



**Reading and Writing Skills Development:
The Use of SQ5R Technique**

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Arts Degree in Teaching English as an International Language**

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ชื่อวิทยานิพนธ์	การพัฒนาทักษะการอ่านและการเขียน ด้วยเทคนิค เอส คิวไฟว์ อาร์ (SQ5R)
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ปีการศึกษา	2552

บทคัดย่อ

การวิจัยนี้ ศึกษาประสิทธิภาพของเทคนิค เอส คิว ไฟว์ อาร์ (SQ5R) ที่มีต่อการพัฒนาทักษะการอ่านและการเขียน ของนักเรียนชั้นมัธยมศึกษาปีที่ 3 โรงเรียนสตรีพัทลุง จำนวน 32 คน จากการสุ่มตัวอย่างแบบเจาะจง ใช้เวลาศึกษาตลอดภาคเรียนที่ 1 ปีการศึกษา 2552 เครื่องมือที่ใช้ในการศึกษาประกอบด้วย บทเรียนการอ่าน-เขียน จำนวน 10 บท ที่ใช้วิธี SQ5R และแบบทดสอบผลสัมฤทธิ์ทางการเรียนที่ประกอบด้วยแบบทดสอบการอ่านแบบเลือกตอบ 4 ตัวเลือก จำนวน 30 ข้อ และการเขียน 1 ข้อ จำนวน 2 ข้อหน้า ข้อหน้าแรกเป็นการเขียนข้อความจากเรื่องที่อ่าน และข้อหน้าที่ 2 เป็นการเขียนแสดงความคิดเห็น

การศึกษาค้นคว้าพบว่า

1. เทคนิค SQ5R ทำให้ความสามารถด้านการอ่านเพื่อความเข้าใจของนักเรียน (Overall Reading Comprehension) และความเข้าใจระดับตามตัวอักษร (Literal) ระดับตีความ (Reinterpretation) และระดับสรุปความ (Inference) เพิ่มสูงขึ้นอย่างมีนัยสำคัญทางสถิติ ($p < 0.01$)
2. เทคนิค SQ5R ทำให้ความสามารถด้านการเขียนของนักเรียน (Writing Ability) เพิ่มสูงขึ้นอย่างมีนัยสำคัญทางสถิติ ($p < 0.01$)
3. ความสามารถด้านการอ่านภาษาอังกฤษเพื่อความเข้าใจ และความสามารถด้านการเขียนของนักเรียนมีความสัมพันธ์เชิงบวก ($r = .452, P < 0.01$)
4. ความพึงพอใจของนักเรียนที่มีต่อวิธีการสอนเพื่อพัฒนาทักษะการอ่านและการเขียนด้วยเทคนิค เอส คิว ไฟว์ อาร์ (SQ5R) อยู่ในระดับมาก

เทคนิค SQ5R ที่ผู้วิจัยปรับปรุงมาจาก SQ3R และนำมาใช้ในครั้งนี้ สามารถพัฒนาทักษะด้านการอ่านและการเขียนของนักเรียนชั้นมัธยมศึกษาปีที่ 3 โรงเรียนสตรีพัทลุงได้ดี เทคนิคการอ่านนี้จึงน่าจะนำไปใช้พัฒนาทักษะการอ่านและการเขียนของนักเรียนกลุ่มอื่น ๆ ได้ และหากจะมีการศึกษาเพื่อเปรียบเทียบประสิทธิภาพของ SQ5R กับเทคนิคการอ่านแบบอื่น ๆ ก็จะช่วยให้ครูผู้สอนมีเทคนิคและวิธีการจัดการเรียนรู้ที่สามารถทำให้ผู้เรียนอ่านและเขียนภาษาอังกฤษได้ดีขึ้น

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ABSTRACT

This action research investigated the effectiveness of the SQ5R technique upon the reading and writing skills development of 32 ninth graders of Satri Phatthalung School. The subjects were selected by purposive sampling. The study was conducted throughout the first semester of the 2009 academic year. The experimental instrument comprised ten reading-writing integrated lessons, employing the SQ5R technique. The data-collecting instrument was an achievement test, including 30 multiple choice items of reading comprehension, and one writing item of two short paragraphs: one was the summary of a reading text, and the other was a student's reaction towards the text information.

The findings of this study can be summarized as follows:

1. The SQ5R reading technique significantly improved students' overall reading comprehension and the three levels of literal, reinterpretation, and inference comprehension ($p < 0.01$).
2. The students' overall writing ability was significantly improved ($p < 0.01$).
3. The students' English reading comprehension and writing ability positively correlated ($p < 0.01$).
4. The students' satisfactions towards the reading and writing skills development through the SQ5R technique was at "Very satisfied" level.

The SQ5R teaching approach adapted from SQ3R by the researcher was found to significantly improve the reading and writing ability of the ninth graders. It is recommended that this method be implemented with other groups of students to improve their reading and writing ability and further research be done to compare this approach with other reading approaches to hit upon the best for Thai EFL learners.

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CHAPTER 1

INTRODUCTION

1.1 Rationale of the study

English is remarkably important in the globalization era. It is the language of international communication, commerce and trade, the media, culture, education and advancement. English is taught worldwide as either a second or foreign language. In Thailand, the Ministry of Education has been aware that English is important for all Thai people and makes it obligatory in all educational levels. In the 2001 curriculum which has already been implemented for eight years, English is the only compulsory foreign language subject in the lower secondary level. The curriculum focuses on four skills—listening, speaking, reading, and writing in order that the learners can be competent in both daily communication and education.

However, the assessments on the lower secondary education, conducted by different organizations revealed similar results that Matthayomsuksa 3 (9th graders) were underachievers. In 2007, Program for International Student Assessment (PISA) assessed the reading ability of fifteen-year-old Thai children and found that only 26% of them can read for main ideas of complicated texts, whereas 74% can grasp only a piece of information (Office of National Education Commission, 2009). The academic year 2006 and 2007 national tests (NT) results on the English subject of the ninth graders, who were under the basic education, were below 50% (ONEC, 2009). In the school where the researcher has been working, the NT results were 30.10% in 2006 and 29.90% in 2007 (Satri Phatthalung School, 2008). Moreover, the Secondary School English Proficiency Test of Chulalongkorn University (CU-SSEPT), administered in 2008 with the “English special class” students showed that their reading ability was unsatisfactory.

It is the aim of the 2008 core curriculum, when it will be implemented in 2010, that the students’ achievement in every curriculum subject is required at 55% (ONEC, 2009). The teachers’ roles are to help students succeed in their language learning as they are required to effectively use the language in communication,

careers, and further studies. The students are also required to be independent and autonomous learners. That is, they are able to acquire knowledge by themselves and for themselves (Moore, 2010).

The SQ3R reading study technique, propounded by Robinson (1970, in Nuttall, 1985) is believed to be an effective reading approach. The five steps of this technique (Survey, Question, Read, Recite, Review) help students comprehend texts of content areas. Few studies investigated the effectiveness of the SQ3R reading techniques upon students' reading comprehension in other curriculum subjects and English. Hedberg (2002) concludes in her study, with the fourth graders ESOL students, that the direct instruction of the SQ3R learning strategy helped improved the students' comprehension and retention of social studies content material. Moreover, Alger (2009) sums up her descriptive study that the SQ3R was one of the reading strategies used by the first year teachers to help improve students' reading comprehension and learner autonomy in both language and biology classes.

Additionally, there were some studies conducted with Thai students in different educational levels, to investigate the effectiveness of the SQ3R and SQ4R, Robinson's modified reading study technique with an additional step of "Record". Kanchart (2007) and Nooprakob (2008) conclude in their research reports that the SQ3R reading technique could improve the students' critical reading in the Thai language subject. Chalotornsutti (2007) and Monyeun (2008) find out that the SQ3R could enhance students' English reading comprehension. Potaya (2003) concludes in her research that the SQ4R technique could improve the certificate vocational students' reading comprehension and summary writing. Uttamaharat (2004) finds out that the SQ4R improved M.3 students' reading comprehension and interest in learning English. Banjounmanee (2005) also asserts that the upper secondary students' reading comprehension was improved and reflective thinking ability was at a good level.

It is proved that the SQ3R and SQ4R can improve the elementary and post-intermediate students' reading comprehension, summary writing, and reflective thinking. The SQ5R study reading technique proposed by Pauk (1986) is considered as a learning tool to help students succeed in reading texts, since it includes an additional step of "Reflect" that requires students to express opinions. Though there is

very little research on this model, it can be assumed that Pauk's SQ5R is effective because the steps are based on SQ3R and SQ4R that can effectively enhance students' reading comprehension. The additional step of "Reflect" provides an opportunity for students to think critically about the issues raised, the points presented, and the conclusions drawn. Students take time to organize the information and develop associations with their existing knowledge. This will help students remember and be able to use the information they learn from their book.

It is the goal to help the ninth graders' under the "Special class" to achieve better in the English language subject, and to enable them to acquire knowledge in other curriculum subjects by themselves and for themselves. The researcher's modified SQ5R (Survey, Question, Read, Recite, Record, React, and Review) used in this study is expected to be an effective technique that can help students improve their reading comprehension and writing ability, instead of reading comprehension alone. The researcher's SQ5R has the teaching/learning steps in common with Robinson's SQ3R and SQ4R; and Pauk's SQ5R. Compared to Pauk's, the researcher's SQ5R is adapted to be employed as a learning tool to help improve students' reading comprehension and writing ability. However, there is a difference in using words of the same connotation. Pauk's terminology of "Reflect" is equivalent to the researcher's "React". "Reflect" is not used in this modified SQ5R since "Reflect" or "Reflection" is the 10th principle of independent and autonomous learning. According to Moore (2010), "Reflection" is the last step of any teaching modules that provides an opportunity for students to mirror their learning, whether they are successful or not, and how to make their learning more successful, for example. Pauk's SQ5R is a study reading technique that helps students' understand expository texts. In other words, Pauk's is an effective reading model for content areas. Though this current SQ5R (Survey, Question, Read, Recite, Record, React, Review) has also been modified from the SQ3R, it differs from Pauk's in that the researcher's model aims to develop students' reading and writing skills, It is also adapted to be implemented in the English language classes with the ninth graders under the "Special Class" in the EFL context. The instruction through the SQ5R is a preparatory course for this group of students since they are likely to read texts in other subjects in English. They are enrolling in the Mini-English Program in the 2010 academic year. This modified

SQ5R study reading technique is a combination of a reading comprehension and process writing that can provide students with three advantages. Firstly, the self-generated questioning in “Question” step directs students to better comprehension (Lapp and Flood, 1986; Vittayarungrangri, 1993). Secondly, students’ reading and writing skills will be mutually beneficial as reading and writing are closely linked (Grillet, 1986; Applebee, 1984; Langer & Applebee, 1987; Tierney & McGinley, 1987 in Tierney, O’Flahavan, & McGinley, 1989). Moreover, the summary writing in the “Record” step reinforces students’ reading comprehension and develops the study skills (Lapp and Flood, 1986; Silveira, 2003) Lastly, but not the least, the students’ engagement in every step of the SQ5R model, develop learner’s independence and autonomy (Moore, 2010).

1.2 Purposes of the study and research questions

The specific objectives of this research are:

1. To investigate the students’ levels of reading comprehension before and after the instruction through the SQ5R study-reading technique.
2. To investigate the students’ levels of writing ability before and after the instruction through the SQ5R study reading technique.
3. To investigate the students’ satisfactions towards the instruction through the SQ5R technique.

As a result, the research will be conducted to answer four main research questions:

1. Does SQ5R study-reading technique affect students’ reading comprehension? If so, to what extent does it do to each level of literal, reinterpretation, and inference comprehension?
2. Does SQ5R study-reading technique affect students’ writing ability? If so, to what extent does it do to four aspects of writing: summarization, reaction, organization, and language quality?

3. Is there any significant correlation between the students' reading comprehension and writing ability?
4. What are the students' satisfactions towards the instruction through the SQ5R technique?

1.3 Scope of the study and limitation

The scope of this study was to examine whether Matthayomsuksa 3 students in a secondary school in Phatthalung Province, who had reading lessons through the SQ5R reading technique would have a higher achievement in both reading comprehension and writing ability.

The study was mainly classroom-based, for it investigated a specific group of Matthayomsuksa 3 students currently studying at Satri Phatthalung School. The reading program consisted of ten reading lessons, each of which took a doubled-period of fifty minutes. The lessons were designed in line with the school syllabus of Fundamental English Course of the first semester in the 2009 academic year. The reading texts taken from the commercial course book (ACCESS 3) used in Satri Phatthalung School, covered five themes of House and Home, Nature, Travel, Culture, and Science and Technology. Each theme comprised two reading texts. Moreover, the experiment time took ten weeks of about two hours each. This excluded the administration of pre- and post-tests and introductory lessons to the study.

The study, however, might have some limitations. First, the subjects of the study were doing three English courses in the first semester: one fundamental and two supplementary courses. The findings of the study may somewhat be affected by the supplementary courses—English for Youth Guides, and English for Information and Technology—instead of the fundamental course alone. Secondly, the findings may not be readily generalized to all Thai students who are studying at the same level in this school as well as other schools.

1.4 Definitions of terms

1.4.1 **SQ5R** is a study reading technique that ties up reading with writing and is viewed as a learning model which includes seven steps of activities—Survey, Question, Read, Recite, Record, React, and Review. The steps can be elaborated as follows.

1) Survey: Before reading the text, students pay attention to topic headings, bold faced words, pictures, charts, and graphs. The step will give the readers an overview of the reading text content. This also stimulates curiosity for the material and questions will begin to arise.

2) Question: Before getting into details of the text, students set a purpose for their reading by generating questions about the material. They use the topic and heading information they gathered in the survey step to create questions to be answered. They ask themselves questions. Teacher provides more questions later.

3) Read: This is a critical step. Students read more carefully and actively to obtain the main ideas and important details. They look for the answers to the questions of their own and the teacher's. They study charts, graphs, tables, and pictures which present new information. They put the pieces of information from these sources together with the written text to make their comprehension successful.

4) Recite: Students rehearse the main ideas and important details in their memory by saying the questions and answers aloud to themselves and take turns to do it with pairs. This step also provides students with an opportunity to say and hear (speaking and listening) the language at the same time, and to enhance their memory of the reading text content.

5) Record: This is the first step of writing activities. Students write the answers in complete sentences and make some notes of main points of the text. Recording provides students with a written outline for the summary which is added in this step to practice writing and to help students understand the text better.

6) React: Students connect the ideas of the texts with their own personal experiences by writing. Students are encouraged to express their opinions or feelings about the issues presented in the text.

7) Review: Students read through their summary and reaction to make sure they have covered all important points. They are also encouraged to revise their writing to check whether there is a topic sentence, the sentences are in a logical order, signal words are included, and whether there are any spelling errors.

1.4.2 **Reading skill** refers to the ability to comprehend texts for contents and meaning at different levels. They are literal, reinterperatation, and inference comprehension. The comprehension level will be assessed by a battery of thirty test items of multiple choice type which is constructed by the researcher.

1.4.3 **Writing skill** is the student's performance in writing two short paragraphs about the text they have read. The first paragraph is a summary, and the second is the students' reactions towards the content of the text. The students' writing ability will be assessed on quality of summarization (content in reading), reaction (their opinions), the text organization, and language quality (mechanics in writing). Two raters will assess the writing tasks based on scoring rubrics adapted from sample observation rating scale for writing by Cohen (1994 in Genesee & Upshur, 1996).

1.5 Significance of the study

Findings of this study will be beneficial for both EFL teachers and students. If SQ5R is proved to be effective to develop students' reading and writing skills, it will be advisable for teachers to employ this technique in language classes. It can be also recommended as one effective way to help students become efficient readers and writers. Furthermore, it may be a good preparation for students to later cope with more difficult and more specific texts in their higher levels of studies. Above all, it aids them to improve overall achievement in English language learning. Such findings will also help raise teachers' awareness of the importance of reading processes, reading procedures, and effective strategies in learning and teaching reading.

CHAPTER 2

REVIEW OF LITERATURE AND RELATED RESEARCH

This study highlights the effect of SQ5R technique on reading comprehension and writing ability. Therefore, related literature and research on the following topics have been reviewed.

- 2.1 Models of Reading Process
- 2.2 Reading Comprehension
- 2.3 Teaching Reading Comprehension
- 2.4 Study Reading Skills
- 2.5 Reading and Writing Integration
- 2.6 Developing independent and autonomous learning
- 2.7 Designing a lesson
- 2.8 Related Research

2.1 Models of Reading Process

Granted that modern theories of reading are essential for improvement in the teaching of reading comprehension, reading teachers of English are required to study a theory of reading comprehension so that they can organize a more effective reading program to help students better understand the texts (Chandavimol, 1998). Currently, models of reading can be described using the three terms of 'Top-down,' 'Bottom-up,' and 'Interactive.' These terms indicate the way in which information flows during the reading process. These three models are described as follows.

2.1.1 Bottom-up Model

The bottom-up model is a text-based or data-driven reading approach, consisting of low-level reading processes. Readers start the reading process with the printed word and gradually up to word recognition and to meaning interpretation. (Anderson, 2008). With little help of higher-level knowledge, the comprehension (the

top) is constructed, depending on the knowledge of vocabulary and discourse (the bottom) since they are decoded. The process does not encourage readers to play active role in reading (Silberstein, 1994; Samuel, 1997 in Otto, 1982; Lynch, 1996; Nunan, 1999; Alderson, 2000; Treiman, 2001; and Farrell, 2002). The bottom-up model may suit basic reading since the elementary readers have limited prior knowledge so the reading instruction at the elementary level should begin with letter-by-letter and then progress to words (Gough, 1972, in Lapp and Flood, 1986).

2.1.2 Top-down Model

Compared to the bottom-up model, the top-down is reversed. The top-down reading process or knowledge-based, emphasizes the importance of prior knowledge and reader's contribution, over the incoming text. In this reading process, the comprehension is constructed because readers make use of the interaction of prior knowledge, expectations or predictions, and goals. Comprehension takes place first and the identification of individual words comes second. A reading passage can be understood even if not all of the individual words are understood. (Silberstein, 1994; Lynch, 1996; Goodman, 1971; Goodman and Burke, 1980 in Otto, 1982; Smith (1978, in Lapp and Flood, 1986; Chandavimol, 1998; Nunan, 1999; Alderson, 2000; Treiman, 2001; Grabe and Stoller, 2002, in Anderson, 2008; Farrell, 2002; and Muciel, 2004). The top-down model is like an eagle-eye view of the landscape as the readers try to see the overall purpose of the text, or get a rough idea of the pattern of the writer's argument, in order to make a reasonable guess. This model is used to interpret assumptions and draw inferences (Nuttall, 1996).

2.1.3 Interactive Model

Neither the bottom-up nor the top-down approach is an adequate characterization of the reading process. Therefore, readers utilize interactive model for reading comprehension (Alderson, 2000; Anderson, 2008). The interactive model is viewed as the most comprehensive description of the reading process. It is the combined use of both bottom-up and top-down processing modes. Skilled readers' comprehension is based on the simultaneous interaction between the high-and-low-

level skills in a top-down manner, moving back and forth between different sources of knowledge as they pick up clues in the text and gradually clarify their understanding of the message (Rumelhart (1976, Frederickson, 1977,in Lapp and Flood, 1986; Jones, 1982; Silberstein, 1994; Nuttall, 1996; Chandavimol, 1998). They may follow an interactive model as follows: (1) predict what the text will be about, (2) actively pick words that fits the guesses, (3) continue the cycle of predicting and sampling as long as the text poses no difficulty. When there is a problem, the readers will ignore the problem. This continues until the problems accumulate to the point where the readers realize that the prediction was wrong and comprehension breaks down, and (4) when comprehension breaks down, the readers frame a new hypothesis and restart the cycle of predicting and sampling (Farrell, 2002). Interactive model is widely accepted as an effective process in reading because comprehension is a constructive process involving the drawing of inferences based on an interaction between the reader's prior knowledge or schemata and information from the text. Comprehension, therefore, depends on students' knowledge of the language as well as the knowledge of the world (Jones,1982).

