



**The Use of Reciprocal Teaching Strategy to Develop English
Reading Comprehension and Critical Thinking Skills of
Mattayomsuksa 2 Students**

Apisara Kaewsuan

**A Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Teaching English
as an International Language
Prince of Songkla University
2023**

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I hereby certify that this work has not been accepted in substance for any degree,
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ชื่อวิทยานิพนธ์	การใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทเพื่อพัฒนาความเข้าใจในการอ่านและการคิดอย่างมีวิจารณญาณสำหรับนักเรียนชั้นมัธยมศึกษาปีที่ 2
ผู้เขียน	นางสาวอภิสร่า แก้วสวน
สาขาวิชา	การสอนภาษาอังกฤษเป็นภาษานานาชาติ
ปีการศึกษา	2565

บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อเพิ่มความเข้าใจในการอ่านภาษาอังกฤษ การคิดอย่างมีวิจารณญาณ การตระหนักรู้อภิปัญญาของตนเอง และเพื่อสำรวจความคิดเห็นของนักเรียนหลังการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาท ผู้เข้าร่วมเป็นนักเรียนชั้นมัธยมศึกษาตอนต้นที่มีระดับความสามารถทางภาษาอังกฤษใกล้เคียงกัน จำนวน 40 คน ซึ่งได้รับการฝึกฝนให้อ่านข้อความภาษาอังกฤษโดยใช้วิธีการสอนแบบแลกเปลี่ยนบทบาท เครื่องมือในการศึกษาประกอบด้วยสื่อการสอนแบบแลกเปลี่ยนบทบาท แบบทดสอบการอ่าน แบบสอบถามกลวิธีในการอ่าน แบบสอบถามความคิดเห็น แบบสัมภาษณ์ และบันทึกการสังเกตของครู วิเคราะห์ข้อมูลทั้งเชิงปริมาณและคุณภาพ ผลการวิจัย พบว่า หลังจากใช้วิธีการสอนแบบแลกเปลี่ยนบทบาท นักเรียนมีความสามารถในการอ่านภาษาอังกฤษและการคิดอย่างมีวิจารณญาณสูงขึ้นอย่างมีนัยสำคัญทางสถิติที่ 0.01 อีกทั้ง นักเรียนมีการตระหนักรู้อภิปัญญาของตนเองเพิ่มขึ้น นอกจากนี้ยังพบว่า นักเรียนส่วนใหญ่รู้สึกพอใจกับการประยุกต์ใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทในการอ่านภาษาอังกฤษ ผลการวิจัยชี้ให้เห็นว่า วิธีการสอนแบบแลกเปลี่ยนบทบาทอาจเป็นเทคนิคที่น่าสนใจในชั้นเรียนการอ่านซึ่งช่วยกระตุ้นการคิด การตระหนักรู้อภิปัญญา รวมทั้งเพิ่มแรงจูงใจของนักเรียนในการพัฒนาความสามารถในการอ่านภาษาอังกฤษและสร้างทัศนคติเชิงบวกมากขึ้นเมื่ออ่านเรื่องภาษาอังกฤษ

คำสำคัญ: ความเข้าใจในการอ่าน, การคิดอย่างมีวิจารณญาณ, วิธีการสอนแบบแลกเปลี่ยนบทบาท, ความคิดเห็น, การตระหนักรู้อภิปัญญา

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ABSTRACT

This study aimed to enhance English reading comprehension, critical thinking skills, and metacognitive awareness, and to investigate students' opinions after the use of Reciprocal Teaching Strategy (RTS). The participants were 40 junior high school students who had similar English language competence levels, and trained to read English texts using RTS. The research instruments included RTS teaching materials, reading tests, survey questionnaires, opinions questionnaires, interviews, and teacher logs. Both quantitative and qualitative analysis of the data was conducted. The results revealed that after utilizing RTS, students had higher scores in English reading comprehension and critical thinking indicated at the 0.01 significant level. Their metacognitive awareness also increased. Furthermore, most students were satisfied with the application of RTS in English reading. The findings suggest that RTS can be an engaging technique in a reading class which can stimulate critical thinking and metacognitive awareness and increase students' motivation to improve their English reading abilities and generate more positive attitudes when reading English texts.

Keywords: Reading comprehension, Critical Thinking, Reciprocal Teaching Strategy, Opinions, Metacognitive awareness

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

In Thailand, English is taught as a foreign language and learning English is essential in daily life. Ministry of Education (2008) states that English becomes an important tool for various purposes such as communication, higher education, seeking knowledge, employment, and intercultural understanding. For education, learners need to develop four skills of English: listening, speaking, reading, and writing to communicate effectively. Among these skills, reading is considered one of the most important skills in many aspects of life such as reading messages, textbooks, newspapers, notes, advertisements, warning signs, and other writings. Most importantly, it is emphasized by the Office of the Education Council (2017) that reading skills have become an important learning skill of the 21st century as it is a device to promote learners' lifelong learning. It is one of the major skills for learners to access a great amount of information regarding various subjects.

The Basic Educational Core Curriculum B.E. 2551 (Ministry of Education, 2008), proposed by Ministry of Education, emphasizes the importance of foreign language learning through four main aspects, including language for communication, language and culture, language and relationship with other learning areas, and language and relationship with the community and the world. For reading skills, as stated in the curriculum objectives, Thai students will be able to identify topics, main ideas, and supporting details; summarize important information; and express opinions about what they have read from various types of media. Moreover, Thai national policy in education requires students to have critical thinking abilities. That is, Thai students are able to reason, criticize, solve problems, and apply these skills in real life. The importance of critical thinking is also stressed in the National Education Act (2002, p. 28) which states:

"In organizing the learning process, provide activities that allow students to draw from real experience, drill in practical tasks, think critically, and instill reading habits and a constant thirst for knowledge."

To help students to achieve the expected goals, textbooks must serve the objectives stated in the curriculum. They need to be designed, evaluated and enhanced systematically according to learners' needs. From the researcher's teaching experience, coursebook "x" has been used for junior high school students for two years in the researcher's school. Most reading exercises in the coursebook do not provide various kinds of questions to enhance enough reading comprehension and critical thinking skills.

However, students' reading comprehension and critical thinking do not come only from the coursebook but also from helpful teaching methods. Previous studies have indicated that Thai students' English reading proficiency has not reached a satisfactory level. One of the important causes was the teaching method. That is, many teachers teach reading by translating texts for students (Sawangsamutchai, 2016). Consequently, students do not get a chance for reading and thinking on their own. They cannot read to summarize and identify main ideas independently because teachers may not appropriately help them. Tamrackitkun (2010) maintained that some English teachers do not know the process of teaching reading. Therefore, students are not trained to develop their reading ability appropriately.

To encourage students to read effectively, teachers need to find useful strategies to help them develop reading comprehension and critical reading. Palincsar and Brown (1985) proposed that Reciprocal Teaching Strategy (RTS) is an interesting strategy for reading activities. RTS is a method for teaching reading that emphasizes metacognitive awareness. It aims to enhance readers' reading comprehension and to encourage autonomous reading (Palincsar and Brown, 1985). According to Brown & Palincsar (1984), RTS is a procedure in which teachers and students take turns leading a dialogue concerning reading English texts. Reciprocal Teaching Strategy includes four steps: predicting, questioning, clarifying, and summarizing. Predicting is a pre-reading activity that allows students to use titles, headings, and pictures from the text to predict

the content of the text before reading. Then, students read the text silently. After finishing the text, students engage in post-reading activities consisting of questioning, clarifying, and summarizing. Questioning is to ask and answer questions related to the text comprehension. Clarifying is to clarify the unclear or difficult parts of the text. Finally, summarizing is to summarize the main ideas or important information from the text. This strategy also provides higher-order thinking (Meyer, 2010) because it encourages students to think about their thought processes during reading. Importantly, it encourages students to participate actively and keep track of their comprehension during the reading process. Students' questioning and answering during reading will help them develop critical thinking ability because students engage in collaborative discussions, sharing opinions, and interpretations. These interactions foster critical thinking. RTS offers teachers and students opportunities to start the process of thinking and breaking down their reading. This process has proved useful for students (Lestari, 2016).

