reading amounts of simplified readers				Reading amounts of simplified readers plus reading course book			
	1 st	2 nd	3 rd	Total	1 st	2 nd	3 rd	Total
Student 01	27	-	181	208	37	17	198	252
Student 02	81	82	77	240	91	99	94	284
Student 03	44	106	148	298	54	123	165	342
Student 04	72	112	111	295	82	129	128	349
Student 05	68	68	169	305	78	85	186	349
Student 06	13	109	184	306	23	126	201	350
Student 07	106	112	96	314	116	129	113	352
Student 08	27	-	282	309	37	17	299	352
Student 09	40	106	166	312	50	123	183	356
Student 10	27	27	259	313	37	44	276	357
Student 11	40	98	152	290	50	115	196	359
Student 12	68	46	204	318	78	63	221	362
Student 13	139	140	77	356	149	157	94	400
Student 14	43	91	223	357	53	108	240	401
Student 15	57	34	172	263	67	151	189	407
Student 16	30	107	240	377	40	124	257	441
Student 17	107	148	182	437	117	165	199	481

Table 15: Reading amounts of simplified readers and reading amounts of simplified readers plus course book of low group

Low group	Reading amounts of simplified readers				Reading amounts of simplified readers plus reading course book			
	1 st	2 nd	3 rd	Total	1 st	2 nd	3 rd	Total
Student 01	21	14	-	35	31	31	17	79
Student 02	12	26	-	38	22	43	17	82
Student 03	22	10.5	26	58.5	32	28	43	103
Student 04	37.5	-	27	64.5	48	17	44	109
Student 05	13.5	15	36	64.5	24	32	53	109
Student 06	24	24	17.5	65.5	34	41	35	110
Student 07	19	-	49.5	68.5	29	17	67	113
Student 08	24	28.5	32	84.5	34	46	49	129
Student 09	20	25.5	48	93.5	30	43	65	138
Student 10	21	26	52	99	31	43	69	143
Student 11	50	55.5	25	130.5	60	73	42	174
Student 12	12	56	75.5	143.5	22	73	93	188
Student 13	23.5	53	68.5	145	34	70	85	189
Student 14	9	36	100	145	19	53	117	189
Student 15	49.5	39	60	148.5	60	56	77	193
Student 16	35.5	24	107	166.5	46	41	124	211
Student 17	37	104	106	247	37	104	106	247

Table 16: Accumulated amounts of reading done by readers in the high group

High group	Series of data collection in pages		
	1 st	2 nd	3 rd
Student 01	37	54	252
Student 02	91	190	284
Student 03	54	177	342
Student 04	82	211	349
Student 05	78	163	349
Student 06	23	149	350
Student 07	116	245	352
Student 08	37	54	352
Student 09	50	173	356
Student 10	37	81	357
Student 11	50	165	359
Student 12	78	141	362
Student 13	149	306	400
Student 14	53	161	401
Student 15	67	218	407
Student 16	40	164	441
Student 17	117	282	481

Table 17: Accumulated amounts of reading done by readers in the low group

Low group	Series of data collection in pages		
	1 st	2 nd	3 rd
Student 01	31	62	79
Student 02	22	65	82
Student 03	32	60	103
Student 04	48	65	109
Student 05	24	56	109
Student 06	34	75	110
Student 07	29	46	113
Student 08	34	80	129
Student 09	30	73	138
Student 10	31	74	143
Student 11	60	133	174
Student 12	22	95	188
Student 13	34	104	189
Student 14	19	72	189
Student 15	60	116	193
Student 16	46	87	211
Student 17	31	141	247

Appendix G
Validation Forms for Research Instruments

Validation form of reading record and perception survey

Please read the reading record and attitude survey, then, consider the following statements and judge their appropriateness according to the specified aspects.

1. The survey is appropriate for eliciting information on reading amounts and opinions related to reasons for reading and not reading (face validity).