To conclude, the SQ5R technique requires students to employ the interactive model. The survey through the text title and the availability of graphs, pictures, and illustrations activate the students' experience and prior knowledge. Students further make the predictions by generating questions to be answered when intensively reading. If any problems arise while constructing the meaning of the text, students may switch their attention to particular words or phrase. They go back and forth on confirming their predictions and working out the meaning at the word level until different levels of comprehension are achieved.

2.1.4 Schema Theory

A schema is an abstract cognitive representation or framework of knowledge, that is based on past experiences and developed as a means of accommodating and making sense of the world more quickly. It helps people to relate incoming information to previously known information and to organize information in long term memory (Rumelhart, 1977 in Jones, 1982; Johnson, 1998; Cook, 1989, 1997, in Maciel, 2004). Schemata are extremely important to second and foreign language learners because they not only guide readers to make sense of new experiences but also enable them to make predictions about what they might expect to experience in a given context (Barlet, 1932 in Nunan 1998). There are two types of schema—content schema and relational or formal schema. Content schema refers to the stored knowledge and the familiarity about objects and events. It incorporates background knowledge of the content and subject matter, such as differences in genres, differences in structure of stories, scientific texts, etc. Formal schema, on the other hand, is abstract, encoded, internalized, coherent patterns of meta-linguistics, discourse and textual organization that guide our expectations to understand meaning pieces of language (House and Acker, 1979 9 in Lapp and Flood, 1986; Silberstein, 1994; Maciel, 2004; Al-Issa, 2006).

The schema theory is vital to foreign language reading teaching. There are two points for the English reading teachers to keep in mind to help students read efficiently. One is that a reading process is an interactive process between the reader and the writer via the reading material. The meaning is not attached to the surface of the language form, but depends on the reader's ability to use schema knowledge to generate hypothesis about the missing information in the text and point to another information that may fill the gap in the information. The other is that the world knowledge schema and world schema are equally important for readers to make the meaning of the text. That is, adequate language knowledge, quick activation of word meaning schemata and the use of background schema to predict and infer are necessary condition for the reader to read efficiently (Wilson and Alderson, 1986 in Maciel, 2004; Xie, 2005; Al-Issa, 2006).

In sum, the schema theory brings contributions to the reading comprehension through SQ5R technique. The “Survey” step activates students’ world knowledge about the topic and helps them bridge the gap between what they know and what they need to know. The student-generated questioning incorporates the schemata in predicting about what they might expect to experience in the given text. While intensively reading, the schemata help students to reconstruct comprehension at different levels. In recording step, schemata permit students to use some criteria to summarize important information and exclude secondary ones. The students’ prior knowledge and experience, together with existing knowledge from the text formulate their reaction (opinion and feeling) toward the text information. In the “Review” step students employ the linguistic knowledge schemata and teacher’s support to improve the quality of the written work.

2.2 Reading Comprehension

Reading is an active ongoing mental process of recognition, interpretation, and perception of written or printed material (Crafton, 1982; Sipay and King, 1989; Sheng, 2000). Reading comprehension is therefore the process of simultaneously extracting and constructing the meaning through interaction and involvement with written language, aiming extract required information from the written text as efficiently as possible. The ability to understand a text is based on the reader’s linguistic knowledge and general knowledge of the world. Three essential elements to be considered to attain comprehension are text types, reasons for reading, and skills in reading. (Grellet, 1986; Al-Issa, 2006; Snow, 2002 in Malelohid, 2006).

Spivey and King (1989) illustrate that a reader’s construction of meaning from a text is affected not only by factors within the reader, such as maturity and reading ability, but also by the nature of the reading task. The hybrid tasks (reading to write) require readers to use textual sources to produce their own new texts, such as summaries, which have a communicative intent of their own. The hybrid reading-to-writing tasks involve discourse synthesis, a process in which readers (writers) read multiple texts on a topic and synthesize them. They select content that varies in its importance. They organize the content, having to supply a new organizational structure. Synthesis is an act of comprehending, in which the reader forms a mental

representation from textual cues. Synthesis is also an act of composing that results in a new text to be read or heard, a text that is shaped by rhetorical considerations, such as purpose and audience.

To conclude, in order to help students understand the reading texts, the reading instruction should be based on three phases of comprehension—the pre-reading, during-reading, and post-reading (Crafton, 1982). The SQ5R reading model requires students, in the pre-reading phase by making questions, to anticipate what they are going to meet in a text before they start reading. In the during-reading phase, students are guided to judge significant from insignificant information in order to get the answers to their own questions. The post-reading stages of recording, reacting, and reviewing become the foundation for student generated learning and language growth.

2.2.1 Reading Comprehension Levels

Reading comprehension can be classified into different levels, ranging from the lowest to the highest which requires different levels of reading and thinking abilities. The reading experts' similar views on the levels of comprehension are presented in Table 2.1.

Table 2.1: Comprehension Levels

Level	Gray (1960)	Herber (1970, in Harris & Sipay, 1980)	Ruddell (1978a, in Harris & Sipay, 1980))	Lapp & Flood (1986)	Grant (1991)	Smith (1974)	Barrett (1972, in Harris & Sipay, 1980)	Harris & Sipay (1980)	Nuttall (1985,1996)
1	Literal	Literal	Factual	Literal	Plain sense	Literal	Literal	Literal	Literal
2	Inferred	Interpre- -tive	Inter- -pretive	Inferen- -tial	Deduc- -tive	Interpre- -tation	Inferen- -tial	Inferen- -tial	Rein- -terpre- -tation
3	Criti- -cal	Applied	Appli- -cative	Critical	Projec- -tive	Critical	Evalua- -tion	Criti- -cal	Infer- -ence
4	-	-	-	-	-	Crea- -tive	Appre- -ciation	Crea- -tive	Evalu- -ation

Generally, more reading experts distinguish reading comprehension into three levels, despite different terms. The first level is reading “on the lines” which requires readers to find out the primary meaning or what the author said; to understand, remember, or recall the information explicitly stated in the text. This literal level, for most of reading experts and teachers, is a stepping-stone for higher levels. “Reading between the lines” is the second level of comprehension which is the greater depths of understanding. The readers are required to find what the author meant by putting the pieces of information from different places in the text together. They reorganize, and reinterpret the information for the meaning. The third level is “reading beyond the lines” which engages readers to make inference or find out information that is not explicitly stated in the text. The reading for this comprehension level involves the

ability to think critically and to relate the reading passage to real life, particularly to the reader's own opinions, knowledge, imagination, and experience.

Some reading experts recognize application, appreciation, or evaluation as the a level of comprehension levels. Application or applied comprehension is the reading ability to find how to use the ideas from the text (Herber, 1970 in Harris and Sipay, 1980). To Barrett (1972, in Harris and Sipay, 1980), appreciation refers to the reaction towards the text, covering what the readers think about the events, language, and imagination included in the text. According to Barrett (1972) and Nuttall (1985, 1996) evaluation is the reader's ability to make judgment about the text whether it is facts or opinions, what values the text provides for, what the writer is trying to do, and how far he/she has achieved it.

In application, Nuttall's three comprehension levels—literal, reinterpretation, and inference—are utilized as a framework for designing data collecting instrument. Though literal comprehension is suitable for elementary students, intermediate learners cannot achieve reinterpretation questions unless they can work out the literal questions well. The inference level involves thinking skills, reader's prior knowledge and experience to understand the implicit information. Since the intermediate students are not mature enough, the evaluation level is not included in the study framework.

2.2.2 Assessing Reading Comprehension

One of the reading teacher's roles, apart from providing students with suitable materials and efficient instruction, is to assess students' reading achievement (Grant, 1987). Lapp and Flood (1986) propose that asking questions is the most frequently used to develop students' comprehension. They claim that questioning strategy is a useful tool and a stimulant for learning. Because questions are sources for thinking, it seems obvious that students should be asked many types of questions to stimulate many different mental operations. Questions may be generated by the teacher at the beginning, middle, or end of the text throughout the reading process. The techniques of question asking are used as instructional strategies that will result in the student's ability to generate appropriate questions during the reading process. Andre and Anderson (1978-79 in Lapp and Flood, 1986) suggest that during the questioning technique, the reader must (1) pause frequently, (2) deal with an

understanding question, (3) determine whether or not comprehension has occurred, and (4) decide strategic action should be taken. The reader's ability to implement steps (1)-(4) is an example of using effective study strategies. Nunan (2000) also states that one method to measure understanding is inadequate. Good reading tests are likely to employ a number of different techniques because in real life reading, readers typically respond to texts in a variety of different ways.

According to Nuttall (1985, 1996), a very effective way to help readers understand and to assess their comprehension is asking questions. That is, questioning in reading class is not just to test, but rather to make students aware of the way language is used to convey meaning, and of the strategies they can use to discover the meaning from the text. The questions that help students to understand are the ones that make them work at the text. In other words, well planned questions make students realize they do not understand, and focus attention on the difficult bits of the text. Questions that can help students produce understanding consist of various types, each of which has its aim to assess the level of understanding. Each type requires different levels of effort to get the answers so the students' practice on all types will gear them to understand text as a whole. Questions are helpful to the teacher, too. Getting students to answer questions is one way for the teacher to get some access to what is going on in their minds. Nuttall (1985, 1996) has classified reading comprehension questions into six types.

1) Questions of literal comprehension: These questions are essential preliminaries to serious work on the text. The answers to these questions are directly and explicitly available in the text. Questions of this kind can often be answered in the words of the text itself.

2) Questions involving reorganization or reinterpretation: The questions require students to obtain literal information from various parts of the text and put it together. Such questions are valuable in making students consider the text as a whole rather than thinking of each sentence on its own.

3) Questions of inference: These questions oblige students to consider what is implied but not explicitly stated. Readers are required to understand the text well enough to work out its implications, and to put together in their minds pieces of information that are scattered in the text.

4) Questions of evaluation: This type of questions involves readers in making a judgment about the text in terms of what the writer is trying to do, and how far he has achieved it. Readers are asked to respond, analyze their responses and discover the reasons for them.

5) Questions of personal response: The answers to these questions are dependent most on the readers when they are asked to respond or react to the content of the text. However, the reactions cannot ignore the textual evidence. So the teacher needs to ask students to explain why the text makes them feel as they do. The teacher must make sure that the responses are based on correct understanding of the text.

6) Questions concerned with how the writers say what they mean: This kind of question is intended to give students strategies for handling texts in general, rather than simply helping them to understand one particular text. It is aimed at making students aware of word-attacks and text-attack skills. That is, the questions the questions make them conscious of what they do when they interpret the text.

In order to enable students to effectively read and comprehend the text, teachers must be aware of the different levels of comprehension. Questioning strategy is claimed to be an effective mode that can encourage students to get the meaning at different levels from the text.

2.3 Teaching Reading Comprehension

To teach reading effectively, teachers should pay attention to the objectives in teaching reading as well as the classroom procedures. Concerning the issues of the practical teaching of reading comprehension, teachers must be attentive to the aims of each phase in the reading procedures to encourage students to develop their reading abilities and achieve reading proficiency.

Grant (1987) claims that the objectives in teaching reading at three educational levels are different. Elementary students or beginners must be trained to develop basic comprehension skills, to increase their general knowledge through reading, to decide about their reading purpose, to adapt their methods of reading. They also need to develop the ability to read critically. The intermediate and advanced levels require basic reading comprehension skills; real-life reading skills such as reading for gist, reading for information, and study skills; flexible reading skills; critical reading

skills; linguistic knowledge (vocabulary or idiom, grammatical features); and the integration of reading with speaking or writing.

Since the research subjects in this study are at the lower intermediate level, the objectives in teaching reading are to develop basic and real-life reading skills, and the integration of reading with writing.

Hedge (2003, in Alyousef, 2005) states that any English reading courses may include a set of learning goal for students to read a wide range of texts in English, such as to build schematic and linguistic knowledge which will facilitate reading ability; to adapt the reading style according to reading purpose; to develop an awareness of the structure of written texts in English; and to take a critical stance to the contents of the texts.

In order to develop students' reading competence, the reading teachers should plan lessons by applying the stages, suggested by the reading specialists, that will be discussed in the following section.

2.3.1 Stages in Teaching Reading Comprehension

Reading comprehension as an extended, ongoing mental activity. The reading teachers, therefore, should train students to employ reading comprehension skills at three stages: before reading, during reading, and after reading (Crafton, 1982; Greenwood, 1988; William, 1994).

1) Before-reading stage refers to that students are encouraged to anticipate what they are going to meet in text before they start reading. Anticipation allows students to begin with what they know and to proceed from that point, with the reading experience.

2) During- reading or in-process reading is the critical stage because students are engaged in negotiation for meaning. During this stage, students are involved in activities which enable them to judge significant from insignificant information; to understand the writer's purpose and the text structure and to clarify the text content; and to respond cognitively, emotionally and imaginatively to imaginative writing.

3) Post-reading stage is the extended step that students can expand, share and exchange information. This stage should become the foundation or consolidation for student-generated learning

Silberstein (1994:43-48) presents reading instruction in the English for academic purpose (EAP). She claims that the EAP instructional settings can be found throughout the world: in English speaking countries; in locations where English is used as a mode of instruction throughout the curriculum; and in countries where English is encountered only in English language classes. The reading stages, therefore, should be appeared as follows:

1) Pre-reading activities include discussion and previewing a text. Students discuss a text in advance to develop a context in which to read and to develop expectations about what they will find. Students also preview a text, noting its overall organization and the clues to content and point of view available from an initial rapid overview.

2) Synthesizing information is the critical stage that students are now ready to read on their own. With their research questions in mind, students distribute reading tasks among themselves. Compared to other reading specialists' definition, this stage is during-reading activities.

3) Critical reading is the time for students to evaluate the information contained in the text that have been reading. Students express their feeling towards the information in the text. Critical reading is equivalent to post-reading activities for other reading experts.

Lynch (1996) concentrates on the interaction between students working on the reading text through comprehension questions. He also supports that interaction around texts, rather than interaction about texts, is more appropriate. He sees that the text will become a platform for negotiation (what the writer meant). In the negotiation process some learners may bring in background information that others do not have, which leads in a natural way to peer-teaching of new facts about culture, geography, science, etc. Whitaker (1983, in Lynch, 1996) states that it should be learners rather than teachers who think up and ask the questions. If teachers allow learners to ask each other about the text, the questions asked will be relevant to their

own developing understanding of a text. Therefore, Lynch's (1996) suggestions on reading instruction can be seen as follows:

1) Group work in reading classes is a favorable possibility. By working in groups, students can compare and discuss their individual answers to the comprehension questions set by the teacher. Students should be asked to answer questions about the text, for questions enable teachers to check what students have understood and can also help students to read better.

2) Student-generated questioning technique should be employed. By getting learners to ask their own questions, teachers can direct attention to the process of understanding the foreign language. Traditional question procedures (teacher-posed questioning) focus on the product of comprehension.

According to the AIMLP lesson model (GEOS Auckland Thai MOE, 2006), the English language lessons should be integrative. The acronym AIMLP stands for five stages of a lesson or unit of lessons. A is for Activate, I for Input, M for Meaning, L for Language, and P for Production. To this model, listening and reading fall into AIM stages; grammar and vocabulary are under L (Language); and speaking or writing under P (Production). This model can be elaborated as follows:

1) Activation is a leading stage that aims to introduce the topic; to check key lexis required for understanding the tasks or context; and to diagnose students' existing knowledge of the language/skill/ topic about to be taught.

2) Input and Meaning stages are closely linked together. The activities in these two stages can be employed in receptive skills (listening and reading). There are seven sub-stages in the Input and Meaning.

(1) Gist question: Students are given a reason to engage with the text, and a general question to check their global understanding of the text.

(2) Input x 1: With the written text in their hands, students are given the opportunity to understand the main ideas of the text and to familiarize themselves with the vocabulary and topic of the text.

(3) Compare & Consolidate: Teachers direct students to compare answers with peers to allow students to consolidate the information they have, and to provide support for weaker students who are unable to do the task alone.

(4) Comprehension questions: Questions are posed to the students so they have a reason to engage with the text, and the questions challenge students to closely examine the text. The set questions are related to relevant detail and abstract meaning in the text.

(5) Input x 2: Also with the text, students spend time to engage in detail with the text so that they are prepared to give answers to the set questions.

(6) Compare & Consolidate: Students give answers to the questions so the feedback from peers and the teacher will consolidate the information they have. This sub-stage can provide support for weaker students, too.

(7) Abstract or personalized task: Students are encouraged to engage the text to develop deeper understanding of the text concepts. Students will produce either spoken or written task. To do this, they connect their knowledge or experiences with the text information and if this succeeds, the deeper understanding of the text occurs.

3) Language stage is the stage that focuses on grammar or vocabulary. Students are directed to pay attention to meaning, then form of the target language (either grammar or vocabulary). The pronunciation is included if the production is spoken. In the final activity of this stage, students do the controlled communicative practice, aiming that they can create a framework of the language use in the context of the topic discussed in the previous stage. The teacher monitor and error correct to ensure accurate use of the target language.

4) Production stage refers to students' spoken or written tasks. In this final stage of the AIMLP model, three sub-stages—preparation, output, and closure—are included. Firstly, students are given opportunity to

- (1) work together for the output task,
- (2) rehearse their output,

(3) personalize the target language, while the teacher monitor and shape students' language. Later at the output, the teacher test students' acquisition of the target language with clear, effective task design. The teacher also creates a real, contextual environment in which students can use the target language. Lastly at the closure, the teacher can either give closure to the task, or cold error correction.

In general, the teaching procedures suggested by reading experts are in common with each other—before-reading, during-reading, and after-reading—except, the AIMLP lesson model which includes the language and production stage, and these two stages are not the focus of this study. The reading stages of the SQ5R model fit in the three stages of conventional reading instruction. The “Survey” step arouses students' interest in the topic, while the “Question” step motivate students set the purposes for reading to confirm their guess or anticipation. The “Read” is also critical since the students focus the attention to the during-reading stage so as to find the answers to their own questions. In the after-reading stage, students are engaged in four different activities—Recite, Record, React, and Review—all of which help to reinforce students' comprehension and promote the study skills.

2.4 Study Reading Skills

It is believed that students learn best when they learn by themselves and for themselves. It is the teacher's responsibility to include study skills or study-reading skills in English language classes not only to improve students' basic comprehension skills but also to help them take on more responsibility for their own learning and transfer learning strategies to other subjects (Wenden, 1985b in Ellis and Sinclair, 1989; Ellis and Sinclair, 1989; Moore, 2010).

A study reading skill is a special type of reading, demanding a different type of processing than reading for general information. Study reading skills are tools that help students to gather knowledge in a particular area of study. They are also strategies to consciously direct student's direct academic performances and to develop learners' independence to gain information by and for themselves. The general study skills for intermediate students are outlining, note taking, summarizing, and

synthesizing (Lamberg & Lamb, 1980; Anderson & Armbruster, 1984b; Grant, 1989; Wade & Reynold, 1989 in Shih, 1992; Shih, 1992; Lapp and Flood, 1986).

Outlining is the ability to grasp the relationship among the ideas involved. The foundation for developing of this skill is found in the primary skills—grouping ideas and summarizing.

Note taking plays an important part in the process of understanding and recalling both the main ideas and relevant details. It is helpful in clarifying students' thinking and improving their memory of the subject matter. Note-taking results in an increase in attention to material, the creation of a more understandable version of the presented information, and improvement of the integration of previously learned information with new information. Note taking facilitates learning, (Howe, 1974; Peper & Mayer, 1978; Weener, 1974 in Peck & Hannafin, 1983; Rickards, 1980 in Lapp and Flood, 1986; Sosothikul, 2007).