As discussed above, the reading materials and the teaching methods reveal some gaps which may lead to unsatisfactory English reading proficiency and thinking skills that are required in curriculum objectives. This study aimed to supplement the reading materials by adopting Bloom's taxonomy of cognitive levels (Bloom, 1964); that is, knowledge, comprehension, application, analysis, synthesis, and evaluation to develop students' English reading comprehension and critical thinking skills. RTS was used as the teaching method to develop reading comprehension and critical reading skills. Moreover, this study could shed light on about students' use of metacognitive strategies. The findings, therefore, could be taken as a guideline to develop reading activities which can enhance students' reading and critical thinking ability.

1.2 Purposes of the Study

The purposes of the study were to develop English reading comprehension and critical thinking skills based on Bloom's Taxonomy with Reciprocal Teaching Strategy (RTS). The aims were to find out whether RTS can increase students' comprehension level, including metacognitive strategy and critical thinking skills when reading in English, and examine students' opinions about the use of RTS in the reading class.

1.3 Research Questions

1. To what extent can RTS develop English reading comprehension and critical thinking skills?
2. To what extent can RTS increase the students' metacognitive strategy when reading in English?
3. What are students' opinions towards the use of RTS in reading class?

1.4 Significance of the Study

This study sought to find out the effectiveness of Reciprocal Teaching Strategy when it was used to develop English reading comprehension and critical thinking skills and to study the students' attitudes towards RTS. It is expected to seek a promising teaching method to aid Thai students in developing their reading comprehension and critical reading, including the awareness of students' metacognitive strategy when reading in English. The findings of this study could provide useful information for English language teachers to apply RTS in classes to improve students' reading comprehension and critical reading. It is also hoped that students can transfer the strategies in self-learning to comprehend various kinds of reading at a more satisfactory level and these could be further used for their life-long learning.

1.5 Definition of Key Terms

The key terms used in this study are defined as follows:

Reciprocal Teaching Strategy (RTS) comprises (a) the teacher guides the students to practice the use of four key strategies; predicting, questioning, clarifying, and summarizing; (b) the teacher, acting as an expert, models the whole process of RTS to get students familiar with the use of RTS in the reading process; (c) the students, supported by expert peers, read in cooperative groups as the teacher decreases support for the learners to develop independent reading competence. (Adunyarittigun & Grant, 2005)

English reading comprehension refers to the ability to find the main idea, supporting details, and important information, all of which correspond with the two levels of reading comprehension based on Bloom's Taxonomy of cognitive levels: knowledge and comprehension.

Critical thinking skills refer to critically thinking about a set of facts or other information to make an informed decision which requires the thinker to go through the four higher levels of cognitive thinking based on Bloom's Taxonomy of cognitive levels: application, analysis, synthesis, and evaluation (Bloom, 1964).

CHAPTER 2

LITERATURE REVIEW

This part provides a review of relevant literature and studies. It contains seven sections: the Basic Education Core Curriculum, National Education Act of B.E. 2542(1999), Reading Comprehension, Bloom's Taxonomy of Cognitive Levels, Metacognition, Reciprocal Teaching Strategy, and Related Studies.

2.1 The Basic Education Core Curriculum:

What is learned in foreign languages?

The Basic Educational Core Curriculum B.E. 2551 states the learning area for learning foreign languages (Ministry of Education, 2008). It aims to encourage students to improve foreign languages in different situations such as seeking knowledge, pursuing further education, and learning cultural diversity of the world including conveying Thai concepts and culture to the global society. It also aims to develop students' positive attitudes toward foreign languages. The main contents include:

- Language for Communication is the use of foreign languages to communicate, share data and information, express opinions, interpret and present information, and develop interpersonal relationships.

(P.252)

- Language and Culture is the use of foreign languages in harmony with native speakers' culture, relationships, similarities and differences between languages and cultures, and Thai culture.

(P.253)

- Language and Relationships with Other Learning Areas is the use of foreign languages to connect knowledge with other learning areas. This gives students a foundation for further development and a broader perspectives of the world.

(P.253)

- Language and relationship with Community and the World is the use of foreign languages for education, livelihood, and exchange of learning with the global society, providing a basic tool for further education, livelihood, and exchange of learning with the global society.

(P.253)

As stated in the objectives above, learning a foreign language is crucial for students to be able to communicate in different situations and to access current knowledge. Accordingly, learners' quality is defined for teachers to use as a guideline to prepare courses and to provide learning management to qualify learners. The descriptions are as follows.

Learners' Quality

Grade 9 graduates

- Follow requests, instructions, clarifications, and explanations, read aloud accurately, specify/write non-text information, choose and explain topics, main ideas, supporting details, and opinions, and give reasons and examples for illustration.

(P.255)

- Use proper requests, clarifications, and explanations to get and give information, show needs, offer and provide assistance, accept and refuse help, ask for and give information, describe feelings and opinions, and provide appropriate justifications.

(P.256)

- Use foreign languages to conduct research, collect and draw conclusions from various data sources, and disseminate information to the public.

(P.257)

Related to the expected learners' quality, educational institutions are to follow statements in National Education Act of BE 2542 (Office of the National Education Commission, 2002). The details are described in the next section.

2.2 National Education Act of B.E. 2542 (1999)

Section 24 indicates how to organize the learning process for educational institutions and other relevant organizations as follows.

(1) Design the subject matter and activities for learners based on their interests and capacities by considering individual differences.

(2) Provide lessons to improve students' thinking process, cope with various situations, and apply what they've learned to avoid and solve problems.

(3) Organize authentic learning experiences; practice to master; enable learners to think critically and acquire the reading habit and continuous thirst for knowledge

(4) Integrate subject matter, integrity, values, and desired qualities in all subjects

(5) Create an environment, instructional media, and facilities for learners to learn and benefit from research, allowing both learners and teachers to learn from various sources.

(6) Foster lifelong learning and collaborate with parents, guardians, and all parties in the community to develop learners based on their potential.

As stated above, learners' quality initially depends largely on how they read and think. Therefore, cognitive and metacognitive strategies play an important role to predict their reading success. The following sections review the strategies and the involved teaching methods.

2.3 Reading comprehension

Reading comprehension is a process that readers use both cognitive and metacognitive strategies to comprehend a text (Dole et al., 1991). Summarizing, making predictions, using previous knowledge, taking notes, and guessing meaning from the context are all examples of direct cognitive strategies involving the target language (Oxford, 1990). Metacognitive strategies allow readers to shape their reading or think about thinking. In other words, readers can use these strategies to suit their reading goals. Metacognitive strategies include planning, assessment, and regulation. These include figuring out the reading task, checking predictions, concentrating on vital

details, ignoring unimportant new words, re-reading relevant information when lacking understanding, and checking the understanding of the whole reading (Oxford, 1990).

Metacognitive strategy training enhances reading comprehension (Duffy, 2002; Palincsar & Brown, 1985). It helps students plan, regulate, organize, and evaluate their reading. Metacognitive strategies help students become independent readers. Students need to be developed metacognitive strategies to comprehend texts in reading classes.