1.1 Reading amounts

_____yes

_____no

Comments:

1.2 Reasons for reading or not reading

_____yes

_____no

Comments:

2. The survey contents cover the objectives of the survey (content validity).

2.1 Reading amounts

_____yes

_____no

Comments:

2.2. Reasons for reading or not reading

_____yes

_____no

Comments:

3. Reasons for reading provided in the Guideline for Perception Survey are appropriate and reasonable.

_____yes

_____no

Comments:

Additional comments

Suggested changes

Other components of the perception survey

1. The survey directions are appropriate and understandable to the respondents.

1.1 Reading amounts

_____yes

_____no

Comments:

1.2. Reasons for reading and not reading

_____yes

_____no

Comments:

2. The overall design and layout are appropriate in terms of practicality for the respondents.

2.1 Reading amounts

_____yes

_____no

Comments:

2.2. Reasons for reading and not reading

_____yes

_____no

Comments:

Validation form of verifying interview scripts

Please read the interview scripts, then, consider the following statements and judge their appropriateness according to the specified aspects.

1. The interview scripts are appropriate for verifying information on reading amounts and the act of reading (face validity).

1.1 Reading amounts

_____yes

_____no

Comments:

1.2 The act of reading

_____yes

_____no

Comments:

2. The interview contents can achieve the set objectives of the instrument (content validity).

2.1 Reading amounts

_____yes

_____no

Comments:

2.2 The act of reading

_____yes

_____no

Comments:

3. The interview contents cover the defined constructs (content coverage).

3.1 Reading amount

_____yes

_____no

Comments:

3.2 The act of reading

_____yes

_____no

Comments:

4. Please specify the items that are inappropriate for eliciting the intended information.

Inappropriate items

Part A

Part B

Suggested changes

Additional comments

Items that should be deleted or improved for each passage:

Passage 1

Suggested changes

Passage 2

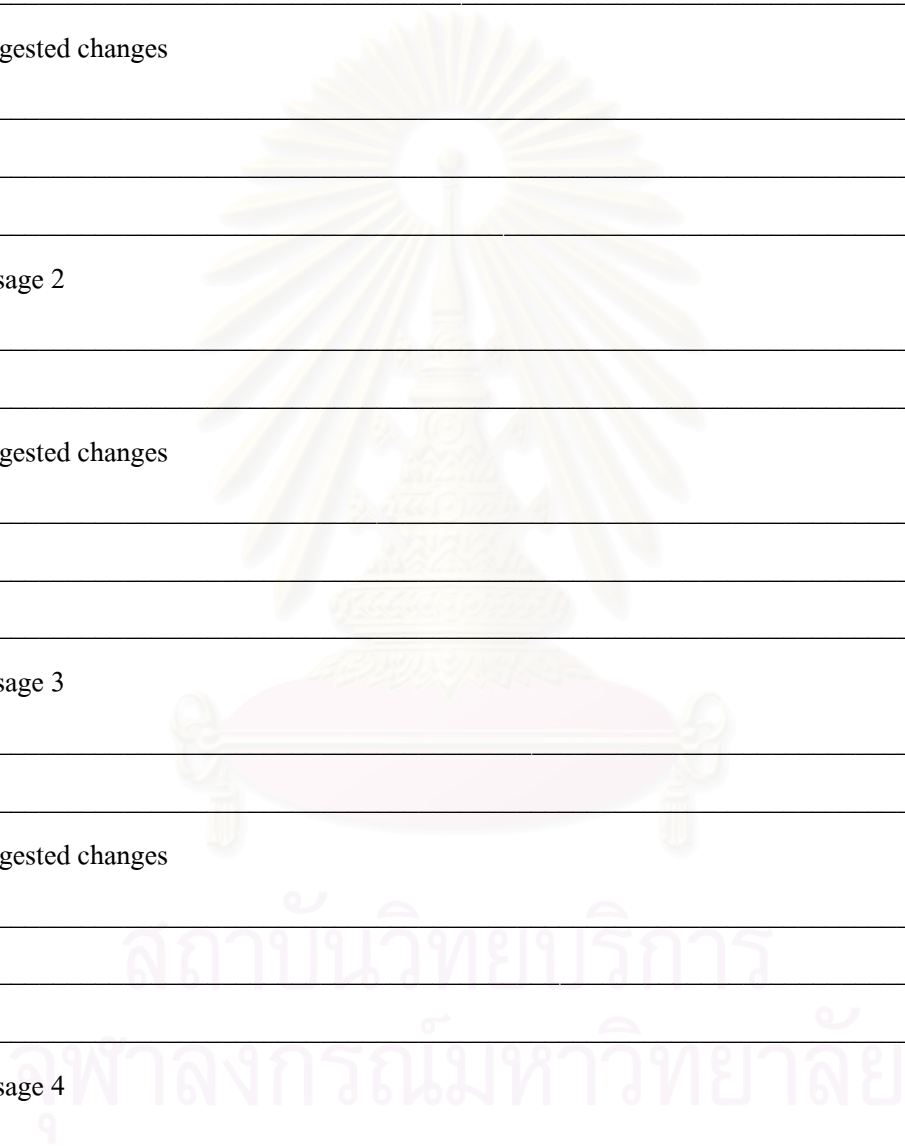
Suggested changes

Passage 3

Suggested changes

Passage 4

Suggested changes



Passage 5

Suggested changes

Part B: Validating the overall reading comprehension test

Please consider the overall reading test, read the following statements, and judge the appropriateness of the test according to the specified aspects.

1. The reading test is appropriate for measuring reading comprehension of the EFL undergraduate students (face validity).

1.1 Multiple choices

_____yes

_____no

Comments:

1.2 Gap-filling test

_____yes

_____no

Comments:

2. The test items cover the defined constructs to be measured (content validity).

2.1 Multiple choices

_____yes

_____no

Comments:

2.2 Gap-filling test

_____yes

_____no

Comments:

3. The test items can fulfill the objectives of the reading test.

3.1 Multiple choices

_____yes

_____no

Comments:

3.2 Gap-filling test

_____yes

_____no

Comments:

Major components of the survey

1. The directions are appropriate and understandable.

1.1 Multiple choices

_____yes

_____no

Comments:

1.2 Gap-filling test

_____yes

_____no

Comments:

2. The time allotment is appropriate.

_____yes

_____no

Comments:

3. The overall design and layout are appropriate in terms of practicality for test takers.

3.1 Multiple choices

_____yes

_____no

Comments:

3.2 Gap-filling test

_____yes

_____no

Comments:

Validation Form of Writing Ability Tests

Part A: Validating writing prompts

Please read the writing prompts, then consider the following statements and judge the appropriateness of each prompt according to the specified aspects.

Qualities of the writing prompts	Writing prompt Pre-test			Writing prompt 1			Writing prompt 2		
	yes	no	not sure	yes	no	not sure	Yes	no	not sure
Fulfillment of the defined constructs									
Opportunity for writers to display competence									
Clarity of issues to be composed									
Clarity of scoring criteria									
Clarity of intended readers									
Appropriateness of time allotment									
Appropriateness of length of essays									

Additional comments

Part A: Validating writing prompts (cont'd)

Qualities of writing prompts	Writing prompt 3			Writing prompt 4			Writing prompt 5		
	yes	no	not sure	yes	no	not sure	yes	no	not sure
Fulfillment of the defined constructs									
Opportunity for writers to display competence									
Clarity of issues to be composed									
Clarity of scoring criteria									
Clarity of intended readers									
Appropriateness of time allotment									
Appropriateness of length of essays									

Additional comments

Part B: Validating the overall writing tests

Please reread the writing prompts, consider the following statements, and judge the appropriateness of each prompt according to the specified aspects.

1. The writing tests are appropriate for measuring writing ability of EFL students in this study (face validity).

_____yes

_____no

Comments:

2. The writing prompts can fulfill the objectives of the writing tests (content validity).

_____yes

_____no

Comments:

3. The directions are clearly written and understandable to the students.

_____yes

_____no

Comments:

Additional comments

Validation form of understanding a narrative test

Please read the test of understanding of a narrative test, then, consider the following statements and judge their appropriateness according to the specified aspects.