Summarizing is an activity that provides students with valuable practice in searching for meaning and communicating that meaning. Faced with a reading passage, students have to find out what the main ideas are, and to be able to express those ideas in their own words. This ability of the language learner to understand concepts, process them, and restate them in their own words is a major goal of the language-learning process because summarizing is an intellectual skill. Only students who can understand a text clearly will be able to distinguish the more important from less important and thereby create good summaries. It is relevant to teach students how to summarize due to four principles: (1) summarization enhances comprehension, (2) summarization processes and organizes information, (3) summarization develop academic skills, and (4) summarization implements communication skills (Raimes, 1983; Endres-Niggemeyer, 1998; Rau, Jacobs & Zernick, 1989; Lucisano & Kadar-Fulop, 1988; MzAnulty, 1993 in Silveira, 2003)

Blanchard and Root (1994) states that summaries require a special kind of writing. A good summary gives only main ideas; it does not include details. Before beginning to write, the summarizer should think about “ who, when, where, why, what, and how”.

Synthesizing (reacting or reflecting) is a mental process that drives students to go beyond the facts, and it glues facts and ideas into permanent memory and converts them into true wisdom. In expressing an opinion or reacting, it is necessary to state the opinion about something students believe to be true. The useful phrases, such as I think (that), I believe (that), I feel (that), and In my opinion, are used to introduce opinions and generalizations. Moreover, the opinion will become stronger if there are supportive reasons or facts which follow the signal words, such as one reason that, for one thing, first of all, secondly, thirdly, and finally (Lapp and Flood, 1986; Pauk, 1984; Blanchard and Root, 1994)

2.4.1 Techniques on Study Reading Skills

There are some suggested reading techniques, by reading experts, that focus on integration of language skills and study skills on content areas. The study reading techniques still follow the steps of teaching reading—before-reading, during-reading, and after-reading. These techniques are developed in order to improve students' learning skills and language skills at the same time, both of which are necessary for students in the world of accessing to vast amounts of knowledge and information at ease. The techniques will be elaborated in the following section.

2.4.1.1 The P3RU

The P3RU described by Grant (1987) requires students to operate five stages of learning:

P – Preview (survey) the reading text before reading it in detail. Previewing involves looking at any introductory material; looking at any illustrations or diagrams; looking at headings and subheadings; reading the first paragraph, and the first sentence of each of the other paragraphs; and reading the last paragraph.

R – Read the text carefully.

R – Record the main points of the text in note form.

R – Review or Revise: read through the text again, quite quickly. Find out the answers to any questions they have—e.g. anything they didn't understand. Correct the notes as necessary.

U – Use the information they have obtained from the text, both in discussion with their friends, and in writing.

Language use is both oral and written. Reading and writing reinforce each other. The cycles of reading and writing provide rehearsal time for oral language planning. That is, reading and writing allow the student to internalize language that later may appear in oral language use (Brown & Cambourne, 1987 in Gee, 1996).

2.4.1.2 The SQ3R, SQ4R, and SQ5R

The SQ3R is originally developed by Robinson (1964, cited in Nuttall, 1985). The technique includes five steps of survey, question, read, recite, and review respectively. The “survey” stage requires students to survey a text before reading it closely. They may look at titles, headings, subheadings, graphs, charts, pictures, terms in bold or italics, and skim through the text. They read the beginnings and ends of some paragraphs. Before reading the text, students perform the “question” stage by formulating questions that they think the text will answer. The questions should aim for the answers of “who, what, when, where, why, and how”. The third step of “read” students have to concentrate to look for answers to their questions and those of the teacher if there are some, and they keep checking to see if their questions are being answered. Then, at the “recite” stage, they recall by saying the questions and answers aloud from memory. Finally, the “review” stage involves students to review the text to make sure they have covered all important points. The SQ3R has been further developed into SQ4R with an extension of “record or write” step. In this step, students write a summary of the text.

Pauk (1984) has developed Robinson's SQ4R technique by adding the step of reflection so Pauk's SQ5R includes Survey, Question, Read, Record, Recite, Review, and Reflect.

2.4.1.3 The PRWR

The PRWR study system suggested in Langan and Nadell (1980) has much in common with the SQ3R. The letters here stand for four steps in process: Preview, Read, Write, and Recite. This approach can be described below.

Preview is a five-or six-minute survey that provides students with a bird's eye view of what they are reading. The preview can often give students a good initial sense of the main topics and ideas in the material and can help them understand the general organization of a selection. To preview a selection include: (1) study the title, (2) read over quickly the first and last paragraphs, and (3) dip into the text randomly.

Read is reading and marking the selection. As reading, students look for and mark off what seem to be important ideas and details. The marking students make in this first reading will help them process much more confidently when they do a closer and more selective reading.

Write is the time when students either write notes in the margin of the text itself, or they prepare separate sheets of study notes.

Recite is the moment when students study the notes until they can remember. Students convert the words written in the margin of the textbook or study sheet into questions and review the material until they can recite the answers without looking at the page.

2.4.1.4 The OP3R

Grant (1989) claims that the successful completion of technical reading requires that students learn and use a specialized approach, the OP3R. The acronym OP3R stands for overview, predict, read, recall, and review. Each stage will be described as follows.

Overviewing consists of three separate steps—survey, structure, and skim. Before beginning any reading, students quickly read or survey the introduction and chapter summary or read the first few paragraphs and the last few paragraphs. Then flip through the chapter to determine how it is organized. Finally preview the visual aids which the chapter utilizes. In structuring, students detect the organization

that the textbook author uses in presenting the information. Students do a superficial reading to acquire some of the major points contained in the book.

Predicting is the stage when students foretell what the heading means and what the next few paragraphs may contain. The students have established purposes for their reading, and they will need to confirm their hypothesis as they proceed through the text. When they know why they are reading and specially what kind of information to expect, their concentration will improve.

Reading is a crucial step that includes a number of practices, such as reading from subhead to subhead; reading carefully to grasp the main ideas and supporting details of each subsection; reading to the end of the subsection once; observing new vocabulary; and rereading.

Recalling is to remember what has just been read by writing it down after each subsection by using geometric figures in recalls, arrows in recalls, concept map, for instance.

Reviewing involves comparing the recall notes to the chapter segments that have just been read, deleting any incorrect information, and including any significant information that might have been forgotten to put on the recall pattern.

It is noticeable that these six study reading techniques (the P3RU, the SQ3R, the SQ4R, the SQ5R, PRWR, and OP3R) and the SQ5R in this study have some steps in common which can be compared in Table 2.2

Table 2.2: Comparison of Study Reading Techniques

Langan's & Nadell's PRWR	Grant's P3RU	Grant's OP3R	Robinson's SQ3R, SQ4R	Pauk's SQ5R	Researcher's SQ5R
P = Preview (Survey)	P = Preview (Survey)	O = Overview	S = Survey	S = Survey	S = Survey
R = Read	R ₁ =Read	P = Predict	Q = Question	Q = Question	Q = Question
W = Write (Record)	R ₂ = Record	R ₁ = Read	R ₁ = Read	R ₁ = Read	R ₁ = Read
R = Recite	R ₃ = Review	R ₂ = Recall	R ₂ = Recite	R ₂ = Record	R ₂ = Recite
	U = Use: Writing / Speaking	R ₃ = Review	R ₃ = Review	R ₃ = Recite	R ₃ = Record
			R ₄ = Record	R ₄ = Review	R ₄ = React
				R ₅ = Reflect	R ₅ = Review

2.4.1.5 The QAR (Question and Answer Relationship)

DeSpirt (2009) proposes a reading comprehension strategy for students, called "Question and Answer Relationship (QAR)." QAR is an effective reading strategy since it makes students connect to text, self, and the world, hence the increase of their reading comprehension. The questions are classified into three types: "right there" question, "think and search" question, and "do on my own" question. "Right there" questions are to find an answer and create a question around it. Who, what, where, and when are typical question starters for "right there" questions. The answer to a

“right there” question is found in one sentence in the text. To create “think and search” questions, students must think of a question that is not found in a single sentence but rather is a combination of ideas in the text. “Describe the main character” is an example of think and search question. The answer to a “think and search” question is found in more than one sentence or paragraph in the text. “On my own” questions relate to the text, but the answer is not found in the text. “Do you think the main character was nice to his mother?” is an example of an “on your own” questions. The answer to the third type of question is found in the students’ mind based on making connections to their experiences.

2.4.1.6 K-W-L Chart

Ogle (1986) suggests K-W-L Chart, an instructional technique to be used in a reading classroom. Reading teachers activate student’s prior knowledge by asking them what they **K**now; then students (collaborating as a classroom unit or within small groups) set goals specifying what they **W**ant to learn; and after reading students discuss what they have **L**earned. Students apply higher-order thinking strategies which help them construct meaning from what they read and help them monitor their progress toward their goals.

2.4.1.7 DR-TA (Directed Reading-Thinking Activity)

Stauffer (1969) suggests that DR-TA (Directed Reading-Thinking Activity) can help students develop critical thinking expertise. Students will not only develop the ability to set a purpose for reading, but also learn to make logical predictions and decisions based upon the information read. The key terms of the strategy are predict, read, and prove. DR-TA serves at least three purposes: (1) elicits students’ prior knowledge of the topic of the text, (2) encourages students to monitor their comprehension while they are reading, and (3) sets a purpose to reading—(students read to confirm and revise predictions they are making. DR-TA can be used in a reading lesson by these following steps:

- 1) The teacher provides students with a reading text.
- 2) The teacher activates students' prior knowledge by having students read the title of the text, or telling them the topic of the text. Students brainstorm a list of ideas that come to mind when they think about the title and they write those ideas down.
- 3) Students make predictions about what they will read about in the text, using all available clues, including the index, table of contents, pictures, charts, and tables in the text. Students explain how they came up with their predictions.
- 4) Students read a section of the text. They can either read aloud or silently. If students are reading to themselves, the teacher must be sure to indicate when students should stop reading. The teacher should predetermine stopping points that students can make predictions.

2.4.1.8 The Interactive Reading Guide

Buehl (2009) proposes the Interactive Reading Guide as one of the effective strategies that can be used in the classroom routines. The strategy elicits and builds relevant background knowledge; helps readers sort through information and establish major ideas; and involves peer or group working together during reading. To implement the Interactive Reading Guide, the teacher can follow these steps.

- 1) The teacher carefully previews a reading assignment to determine the major information to be learned and to locate possible traps for understanding. In this initial stage, teachers should pay attention to any difficulties students might have with the materials.
- 2) The teacher constructs an interactive reading guide which is designed to be completed with partners or in cooperative groups. Items on the guide should help students decide where to focus their attention during reading and support their learning when the materials might prove challenging.

3) The teacher segments that passage to be read so that portions are orally read by individuals to their group, portions are read silently by each student, and portions that are less important are skimmed. In some circumstances the guide can also be used to provide additional background information, or to encourage students to brainstorm what they already know about the topic. The completed interactive reading guides will become organized notes for classroom discussions, follow-up activities, and study guides for examinations.

2.5 Integration of Reading and Writing

2.5.1 Reading and Writing as a Flip of the Coin

Many educators and researchers argue for years that the interrelations among language skills (listening, speaking, reading, and writing) need to be fully understood in order to develop an integrated, coherent reading curriculum. The relationship between the language skills should be brought into consideration in designing the entire curriculum. In countries where English is a foreign language, like Thailand, for example, students at all stages of the academic ladder need to express themselves in writing to do well in school. Writing is a valuable skill since it helps students think and reinforces reading comprehension and spoken language. Reading and writing, then, are closely associated as two sides of the same coin. Both skills are social inventions that have to be taught and learned, practised and mastered. Writing is needed not only for its own value, but also for its ability to help students to recycle and internalize all four skills. Thus, writing such as summarizing and note-taking can be combined with reading because it helps students to rethink and formulate their ideas. (Nuttall, 1996; Lapp and Flood, 1986; Cazden, 1983; Tierney and Pearson, 1984; and Indrisano, 1984 in Lapp and Flood, 1986; Hess, 2001).

Reading can be used to create an information gap that leads to communicative activities. It provides subject matter for discussion or composition topics, as well as unlimited amounts of language. The more students read, the more they become familiar with the vocabulary, idioms, sentence patterns, and organizational flow. Reading and writing instruction should be integrated to make students tie their reading with writing. The interaction with the written text helps them deal about their writing,

too. Students can perform written tasks, such as copying; examining cohesive links, punctuation and grammar, and sentence arrangement; summarizing, completing, speculating, and reacting. (Raimes, 1983).

Writing is a continuing attempt to discover what it is one wants to say and it is the process of exploring one's thought. Writing is a tool for thinking, for recording our thoughts, and for expressing ideas and sometimes feelings. The writing process is characterized as capturing the ideas from the reading text, stringing them together into a text, and then re-reading them to see if that is what we really want to say. Teachers should help students with organizational flow of the ideas and correct forms of words as much as possible. Writing takes a great deal of time for learners to acquire the habit of using correct forms of words in the appropriate situations, if second language or foreign language learning and writing is concerned. There are basically three areas from which ideas for writing: conversation, reading, and prompts. Though writing is considered as an individual's activity, the teacher can persuade students to give ideas and help with the expressions of those ideas through out the writing process. But it is the students who bear responsibility for thinking. However, group work can play an extremely positive role in the active writing class. Group work can reinforce the idea of a reader and assists students to understand a text. In the process-oriented writing class, students have opportunities to play the role of reader for other students (Zamel, 1982 in Leeds, 2003; Leeds, 2003) According to Kiefer (1997) writing to learn is an effective model to help students become better learners and communicators. In writing to learn, students write to themselves to order and represent experience to their own understanding. In this sense, there is no need to have audience readers for the piece of writing.

Grant (1991) proposes an eight-stage approach to composition writing: (1) oral discussion of the topic; (2) individual planning by jotting down the ideas in note form; (3) students write the first draft of their composition; (4) students check the written work with a fellow student, and make changes as necessary; (5) students hand it in for marking; (6) the teacher hands the work back, and discusses it with the students; (7) students correct their work, and (8) setting a follow-up activity to diagnose problems and develop accuracy.

White (1980) and Grellet (1986) claim that integrative teaching is favourable. Reading teachers can integrate reading with listening, speaking, or writing. In real life we normally talk or write about what we have read or heard. What students have read from the text supplies information and a writing model. The three-step teaching procedure of the writing task based on reading are as these: (1) students are given a written text which provides a model of linguistic form and communicative function; (2) students abstract pieces of information and language; (3) students reconstruct the new text.

In short, the skills of reading and writing have been approved as powerful instruments for learning, capable of enabling thinking and the critical analysis of ideas (Applebee, 1984; Langer & Applebee, 1987; Tierney & McGinley, 1987 in Tierney, O'Flahavan, & McGinley, 1989). Reading and writing are closely linked so that classroom implications should integrate reading with writing. Students in group work can be trained to respond to comprehension questions through different tasks, including note-taking, summarizing and reacting or giving opinions. These three activities will help students to be able to understand complete sets of information and, at the same time, help them to develop their writing abilities. English teachers can help their students to improve the way they write, revise and edit texts. These academic skills will be highly valuable for their overall performance in English, and above all the skills will help them to implement their communication ability.

Since the students produce a piece of writing, it is not only the teacher who responds to the students' writing, but also the students themselves can check each other's work. Educators and researchers have similar views towards correcting written work.

2.5.2 Responding to Students' Written Work

Raimes (1983) suggests five basic principles for writing teachers to apply for all types of responses to written work. These include: (1) reading the whole piece through first before writing anything; (2) looking for strengths as well as weaknesses, and letting students know what the strengths are; (3) making sure that students are familiar with coding system if employed; (4) handling errors and explaining them to the students; and (5) responding to a student's piece of writing to

help them see what to do next by using techniques, such as comments, checklists, students' responses to student writing, and self-editing.

To White (1980), writing teachers and students bear responsibility for correcting written work. The teacher can perform the role in monitoring standards of accuracy and appropriateness. The first point to make about marking is that the writing lesson should always be organized in such a way that the students' attention is focused on key items. In marking written work, a marking code with such symbols as 'T' for tense, 'V' for verb form, 'P' for preposition, and so on is appropriate. It is best to let the students know what the teacher is going to mark for. Once the work has been checked, students should correct the errors which they have made. The students themselves can check each other's work, too.

Keh (1989) presents some possibilities for making comments and corrections at the product stage of writing. Comments are more informative and more helpful to student writers, and they can ease the teachers' correction load. Her tips for responding to the written work at the final stage are: (1) convincing students that the teacher's comments can be an effective means to communicate to students about their writing; (2) giving comments on the students' papers by pointing out specific problems and providing suggestions, examples and guidelines for improvements are most helpful. Summative comments written at the end of papers are also helpful because they begin with the overall strengths and followed by the weaknesses of students' writing; (3) correcting feedback by making a checklist of common errors of the students and giving a copy of that checklist to each student. After the student's corrected paper is returned he/she must record his/her own errors on the checklist. Another is to use a marking symbol or code to indicate an error. Students must be "detectives" to find the error in the sentence and remedy it themselves; and (4) transforming corrections into informative, useful feedback by using peer editing. Students are given responsibility to edit each other's papers for errors before the final draft is handed in to the teacher.

Lynch (1996) states that providing feedback on student's written work requires attention to all three aspects of writing—the notion of genre, the process, and attention to product. Considerations of genre comes first because learners will have formed some ideas of the broad shape of the text they should write, such as informal

letter, recipe, advertisement, summary, reaction, etc. Process comes next, because the learners will generate questions to which they need answers as they engage in the process of writing. Attention to product comes last because the editing and correction of the text naturally cannot precede the other two. There are two stages of giving feedback in a writing class: feedback during writing and feedback after writing. Students' receiving feedback and advice from the teacher during the writing process is good because the doubts and problems that arise during the activity of writing are good opportunities for learning from someone else how to overcome them. Giving feedback after writing is questionable. There is some evidence from the teaching of writing in the first language (Knoblauch and Brannon 1981, in Lynch, 1996) and the foreign language (Sheppard 1992, in Lynch 1996) that marking errors on students' texts lead to less improvement in writing than asking the student writers to explain points that are unclear in their drafts. Lynch further states that teachers should develop ways of making feedback more effective. One practical solution is to offer learners a range of feedback types: a combination of learner and teacher comments, clarification requests, and corrections.

Hess (2001) sees giving meaningful feedback is important. He emphasizes that when writing, we want someone to read what we have written, that is, we want to communicate with someone. However, the reader of student-produced texts need not necessarily always be the teacher. Students who have been properly trained make excellent peer editor. Writing will flow much more smoothly without the threat of the red pen hanging over it. Writing can mean re-writing and it needs no feedback at all.

Spratt, Pulverness and Williams (2005) describe responding to students' written work into two phases: correcting learners and giving feedback. In the classroom, these correcting strategies can be used: peer correction, self-correction, with the teacher's and peers' support or guidance. Sometimes teachers indicate to them that there is a mistake and they are able to correct themselves or other learners can help them. They say "It is inappropriate to correct all the mistakes students make because it can make learners lose motivation" (p:154).

Hedge (1991) suggests a writing framework, which is based on seven assumptions, for teachers who wish to help their students to become good writers. One of these is the process of marking. Hedge states that responding positively to the strengths in a student's writing is important in building up confidence in the writing process. Even more important are moves to involve students in the revising and editing of their own work so that the activity becomes part of the writing process and a genuine source of learning for both students and teachers. That is, it becomes a process of improving.

2.5.3 Assessing Writing Ability

Writing skills are complex because varied skills and components are necessary for writing a good prose. To assess writing ability, these components of language use; mechanical skills; treatment of content; stylistic skills; and judgment skills should be brought into consideration (Heaton, 1995). Scoring the written work is a question of reliability, two general types of the scoring system should be used. They are holistic and analytic scoring. In holistic scoring, a single score is assigned to a student's overall test performance. Holistic scores represent teacher's overall impressions and judgments. Teachers can serve as general incentives for learning, and they can distinguish students with respect to their general achievement in a particular skills area. Holistic scores provide no detailed information about specific aspects of performance, so they are not very useful in guiding teaching and learning. Differently, in analytic scoring, various components of students' responses are given separate scores on an essay. Analytic scoring provides useful feedback to students and diagnostic information to teachers about specific areas of performance that are satisfactory or unsatisfactory. This information can be useful for planning instruction and studying (Heaton, 1995; Genesee and Upshur, 1996).