Reciprocal Teaching Strategy is suggested as a reading instruction strategy that aids students in developing their reading comprehension and becoming independent readers by Palincsar and Brown (1985), Cotterall (1990), and Allen (2003). Students can construct their knowledge and create their own rules as they read after teachers guide them about proper strategies and explain when and how to apply them in reading activities. Finally, students can apply these reading strategies in reading groups or reading alone to comprehend the texts.

Thus, to enhance students' reading ability, Reciprocal Teaching Strategy (RTS) can be a helpful teaching technique to promote students' engagement with English reading texts. To comprehend the reading texts, students participate in reading activities by asking and answering questions that are generated based on Bloom's Taxonomy framework consisting of 6 cognitive levels ranging from lower-order thinking skills to higher-order thinking skills. Moreover, metacognitive awareness complements both RTS and Bloom's taxonomy by helping students become more aware of their thinking processes, monitor their comprehension, and regulate their learning strategies. It can be said that the use of metacognitive strategies within reciprocal teaching and Bloom's taxonomy can enhance students' reading comprehension. Ultimately, these elements work collaboratively to promote deeper understanding, critical thinking, and independent learning in the context of reading comprehension. The details of those elements are presented in the following sections.

2.4 Bloom's Taxonomy of cognitive levels

Bloom's Taxonomy (Bloom, 1964) helps teachers focus on higher-order thinking. This taxonomy can be a useful framework to help teachers design lessons, make questions, and give feedback on students' work.

This resource is divided into different levels with keywords that exemplify the level of questions that focus on different thinking levels. These questions can be used to develop all levels of thinking within the cognitive domain, increasing comprehension, attention to detail, and problem-solving abilities. There are six levels.

Blooms Level I: Knowledge

Indicate that you remember what you've already learned by recalling basic facts, words, basic ideas, and answers about the selection.

Blooms Level II: Comprehension

Organize, compare, translate, interpret, describe, and state main ideas to demonstrate understanding.

Blooms Level III: Application

Apply the facts, methods, and knowledge you've learned in new or different ways to solve problems.

Blooms Level IV: Analysis

Analyze and examine data by identifying causes or motivations. Find evidence to back up your assumptions and draw your own conclusions.

Blooms Level V: Synthesis

Compile information or ideas together in a different way to create a new element in a new way.

Blooms Level VI: Evaluation

Make judgments about information, the validity of ideas, or the quality of work based on a set of criteria to present and defend beliefs.

Examples of questions within the framework of the taxonomy

Here are some examples from Dalton and Smith (1986):

Cognitive levels	Sample questions
1. Knowledge	<ul style="list-style-type: none"> · What happened after...? · How many...? · What is...? · Who...?
2. Comprehension	<ul style="list-style-type: none"> · Can you write in your own words...? · Why did he/she...? · What was the main idea? · What does the word “...” mean? · Who was the key character?
3. Application	<ul style="list-style-type: none"> · Could this happen in...? · In what way could you apply ...? · Can you give an example from your experience? · What questions would you ask of...? · What would you do if you were ...?
4. Analysis	<ul style="list-style-type: none"> · Which events could have happened...? · What might have been the ending? · How was this similar to...? · What might have been the problems? · What was the turning point ...? · Can you compare your ... with that presented in...?
5. Synthesis	<ul style="list-style-type: none"> · Can you design a ... to ...? · Can you see a possible solution to...? · If you ..., how would you deal with...? · What would happen if...? · How many ways can you...?
6. Evaluation	<ul style="list-style-type: none"> · Is there a better solution ...? · Do you think ... is a good or a bad thing? · Do you believe ...? · Are you a ... person? · How would you feel if...? · What do you think about...?

To reach the expected reading goals, knowing one's thoughts or metacognition relates to the ability to apply reading strategies to solve problems when readers face difficulties in reading the text. Metacognition facilitates improvement of the readers' reading ability. The details are explained as follows.

2.5 Metacognition

Metacognition is a concept first proposed by Flavell (1979) in information processing studies. It involves both knowledge and experience and is divided into three types: person variables, task variables, and strategy variables. The person variables are the individual's knowledge and opinions about themselves and beliefs about others' thinking processes. Task variables include all information about a proposed task, while strategy variables include cognitive and metacognitive techniques and conditional information about where and when to utilize them. Metacognitive experiences refer to a person's subjective internal responses to metacognitive knowledge, tasks, or strategies.

Livingston (1997) described metacognitive experiences as monitoring phenomena that can control cognitive processes and ensure the achievement of cognitive goals. These procedures involve planning, monitoring, and evaluating cognitive activity. If a cognitive purpose is to comprehend the text, one may doubt its key ideas and decide to reread it to answer the questions. This shows metacognitive experiences in which one regulates and manages their learning through self-questioning, a common metacognitive comprehension monitoring method that ensures comprehension.

Metacognition and reading comprehension

Di Vesta, Hayward, & Orlando (1979) claimed that metacognition plays a crucial role in reading comprehension. It was found that less proficient readers concentrate on word-by-word reading rather than reading for meaning. Harris et al. (1988) emphasized that less proficient readers typically finish paragraphs without comprehension and face difficulties to adjust their reading speed to suit the reading task (Smith, 1967). Less proficient readers rarely use different strategies to help improve reading comprehension (Garner, 1980). Langer (1982) concluded that less proficient readers lack the metacognitive skills to apply in reading to comprehend the text. Good readers automatically employ metacognitive strategies to focus their attention, generate meaning, and make adjustments when something is confused (Pressley 1987). Harris et al. (1988) reported that readers who have higher metacognitive skills can check for confusion, and undertake a corrective strategy, such as rereading, linking different parts of the passage to one another, and looking for topic sentences or summary paragraphs.

Pressley (1987) concluded that learners with good metacognition are able to effectively monitor and direct their learning processes.

Metacognitive strategies for EFL learners

Learners having metacognitive can control their behavior. They can manage their actions by being conscious of their thoughts while executing a task. Anderson (2002) states that understanding and managing cognitive processes is one of the most important abilities teachers can provide. EFL classrooms should employ metacognitive skills to help students plan, control, and assess their learning. These practices can lead to more effective learning and help less proficient students learn and perform better.

Preparing and planning for learning. Students must plan and control their learning more to become self-directed. Students must organize their learning. Teachers assist pupils set objectives and plans. Students can think about what they need to do and how to do it by preparing and planning for a learning goal. However, teachers must have pupils state learning goals. Goals help students track progress.

Selecting and using learning strategies. Students must think and choose suitable learning strategies for solving learning tasks in an EFL reading lesson. Context clues and prefix/suffix analysis can help students predict word unknown meanings, but teachers should inform students that no single method will work at all times. They must know how to choose a suitable strategy for the given reading tasks.

Monitoring strategy use. After applying the selected strategies, students should assess the effectiveness of those strategies.

Evaluating one's learning. Teachers can assist students in actively engaging in metacognition by encouraging them to assess the effectiveness of their learning. Anderson (2002, p. 3) proposed that teachers ask students to critically respond to the following questions in order to evaluate the outcome of their learning: (1) What am I attempting to accomplish? (2) Which strategies am I employing? (3) How well am I applying them? (4) What is the result? (5) Is there anything else I could do? Students can reflect on their learning processes by responding to these questions, such as preparing and planning, selecting and using specific strategies, monitoring strategy use, and evaluating their learning.

The next section will focus on the reading approach called Reciprocal Teaching Strategy which promotes reading comprehension and metacognitive awareness. The details are shown as follows.