1. The test is appropriate for measuring the test takers' comprehension of a narrative (face validity).

_____yes

_____no

Comments:

2. The chosen text can represent a narrative genre (content validity).

_____yes

_____no

Comments:

3. The test is appropriate for the test takers of this study in terms of:

Yes

No

2.1 Length of the text

2.2 Difficulty level of language

2.3 Time allotment

Comments:

Other components of the test

1. The test directions are appropriate and understandable to the respondents.

_____yes

_____no

Comments:

2. The measurement method (translation into Thai) is appropriate to elicit the test takers' understanding of the text.

_____yes

_____no

Comments:

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Validation form of reading speed test

The validation form comprises two parts, Part A validating the timed reading text, and Part B, validating the multiple choice test.

Part A: Please read the reading speed test, then, consider the following statements and judge their appropriateness according to the specified aspects.

1. The test is appropriate for measuring the test takers' reading speed (face validity).

_____yes

_____no

Comments:

2. The chosen text can fulfill the objectives of the test (content validity).

_____yes

_____no

Comments:

3. The test is appropriate for the test takers of this study in terms of:

- | | | |
|----------------------------------|-----|----|
| | Yes | No |
| 2.1 Length of the text | | |
| 2.2 Difficulty level of language | | |
| 2.3 Text genre | | |

Comments:

Major components of the test

1. The test directions are appropriate and understandable to the respondents.

_____yes

_____no

Comments:

2. The measurement method is appropriate to measure the test takers' reading speed and comprehension of the text.

_____yes

_____no

Comments:

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Additional comments

Items that should be deleted or improved

Suggested changes

Validating the overall reading speed test

Please consider the overall test, then, read the following statements and judge the appropriateness of the test according to the specified aspects.

1. The reading speed test is appropriate for measuring reading speed of the EFL low-ability students (face validity).

_____yes

_____no

Comments:

2. The test items cover the defined constructs to be measured (content validity).

_____yes

_____no

Comments:

3. The test items can fulfill the objectives of the test.

_____yes

_____no

Comments:

Other components of the survey

1. The directions are appropriate and understandable.

_____yes

_____no

Comments:

2. The time allotment is appropriate.

_____yes

_____no

Comments:

3. The overall design and layout are appropriate in terms of practicality for test takers.

_____yes

_____no

Comments:

Validation Form of lesson plan of ER activities

The validation form consists of two parts, i.e. part A, verifying ER activities in detail, and part B, verifying the overall quality of this instrument.

Part A: Verifying ER activities

Please indicate the quality of the items by putting a tick (✓) in the grid where appropriate.

Constructs to be accomplished		Accomplishment of defined constructs			Appropriateness of contents			Appropriateness of activities			Appropriateness of time allotment		
		yes	no	not sure	yes	no	not sure	yes	no	not sure	yes	no	not sure
1	Pre-test/ orientation/ strategy training												
2	Encourage sharing/ know parts of books												
3	Learn new words/ encourage reading purposively/ improve reading skills												
4	Improve reading skills/ encourage reading attentively/ encourage sharing												
5	Expand vocabulary resources/ encourage reading purposively/ encourage sharing												
6	Improve reading skills/ summarize stories/ encourage reading attentively												
7	Improve reading skills/ encourage reading critically/ encourage reading purposefully												
8	Learn new words/ encourage reading attentively/ improve reading skills												
		Accomplishment			Appropriateness			Appropriateness					

Constructs to be accomplished		of defined constructs			of contents			of activities		
		yes	no	not sure	yes	no	not sure	yes	no	not sure
9	Expand vocabulary resources/ summarize stories/ use language creatively									
10	Improve reading skills/ encourage reading purposefully/ use language creatively									
11	Know parts of books/ encourage reading critically/ encourage reading critically									
12	Expand vocabulary resources/ summarize stories/ encourage sharing									
13	Learn new words/ encourage reading attentively/ improve reading skills									
14	Expand vocabulary resources/ encourage sharing/ use language creatively									
15	Encourage sharing/ use language creatively/ encourage sharing									

Biography

Assistant Professor Wilairat Kirin has been working as an English teacher for 23 years. She graduated with a Bachelor's Degree in English from Srinakarinwirot University, Bangsaen Campus, and a Master's Degree in Teaching English as a Foreign Language from Silpakorn University. At present, she is working in the Foreign Language Department, Faculty of Humanities and Social Sciences at Nakhon Pathom Rajabhat University. Her areas of interest include reading instruction, particularly extensive reading, teacher development, and classroom research.



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