In this study, the analytic scoring was utilized to assess the students' writing ability. Four aspects of writing were assessed: summary, reaction, organization, and language quality. In scoring a summary, the content of the reading text and the ability to paraphrase are the main focus. In reaction, the focus is on the student's opinions or feelings about the text information as well as supported reasons. Organization focuses on the logical order in stringing ideas and the use of discourse markers. In language quality, the use of vocabulary and writing mechanics (spelling and punctuation) are emphasized.

2.6 Developing learner independence and autonomous learning

In the immense growth of the globalization era, students are facing with the huge sources of information which is vital for their education and future careers. The students then have to be independent on themselves to take advantages of the modern technology. Learning-from-text strategies must be practiced regularly over sustained period of time (Duff & Roehler, 1989; Garner, 1987; Herber & Nelson-Herber, 1987; Nist & Simpson, 1987; Simpson, 1984, 1896b; Simpson & Nist, 1990 in Shih, 1992). Reading teachers needs to facilitate transfer in a variety of ways, for example, by modeling strategies frequently (not just teaching them once), demonstrating variations of a strategy for different types of texts and tasks, strengthening students' metacognitive control (such as through journal entries, analyzing their own reading processes and peer "moco-teaching" (Nist & Simpson, 1987 in Shih, 1992) as well as through individualized feedback (Simpson & Nist, 1990 in Shih, 1992), and assigning students to apply strategies under discussion to reading assignment in concurrent content classes. Ideally, reading-to-learn strategies would be taught and reinforced by both reading teachers and content teachers across all grade levels and content areas. Reading-to-learn strategies can be taught and practised in a content-based approach. EAP reading courses need to use whole texts reflective of real academic discourse, assign tasks like those assigned by content teachers, and guide students to develop repertoires of cognitive and metacognitive strategies for optimal learning from text (Shih, 1992).

Moore (2010) suggests principles and practices in developing independent and autonomous learning to meet the 2008 Thailand curriculum requirement which states that the teachers have to train students to learn by themselves and for themselves, and to integrate English with other curriculum subjects and use content from those subjects in English language classes. According to Moore, independent and autonomous learning is not about 'isolated' or 'unaided', but it is about sharing ideas and problems, and working together to resolve those problems. In independent learning, students make decisions about their learning to acquire knowledge by their own efforts. Autonomous learning requires students to take responsibility for their own learning so they can identify their learning goals, learning processes, and how they will evaluate and use their learning. Five characteristics of effective autonomous learners are that: (1) they have well-founded conceptions of learning; (2) they have a range of learning approaches and skills; (3) they can organize their learning; (4) they have good information processing skills; and (5) they are well motivated to learn. In addition, autonomous people are intrinsically-motivated, perceive themselves to be in control of their decision making, take responsibility for the outcomes of their actions, and have confidence in themselves. When designing lessons, ten principles should be taken into consideration (Fazey & Fazey, 2001 in Moore, 2010; Moore, 2010). Table 2.3 presents ten principles that should be implemented to improve students' achievement and to develop independent and autonomous learning.

Table 2.3: Principles of Independent and Autonomous Learning

Principle	Description
1) Learning outcomes	The learning outcomes of the lessons should be clear and specific.
2) Motivation	The topic or learning activities should engage and enthuse the students.
3) Control	The students should have opportunities to make decision about their learning or the activities.
4) Resources	The students should have access to a range of useful resources (teacher, other students, books, etc.).
5) Support	The teacher should have considered how the students will be supported during the activities.
6) Learning cycle	It should be clear that the students are being taken through a cycle of planning, doing, and reflecting. They should also be asked to theorize.
7) Learning styles (VARK)	The activities should address a range of learning styles (Visual, Auditory, Read and Write, Kinesthetic) so as to suit different types of learners.
8) Confidence	The teacher should be able to describe how the students will gain confidence from the activities.
9) Intellectual skills	The activities should require students to use high level thinking skills
10) Reflection	There should be space at the end of the lesson or unit for students to mirror or reflect on what they have learned and how they learned it.

2.7 Designing a lesson

The 2008 core curriculum is a standard-based curriculum, focusing on the learners' performance. The performance indicators point out what the students of each educational level should know and should do (Office of Basic Education Commission, 2010). In order to achieve the core curriculum requirements, such as average scores of 55% in every curriculum subjects (ONEC,2009), all teachers have to design lessons accordingly. Sweeney (2008) suggests the 'backward-design' process in designing a lesson. The process is also based on instructional principles. The teacher decides what is essential for learners to know and to do; what is the core of the curriculum and then decides how the teacher will know when learners have reached the goal. There are three main stages to the backward design process.

1) Identify desired results/outcomes: The outcomes can be broad for the whole unit, or can be specific to particular areas within the topic. The outcomes should be related to what learners should know, understand, and be able to do; what worthy understanding is; and what enduring understandings are desired.

2) Determine acceptance evidence: This stage involves designing assessments that will measure the learners' understanding of the standard. The assessments must be valid for measuring and demonstrating the knowledge and skills. The objective of this stage is to determine which evidence would best measures the learners' understanding. The measuring evidences can be performance tasks, projects, quizzes, tasks, academic prompts, observation, work samples, dialogues or through learner self-assessment.

3) Plan learning experience and instruction: During this stage, the main areas to consider are: what enabling knowledge and skills learners will need to perform effectively and achieve desired results; what activities will equip learners with required knowledge, skills and understanding; what and how to be taught or coached, in light of performance goals; and whether the overall design is coherent and effective.

To conclude, each instructional plan of the reading package in this current study, key elements of ‘backward design’ are included as summarized in Table 2.4.

Table 2.4: Application of Key Elements to the Instructional Plan

Desired Outcomes	Acceptance Evidence	Learning Experience & Instruction
<p>By the end of each lesson, students will be able to...</p> <ol style="list-style-type: none"> 1) make an overview of the text 2) generate questions 3) answer detailed questions 4) write two short paragraphs 	<ol style="list-style-type: none"> 1) A list of self-generated questions 2) Two short paragraphs: a summary and reaction 	<p>In group, students operate seven gradual steps of SQ5R.</p> <ol style="list-style-type: none"> 1) Survey: Ss make general Meaning of the text. 2) Question: Ss set the purpose for reading by making questions. 3) Read: Ss read intensively to find the answers to the questions. 4) Recite: Ss speak aloud to themselves to recall key points. 5) Record: Ss take notes and write answers in complete sentences. 6. React: Ss give opinions or express feelings. 7. Review: Self/Peer check the written work

2.8 Related Research

The SQ5R is a study reading technique adapted for language learners to help them read better in their classes. It is based on the SQ3R and the SQ4R, therefore, the studies on these two techniques have been reviewed. Since the SQ5R involves different steps and very little research on the topic is available, some related studies have been focused.

Vittayarungrangsri (1993) conducted an experimental study to investigate the effectiveness of the student-generated question technique with the first-year nursing students at Mahidol University. The findings revealed that teaching reading by the student-generated question technique significantly increased students' reading ability at the .001 level. The weak and average students in the experimental group achieved significantly greater results than did those in the control group. Good students in both groups showed no statistically significant differences from each other. The majority of students revealed a positive attitude toward the student-generated question technique.

Potaya (2003) investigated the effects of the SQ4R on the English reading comprehension and summary writing ability. The subjects in the study were thirty-six second year of certificate in the vocational level students who enrolled in English 4 (20001204). The subjects were trained with eight lessons using the SQ4R. After the training, a reading comprehension test together with summary writing test was administered. The study showed that the students' English reading comprehension and summary writing ability increased after being taught through SQ4R.

Uttamaharat (2004) compared the students' English reading comprehension and interest in learning of the experimental group, who were trained through the SQ4R to those of the control group, who were trained through the teacher's manual. Both groups were trained with six lessons for six weeks. After the training, a reading comprehension test and the questionnaire were administered. The study showed that the reading comprehension of the experimental group was significantly better at $p < 0.01$. Likewise, the level of interest in learning of the experimental group was significantly different at $p < 0.01$.

Banjoungmanee (2005) studied the effectiveness of SQ4R on reading comprehension and reflective thinking ability of learners. The subjects were twenty-six upper secondary school students who enrolled in the Reading-Writing Course. The subjects were trained with eight lessons using the SQ4R technique. They wrote seven reflective journals, from the second to the eighth lesson. In writing each reflective journal, students were required to write a paragraph that included the answers of the questions from the "Question" step. The students' reflective journals should cover the key points of the reading text, factual information, the author's opinion and that of their own. After the training, the reading comprehension test was administered. The findings revealed that students' English reading comprehension increased by 10.15%. The reflective thinking ability was assessed through the reflective journal by using 1 to 5 rating scales of two criteria: 1) the identification of facts, opinions, beliefs, and reasons 2) the application of text information to express opinions, feelings, beliefs, and supporting reasons. It was found that the students' reflective thinking ability was at the good level after being taught through SQ4R.

Malelohid (2006) conducted an experimental research to investigate the effectiveness of the pre-, while-, and post-reading questioning strategies on reading comprehension with Grade 6 students in Municipality School 4 in Pattani, Thailand. The experimental group of forty-three students was trained with the pre-, while-, and post-reading questioning strategies, while the forty-three students in the control group were taught by using the reading procedures in the Teacher's Manual of the text book "Say Hello 6". The findings revealed that the English reading comprehension ability of the experimental group was significantly greater than that of the control group ($p < 0.01$). Moreover, there were significant differences between the experimental and control groups' level of improvement in both types of questions: literal questions at $p < 0.01$ and reinterpretation questions at $p < 0.05$. In addition, the English reading comprehension ability of both high and low proficiency students in the experimental group improved significantly ($p < 0.01$). The high and the low proficiency students' responding abilities to both literal and reinterpretation questions were also significantly improved ($p < 0.01$). Besides, it is apparently noticeable that the pre-, while-, and post-reading questioning strategies are more beneficial to the low proficiency students, especially in their responding ability to literal questions.

Chalotornsutti (2007) studied the effects of the SQ3R on English reading comprehension and satisfaction in learning. Forty eight students of Matthayomsuksa six were research subjects. They were trained through ten lessons of the SQ3R model. The researcher found that the students' reading comprehension was significantly improved ($p < 0.05$) and the their satisfaction was at the highest level. Comparatively, Monyeun's (2008) study with thirty six of Mathayomsuka three student to find out the effectiveness of the integration of SQ3R and the concept map on comprehending tales and stories; and the students' satisfaction revealed the similar findings. After being trained through seven lessons, the reading comprehension was significantly improved ($p < 0.01$) and the students' satisfaction was at the highest level.

Hedberg (2002) conducted a case study to investigate the effectiveness of the SQ3R learning strategy in order to find the answers to her research question, "How will the direct instruction of the SQ3R method affect fourth grade ESOL students' comprehension and retention of Virginia history?" The subjects of her study was three Fourth grade students who enrolled in the English for Speakers of Other Languages (ESOL) program at Deer Park Elementary School in Centreville, Virginia. The data collection was triangulation, including pre- and post- reading strategy survey, teacher observation, test results, and an SQ3R scaffold worksheet. The findings revealed that all of the three students' chapter test scores improved throughout the study. In addition, due to the qualitative data analysis, it showed that all three students were able to tell the researcher some strategies they used before, during, and after reading. Finally, the SQ5R method benefited the way the three students read during social studies as well as during language classes.

Alger (2009) conducted a descriptive study to investigate the quantity of the student's reading and types of reading strategies were employed. The subjects were four new American teachers, two of which were biology teachers and English teachers. In her study, several types of data were gathered, including an actual tracking system of teachers' practice: teachers' self-report, 10 weeks' lesson plans together with teaching and learning documents; class observation; one or two twenty-five minute semi-structured interview protocols; a questionnaire indicating the teachers' familiarity with twenty reading strategies which they were trained during

their pre-service literacy course. The findings revealed that the students' reading opportunities were four to five times greater in English than in the biology classes. The number of reading strategies in both classes was similar ranging from 7 to 10. All four teachers used Cornell notes, Graphic organizers, K-W-L charts, Concept maps, and Writing to learn strategies. Three used "interactive reading guide" and "concept definition mapping". Two used "DR-TA", and just one did "learning log", "structured note taking", SQ3R, "word family tree", and QAR. The four teachers, though being trained with the independent learning strategies during the preservice course, in their classes, the independent content area reading became supplementary exercises. That is, the biology teachers transmitted important biology concepts through lecturing and PowerPoint slides instead of having students read the textbook by themselves. Moreover, instead of employing the SQ3R alone, the teacher combined the strategy with supplementary exercises, such as jigsaw reading in the cooperative groups, and teacher's support. These exercises did not fully develop the students to be independent. The strategies that helped students develop independent learning ("learning log", "structured note taking", SQ3R, "word family tree", and QAR) were limitedly transferred to the students. The teachers never moved beyond the scaffolding to independent reading and learning.

As in previous studies, the questioning techniques (both student-generated and teacher-posted), the SQ3R, and the SQ4R all significantly improved students' reading comprehension at different levels. The SQ4R technique, in particular, could enhance students' reading comprehension as well as summary writing and reflective thinking.

In application, the researcher wanted to prove whether the SQ5R, a study skill could work well with M.3 students of an "English special class" who were in a mixed ability group of Satri Phatthalung School. These students planned to enroll in the Mini English Program/English Program in which the English language was the medium of the instruction in 2-3 content area subjects such as science and mathematics. The SQ5R technique was expected to develop the students' reading and writing skills in their further studies in the English Program in their M.4-6 level. Moreover, the SQ5R would become a ladder that developed students to become independent and autonomous learners.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the research methodology including research subjects, research instruments, research procedure, and data analysis procedure.

3.1 Subjects of the Study

This action research involved two male and thirty female students, aged fifteen, who were studying in Matthayomsuksa 3 (Grade 9) under the “English Special Program” at Satri Phatthalung School, Phatthalung. They were enrolled in the English Fundamental Course in the first semester of the 2009 academic year. The group was selected by purposive sampling with regard to the typical group that were likely to study in the English Program in the 2010 academic year. By then they were required to read academic texts in several areas of study such as science, mathematics, social studies, and physical education in English. The group was mixed ability class of the lower intermediate English proficiency indicated by the placement test result of the 2008 English National Test. The test consisted of forty items of multiple choice type, administered at the beginning of the school year. The highest score was 31 and the lowest was 17, with the average mean score of 24.2 and S.D. of 3.30. The subjects were assumed to have positive attitude towards English since they applied voluntarily to study in the English Special Class which is a preparatory class for the Matthayomsuksa 4 English Program commencing at Satri Phatthalung School in the year 2010.

3.2 Research Instruments

The research instrument used to obtain information for this study consisted of experimental instrument—the SQ5R reading package, and the data-collecting instrument—pre- and post- tests, and questionnaire.

3.2.1 The Experimental Instrument

Since this study aimed to investigate the students' reading comprehension and writing ability through the SQ5R study-reading technique, the reading package was designed as the experimental instrument. The procedure for the reading package construction included three stages.

Firstly, the performance indicators of the 2008 core curriculum and guidelines for designing "standard-based or backward-design" lessons were reviewed. The related empirical research on the SQ5R were and other information such as study-reading skills, scoring written work and giving feedback were mainly studied. The principles to develop learner autonomy were also collected.

Secondly, ten reading texts, from a commercial course-book (ACCESS 3) under the themes of House and Home, Nature, Travel, Culture, and Science & Technology were selected as shown in Table 3.1. All of which are in line with the themes in the 2008 core curriculum.

Table 3.1: The Ten Selected Reading Texts

Lesson	Theme	Text Title	Source
1	House & Home	City life-County Life	ACCESS 3
2	House & Home	Mexico City	ACCESS 3
3	Nature	True Stories	ACCESS 3
4	Nature	Nightmares	ACCESS 3
5	Travel	Places to Visit	ACCESS 3
6	Travel	Legoland	ACCESS 3
7	Culture	Daily News	ACCESS 3
8	Culture	British Magazines	ACCESS 3
9	Science & Technology	Digital Divide	ACCESS 3
10	Science & Technology	Hi-Tech Teens	ACCESS 3

Finally, the reading package was constructed. The package consisted of two phases—the introductory phase and training phase. The description of the two phases can be elaborated as follows.

3.2.1.1 The Introductory Phase

The introductory phase (Appendix B) was constructed, aiming to familiarize the reading and writing skills development program to the students. The unit consisted of two parts: the modeling lesson and the summary. The starter unit of the course book (ACCESS 3) was used as the reading material. The modeling lesson included the teaching plan and the learning materials, both of which followed the seven steps of the SQ5R (Survey, Question, Read, Recite, Record, React, and Review). The framework of the introductory phase can be summarized as shown in Figure 3.1

Figure 3.1: Framework of the Introductory Phase

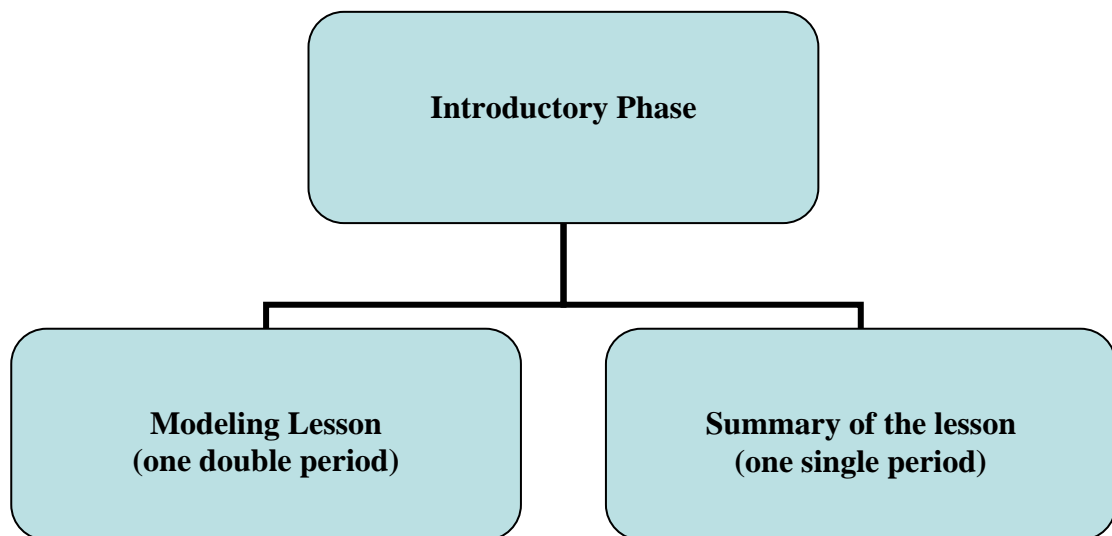
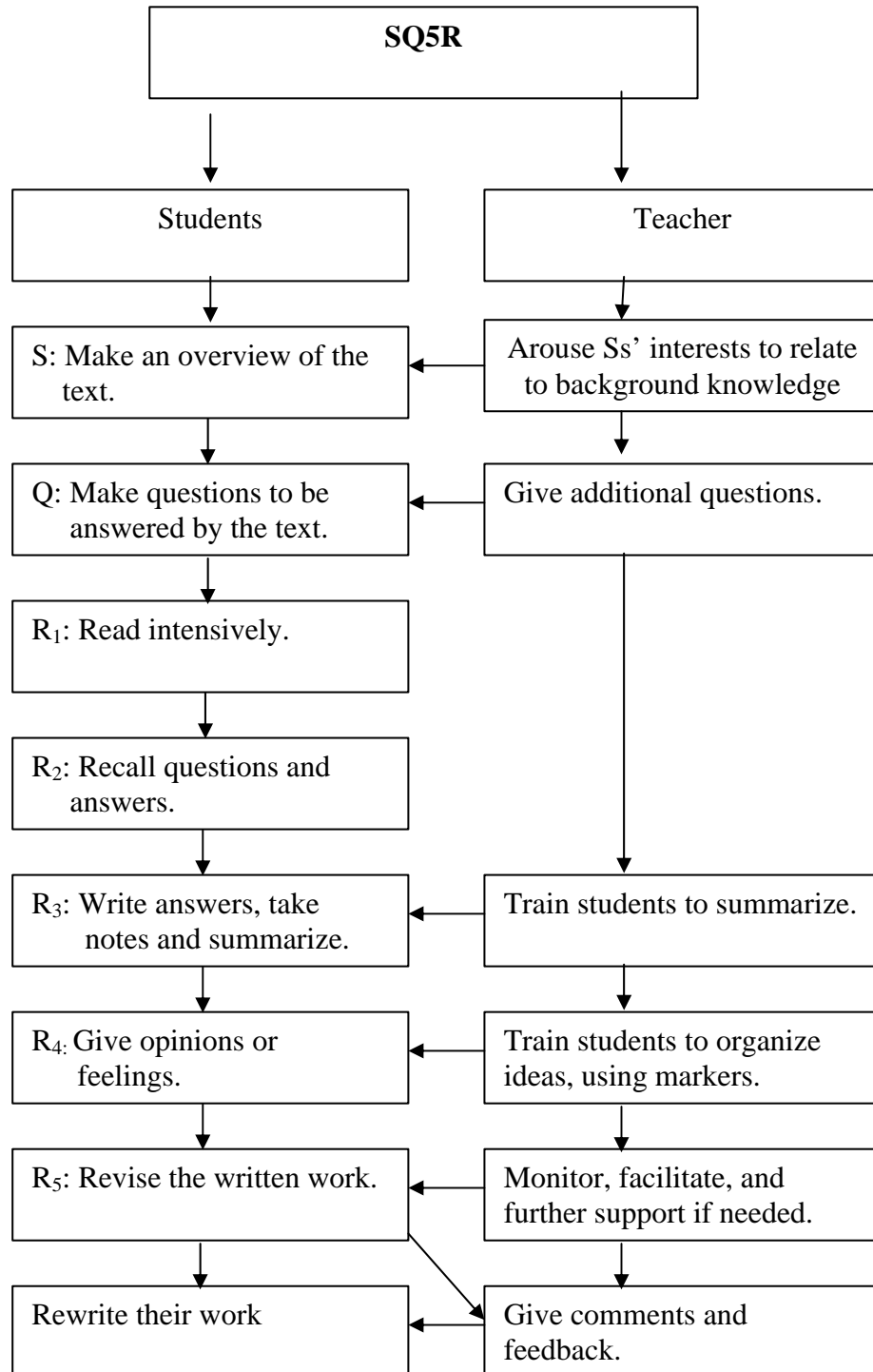