2.6 Reciprocal Teaching Strategy

According to Palincsar and Brown (1985), the goal of reciprocal teaching is to improve readers' ability to construct meaning from texts and to enable monitoring of their comprehension. It is based on a sociocultural approach, which involves modeling, explaining, and guiding readers as they learn in a supportive context. According to Dole et al. (1991), the four strategies of predicting, questioning, clarifying, and summarizing encourage and improve reading comprehension. Reciprocal teaching is a sociocultural approach that involves modeling, explaining, and guiding readers as they learn in a supportive context. According to Dole et al. (1991), the four strategies of predicting, questioning, clarifying, and summarizing encourage and improve reading comprehension. According to Baker and Brown (1984) and Palincsar and Brown (1985), these strategies are regarded as metacognitive strategies and are applied when there is a problem in reading a text. Readers who have been taught reading through reciprocal teaching become more aware of their reading and thinking processes, creating efficient reading strategies, keeping track of their thinking processes, and assessing their reading strategy, problem-solving abilities, and comprehension. Reciprocal teaching develops metacognitive awareness of reading's active character, task demands, and self-regulation to improve reading comprehension.

To summarize, reciprocal teaching is an approach that provides reading strategies to develop metacognitive awareness. Its purpose is to help readers improve their reading comprehension and become independent readers. It includes three components: scaffolding and direct instruction, the practice of the four strategies, and social interaction influenced by Vygotsky's developmental theory.

To understand the background of reciprocal teaching, its theoretical framework will now be presented.

Reciprocal Teaching and its Theoretical Framework

Ann Brown and Annemarie Palincsar developed reciprocal teaching in the 1980s. It covers reading strategies including predicting, questioning, clarifying, and summarizing. Reciprocal teaching improves reading comprehension, self-regulation, and monitoring skills (Allen, 2003; Borkowski et al., 1990). The zone of proximal development, proleptic teaching, and expert scaffolding are the frameworks of sociocultural theories (Brown & Palincsar, 1985).

The zone of proximal development (ZPD) is the potential capacity of a learner to gain knowledge with the assistance of a more capable partner. Vygotsky (1978) stated that all students have two levels of cognitive development: (1) actual development involved the thinking level to solve problems by themselves and (2) potential development involved the thinking level to need help from others. Learners can progress from their current development level to their potential level through explicit scaffolding and social interaction. (Rosenshine & Meister, 1994).

The second concept that makes up the theory behind reciprocal teaching is called "proleptic teaching." According to Palincsar and Brown (1984), proleptic teaching describes how a teacher trains students until they feel ready to do the work independently. Rogoff & Garner (1984) found that the teacher's role decreases and students take over problem-solving by themselves when the teacher demonstrates and explains how to solve a problem.

The final concept is known as expert scaffolding. According to Rosenshine & Meister (1994), the expert acts as a mentor, influencing students attempts at learning and providing support until they no longer need it. In a study by Palincsar and Brown (1985), scaffolding techniques include reducing tasks to make them feasible, motivating students, pointing out important details, demonstrating solutions to problems, and explaining them to the students. Greenfield (1984) said that scaffolding teaching adapts to students' current learning levels and provides additional assistance and feedback as necessary. When students do not need much assistance, the teacher takes on the role of a facilitator. Scaffolding encourages reading independence.

According to Adunyarittigun and Grant (2005), these approaches provided the background theories to reciprocal teaching which, thus, includes (a) the teacher guiding

students into the right use of the four key strategies and giving them a chance to practice them; (b) the teacher acting as an expert models the whole process of the reciprocal teaching approach for the students' benefit; (c) students, supported by expert peers, work in cooperative groups as the teacher decreases support for learners to develop independent reading competence.

To further elaborate, the reciprocal teaching approach concentrates on four key reading strategies: predicting, generating questions, clarifying, and summarizing. Each strategy helps students understand a reading text and can be employed independently or together depending on the situation, problem, or reading goal. Predicting, questioning, clarifying, and summarizing were identified as four strategies utilized in reciprocal teaching by King and Johnson (1999). Predicting involves applying prior knowledge and guessing on what will happen next in the text. While reading, students can check previous predictions whether it is correct. Questioning helps students to discuss main ideas and remember important information while clarifying involves using metacognitive processes to monitor their own comprehension. Finally, they defined summarizing as the strategy that identified whether students understood the text.

In this current study, the researcher employed the framework as stated by Adunyarittigun & Grant (2005). Reciprocal Teaching Strategy starts with the teacher's demonstration of the proper use of the four strategies and gives the students a chance to practice them. Then, the teacher serves as an expert to apply the use of Reciprocal Teaching strategy in students' reading tasks and the students collaborate in groups with the assistance of peers in groups. The teacher decreases help to encourage students' independent reading competence.

2.7 Related studies

Several research studies were conducted related to reading comprehension and reciprocal instruction. A brief review can be shown as follows.

Konpan (2006) compared Mathayomsuksa 4 students' reading comprehension through instruction based on reciprocal teaching technique and communicative language teaching technique. The samples were Mathayomsuksa 4 students from two classrooms in the second semester of the 2005 academic year at Thepleela School, Bangkok. They were selected via the simple random sampling technique and divided

into two experimental groups, with 30 students in each group. The reciprocal teaching technique was applied with the first experimental group and the communicative language teaching technique was employed with the second group. The instruments were ten lesson plans of instruction based on the reciprocal teaching technique, ten lesson plans based on the communicative language teaching technique, an English reading comprehension test, a student's self-assessment form and a teacher's observation form. The results revealed that students' English reading comprehension of the reciprocal teaching technique taught group was higher than the communicative language teaching technique taught group significantly different at the .05 level.

Navaie (2018) investigated the effectiveness of the Reciprocal Teaching Procedure (RTP) on the reading comprehension of intermediate Iranian EFL learners. Two intact groups, the control and experimental, were chosen non-randomly. Before treatment, there was no significant difference between the control and experimental groups by independent t-test. Both groups were read 15 sessions of reading and the experimental group received treatment. The results showed that reciprocal teaching can improve reading comprehension of Iranian EFL learners.

Pilten (2016) investigated the effects of reciprocal teaching in comprehending expository texts. The research was designed with mixed method. The quantitative dimension was designed by the pre-test-post-test control group - experiment group model. The qualitative dimension was designed by descriptive case study. The subjects consisted of 54 students of a primary school in the Konya province, Turkey in 2014-2015. Both groups were pre- and post-tested using the Reading Comprehension Evaluation Scale. Interview forms were used to collect qualitative data. After 11 weeks, experiment group students had better expository text comprehension than control group students at a statistically significant level.

Rattanapong (2014) evaluated the effectiveness of the reading comprehension instructional model by comparing reading abilities before and after learning by using reciprocal teaching and semantic mapping strategies and studying the satisfaction of students toward learning by using the reading comprehension instructional model through reciprocal teaching and semantic mapping strategies of the 30 first-year students of business English at Suratthani Rajabhat University during the first semester

of 2014 academic year. The results were that after using the reading comprehension instructional model, students' reading comprehension was higher than before receiving the instruction at a .05 significant level and students had satisfaction towards learning activities of the model at a high level.

Sari (2021) investigated how reciprocal teaching affected reading comprehension. The investigation was experimental. The population was 64 students enrolled in the English Department, Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera (Utara FKIP UMSU) in Semester II of the 2019- 2020 academic year. They were divided into one experimental group and one control group, each consisting of 32 students. Reciprocal teaching was applied with the experimental group whereas traditional teaching was employed in the control group. The research instrument was a multiple-choice reading test. It was found that the experimental group scored better than the control group indicating that reciprocal teaching could be a better technique than conventional teaching method.