Figure 3.1 illustrates that the modeling lesson takes a double period of fifty minutes. The students will experience the seven steps of the SQ5R. An additional period of fifty minutes is for wrapping up the learning activities.

3.2.1.2 The Training Phase

There are ten reading-writing integrated lessons in the training phase, each of which lasted for two hours. The training program covered ten weeks. Each lesson consisted of teaching plan for the teacher and learning materials for the students (See Appendix C). The reading text for each lesson was taken from the student's course book. The teaching plan was designed in accordance with the "backward design" model which focuses on the learning outcomes. The teacher decides what is essential for learners to know and to do; and how when learners have reached the learning goal. included the seven steps of the SQ5R in the teaching procedure. In the first lesson, the Revising Checklist (See Appendix D), the Coding System for Writing Feedback (See Appendix E), and the Checklist of Common Errors (See Appendix F) were introduced to students in order that they could use them as learning tools in every lesson through the whole program to develop their learning autonomy. The teaching procedure of the SQ5R can be illustrated as shown in Figure 3.2.

Figure 3.2: The Framework of the SQ5R Technique



3.2.2 The Data -Collecting Instrument

3.2.2.1 The Pre- and Post-Test

The pre- and post-test was designed to assess the reading comprehension and writing ability. The reading section was constructed with regard to Heaton's suggestion, (Heaton, 1995:106-107) that " in most tests, especially tests of general proficiency, it is useful to include a variety of text types for reading comprehension. The inclusion of various text types will not only provide a more realistic and reliable means of assessment but will also help to motivate students by demonstrating how the target language is used in real-life situations." The pre- and post-test in this study is therefore composed of several types of texts such as news, notices, labels, charts, advertisements, stories, and poems.

The Thailand 2008 core curriculum requires students to get meanings from reading and apply this understanding logically. Literal comprehension is the basis for students' global comprehension; reinterpretation and inference questions are also essential types that force students to think about what and how the writer has written it. If they do not think about these, students may not be competent enough to tackle later difficult texts. These three types of questions, therefore, can be asked from most elementary level (Nuttall, 1985). Three examples of the three question types are presented as follows.

1. Literal question:

If the sun is rising you will see the rainbow in the

- a, north b. east c. south d. west

KEEP OUT—OLD BUILDING

2. Reinterpretation question:

What does the above notice mean?

- a. You can't enter because this building is both old and dangerous.
 b. You must not live in this building because it is very cold.
 c. This building has been kept for public use.
 d. Don't open the door because it is cold.

3 Inference question:

From the poem we can conclude that

- a. having friendship is good for us
- b. taking care of health is good for us
- c. growing beautiful flowers is amazing
- d. having a nice trip is good for the write

To assess reading comprehension, thirty items of multiple choice questions with four options were designed to tap three levels of reading comprehension—literal, reinterpretation, and inference. They were eight literal, fourteen reinterpretation, and eight inference questions. The proportion of each question type was intentionally allocated. The literal questions are essential preliminaries to serious work on the text since the students are required to find the information directly and explicitly in the texts. The students' ability to find the information from what the author said directly is just the knowledge level of the intellectual skills. The students cannot develop their thinking skills if more literal questions are assigned. In order to get the information from the text to answer the reinterpretation questions, students have to get the pieces of information which are scattered in the text, put them together and reinterpret them. They are more difficult to answer than the literal questions, but they are needed if the goal is to develop students' thinking skills. Therefore, fourteen reinterpretation questions, requiring students to obtain information implied in the text, were included in the reading test. Among these three types, inference question is the most difficult to get the answers. Students are required to understand the text well to get the information implicitly stated in the text. The difficulty in getting what the author said implicitly depends on intellectuals rather than the linguistic knowledge. Though inference questions are good for developing intellectual skills, pre-intermediate students like the ninth graders are not mature enough to deal with a lot of inference questions so eight of them were included in the reading test. A summary of reading comprehension test can be seen in Table 3.2

Table 3.2: Number of Test Items of Three Comprehension Levels

Level of Comprehension	Item Number	No. of Items
Literal	2,3,5,9,18,21,22,30	8
Reinterpretation	1,6,7,13,14,15,16,19,20,23,24,26,28,29	14
Inference	4,8,10,11,12,17,25,27	8
Total		30

To assess writing ability, students were required to write two short paragraphs of about 80-100 words in length. The first paragraph is a summary of the text and the second paragraph is the students' reactions or opinions about the text. In fact, the writing part is an open-ended question aiming to assess reading comprehension, as required in the 2008 core curriculum, by summarizing and giving opinions. However, the researcher integrated the students' personal response to the text in the writing part. The analytical scoring rubric adapted from Cohen (1994, in Genessee & Upshur, 1996) was used to score students' written work. The rubric included four main aspects, (summarization, reaction, organization, and language quality) as shown in Table 3.3.

Table 3.3: Analytical Scoring Rubric to Assess Four Aspects of Writing

Aspects of Writing	Score	Description
Summary	5	Main ideas and supporting details in the reading are selected successfully. No sentences or the same pieces of information repeated. No sentences are copied.
	4	Main ideas and supporting details in the reading are selected generally well. Very few sentences are copied.
	3	Main ideas in the reading are somewhat unclear and inaccurate. Some sentences are copied.
	2	Main ideas in the reading are unclear and inaccurate. Many sentences are copied.
	1	Main ideas in the reading are not all clear or accurate. Almost all sentences are copied.
Reaction	5	Opinions are stated clearly and supported reasons are very clear.
	4	Opinions are stated relatively clearly and supported reasons are relatively clear.
	3	Opinions are somewhat stated and supported reasons are somewhat weak.
	2	Opinions are not stated clearly and supported reasons are weak.
	1	Opinions are not at all stated and supported reasons are very weak.

Table 3.3: Analytical Scoring Rubric to Assess Four Aspects of Writing (Cont.)

Aspects of Writing	Score	Description
Organization	5	Main ideas and supporting details in the reading are selected successfully. No sentences or the same pieces of information repeated. No sentences are copied.
	4	Main ideas and supporting details in the reading are selected generally well. Very few sentences are copied.
	3	Main ideas in the reading are somewhat unclear and inaccurate. Some sentences are copied.
	2	Main ideas in the reading are unclear and inaccurate. Many sentences are copied.
	1	Main ideas in the reading are not all clear or accurate. Almost all sentences are copied.
Language quality	5	Very effective choice of words and word forms; No errors and full of complete structure; Mastery of spelling and punctuation.
	4	Effective choice of words and word forms; Almost no errors and good control of structure; Few errors in spelling and punctuation.
	3	Adequate choice of words but some misuse of word forms; some errors and fair control of structure; fair number of spelling and punctuation errors.
	2	Limited range; confused use of words and word focus forms; many errors and poor control of structure; frequent errors in spelling and punctuation.
	1	Very limited range, very poor knowledge of words and word forms; dominated by errors and no control of structure; no control over spelling and punctuation.

3.2.2.2 Questionnaire

A five-point Likert scale from “Completely satisfied” to “Completely unsatisfied” questionnaire was distributed to the subjects to determine students satisfactions towards the program of developing reading and writing skills through the use of the SQ5R technique (See Appendix G). An initial version of the questionnaire was validated by three experts.

3.3 Research Procedure

The study was conducted over the first semester of the 2009 academic year.

The research procedure consisted of four phases:

- 1) Piloting the test
- 2) Introductory phase
- 3) Administering the pre- test
- 4) Training phase
- 5) Administrating the post-test and questionnaire

3.3.1 Piloting the test

The piloting of the test aimed to test validity and reliability of the reading comprehension test that consisted of fifty items. It helped the researcher develop and revise the test. The test was piloted on Tuesday, June 9th, 2009 with a group of forty-eight students of the same educational level (Matthayomsuksa 3/3), who were not involved in the main study. The test time was eighty minutes. This group of the students was chosen because their learning background, and English proficiency level were comparable to those of the subjects in the main study.

After piloting, an item analysis of the test was conducted by first dividing the students using a 27% technique (Hughes, 1989) to assign them into the high and the low ability groups. There were 13 test takers in each group (i.e. the top and bottom groups) to determine how well the top and bottom groups did on each item. The mean (\bar{X}), the standard deviation (S.D.), item difficulty index or facility value (F.V.),

the item discrimination index (D.I.) of each item, and the reliability (R) of the whole test were calculated. This resulted in thirty items of eight literal, fourteen reinterpretation, and eight inference questions to be used in the study (See Appendix A).

3.3.2 Introductory Phase

In this phase, the subjects were informed that the purpose of the study was to test for reading comprehension and writing ability after being trained through ten lessons. They were trained through the SQ5R technique in mixed ability groups for ten weeks, one lesson per week.

The subjects were given an introductory lesson of the reading package (See Appendix B). The researcher modeled each step of the reading formula and the students experienced the tasks of the SQ5R. This introductory phase took a double period of fifty minutes and an additional period of fifty minutes to wrap up and discuss the required tasks in each step of the SQ5R.

3.3.3 Administering the pre- test

The pre-test including thirty items of reading comprehension and a two-short paragraph writing was administered on Thursday, June 17th, 2009. The test time was eighty minutes. In scoring the reading test, one score was given to one correct answer, but for the written test, two raters assessed the students' writing ability. One was the researcher and the other was an experienced teacher of English who was awarded an excellent teacher in Phatthalung educational region. Both raters scored the written work by following the five-scale analytical rubric that includes four separated writing aspects—summary, reaction, organization, and language quality—each of which accounts for 5 marks, so the total score is 20. The scores from the two raters were compared and calculated for the average.

3.3.4 Training phase

The training phase was conducted over ten weeks of the first semester of the 2009 academic year. It started on July 9th, 2009 so the training was supposed to finish by the end of August, 2009. However, the training extended to September 25th, 2009 due to the unavoidable matters, such as the extra-curriculum activities of the students in the educational region and a flu epidemic. In each lesson, the students were assigned to work in groups of four to five, but with one or two students kept rotating from group to group every lesson so the students did not work with the same faces all the time. The students read the text in their own course books, and did the tasks in worksheet provided. The teaching and learning followed the framework shown in Figure 3.2.

3.3.5 Responding to the written work

In responding to the students' work, instead of marking written work in red pen, the teacher gave comments and feedback, using coding system for writing feedback to pinpoint where and what the errors were. When the students got the work back, they corrected their own work, using coding system for writing feedback as their guidance. If the errors were in common, they were written on the board for explanation. To do this, the students were asked to correct them. If that was impossible, the helped with it.

3.3.6 Administering the post- test and questionnaire.

The identical test of reading comprehension and writing ability was administered as a post-test on Thursday, June 17th, 2009. The questionnaire was also distributed. The test time was eighty minutes and ten minutes for responding to the questionnaire. The scoring system and the raters were the same as those when scoring the pre-test.

3.4 Data Analysis

To answer the research questions, the SPSS/PC version 12 (Statistical Package for Social Science) program was used to analyze the data of the study.

Research question 1: Does SQ5R reading technique affect students' reading comprehension? If so, to what extent does it do to each level of literal, reinterpretation, and inference comprehension?

To answer the first research question, the pre- and post- reading comprehension tests were scored. One point was allotted for a correct answer, and a zero for an incorrect answer. Percentages and mean scores were calculated for overall reading comprehension and each level of comprehension type. Paired-sample t- test was also utilized to determine the significant differences between mean scores of the pre- and post-tests.

Research question 2: Does SQ5R reading technique affect students' writing ability? If so, to what extent does it do to four aspects of writing: summarization, reaction, organization, and language quality?

In order to answer the second research question, the pre- and post-writing test were marked by two raters based on the analytical scoring rubric, which included four aspects: summarization, reaction, organization, and language quality. The score of each aspect accounts for 5 so the total score of the writing test was 20. The scores given by the two raters were calculated for the average. Percentages and mean scores were calculated for overall writing ability and each aspect of writing. Paired sample t- test was also utilized to determine the significant differences between mean scores of the pre- and post-test.

Research question 3: Is there any significant correlation between the students' overall reading comprehension and writing ability?

In order to answer the third research question, Pearson Product-Moment Correlation Coefficient was utilized to determine the correlation of the two dependent variables—reading comprehension and writing ability.

Research question 4: What are the students' satisfactions towards the instruction through the SQ5R technique?

The data drawn from the five-point rating scale were calculated for means and ranges in order to interpret the level of satisfaction. Criteria for the rating scale interpretation are presented below.

Table 3.4: Criteria for Rating Scale Interpretation

Ranges of the Means	Levels of Satisfactions
1.00 – 1.50	Completely unsatisfied
1.51 – 2.50	Unsatisfied
2.51 – 3.50	Satisfied
3.51 – 4.50	Very satisfied
4.51 - 5.00	Completely satisfied

CHAPTER 4

FINDINGS AND DISCUSSION

This chapter presents the research findings and discussion derived from the data analysis on the development of reading and writing ability of the research subjects which were learning from the SQ5R reading technique.

The research questions of this study were put forward to investigate (1) whether the SQ5R reading technique affects students' overall reading comprehension and to what extent the SQ5R improves students' literal, reinterpretation, and inference comprehension questions; (2) whether the SQ5R affect students' writing ability and to what extent the SQ5R improves students' writing ability of summarization, reaction, organization, and language quality; and (3) whether there is any significant correlation between students' reading comprehension and writing ability.

4.1 Findings

4.1.1 Research Question 1: Does SQ5R reading technique affect students' overall reading comprehension and to what extent does it do to each level of literal, reinterpretation, and inference comprehension?

In order to answer the first question, the mean scores of the pre- and post-tests were compared using the paired sample t-test to determine the difference in improvement of the overall reading comprehension before and after the experiment. As shown in Table 4.1, the students' overall reading comprehension was improved significantly at the 0.01 level after learning from the SQ5R reading technique.

**Table 4.1: Overall Reading Comprehension Ability of the Research Subjects
before and after the Experiment**

Tests	No. of Subjects	Total scores	%	Mean	S.D.	\bar{X} difference	t	t (2-tailed)
Pre-test	32	30	57.39	17.21	2.99	0.28	7.8089**	.000
Post-test	32	30	71.87	21.56	2.71			

** Significant at 0.01 level

With respect to the data presented in Table 4.1, the pre-test mean score of the research subjects is 17.21 (57.39%) and the post-test mean score is 21.56 (71.87%). The post test mean score is significantly different at 0.01 level. This indicates that the students' overall reading comprehension was significantly different ($t= 7.8089$, $p<0.01$).

When further investigating into the improvement of students' responding to literal, reinterpretation, and inference questions, the students' comprehension level of each question type was significantly different as shown in Table 4.2.

Table 4.2: Levels of Literal, Reinterpretation, and Inference Comprehension

of the Research Subjects before and after the Experiment

Question type & no. of items	Pre-test			Post-test			\bar{X} dif.	t	t (2-tailed)
	%	Mean	S.D	%	Mean	S.D.			
Literal (8)	62.89	5.03	1.37	78.90	6.31	0.85	1.28	4.2931**	.000
Reinterpretation (14)	58.92	8.25	1.81	69.19	9.68	1.65	1.43	3.5825**	.001
Inference (8)	46.87	3.75	1.45	69.53	5.56	1.29	1.81	6.4321**	.000

** Significant at 0.01 level

The data presented in Table 4.2 show that, the inference comprehension was the problem before the training because the percentage of the pre-test score of inference questions was below 50% (46.87). The literal and reinterpretation comprehension were higher than 50% (62.89 and 58.92). The post-test percentage indicated that the literal, reinterpretation, and inference comprehension were significantly different ($t= 4.2931, 3.5825, 6.4321$ respectively, $p<0.01$). When compared the differences between the means which are indicated respectively (Mean= 1.28, 1.43, and 1.81). the inference was the most significantly improved and the literal comprehension was the least.

4.1.2 Research Question 2 : Does SQ5R reading technique affect students' ability and to what extent does it do to four aspects of writing: summarization, reaction, organization, and language quality?

To answer the second question, the mean scores of the pre- and post-writing tests were compared using the paired sample t-test to see the significant improvement of overall writing ability before and after the experiment. Table 4.3 shows the students' improvement of the overall writing ability.

Table 4.3: Overall Writing Ability of the Subjects before and after the Experiment

Test	No. of Subject	Total Scores	%	\bar{X}	S.D.	\bar{X} dif.	t	t (2-tailed)
Pre-test	32	20	45.89	9.17	1.00	5.35	19.8375**	.000
Post-test	32	20	72.61	14.52	1.64			

** Significant at 0.01 level

As shown in Table 4.3, the pre-test percentage and mean score (45.89% and 9.17) indicated that the subjects failed in writing. The post-test mean score was significantly higher than the pre-test. This indicates that the students' overall writing ability was significantly improved ($t= 19.8375, p<0.01$).

It is interesting to investigate the effectiveness of the SQ5R technique upon the improvement of students' writing ability in separated aspects of summarization, reaction, organization, and language quality. Two examples of the students' written work are presented in Table 4.4. and Table 4.5.