Tseng, S. S., & Yeh, H. C. (2018) employed reciprocal teaching (RT) to improve reading comprehension. This study examined how RT methods and an annotation tool improved online English reading comprehension for low-achieving students. There were 22 EFL students with poor proficiency in this study. After using RT strategies with annotation tools, students' English reading comprehension increased. The best strategies for students' collaborative reading were questioning and predicting. They found questioning and predicting most effective, but these low-achieving EFL students still struggled with summarizing and clarifying. An interactive environment, the organizing and indexing of reading content in multimodal forms, and the assistance provided to students in reviewing and improving understanding are all ways that annotations assisted RT methods. Based on the previous studies, it can be seen that reciprocal teaching yielded positive results for reading comprehension in many contexts of study. However, the investigation of reciprocal instruction concerning critical thinking and metacognitive awareness was minimal. Thus, this study attempted to explore this aspect to further reveal the more profound results.

CHAPTER 3

Methodology

The purpose of this study was to develop students' English reading comprehension and critical thinking skills with Reciprocal Teaching Strategy (RTS). It sought to find out whether RTS increase students' reading comprehension ability, critical thinking skills and metacognitive awareness when reading in English. It also examined students' opinions about the use of RTS in reading class. This section describes the design and procedures of the study as follows: participants, instruments, experiment, data collection, and data analysis.

3.1 Participants

The participants of the study consisted of 40 Mattayomsuksa 2 students at a public school in Huaiyot district, Trang province, Thailand. They were in intact class based on the similar level of their English proficiency. In this study, they were divided into 10 groups each consisting of 4 students.

3.2 Instruments

The research instruments used to collect data for this study included 1) RTS teaching materials, 2) reading tests, 3) questionnaires, 4) interview, and 5) teacher's logs.

3.2.1 RTS teaching materials

The reading materials were adapted from a coursebook prescribed by the Ministry of Education to be used with Mattayomsuksa 2 students in a public school, Trang, Thailand. The researcher selected 12 passages from the coursebook and adapted or supplemented them with the exercises and practice to suit the purpose of this study. The lesson plans were also written to include Reciprocal Teaching Strategy. These were the topics of the 12 reading passages:

Reading A Life in 2100 (For the 1st RTS training)

Reading B Life-savers! (For the 2nd RTS training)

Reading 1-10 (For RTS practice)

Reading 1 What's your best friend like?

Reading 2 Email of the week

Reading 3 Penpal exchange

Reading 4 Animals at risk

Reading 5 African safari

Reading 6 Strange but true!

Reading 7 Robot World

Reading 8 Red Nose Day

Reading 9 The footprints in the snow

Reading 10 Three British heroes

The teaching materials and the lesson plans were examined by the three experts who are experienced English language teachers to assure the content validity and were revised as suggested. The IOC was indicated at 0.95. (See Appendix A: RTS Training and B: RTS Practice and formative tests)

3.2.2 Reading tests

3.2.2.1 Pre-Post reading test

In this study, a reading test was used twice as the pre-test and post-test. To assess students' reading comprehension and critical thinking skills, the reading test consisted of two reading passages adapted from the coursebook prescribed by the Ministry of Education. Each passage had 15 questions based on Bloom's Taxonomy of cognitive levels: 3 questions at the knowledge level, 3 questions at the comprehension level, 3 questions at the application level, 2 questions at the analysis level, 2 questions at the synthesis level, and 2 questions at the evaluation level. The whole test included 30 questions. The format of the reading test was subjective requiring test takers to supply their answers. For the questions of knowledge level and comprehension level, they were required to answer in English. For the other levels, they were allowed to answer in Thai or English. A rubric for reading assessment was prepared and the answers were scored by the researcher. To assure the content validity and reliability of the test, it was verified by experts (IOC = 0.97) and revised as suggested. Then the test was piloted with 30 Mattayomsuksa 2 students who were not involved in the main study. This group of students shared the same English language proficiency level as the participants of the

study. The reliability level was found at 0.78. Next, the parallel form was written as the post-test in which the same test items were rearranged to avoid the students' memorization of the test items. (See Appendix C: Pre-test and Post-test)

3.2.2.2 Formative tests

There were also 10 formative tests to measure students' reading ability after finishing each unit. Questions on the 10 formative tests were based on Bloom's Taxonomy (Bloom, 1964). These tests were reviewed and approved by the three experts. (See Appendix B: RTS Practice and formative tests)

3.2.3 Questionnaires

There were two questionnaires: a survey questionnaire and an opinion questionnaire which can be described as follows:

- Survey questionnaire

The purpose of the survey questionnaire was to collect information on how students perceive their English reading ability and reading strategies. There were 30 items of questions to check the students' perceptions of the level of their reading skills based on metacognitive strategies. The items were adapted from Ruangroj (2012). The levels of perceptions were in five scales: 5 (always), 4 (often), 3 (sometimes), 2 (seldom), and 1 (never). The participants were asked to do the survey questionnaire before and after the instruction with RTS. To assure the content validity of the questionnaire, it was verified by experts. Both Thai and English versions were verified by three experts. The IOC level was found at 0.86. After the revision, the Thai version was piloted with the same group of students participating in the pilot of the reading test. The reliability level was found at 0.87. (See Appendix D: Survey Questionnaire)

- Opinions questionnaire

The purpose of the opinions questionnaire was to collect data on students' opinions toward reading instruction with RTS. In Part A, there were 20 items of questions to check the opinions towards the reading instruction after using RTS. It consisted of questions showing their opinions on five scales; 5 (strongly agree), 4 (agree), 3 (moderately agree), 2 (disagree), and 1 (strongly disagree). In Part B, respondents were asked to answer 4 open-ended questions. To assure the content validity of the questionnaire, both Thai and English versions were verified by three

experts. The IOC level was found at 0.86. After the revision, the Thai version was piloted with the same group of students participating in the pilot of the reading test. The reliability level was found at 0.85. (See Appendix E: Opinions Questionnaire)

3.2.4 Interview questions

The purpose of the interview was to converse with group members to collect more qualitative information about students' opinions towards the reading instruction with RTS. The questions were parallel with those in the opinions questionnaire but were formulated in the form of open-ended questions. To assure the content validity of the questions, it was verified by experts and revised as suggested. (See Appendix F: Interview questions)

3.2.5 Teacher's logs

The purpose of the teacher's logs was to record the teacher (researcher's) observation of students' use of the four strategies of RTS: predicting, questioning, clarifying, and summarizing. It reflected students' performance in reading instruction with RTS. A form was prepared for each unit's logs. (See Appendix G: Teacher's logs)

3.3 The experiment

The experiment was conducted within one semester. The participants were firstly trained to follow RTS stages before they took turns being group leader in the process of RTS. The procedures were as follows.

The training stage

Participants were first taught and trained to use Reciprocal Teaching Strategy (RTS). The researcher who also acted as the teacher in this study taught and trained students with the four strategies of RTS during the first two weeks in a weekly 90-minute period. This was provided as a scaffolding stage to assist students and to get them familiarized with RTS use. The teacher modeled the use of each strategy in reading activities from predicting, questioning, clarifying and summarizing. The participants practiced in small groups. The training took 3 hours. Before class every week, the teacher asked ten leaders (one from each group) to get the reading text and helped them prepare reading with RTS as group leaders of the week.

The practice of RTS

From the 3rd period onwards, the participants worked in group of 4 members. One member of each group served as a leader of the group discussion. The group leader led their members to practice using the four strategies. The procedures of group work were detailed as follows:

- Before reading, each leader asked group members to predict what the text was about according to their background knowledge. Then, group members noted their predictions.
- The leader and the group members read the text silently.
- Each leader made questions about the main content and group members helped to answer the questions and also discussed their predictions. Group members could note down the answers during the discussion.
- Each leader and group members helped clarify unclear or difficult parts from the reading text.
- Each leader asked group members to summarize the main ideas and important information.