Table 4.4: The First Example of Students' Written Work

Pre-test	Post-test
<p>Summary</p> <p>Once there was a town. I was near a mountain. The mountain was a volcano. It started to growl. It smoke and noise came out. People in the town ran from it. Rocks fell on the town. Ashes came down twelve feet of ashes covered the town. Many people died. At last the volcano shopped. The melted rock cooled. It did not reach the town. The town is known. All over the world now.</p> <p style="text-align: right;">(74 words)</p> <p>Reaction</p> <p>I like story but it so sad because people in to town.</p> <p style="text-align: right;">(12 words)</p>	<p>Summary</p> <p>There was the volcano eruption near a town. People ran from it. The sky was full of ash and dust killed many people died. Lava cooled before it reached the town. A thousand more year passed, the town was full of ash and dust farmers lived on it. Now, the town is famous for visitors.</p> <p style="text-align: right;">(55 words)</p> <p>Reaction</p> <p>In my opinions. I felt so sad ofter read the story. It happen very slowly but it can killed many people died. Many people ran for their lives. I felt happy because people faund streets and houses</p> <p style="text-align: right;">(37 words)</p>

As shown in Table 4.4, the student's summary in the pre-test was 74 words at length, whereas in the post-test 55 words. Almost all the sentences were copied. In contrast, the number of words in the reaction is much greater in the post-test than the pre-test. In the pre-test, no phrases to introduce opinions were used and there were no supporting reasons. In the post-test, the phrase "in my opinions" was used and the student gave reasons to support her opinions.

Table 4.5: The Second Example of Students' Written Work

Pre-test	Post-test
<p>Summary</p> <p>Once there was a town. It was near a mountain. The mountain was a volcano. One day the volcano started to growl. Smoke and noise came out. The melted rock moved toward the town. It was like a slow river of fire. People in the town ran from it. Ashes came down. Many people died. At last the volcano stopped. The melted rock cooled. It did not reach the town. Almost a thousand more years passed. Then people started to dig. They wanted to find the lost town. They found streets and houses. The town is known all over the world now. Its name is Pompeii. It is in the south of Italy.</p> <p style="text-align: right;">(112 words)</p>	<p>Summary</p> <p>More than year a town name's Pompeii. It have ash and dust came out. The sky was full ash and dust. And covered the town. The volcanic eruption killed a lot of people. A thousand years passed many people building streets and house. Now, The town is well-known for tourist.</p> <p style="text-align: right;">(50 words)</p>
<p>Reaction</p> <p>I don't like the story. Because It's so sad.</p> <p style="text-align: right;">(9 words)</p>	<p>Reaction</p> <p>In my opinions. I felt so sad after read the story. Because, The volcanic eruption killed a lot of people and many people died slowly.</p> <p style="text-align: right;">(25 words)</p>

Based on the data in Table 4.5, the student's summary in the pre-test was 112 words at length which was about half of the original text (210 words) and almost all sentences were copied. The summary in the post-test was one-third at length, compared to the original text. The reaction in the pre-test was only nine words at length, without introducing phrases and supporting reasons, while the reaction in the post-test was 25 words, with an introducing phrase and a supporting reason.

Table 4.6: Students' Writing Ability in Summarization, Reaction, Organization, and Language Quality

Writing Aspects & Scores	Pre-test			Post-test			\bar{X} dif.	t-values	t (2-tailed)
	%		S.D.	%	\bar{X}	S.D.			
Summarization (5)	43.59	2.17	0.36	70.15	3.50	0.61	1.33	10.8418**	.000
Reaction (5)	36.71	1.83	0.65	74.21	3.71	0.63	1.88	14.3540**	.000
Organization (5)	50.93	2.54	0.36	74.37	3.71	0.53	1.17	11.1940**	.000
Language Quality (5)	52.18	2.60	0.36	70.69	3.54	0.39	0.94	12.6582**	.000

* Significant at 0.01 level

The data shown in Table 4.6 show that the percentage of the pre-test scores of summarization and reaction were less than 50% (43.59% and 36.71%, respectively). Compared with the four aspects of writing, the pre-test score of reaction was the lowest, and the language quality the highest (52.18%). The post-test percentage indicated that the aspect of organization was the highest (74.37%) and summary the lowest. The students' aspects of summarization, reaction, organization and language quality were significantly improved ($t= 10.8418, 14.3540, 11.1940, \text{ and } 12.6582$, respectively, $p<0.01$). When compared the differences between the means which are indicated respectively (Mean= 1.33,

1.88, 1.17, and 0.94), the reaction was the most significantly improved and the language quality was the least.

4.1.3 Research Question 3 : Is there any significant correlation between the students' overall reading comprehension and writing ability?

In order to answer the third research question, Pearson Product-Moment Correlation Coefficient was utilized to determine the correlation of the two dependent variables—reading comprehension and writing ability. It was found that the two language skills (reading and writing) are positively correlated as shown in Table 4.7.

Table 4.7: The Correlation between the Development of Reading Comprehension and Writing Ability

Variables	r_{yy}
Reading comprehension Writing ability	.452*

* Significant at 0.001

The data shown in Table 4.7 indicate that the reading comprehension and writing ability are positively correlated ($r = .452$, $p < 0.01$). This points out that the students' overall reading comprehension and writing ability were simultaneously improved.

4.1.4 Research question 4: What are the students' satisfactions towards the instruction through the SQ5R technique

In order to reveal the students' satisfactions towards the instruction of reading and writing skills development through the SQ5R technique, a questionnaire in which the students were asked to respond on a five-point Likert scale ranging from "1" (Completely unsatisfied) to "5" (Completely satisfied) was employed after the students performed the post-test. The data drawn from the five-

point rating scale were calculated for means and ranges in order to interpret the levels of satisfaction. The results of questionnaire responses will be presented in the following sections.

- 4.1.4.1 Satisfactions towards the content of the reading texts
- 4.1.4.2 Satisfactions towards teaching and learning activities
- 4.1.4.3 Satisfactions towards the assessment
- 4.1.4.4 Satisfactions towards group work

4.1.4.1 Satisfactions towards the content of the reading texts

The first section of the questionnaire was aimed at finding out the degree of the students' awareness of the importance of good texts in reading comprehension. The questionnaire presented four statements on the characteristic of good texts in reading comprehension and the students were required to indicate their level of satisfaction. The results of the response are presented in Table 4.8.

Table 4.8: Satisfactions towards the content of the reading texts

Items 1	Statements	Mean	Levels of Satisfaction
1.1	The content of the reading texts was interesting.	4.18	Very satisfied
1.2	The level of the text suited my language competence.	3.71	Very satisfied
1.3	The content of the texts was enjoyable.	3.78	Very satisfied
1.4	The content of the text was useful to my daily life.	3.90	Very satisfied

According to the data from items 1.1-1.4, the means of the students' responses vary between 3.71-3.90, all of which are under very satisfied level. These results show that the students see the content of the reading texts is useful and interesting. The linguistic level of the texts suits their language competence and it the text is pleasurable to read.

4.1.4.2 Satisfaction towards teaching and learning activities

The responses from items 2.1-2.9 in the second part of the questionnaire were analyzed to reveal students' satisfactions towards the teaching and learning activities, including three phases—before reading (S and Q), during reading (R₁) and after reading (R₂, R₃, R₄, R₅) activities. The students' responses are presented in Table 4.9.

Table 4.9: Satisfaction towards teaching and learning activities

Items	Statements	Mean	Levels of Satisfaction
2			
2.1	The activity instruction was clear.	4.28	Very satisfied
2.2	The time allocated for the activities was suitable.	3.81	Very satisfied
2.3	The before reading activities aroused my interest.	3.71	Very satisfied
2.4	The before reading activities helped me connect the prior knowledge to the text content.	3.93	Very satisfied
2.5	The during reading activities enabled me to understand the text.	4.12	Very satisfied
2.6	The during reading activities enabled me to read critically.	3.81	Very satisfied
2.7	The after reading activities helped me to transform the text information.	3.53	Very satisfied
2.8	The after reading activities enabled me to express opinions.	3.84	Very satisfied
2.9	The after reading activities helped me to understand writing process.	3.81	Very satisfied

As shown in Table 4.9, the means of the students' responses are between 3.53-4.28, and all items are at very satisfied level. These findings indicate that the activities in seven stages of the SQ5R technique enable them to comprehend the texts and to write a summary and opinions. The instructions to perform the activities are clear and the time allocated for the activities is suitable.

4.1.4.3 Satisfaction towards the assessment

To see if there is any concern about assessment, especially self-assessment, students were given three statements and asked to rate levels of satisfaction. The responses to questionnaire items 3.1-3.3 were analyzed to indicate the extent of students' concern, which is shown in Table 4.10.

Table 4.10: Satisfaction towards the assessment

Items 3	Statements	Mean	Levels of Satisfaction
3.1	The assessment was suitable and is in line with what had been learned.	3.93	Very satisfied
3.2	The assessment enabled me to self-assess.	3.96	Very satisfied
3.3	The assessment enabled me to self-correct and improve my work.	3.93	Very satisfied

Regarding the data in Table 4.10, the means of the students' responses are 3.93 and 3.96 which is the very satisfied level. The students were very satisfied with the assessment provided in each lesson. They were very satisfied that they could do self-assessment (Mean = 3.96) and that the assessment suited types of activities they have performed (Mean = 3.93). They were also very satisfied with their ability to do self-correction and improvement (Mean = 3.93).

4.1.4.4 Satisfaction towards group work

Items 4.1-4.3 present each phase of group work. The students were asked to show their level of satisfaction on the phases of group work that helped comprehend the texts and write a summary as well as do the reaction. The findings are shown in Table 4.11.

Table 4.11: Satisfactions towards group work

Items	Statements	Mean	Levels of Satisfaction
4			
4.1	I participated in group work activities.	4.21	Very satisfied
4.2	I interacted well with group members.	4.46	Very satisfied
4.3	Group work was beneficial to me.	4.37	Very satisfied
4.4	Group work activities improved my reading comprehension and writing ability.	4.12	Very satisfied

Based on the data from questionnaire items 4.1-4.4, the means of the students' responses are between 4.12-4.46, which are under the very satisfied level. They were satisfied with group participation and interaction (Mean =4.21, 4.46). They were also very satisfied with the benefits of the group work (Mean = 4.37) and the improvement of their reading and writing supported by group work (Mean = 4.12).

4.2 Discussion

From the data shown in Table 4.1 and Table 4.2, it can be concluded that the SQ5R study reading technique could significantly improve the students' overall comprehension as well as three different levels of comprehension—literal, reinterpretation, and inference ($p < 0.01$). The improvement may be due to the characteristics of the SQ5R technique that can be elaborated as follows.

Firstly, the SQ5R technique actively engaged the students to do the activities by working by themselves in groups from the very first to the very last step though out each lesson. In the survey step, students were encouraged to activate their prior knowledge about the reading text so that they could form the general meaning of the text. While generating their own questions in the question step, the students used their prior knowledge to make predictions about what to be found in the text. This made them highly motivated and confident because they could share knowledge and experience among their groups in setting their own goals for comprehending the text. The interaction between the reader's experience as well

as expectations and the text would lead to a better understanding because as they read the students focused their attention to confirm or reject their predictions. The ability to predict and generate their own questions are vital skills for mature readers as well as independent and autonomous learners. Self-generated questioning can develop not only the students' language skills but also life and academic skills since they take control of their own learning. While reading, the students concentrated to find the answers to their own questions and additional teacher's questions. The students' complete engagement in reading with the questions in mind helped them to judge important from unimportant information and to understand the writer's purpose and the text structure, which could lead them to better comprehension. The support from the teacher and peers or groups helped students to become confident in developing their reading skill (Smith 1978, Silberstein 1994, Lynch 1996, Nunan 1999, Alderson 2000, Farrell 2002, Alderson 2008, Moore 2010).

Secondly, the after-reading activities (recite, record, react, and review) developed students' intellectual skills. The recite stage that engaged the students to recall and memorize the main points as well as supporting details by speaking aloud the questions and answers to themselves or with peers, reinforced the students' comprehension. Recitation also built up the students' confidence to manipulate and apply the language in the steps of record and react. When recording, students wrote down the answers both in complete sentences and in notes. They, then, transformed the notes into their summary. Before taking notes, students analyzed what was important and what was not and they created their own forms of note taking which was transformed into a summary. In order to write a summary, students synthesized or put together bits of information by using their own language. Summarization reinforces reading comprehension because only the students who understand the reading text well can summarize. In the react step, students first evaluated the text information as well as the author's purpose by comparing with their own knowledge and beliefs. They then weaved their ideas or feeling into a written work. Making notes, summarizing, and giving opinions, all supported reading skills, increased understanding and developed intellectual

skills since the learning activities started from knowledge level and gradually developed to evaluation stage (Raimes 1983, Greenwood 1998, Moore 2010).

The significant improvement shown in Table 4.1 and Table 4.2 support Pauk (1984) who remarks that SQ5R is a very useful study method that if used properly with textbooks and readings can increase the readers' retention to 80% on a long term basis. The basis of the method is that it is the readers' active engagement, in processing material, which is driven by 'curiosity'—the most powerful stimulus for learning. The finding also supports Nuttall (1996) and Moore (2010) that discussion in groups is the key to explore meaning by and for their own. This finding is in accordance with Hedberg's (2002) case study that the SQ3R method could affect students' comprehension and retention of the content of history. She (2002) found that her research subjects' test scores were improved throughout the study and her study also showed that the subjects were aware of the strategies employed in the reading process (before, during, and after reading). Finally, Hedberg found that the SQ3R method affected the student readers' reading strategies in both language and social studies classes.

Based on Table 4.2. the inference comprehension was most significantly improved (Mean difference = 1.81) though it is the most difficult question, compared with the literal, and reinterpretation. Understanding the implicit meaning of the text requires the interrelation between the students' linguistic and world knowledge. Group work contributed to that. Working actively in groups, students supported each other with linguistic and world knowledge (Lynch, 1996). Self-generated questions helped students direct their attention to the process of understanding the text so self questioning could enable students to understand literal and reinterpretation, too (Lynch, 1996) The finding in this current study is in accordance with the study conducted by Vittayarungrangsri (1993) that self-generated questions significantly improved students' reading comprehension. Moreover, the finding supports the study by Malelohid (2006) that the research subjects' overall reading comprehension and the level of literal and reinterpretation comprehension were significantly improved after being trained with questioning strategies.

In sum, Finding 1 (Table 4.1) and Finding 2 (Table 4.2) support these experts' views. In order to achieve reading comprehension, students have to employ different strategies, such as. anticipating, integrating prior knowledge with existing knowledge, enquiring, and interacting with the text in socializing environment such as peers and groups (Crafton 1982, Farrell 2002, Chandavimol 1998, Lynch 1996, Grabe & Stoller 2002, Anderson 2008, and Moore 2010).

Finding 3 as shown in Table 4.3 proves that the SQ5R can greatly improve the students overall writing ability ($p < 0.01$) and Finding 4 (Table 4.5) shows that the SQ5R technique can also enhance students' four different aspects of writing—summarization, reaction, organization, and language quality at 0.01 level. The current findings accord with the Potaya's (2003) study that the SQ4R reading technique can improve students' comprehension and summary writing ability. The findings are also in accordance with the study conducted by Banjounmanee (2005) who investigated the effectiveness of the SQ5R technique upon the reading comprehension and the reflective thinking. Her study revealed that the research subjects' reading comprehension was improved and the reflective thinking was at a good level.

From Finding 4 as shown in Table 4.5, the students' writing ability in summarization, reaction, organization, and language quality were significantly improved ($t = 10.8418, 14.3540, 11.1940, 12.6582$, respectively, $p < 0.01$). The reaction was most significantly improved (Mean difference = 1.88). The examples of students' written work in Table 4.4 show that the subjects could not do much reaction. In the pre-test. No phrases to introduce opinions and supporting reasons were stated. The greater improvement in reaction, compared with other writing aspects, may be due to the teacher's support of metacognitive strategies, such as paraphrasing and planning (Cotterall & Reinders, 2004). Before getting the treatment, the subjects were not familiar with the discourse markers to be used in forming their reaction. In the "React" step, therefore, the students were trained how to record their opinions or feelings and how to string those opinions with supporting reasons into their paragraph by using phrases like "I think", "I believe", "In my opinion", and transitional words (first, second, next, finally).

This support of cognitive strategy helped them become confident and competent in achieving their writing ability (Moore, 2010).

Interestingly, students had a ten-week training to summarize reading texts, but the significant improvement in the aspects of summarization, organization, and language quality were lower than the reaction (Mean difference =1.33, 1.17, 0.94, respectively). According to Silveira (2003), summarizing texts is a difficult task because it is based on a learning process which needs a lot of practice. That is, ten lessons may not be sufficient enough for students to get greater improvement in summarization. Above all, in the training phase, the students were not given enough support, from the teacher, in selecting important information from the unimportant. The students were not either well trained to paraphrase or use their own words when writing a summary. Though reading provides the students with the subject matters for writing, huge amounts of language such as vocabulary, idioms, and organizational flow, they still needed a lot more support from the teacher on planning to produce their new written text of different genres. The researcher should have supported them more on the organizational flow of ideas and the language quality, such as correct forms of words. Zamel (1982) emphasized that teachers should help with organizational flow and correct forms of words as much as possible because writing takes a great deal of time for the learners to acquire the habit of using correct forms of words and in the appropriate situations, if second language or foreign language learning and writing is concerned. The subjects should have also paid more attention to edit and correct their own work by making use of peers or teacher as a resource. The students should have been encouraged to rewrite their own work because it acted as writing to learn. Rewriting can help learners understand the material better while practicing some features of discourse (Keifer, 1997). Correcting and improving their own language performance, students learn how to learn so they can later take their own responsibility for their own learning (Spratt, Pulverness & Williams, 2005; Moore, 2010).

Finding 5 as shown in Table 4.6 indicates that that reading and writing are positively correlated ($r_{yy}=.452$, $p<.001$). The explanation to this finding is that reading and writing are interrelated skills and they are mutually beneficial to each

other. The more students read, the better they comprehend the text, and that leads to better writing (Nuttall, 1985; Cazden, 1983; Tierney & Pearson, 1984; Indrisano, 1984 in Lapp and Flood, 1986). It can be assumed that an efficient reader will become an effective writer as well (Raimes, 1983).

To conclude, this current study has proved the effectiveness of the SQ5R upon the students' improvement in reading comprehension and writing ability. The findings support the educators' and specialists' views that reading and writing are mutually beneficial and cannot be separable. The SQ5R can not only develop students' language skills but also real-life skills, all of which are vital for learners in the globalization era. If the students are continuously trained with the SQ5R, they will become independent in acquiring language knowledge and language skills. They then become confident to employ the learning strategy of SQ5R to acquire knowledge in other content areas (Pauk 1984, Silberstein 1994, Lapp's & Flood's 1986, Leeds 2003, Raimes 1987, Nuttall 1996, Silveira 2003, Sosothikul 2007, and Moore 2010).

According to the 2008 core curriculum, it is the teacher's responsibility to help students improve their achievement in all curriculum subjects. There is a question of success. Teachers of all curriculum subjects have to adopt the more effective teaching technique to train students to become independent and autonomous learners, so that they can take responsibility for their own learning. In order to succeed in this, the teachers of all subjects should be trained with the effective teaching methods with study-reading models and the modified SQ5R in this current research is proved that it is effective enough to be implemented with pre-intermediate to advanced students.

CHAPTER 5

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presents the summary of the research findings, implications for teaching to develop reading and writing ability in the EFL context, and recommendations for further studies are discussed.

5.1 Summary

The general results of this study positively answered four research questions posted to see (1) whether the SQ5R reading technique influences students' reading comprehension and to what extent it does to each level of literal, reinterpretation, and inference comprehension; (2) whether the SQ5R improves students' writing ability and to what extent it does to four writing aspects (summarization, reaction, organization, and language quality); (3) whether there is any correlation between the students' reading comprehension and writing ability; and (4) the extent of students' satisfactions towards the reading and writing skills development through the SQ5R technique.

5.1.1 The students' overall reading comprehension and the level of literal, reinterpretation, and inference comprehension were significantly improved ($p < 0.01$).