In carrying out the task, group members were allowed to use both Thai and English to communicate their ideas. The teacher moved from group to group to monitor their discussion and to provide assistance if needed. At the end of each period, a formative test was given to check their comprehension and progress.

The same procedure was repeated when the group read the next text. A new group member took a role leading the group discussion of the new text. Each member had chances to lead the group at least two times during the semester. Figure 1 summarizes the staged of RTS.

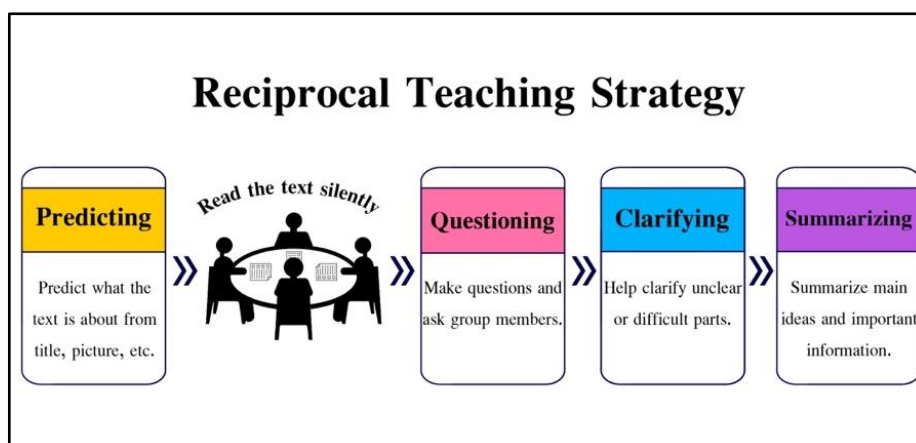


Figure 1: The stages of Reciprocal Teaching Strategy (RTS)

3.4 Data Collection

The data were collected to find out four main pieces of information: English reading comprehension ability, critical thinking skills, reading behaviors in terms of metacognitive strategies, and students' opinions towards RTS. To answer the three research questions, the data collection was divided into three stages: pre-treatment, treatment, and post-treatment.

3.4.1 Pre-treatment

Before the treatment phase, the reading ability of the participants was assessed using the pre-test. Then, the survey questionnaire was administered to the participants on the same day. The time given was about one and a half hours.

3.4.2 The treatment

During the second semester of the 2019 academic year from November 2019 to January 2020, the participants were trained and they used reciprocal strategies in 30 hours following the procedures described in **3.3: The experiment**. While students were working in groups, the researcher (teacher) acted as a facilitator and an observer. She recorded the classroom events in her weekly teacher's logs and also collected scores from the formative tests. For monitoring, the teacher closely monitored two groups a week. Lastly, each group was closely monitored twice at least.

3.4.3 Post-treatment

After 30 hours practice, the reading ability of the participants was assessed again using the post-test. Then, the survey questionnaire and the opinions questionnaire were administered to the participants on the same day. The time given was about two hours.

A week later, each group was asked for a group interview to reflect more opinions on the use of RTS in reading class. Each group interview took about 10 - 15 minutes and was conducted in Thai to avoid language problem. Time was arranged according to students' availability. Data from the pre-post reading tests, the formative tests, the survey questionnaire, the opinions questionnaire, the interviews, and the teacher's logs were then analyzed. Figure 2 summarizes the treatment and the data collection procedure.

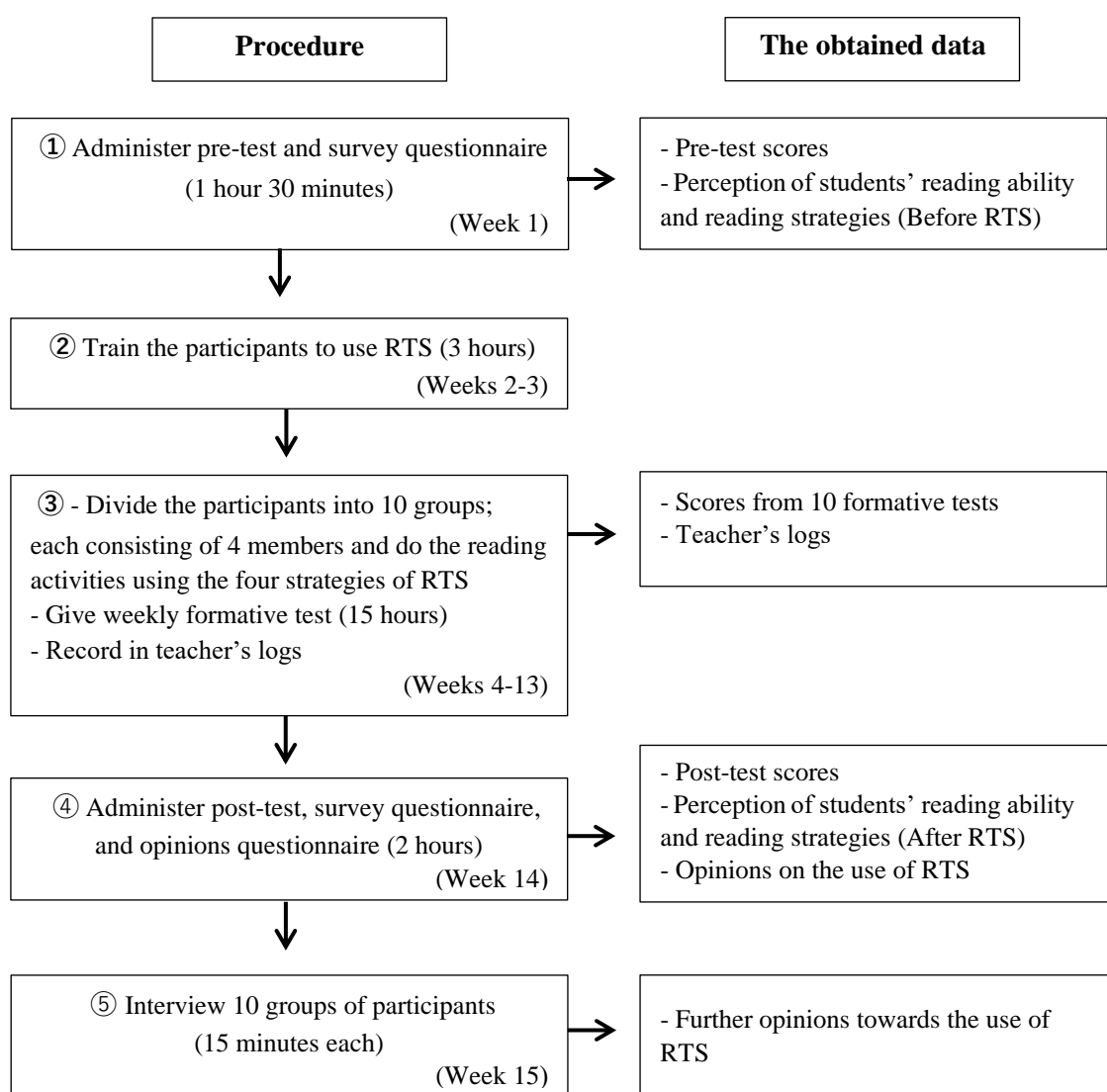


Figure 2: The treatment and data collection procedure

3.5 Data Analysis

The data in the form of scores from the pre-test, the post-test, the formative tests, and the scales from the two questionnaires were computed to answer the following research questions:

1. To what extent can RTS develop English reading comprehension and critical thinking skills?

The scores of the pre-test and post-test of the reading test were calculated with percentages, means, standard deviations, and paired-sample t-test. Percentages and means were also used to calculate scores from the formative tests.