5.1.2 The students' overall writing ability and four writing aspects were significantly improved ($p < 0.01$).

5.1.3 The students' reading comprehension and writing ability positively correlated ($p < 0.01$).

5.1.4 The students' satisfactions towards reading and writing skills development were at "Very satisfied" (Mean = 3.51-4.50).

5.2 Implications for EFL Instruction

The findings from this current study show that the students' achievement in reading comprehension and writing ability were significantly improved. Their satisfactions towards the teaching and learning processes were also at very satisfied level. The SQ5R technique was employed to integrate the reading with writing. The third last steps (Record, React, and Review) engaged the students' to pay attention to process writing. In order to succeed in implementing the SQ5R technique, especially in enhancing students' ability, there are four implications to be considered. They are as follows.

5.2.1 Group work: The teacher should assign students to work in mixed-ability groups of about 4-6 members. It is advisable to rotate group members from time to time so that students can work with different peers. Working in groups is beneficial to students because they can share both language knowledge and world knowledge with each other to perform reading and writing tasks. In writing, particularly, students will become the readers of new written texts produced by their peers. This will lead to the editing of their first drafts. It is also more efficient for the teacher to work as a monitor, facilitator, and supporter with groups rather than with the individuals.

5.2.2 Teacher's role: The teacher is one of the resources that helps students to achieve their learning, so support and encouragement from him/her is beneficial to the students. The teacher should give a lot of practice in the steps of "Record", "React", and "Review". In the "Record" step, students should do more exercises provided by the teacher in summarizing since it is a difficult task, not only for the L2 learners but L1 as well. To do this, students can be asked to write their notes from the earlier phase of this activity on the board. The notes, then, are transformed into complete sentences, which will later used for paraphrasing. In organizing ideas, the teacher helps the students to learn how string the sentences into a good summary by using the given discourse markers. Giving opinions in the "React" step requires students to think critically so they should be trained to give their own views and reasons upon the issues raised by the teacher. They should learn some phrases and discourse markers to be used for introducing opinions and joining sentences to make a good reaction.

While revising the written work in the “Review” step, students should follow the checklist provided by the teacher so that they can focus their attention on the particular points. Before submitting the work, students should do self- and peer-editing so that their first draft is finalized.

5.2.3 Comments and feedback: In order to develop students’ writing skills and learner autonomy, giving comments and feedback on written work is necessary. When marking the written work, the teacher should not correct errors by him/herself. Rather the teacher should indicate what the errors are by using the symbols or codes. The teacher must be sure that the students know what each code or symbols means.

5.2.4 Self-improvement: When the students get the marked written work back, they have to spend time on the errors and rewrite their work. If it is impossible for them to correct the errors by themselves, the teacher can help them. One possibility is to bring the issue to the whole class, discuss with them and work together with the students. This may come up some different sentences of the same meanings, and it mutually beneficial for summarization because these sentences are paraphrases.

5.3 Recommendations for Further Studies

The research findings imply that the use of SQ5R reading technique can help students improve their reading comprehension and writing ability. For reading comprehension, the SQ5R improves not only students’ overall comprehension but also their abilities to respond to literal, reinterpretation, and inference questions. In writing, the SQ5R helps their overall writing ability as well as their writing skills of summarization, reaction, organization, and language quality.

Based on the research findings of this study, some recommendations for further studies are provided as follows.

5.3.1 The training in this study was conducted with the specific group of M.3 students in a particular teaching and learning context for one semester. In order to confirm the effects of the SQ5R reading technique on overall reading comprehension and three levels of literal, reinterpretation, and inference comprehension; and writing ability as well as four aspects of writing, including summarization, reaction, organization, and language quality, the experiment should be replicated with other groups who are either in normal classes of the same educational levels, or in different

educational levels or fields of study. The results would help increase better understanding of the effectiveness of the SQ5R technique in teaching the integrative skills of reading and writing.

5.3.2 Since this study showed that the SQ5R help improve students' not only reading comprehension but also writing ability because the technique was elaborated by adding more active writing activities of summary writing in the record stage and put them to write their own views in the react stage. Further study should investigate whether the SQ5R affects spoken ability as reading and speaking are also interrelated language skills.

5.3.3 From the results of the study, it can be assumed that the SQ5R can be used not only in reading to help develop language skills but also in other subject areas. Since the SQ5R is a reading formula for content area reading, thus students should be asked to respond to a questionnaire or should be interviewed to find whether they make use of this technique while reading expository texts in other academic subjects.

5.3.4 The SQ5R is one of the study reading techniques, further studies, therefore, should compare the SQ5R with other study reading techniques, such as K-W-L, DR-TA and QAR to see whether the comparable techniques affect the degree of improvement students' ability in reading comprehension and writing ability.

5.3.5 Owing to Thai adolescents' low literacy and poor reading comprehension as well as the effectiveness of study reading strategies, further studies, therefore, should investigate whether Thai teachers of English have acquired knowledge of effective reading techniques and to what extent these techniques are transferred to the classroom instruction.

5.3.6 The improvement in writing aspects of summarization, organization and language quality needs a lot more practice in writing. The further study should investigate whether the supplementary training such as paraphrasing and planning the organization of the written text affects the degree of improvement of students' writing ability.

5.3.7 When analyzing the seven steps of the modified SQ5R study reading technique against ten principles of independent and autonomous learning, it was found that almost all activities are comparable. If the SQ5R technique extends into the SQ6R with an additional step of “Reflect” which requires students to mirror upon their own learning, it will cover all ten principles. Further studies should be conducted to investigate whether students can integrate the SQ5R with other curriculum subjects and employ it in acquiring knowledge from various sources in this globalization era.

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Appendices

APPENDIX A

THE PRE-AND POST-TEST

ข้อทดสอบวัดความเข้าใจการอ่าน และการเขียนภาษาอังกฤษ
(English Reading Comprehension and Writing Test)
ชั้นมัธยมศึกษาปีที่ 3

คำชี้แจง: ข้อทดสอบฉบับนี้มี 2 ตอน

ตอนที่ 1 เป็นข้อทดสอบวัดความเข้าใจการอ่าน เป็นแบบเลือกตอบมี 4 ตัวเลือก

จำนวน 30 ข้อ ข้อละ 1 คะแนน เวลา 50 นาที

ตอนที่ 2 เป็นข้อสอบการเขียน ข้อสอบมีจำนวน 1 ข้อ คะแนน 20 คะแนน

เวลา 30 นาที

ตัวอย่าง:

1.1 What is the capital of Thailand?

- a. New York c. London
b. Mexico city d. Bangkok?

1.2 The nurse works in the...

- a. railway station c. hotel
b. hospital d. police station

Items	a	b	c	d
1.1				X
1.2		X		

Part one: Read the following text and answer questions by choosing the best answer. (Items 1-3)

**Crocodile
' Sent out'
From school**

The animal-looking director of a school, who insists he wants to encourage his pupils to love nature, has given in it. It is an order from the Office of the Priate Education Commission to remove 18 crocodiles from the school because of the danger to the young students. The school director received the order, demanding that he removes his crocodiles from the school with 35 days.

*From The Nation
Sat. June 25,05*

1. Who causes the problems?
 - a. The order
 - b. The crocodile
 - c. The director
 - d. The OPEC

2. Why does the animal-looking director have to send out the crocodiles?
 - a. Because of the animal-loving director.
 - b. To prevent the students from danger.
 - c. To save the crocodiles.
 - d. For nature protection.

3. 'Within 35 days' is
 - a. how long the crocodiles have been fed in the school
 - b. when the director must send out the crocodiles
 - c. how far the crocodiles must be sent out
 - d. when the OPEC helps the director

Read the following information and choose the best answer. (Items 4-5)

You may have noticed that when you see a rainbow, you always have your back to the sun. In the morning, when the sun is in the eastern sky, rainbows always appear in the west. In the afternoon they always appear in the east. Rainbows are always in the opposite direction from the sun.

4. From the passage, we can conclude that _____
- rainbows always appear in the eastern sky.
 - in the morning rainbows always appear in the western sky.
 - in the afternoon rainbows always appear in the western sky.
 - rainbows always appear in the sky in the opposite direction from the sun.
5. If the sun is rising, you will see the rainbow in the
- north
 - east
 - south
 - west

Read the following information and choose the best answer. (Items 6-8)

It was 3 o'clock in the morning when four-year-old Russell Brown woke up to go to the toilet. His parents were fast asleep in bed. Suddenly he heard a noise in the living room and saw a light was on, he went downstairs. There, he found two men. They asked *him* his name, and told him they were friends of the family.

Unfortunately, Russell believed them. They asked him where the video recorder was. Russell showed them, and said *they* had a stereo and CD player, too.

The two men carried these to the kitchen. Russell also told them that his mother kept her purse in a drawer in the kitchen, so they took that. Russell even gave them his pocket money ___ dollars.

6. "They asked *him* his name" The word "him" refers to _____.
- the Browns
 - Russell's father
 - Russell Brown
 - Russell's friend
7. "Russell showed them, and said *they* had a stereo and CD player, too."
The word "*they*" refers to _____
- the Browns
 - the burglars
 - Russell and the two men
 - the two men and the Browns
8. According to the passage, we know that the two men _____
- could take a lot of things because Russell Brown saw them.
 - could take only some money because Russell Brown gave them.
 - tried to hurt Russell Brown because they wanted to take a lot of things.
 - took a lot of things because Russell's parents were sleeping.

Read the following information and choose the best answer. (Items 9-11)

I went to school on a rainy day without wearing a raincoat and I got soaked. When I reached my classroom, there was no one there. The rain might have made everybody late. I was there for about twenty minutes finishing my homework. I waited for my friends until eight o'clock but nobody came.

9. The writer got soaked because_____
- | | |
|---------------------------|--|
| a. no one helped her | c. she waited for her friends |
| b. she walked in the rain | d. she spent a long time to go to school |
10. According to the passage, it might be possible that on that day_____
- | | |
|---------------------------|-------------------------------------|
| a. everyday was absent. | c. the writer was too late |
| b. the school was closed. | d. everybody went back home already |
11. According to the passage, we can conclude that the writer _____
- | | |
|---------------------------------------|---|
| a. was very hungry. | b. didn't know anybody in her school. |
| c. shut herself up with her homework. | d. didn't know anything happened in her school. |

Read the poem and choose the best answer. (Items 12)

To Steve:
 Friendship is like a garden of flowers, fine and rare.
 It cannot reach perfection except through loving care,
 Then, new and lovely blossoms with each new day appear...
 For friendship, like a garden, grows in beauty year by year.
 We will always remember you.
 Have a nice trip.

12. From the poem, we can conclude that _____
- | | |
|--|---|
| a. having friendship is good for us. | b. having a nice trip is good for the writer. |
| c. taking care of health is good for us. | d. growing beautiful flowers is amazing. |

Read the notice and choose the best answer.

KEEP OUT! ___Old Building

13. What does the above notice mean?
- You can't enter because this building is both old and dangerous.
 - You must not live in this building because it is very cold.
 - This building has been kept for public use.
 - Don't open the door because it is cold.

Choose the best answer for the following signs below. (Items 14-16)

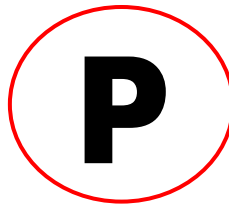
Where would you see these signs?

- | | |
|--------------------------|-------------------|
| a. At the car parking. | c. At the bank |
| b. At the police station | d. In the library |

14.

KEEP QUIET

15.



16. This sign tells you that you can get _____ here.



- | | |
|----------------|-------------------|
| a. an interest | c. an interview |
| b. information | d. an interpreter |

Read the label and choose the best answer for each question. (Item 17)

Hackley Cough Medicine
Take one teaspoon after every meal.
Do not take more than four teaspoons a day.

17. Which is NOT true about Hackley Medicine?
- It is a liquid.
 - You have to take it after meals.
 - You cannot take it in the daytime.
 - It is dangerous if you take six teaspoons a day.

Read the advertisements below and choose the best answer. (Items 18-20)

Renior Club 1841

Happy hours 4 p.m. -9p.m.
 60 baht per drink

After a busy day, make for the classic atmosphere of Renior Club
 1841 where
 Beautiful hostesses and jazz music will help you relax.
 Have fun with us every day.
 For reservations, call
 0-2258-5720

10/3-4 Only 100 metres in Soi

18. The club opens _____
- every other day
 - all day long
 - 5 hrs. a day
 - 9 hrs. day
19. What attracts the one who comes here?
- A beautiful waitress
 - A kind of music
 - Both a and b
 - A busy day

20. The advertisement doesn't say about _____
- a. drinks
b. dishes
c. location
d. atmosphere

URGENTLY REQUIRED
THE CHEMICALS IMPORTING CO. REQUIRED

JUNIOR SECRETARY (1)

* Male / female age 18-25 vocational or higher
* Good command of English with some knowledge of Microsoft WORD/EXCEL will be preferable and accuracy in typing Eng / Thai
* Interested person please apply in person or send an application with resume to:-



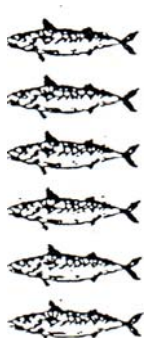
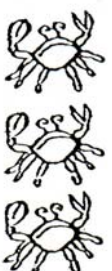
CINNAMON CO., LTD.
44/15 CONVENT Rd., SILOM, BANGKOK,
BKK. 10500 TEL. 02-237-4480-3

Adapted from National Test, 2006

21. What organization needs a secretary?
- a. A vocational school
b. Microsoft word/Excel
c. Cinnamon Co.Ltd.
d. Convention Rd.

Read the chart below and choose the best answer. (Items 22-24)

The chart below shows the total amount of seafood being caught this week.

80 Baht/kg	70 Baht/kg	50Baht/kg	100Baht/kg
			

Scale 1 figure: 10 kilograms
Adapted from NT test, for M.3, 2005

26. The melted rock from the volcano was most like _____
- a. stormy water hitting the shore
 - b. boiling water rolling toward the town
 - c. cooling water running down the stream
 - d. falling on the town underground water springing up into the sky
27. This story shows that Pompeii had _____
- a. important kings
 - b. good painters
 - c. brave presidents
 - d. poor villagers
28. People visit Pompeii today to see _____
- a. where the old town is
 - b. why an old town is dug up
 - c. what a very old town looks like
 - d. how a volcano looks when it blows up
29. When the ashes fell on Pompeii, _____
- a. they knocked down all the buildings and statues
 - b. they moved people out of the town
 - c. they kept the town just as it was
 - d. they cause green house effect
30. What is Vesuvius?
- a. A volcano
 - b. A country
 - c. A town
 - d. A painting

Part two: Read the story again and write a two-short paragraph of about 80-100 words.

Paragraph 1: Write a summary of the story.

Paragraph 2: What did you feel after you read the story? Give at least three reasons why you felt so?

APPENDIX B

THE INTRODUCTORY PHASE

B/1: The Reading Text

A day in the life of OJ Mayo

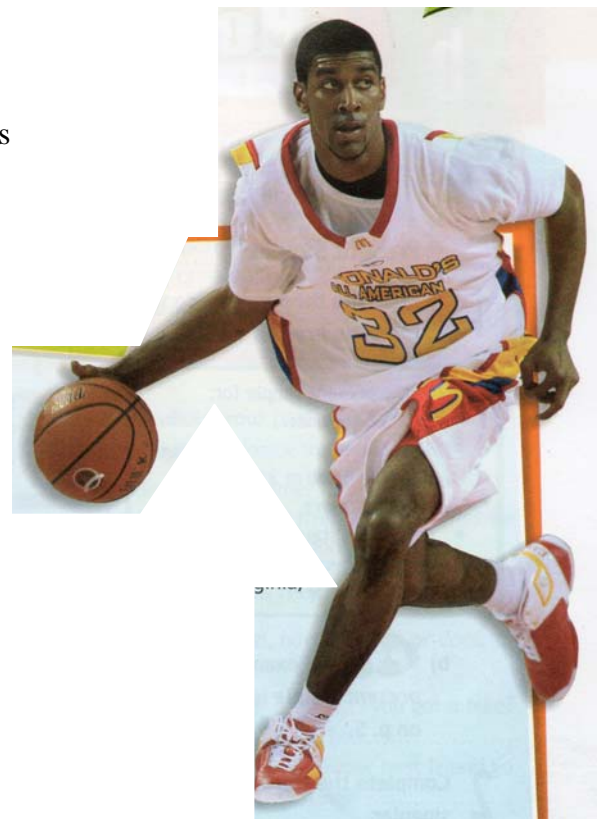
He's young, he gets good grades at school and he has lots of friends and a good relationship with his parents. He also plays basketball for Huntington High School, Virginia, USA. Life is good for OJ Mayo. But it isn't always easy!

"I really want to be a professional basketball player and I know I have to work hard," he says. He wakes up at 6:30 am every day. He starts the day with a big breakfast, then he goes jogging in the park for an hour. After that, it's time for school. When he finishes, he usually goes to basketball practice. The HHS team practices four days a week. They often play two games a week. OJ is always sad when they lose. "Well, I know it's only a game," he says, "but losing always makes me think we could do better."

So, with such a full programme, how does he manage?

"Well, I never miss practice. I sometimes worry about school because I want to get good grades, but I'm well organized so I never fall behind with my homework. I never stay out late. I always do my best and work hard, both at school and on the court."

Any advice for ambitious teenagers like himself? "Always stay motivated and never give up!" OJ says.



APPENDIX B

THE INTRODUCTORY PHASE

B/2. The Teaching Plan

Lesson Plan: Introduction to the SQ5R Technique

Subject: English 33101: Fundamental English Matthayomsuksa 3
 Foreign Language Department, Satri Phatthalung School First Semester
 Theme: Reading Technique Topic: SQ5R Technique
 Time: 3 hours Teacher: Mrs. Tanomchit Sangcharoon

1. Standard / Performance indicators

Standard 1.1: Understand stories from listening and reading, and apply this understanding logically.

Performance indicators

- 1) Give the main idea and details after listening to, or reading the passage.
- 2) Take notes of the texts from various sources.

Standard 1.3: Present information and express opinions.

Performance indicators

- 1) Summarize texts.
- 1) Express opinions about various events.

Standard 3.1: Use English to connect knowledge with other academic subjects

Performance indicators

- 1) Use English to seek knowledge related to other academic subjects
 From various sources to expand the student's worldview.

2. Learning objectives

By the end of this lesson, the learners will be able to...

2.1 Terminal objective: To identify the reading steps of the SQ5R technique

2.2 Enabling objectives

- 1) answer gist questions
- 2) generate questions
- 3) answer detailed questions
- 4) take notes
- 5) summarize the text
- 6) give opinions
- 7) identify the seven steps of the SQ5R technique

3. Content: A reading lesson with SQ5R technique

3.1 Knowledge

A reading lesson: A day in the life of OJ Mayo

Seven steps of SQ5R technique

3.2 Performance/skills

- 1) Previewing/ Skimming/ Scanning
- 2) Answering comprehension questions
- 3) Summarizing the text
- 4) Giving opinions.
- 5) identifying the steps of SQ5R technique

3.3 Attitudes

Positive attitudes towards 1) reading and writing 2) working with pairs and groups 3) learning to read.

4. Exercises/ tasks

- 4.1 Comprehension questions
- 4.2 Written work
- 4.3 A list of reading steps with explanation

5. Assessment

- 5.1 Observation
- 5.2 Quiz (Comprehension questions)
- 5.3 Performance task (Written work)
- 5.4 A summary of the SQ5R

6. Teaching/learning activities

Period 1-2: A demonstration of the introductory lesson.