2. To what extent can RTS increase the students' metacognitive strategy when reading in English?

The scales identified in both administrations of the survey questionnaire were calculated using means, standard deviation, and paired-sample t-test as statistical devices.

3. What are the students' opinions towards the use of RTS in reading class?

Data from the opinions questionnaire were calculated with means and standard deviations.

Data from the open-ended questions, the interviews and teacher's logs were analyzed, interpreted, and summarized. The findings were used to support the quantitative results.

CHAPTER 4

FINDINGS AND DISCUSSIONS

This study aimed to identify the degree to which RTS increases English reading comprehension level, the level of critical thinking skills and the use of metacognitive strategies; and also sought to identify the degree of satisfaction towards the use of RTS in English reading class. Findings and discussions of the results are presented as follows.

4.1 Findings

To what extent can RTS develop English reading comprehension and critical thinking skills? (Research question 1)

4.1.1 Students' overall reading ability

Table 1: Comparison of the overall scores from pretest and posttest

Pre		Post		t	df	Sig. (2-tailed)
\bar{x}	S.D.	\bar{x}	S.D.			
7.99	2.83	11.08	4.45	5.04 *	39	.00

* Significant at 0.01

The English reading test, employed in this study, contained a total score of 30. Based on Table 1, the mean score of the pretest of 40 students was 7.99 (S.D. = 2.83), whereas the mean score of the posttest was 11.08 (S.D. = 4.45). Although the mean score of the posttest was higher than the pretest, it was less than 50%. However, there was a significant difference between the pretest and the posttest at the level of 0.01. Students significantly improved their English reading ability after the use of RTS.

When considering students' progress throughout practice, results from formative tests are shown in the following figure.

Figure 3: Reading comprehension scores from formative tests

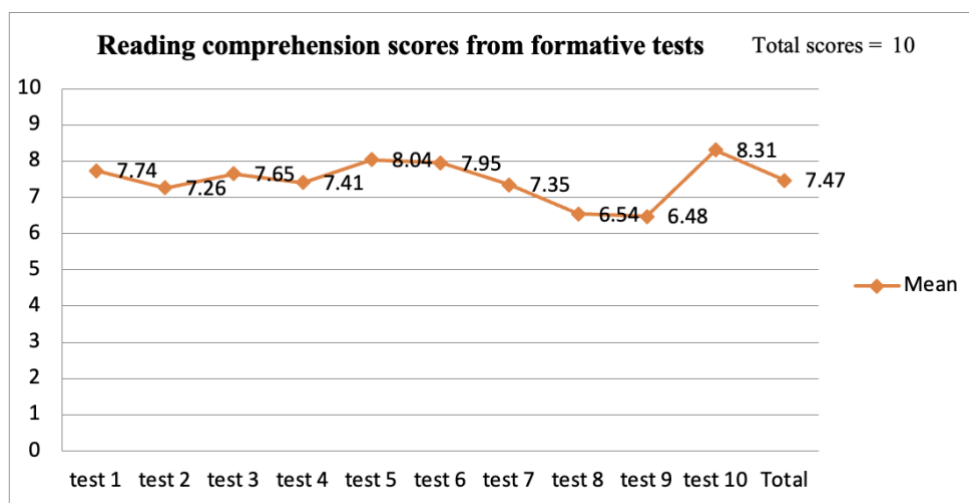


Figure 3 shows students' scores from ten formative tests during the use of RTS. The mean scores of the first test to the seventh test were not different ($\bar{x} = 7.74, 7.26, 7.65, 7.41, 8.04, 7.95,$ and 7.35 respectively) before they decreased slightly on the eighth and ninth tests ($\bar{x} = 6.54$ and 6.48). The decrease might be due to unfamiliar contents and vocabulary. However, the average score on all tests was 7.47 which can be considered satisfactory.

The results showed that students kept practicing the use of RTS until they gradually improve their ability in answering the questions of each test as well as improved their understanding of the reading texts.

4.1.2 Critical thinking skills

To explore further their cognitive levels reflecting critical thinking skills, Table 2 shows the findings from the comparisons of scores between pretest and posttest.

Table 2: Comparison of different cognitive levels between pretest and posttest

Cognitive levels		Pre			Post			T	df	Sig. (2-tailed)
		\bar{X}	%	S.D.	\bar{X}	%	S.D.			
Knowledge	6	2.83	47.17	1.14	3.29	54.83	1.23	2.20 *	39	.03
Comprehension	6	.99	16.50	.83	1.50	25.00	1.00	2.84 *	39	.01
Application	6	1.03	17.17	.49	1.70	28.33	1.21	3.65 *	39	.00
Analysis	4	1.04	26.00	.63	1.50	37.50	1.04	2.78 *	39	.01
Synthesis	4	.88	22.00	.70	1.09	27.25	.99	1.43	39	.16
Evaluation	4	1.24	31.00	.62	2.00	50.00	1.13	4.35 *	39	.00

* Significant at 0.05

As shown in Table 2, the mean scores of the posttest of knowledge, comprehension, application, analysis, and evaluation were significantly higher than the pretest ($p = 0.05$). It indicated that RTS helps students improve cognitive levels except synthesis level which slightly increased but not at the significant level ($p = 0.16$). In addition, it was noted that comprehension score was found at the lowest level in the post-test (25%) despite the significant increase. These findings suggest that RTS can develop students' cognitive levels and their general reading ability; however, comprehension level and synthesis level need to be further developed.

More data from formative tests reveal the ongoing development of critical thinking skills during the RTS practice. Figures 4 and 5 present such findings which are in line with the results from the pretest and posttest.

Figure 4: Development of cognitive levels during the RTS practice identified by individual tests