<p><u>Opening activity / introduction</u></p> <p>Activate: 1) Talking about someone students admire. 2) Introducing the reading texts to the students.</p>
<p><u>Teaching reading: Stages of input and meaning</u></p> <p><u>Pre-reading activities</u></p> <p>1. Survey</p> <p>1) Teacher asks students to look at the picture, the title and to read the first and last paragraph.</p> <p>2) Answer gist questions.</p> <ul style="list-style-type: none"> - Who is the young man in the picture? - Does he love football or volleyball? <p>2. Question</p> <p>1) Students in each group generate questions which they want the text to answer about OJ Mayo.</p> <p>2) Nominated students from groups to write the questions on the board.</p> <p>3) Teacher provides some more questions.</p>
<p><u>While-reading activities</u></p> <p>3. Read</p> <p>Students read the text to find the answers to the questions written on the board. To do this, they can underline the answers in the text.</p>

6. Teaching/learning activities (Cont.)

<p><u>Post-reading activities</u></p> <p>4. Recite</p> <ol style="list-style-type: none"> 1) Individually, students recall the questions and answers to themselves. 2) With pairs, they take turns to ask and answer. 3) Nominated two open pairs ask and answers questions orally. <p>5. Record</p> <ol style="list-style-type: none"> 1) Teacher provides example of taking notes of the first paragraph. 2) Students take notes. The notes cover main ideas and relevant supporting details. 3) Students answer the questions in written form. 4) Students write a summary of the text
<p>6. React</p> <p>Students answer the personalized questions.</p> <ul style="list-style-type: none"> - What have you learned from OJ Mayo? - Do you think OJ Mayo's happy? Why/why not? Give reasons. <p>7. Review</p> <ol style="list-style-type: none"> 1) Students read through their writing to make sure that 1) it covers all important points 2) the spelling and punctuation are correct. 2) Compare the written answers with pairs or group.

Period 3 : Wrap up: the SQ5R technique

Students answer the questions about the reading technique. They can do it in Thai.

7. Learning materials

- 1) Reading text: A day in the life of OJ Mayo
- 2) Worksheet 1 & 2

8. Teaching assessment (How did the lesson go?)

8.1 How will I know my students are learning?

.....
.....
.....

8.2 What went well and what would I change if I need to teach this lesson again?

.....
.....

THE INTRODUCTORY PHASE

B/3. The Learning Material

A worksheet: [A DAY IN THE LIFE OF OJ MAYO](#)

Reading comprehension and writing

♣ Survey:

1. What is the passage about?
2. Does the young man love football or volleyball?

♣ Question: Before you read the text, make five questions which you want to know about the text.

.....

♣ Read : Read the passage to find the answers to your questions and the teacher's.

♣ Recite: Say questions and answers aloud to yourself and do it again with your partner.

THE INTRODUCTORY PHASE (CONT.)

♣ Record: 1) Answer the questions. Write the answers here.

.....
.....
.....

2) Take notes of the main points about the passage, and write a summary about OJ Mayo using these questions to help you.

What is the passage about? How can he do it?

What does he do? What is his belief?

What does he want to do/be?

Name	Name of school.
Job	
Routines: 1)	2.
3)	4.
Practice time	
No. of games/ wk	
Feeling	Motto

♣ React: Do you think Mayo/s happy? Why/why not? Give at least three reasons.

Write a short paragraph to give your opinions towards the text. Use introducing phrases—I believe (that), In my opinion, I think (that), I feel (that)

Your opinion:

Three reasons /facts to support your opinion.

- Reason 1:
- Reason 2:
- Reason 3:

THE INTRODUCTORY PHASE (CONT.)

Write a paragraph. Use your opinion as the topic sentence. Then use your reasons to write supporting sentences. Remember to use signal words (First of all, Secondly, In addition, Finally).

.....
.....

♣ Review: Use the Revising Checklist to help you check your work.

♣ **Wrap up: Self–Assessment: “What I do when I read the passage.”**

Put a cross (X) in the brackets in front of the statement which is true to you.

Survey: () 1. I have to read quickly to get general understanding.

ฉันอ่านอย่างรวดเร็ว เพื่อทำความเข้าใจกับเนื้อเรื่องโดยรวม

() 2. I have to read intensively for every piece of information.

ฉันอ่านอย่างละเอียด เพื่อเก็บรายละเอียดของเรื่อง

Question: () 1. I have to make some questions. ฉันสร้างคำถามเอง

() 2. My teacher makes questions for me. ครูสร้างคำถามให้ฉัน

Examples of questions ตัวอย่างคำถาม

.....

Read: () 1. I have to read the text myself. ฉันอ่านเรื่องด้วยตัวเอง

() 2. My teacher reads with me. ครูอ่านไปพร้อมกับฉัน

Recite: () 1. I say the questions and answers aloud to myself.

ฉันทบทวนคำถาม/คำตอบ โดยการพูดดัง ๆ กับตัวฉันเอง

() 2. With my partner, I ask and answer the questions.

ฉันผลัดเปลี่ยนกันถาม/ตอบกับเพื่อน

Record: () 1. I answer the questions. ฉันเขียนตอบคำถาม

() 2. My teacher writes some notes on the board.

ครูเขียนข้อความสั้น ๆ บนกระดาน

() 3. I have to take notes about the passage.

ฉันจดบันทึกย่อเกี่ยวกับเรื่องที่อ่าน

() 4. I have to write a summary, using the notes.

ฉันเขียนสรุปความเกี่ยวกับเรื่องที่อ่านจากโน้ตย่อ

React: () 1. I respond to the text by giving opinions. ฉันแสดงความคิดเห็นต่อเรื่องที่

อ่าน พร้อมให้เหตุผล

Review: () 1. I read work to make sure I have got all important points and the

Spelling and punctuation are correct. ฉันอ่านทบทวนงานเขียนของฉัน

เพื่อให้แน่ใจว่าครอบคลุมประเด็นสำคัญ การสะกดคำ และเครื่องหมายวรรคตอน

ถูกต้อง

EXAMPLE OF TRAINING PHASE

C/1. LESSON THREE

1) Reading Text

TRUE STORIES

The morning of 26th December was warm and sunny on Phi Phi Don Island in Thailand. The sunshine was a welcome change from the **wet**, rainy weather in London. After breakfast we went to the beach. My parents decided to sunbathe and I ran straight into the crystal clear water. Nothing could **prepare** me for what **was about** to happen. Suddenly, I heard a loud roar. The water under my feet disappeared. I heard people screaming and **pointing at** the sea. “What’s going on?” I wondered as I turned to see a massive wave coming towards me. “Mark, run!” I heard my mum shout before the huge wave **swallowed** me. I was under the water. I tried to breathe and reach the surface but the force of the water just pushed me down. Then, out of nowhere a hand grabbed me and pulled me up. I gasped for air and looked around. I was in a **palm tree** with a Thai man. I could see people in the distance running in panic. **I felt like** crying but I was too shocked to even do that. The only thing I could do was to sit and watch **unable to move**. The hours **passed** slowly. Suddenly, the Thai man started shouting and pointing to a helicopter. The pilot saw us and came to **rescue** us. Half an hour later we were safe in the hills. There were a lot of people there. I felt lonely and lost. “Mark, you’re safe,” I heard my mum’s voice say. I don’t remember feeling more relieved in my life than at that moment.

Two days later we left the island. We felt lucky to be alive but we were sorry for the locals that lost their homes. It was a terrible **experience**.

TSUNAMI

2) Teaching Plan

Lesson Plan 3

Subject: English 33101: Fundamental English Matthayomsuksa 3
Foreign Language Department, Satri Phatthalong School First Semester
Theme: Nature Topic: Tsunami
Time: 2 hours Teacher: Mrs. Tanomchit Sangcharoon

1. Standard / Performance indicators

Standard 1.1: Understand stories from listening and reading, and apply this understanding logically.

Performance indicators

- 1) Give the main idea and details after listening to, or reading the passage.
- 2) Take notes of the texts from various sources.

Standard 1.3: Present information and express opinions.

Performance indicators

- 1) Summarize texts.
- 2) Express opinions about various events.

2. Learning objectives

By the end of this lesson, the learners will be able to...

2.1 Terminal objective: to present the information after reading the text.

2.2 Enabling objectives

- 1) answer gist questions
- 2) generate questions
- 3) answer detailed questions
- 4) take notes
- 5) summarize the text
- 6) give opinions

3. Content: Tsunami

3.1 Knowledge

- 1) Vocabulary: disappear, massive, swallow, grab, shocked, rescue, experience
- 2) Language structure: Past simple for actions which happened in the past.

3.2 Performance/skills

- 1) Previewing/ Skimming/ Scanning
- 2) Answering comprehension questions
- 3) Summarizing the text
- 4) Giving opinions.

3.3 Attitudes

Positive attitudes towards 1) reading and writing 2) working with pairs and groups.

4. Exercises/ tasks

- 4.1 Comprehension questions
- 4.2 Written work

5. Assessment

- 5.1 Observation
- 5.2 Quiz (Comprehension questions)
- 5.3 Performance task (Written work)

6. Teaching/learning activities

Opening activity / introduction

Activate: 1) Talking about different forms of natural phenomena
2) Introducing the reading texts to the students.

Teaching reading: Stages of input and meaning

Pre-reading activities

1. Survey

1.1 Students read the title and the introduction. Scan the text to locate the words/phrases: nightmares about drowning, water swept me away, river burst its bank, a lamppost, relieved, alive, rain heavily, grabbed, wet and cold

1.2 Students answer gist questions.

- What is the text about?
- Where could you read this text?

1.3 Students compare the answer with peers and some are nominated to report back to class.

2. Question

1) In groups of four, students generate questions which they want the text to answer.

2) Teacher monitors while students questioning.

3) Teacher asks each group for a list of revised questions which are written on a piece of paper.

4) Teacher supplies some more questions.

5) Students exchange questions with other groups.

While-reading activities

3. Read

Students read the text to find the answers to the questions they get.

Post-reading activities

4. Recite

- 1) Individually, students recall the questions and answers to themselves orally.
- 2) With pairs, they take turns to ask and answer..

5. Record

- 1) Students answer the detailed questions.
- 2) Students take notes.
- 3) Complete the sentences with their own words, but they have to keep the same meanings to the text.
- 4) Combine the sentences to make a summary of the text.
- 5) Students write another summary from a Thai man’s experience.

6. React

Students answer the personalized question as a response to the text.

“ How does Mark’s story make you feel?”

7. Review

- 1) Students review their written work by following the revising checklist (from the previous lesson).
- 2) Be readers in their group and decide the most impressive piece of work.

7. Learning materials

- 1) Reading text: True Stories: Tsunami
- 2) Worksheet

8. Teaching assessment (How did the lesson go?)

8.1 How will I know my students are learning?

.....

8.2 What went well and what would I change if I need to teach this lesson again?

.....

Teacher: Mrs. Tanomchit Sangcharoon

Date:/...../ 2009

APPENDIX C

EXAMPLE OF TRAINING PHASE

C/1. Lesson Three

3) Learning Material

A worksheet: TRUE STORIES: TSUNAMI

Reading comprehension and writing

♣ **Survey:** Look at the picture and the title, then read quickly through the text.

What is the passage about?

Where did it happen?

♣ **Question:** Before you read the text, make questions which you expect the

passage to answer.

.....

.....

.....

♣ **Read :** Read the passage to find the answers to your questions.

♣ **Recite:** 1) Say the questions and answers aloud to yourself.

2) Recall the questions and answers with two friends with whom you have not worked before.

♣ **Record:**

1) Answer the questions.

- | | |
|----------------------------------|-------------------------------------|
| a. When did the story happen? | e. What was the place like? |
| b. Where did it happen? | f. What happened to him? |
| c. Where was the narrator from? | g. If you were Mark, say a sentence |
| d. Why did he come to the place? | to the Thai man. |

2) Take notes about the text using the questions words to help you—who, when, where, why, what, how.

<p>.....</p> <p>.....</p> <p>.....</p>
--

3) Read the text again and complete the sentences. Use two to four words.

- a. Mark went with his parents.
- b. The weather there was
- c. Mark couldn't wait towhen they reached the beach.
- d. A hit him.
- e. A Thai man managed to a palm tree.
- f. Hours later, rescued him.
- g. In the hills, Mark found
- h. Mark went back to London. They felt

3) Write a summary by combining the sentences with some connectors.

.....

.....

.....

.....

♣ React: Tell how Mark’s story make you feel. Give at least three reasons why you feel so.

Your feeling:

Reason 1:

Reason 2:

Reason 3:

.....
.....
.....
.....

♣ Review: Revise the written work by referring to the “Revising checklist”.

APPENDIX D
REVISING CHECKLIST

Revising Checklist

Revising

It is almost impossible to write a perfect paragraph on your first try. The first try is called the first draft. You must *read over* your first draft carefully and answer the following questions.

1. Is there a topic sentence?
2. Do all the other sentences support the topic sentence?
3. Are the sentences in logical order?
4. Did you include signal words to help guide the reader from one idea to the other?
5. Is there any other relevant information you want to add to your paragraph?

Proofreading

1. Is the first sentence indented?
2. Are there any spelling or punctuation errors?
3. Are all the sentences complete sentences?

Source:

Blanchard, K. & Root, C. (1994). *Ready to Write: A First Composition Text*. 2nd ed.
New York: Addison-Wesley Publishing Company.

APPENDIX E

CODING SYSEM FOR WRITING FEEDBACK

No.	Symbol	Meaning	Example	Correct Use
1	S	Incorrect spelling เขียนสะกดคำผิด	S S I <u>recieved</u> <u>jour</u> latter.	I received your letter.
2	W.O.	Wrong word order เรียงลำดับคำไม่ถูกต้อง	W.O. We know <u>well</u> this city.	We know this city well.
3	T	Wrong tense ใช้กาลผิด	T If he <u>will come</u> , it will be too late.	If he comes, it will be too late.
4	C	Concord. Subject and verb do not agree. ประธานและกริยาไม่สอดคล้อง	C Two policemen <u>has</u> come.	Two policemen have come.
5	WF	Wrong form ใช้รูปของคำไม่ถูกต้อง	WF That table is <u>our</u> .	That table is ours.
6	S/P	Singular or plural form wrong เอกพจน์/พหูพจน์	We need more <u>informations</u> . S/P	We need more information.
7		Something has been left out มีบางคำขาดหายไป	He hit me on <u> </u> shoulder.	He hit me on my shoulder.
8	[]	Something is not necessary มีคำที่ไม่จำเป็นต้องใช้	[] It was too much difficult.	It was too difficult.
9	?M	Meaning is not clear. ความหมายไม่ชัดเจน	?M Come and <u>rest</u> with us for a week.	Come and stay with us for a week.
10	NA	The usage is not appropriate การใช้คำไม่ถูกต้อง	NA He <u>requested</u> me to sit down.	He asked me to sit down.
11	P	Punctuation wrong เครื่องหมายวรรคตอนไม่ถูกต้อง	P P Whats <u>your name</u>	What's your name?
12	WW	Wrong Word ใช้คำผิด	WW I <u>lent</u> some money from my sister.	I borrowed some money from my sister.

Adapted from:
Nation, I.S.P. (1983). Language Teaching Techniques. Wellington:
Victoria University of Wellington.

APPENDIX F

A CHECKLIST OF COMMON ERRORS

Name No. Class M. 3/10

Problems	No. of paper									
	1	2	3	4	5	6	7	8	9	10
1. Incorrect spelling (S: เขียนสะกดคำผิด)										
2. Wrong word order (w.o: เรียงลำดับคำไม่ถูกต้อง)										
3. Wrong tense (T: ใช้กาลผิด)										
4. Subject and verb do not agree (C: ประธาน/กริยาไม่สอดคล้อง)										
5. Wrong form (WF: ใช้รูปของคำไม่ถูกต้อง)										
6. Singular/plural form wrong (S/P: เอกพจน์/พหูพจน์)										
7. Something has been left out (มีคำขาดหายไป)										
8. Something is not necessary ([] มีคำที่ไม่จำเป็น)										
9. Meaning is not clear (?M: ความหมายไม่ชัดเจน)										
10. The usage is not appropriate (NA: ใช้คำไม่ถูกต้อง)										
11. Punctuation wrong (P: เครื่องหมายวรรคตอนไม่ถูกต้อง)										
12. Wrong word (WW: ใช้คำผิด)										

Source:

Keh, C.L. (1989). Feedback at the Product Stage of Writing: Comments and Corrections. *GUIDELINES*, 11 (2), 18-23.

APPENDIX G
QUESTIONNAIRE

แบบสอบถามความพึงพอใจของนักเรียนต่อวิธีการสอนเพื่อพัฒนาทักษะการอ่านและการเขียน
ด้วยเทคนิค เอส คิว ไฟว์ อาร์

คำชี้แจง โปรดกาเครื่องหมาย ลงในช่องว่างที่ตรงกับความเป็นจริง

5 = พึงพอใจมากที่สุด 4 = พึงพอใจมาก 3 = พึงพอใจปานกลาง 2 = พึงพอใจน้อย 1 = พึงพอใจน้อยที่สุด

ข้อความ	ระดับความพึงพอใจ				
	5	4	3	2	1
ด้านเนื้อหา					
1. เนื้อหาบทอ่านน่าสนใจ					
2. ระดับภาษาของบทอ่านเหมาะสมกับความสามารถทางของ ข้าพเจ้า					
3. เนื้อหาของบทอ่านทำให้เพลิดเพลินในการอ่าน					
4. เนื้อหาของบทอ่านมีประโยชน์ในชีวิตประจำวัน					
ด้านกิจกรรมการเรียนการสอน					
5. คำอธิบายแผนการทำกิจกรรมชัดเจน					
6. ระยะเวลาในการทำกิจกรรมมีความเหมาะสม					
ขั้นตอนการเรียน/การสอน					
ก. ขั้นก่อนอ่าน (S & Q)					
7. กิจกรรมก่อนการอ่านกระตุ้นให้ข้าพเจ้าอยากทำกิจกรรมอื่น ๆ ต่อไป					
8. กิจกรรมก่อนอ่านช่วยให้ข้าพเจ้าสามารถเชื่อมโยงความรู้ที่มีอยู่ กับเนื้อหาที่จะอ่าน					
ข. ขั้นระหว่างการอ่าน (R ₁)					
9. กิจกรรมระหว่างอ่านช่วยให้ข้าพเจ้าเข้าใจเนื้อหาบทอ่าน					
10. กิจกรรมระหว่างอ่านช่วยให้ข้าพเจ้าเข้าใจวิธีอ่านเชิงวิเคราะห์					

ข้อความ	ระดับความพึงพอใจ				
	5	4	3	2	1
ค. ชั้นหลังการอ่าน (R_2, R_3, R_4, R_5)					
11. กิจกรรมหลังการอ่านทำให้ข้าพเจ้าถ่ายโอนข้อมูลที่อ่านเป็นรูปแบบอื่น ๆ ได้					
12. กิจกรรมหลังการอ่านทำให้ข้าพเจ้าแสดงความคิดเห็นได้					
13. กิจกรรมหลังการอ่านทำให้ข้าพเจ้าเข้าใจกระบวนการเขียน					
ด้านการประเมินผล					
14. การประเมินผลเหมาะสมและสอดคล้องกับสิ่งที่เรียน					
15. ผลการประเมินทำให้ข้าพเจ้าประเมินตนเองได้					
16. ผลการประเมินทำให้ข้าพเจ้าแก้ไข ปรับปรุงงาน ด้วยตนเองได้					
ด้านการทำงานกลุ่ม					
17. ข้าพเจ้ามีส่วนร่วมในการทำกิจกรรมกลุ่ม					
18. ข้าพเจ้ามีปฏิสัมพันธ์ที่ดีต่อเพื่อนในกลุ่ม					
19. ข้าพเจ้าได้รับประโยชน์จากการทำงานกลุ่ม					
20. ข้าพเจ้าได้เพิ่มพูนทักษะการอ่านและการเขียน จากการทำกิจกรรมกลุ่ม					

VITAE

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Presentation of the Study

The 2nd International Conference on Humanities and Social Sciences, held at the Faculty of Liberal Arts, PSU, Hat Yai, Songkhla, Thailand, on April 10, 2010.