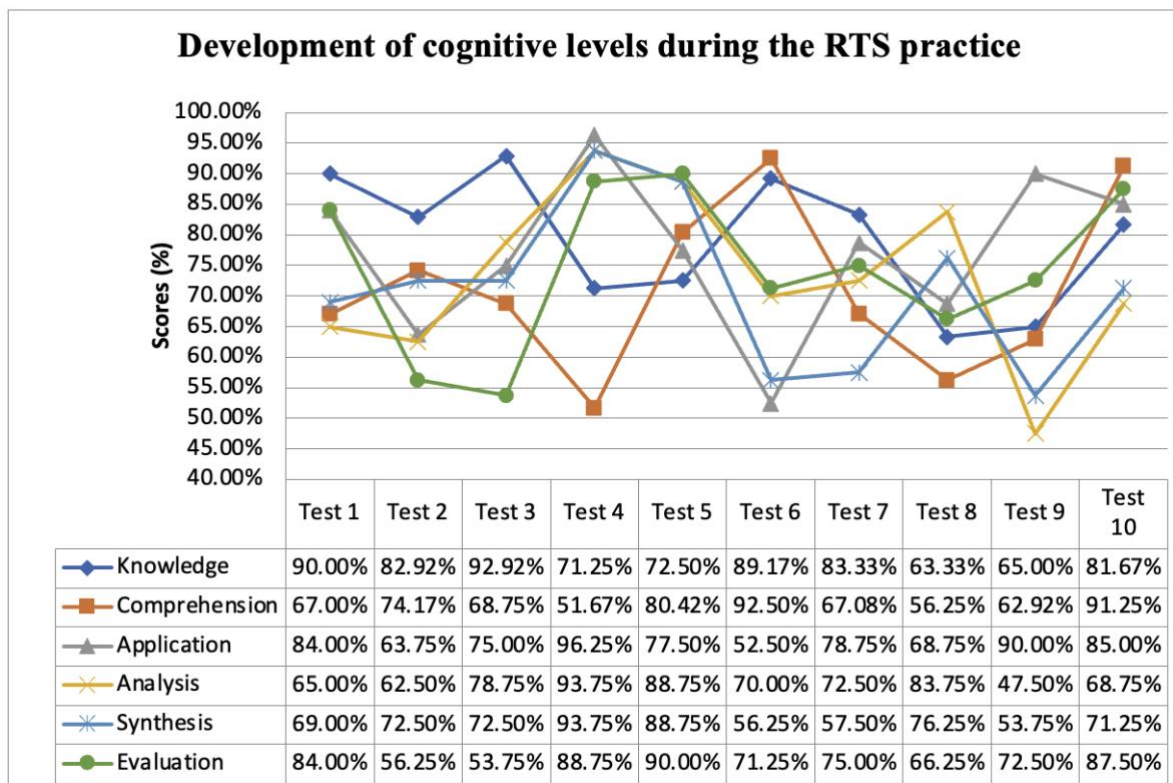


Figure 5: Development of cognitive levels during the RTS practice identified by all the formative tests

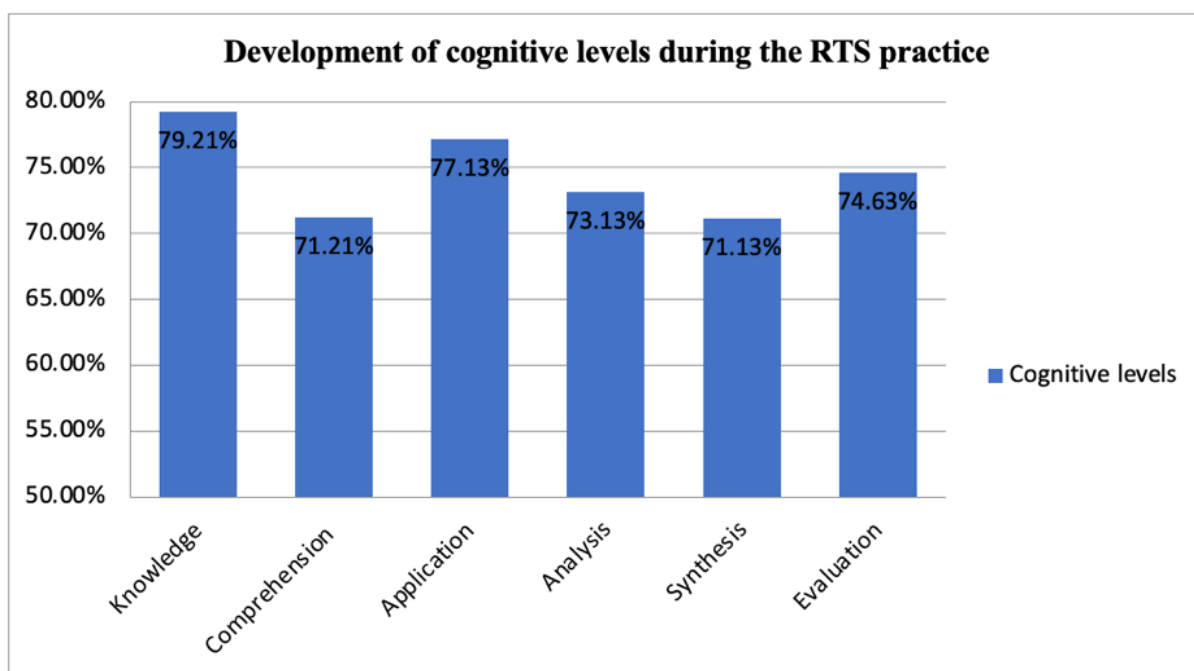


Figure 4 illustrates the ongoing development of cognitive levels reflected in each formative test and Figure 5 summarizes the development of cognitive levels during the RTS practice. As seen in both figures, scores obtained at each cognitive level by different tests were generally above average (more than 50%). Students did best at knowledge and application levels (Figure 5: 79.21% and 77.13% respectively). The higher-order cognitive level which was found the lowest was synthesis (Figure 5: 71.13%). This result was in line with that found in the comparison of the pretest and posttest in Table 2 confirming that the ability to synthesize may not increase as much as the other higher-order cognitive levels.

To what extent can RTS increase students' metacognitive strategy when reading in English? (Research question 2)

4.1.3 Metacognitive Awareness

Table 3: Comparison of Metacognitive Awareness Before and After the Use of RTS

Pre		Post		t	df	Sig. (2-tailed)
\bar{X}	S.D.	\bar{X}	S.D.			
3.44	.50	3.78	.48	7.06 *	39	.00

* Significant at 0.01

Table 3 shows metacognitive awareness before and after the use of RTS. The awareness of metacognitive strategies used significantly increased from moderate or “sometimes” level (pre: $\bar{x} = 3.44$, S.D. = 0.50) to a higher or “often” level (post: $\bar{x} = 3.78$, S.D. = 0.48). This indicated that students became more metacognitively aware as they used RTS. The detailed comparisons are shown in Table 4 below.

Table 4: Comparison of the Metacognitive Strategies Before and After the use of Reciprocal Teaching Strategy

Statements	Before RTS		After RTS		Sig. (2-tailed)
	\bar{x}	S.D.	\bar{x}	S.D.	
1. I guess the meaning of unknown words from the context.	3.23	.80	3.97	.73	.00 *
2. I have to use the dictionary to look up the unknown words.	3.63	.88	3.75	.98	.42
3. I examine what is reading instruction or exercise questions.	4.13	.82	4.03	.86	.42
4. I translate what I read into Thai.	3.60	.98	3.83	.96	.15
5. I will skip words or parts that I do not understand.	3.43	1.20	3.87	1.04	.03 *
6. I read with my classmates.	2.93	1.12	3.83	.90	.00 *
7. I try to find the topic and main idea by skimming.	3.45	1.11	3.80	1.02	.04 *
8. I read silently more than read aloud.	4.25	1.01	4.35	.86	.61
9. I read and do the reading exercise on my own although the teacher does not give any explanations.	2.80	.91	3.13	1.02	.09
10. I use titles to predict the content of the text.	3.15	1.00	3.95	1.01	.00 *
11. I use pictures to predict the content of the text.	3.55	.90	4.28	.85	.00 *
12. I predict what will happen next while I am reading.	3.13	1.18	3.80	.94	.00 *
13. I underline the main idea while reading.	2.83	1.11	3.38	1.13	.00 *
14. I always read the text many times.	3.58	1.22	3.95	1.04	.05 *

Statements	Before RTS		After RTS		Sig. (2-tailed)
	\bar{x}	S.D.	\bar{x}	S.D.	
15. I would read the texts and do the exercise after reading for better understanding.	2.98	.89	3.60	1.01	.00 *
16. I try to get the meaning of all words in the text.	3.75	.71	3.88	.88	.39
17. I like to search for more information if I don't understand some parts in the text.	3.18	.78	3.38	.95	.16
18. I try to find some techniques to read faster.	3.48	.99	3.82	.87	.03 *
19. I like reading the texts with many paragraphs.	2.45	.85	3.20	1.07	.00 *
20. I try to visualize what I read to help me understand what I read.	4.00	.93	4.10	1.03	.47
21. I have a purpose in mind when I read.	3.43	1.01	3.70	1.07	.16
22. I use my background knowledge to help me understand what I read.	3.90	.84	3.95	.75	.75
23. When reading, I decide what to read and what to ignore.	3.10	1.08	3.28	1.11	.31
24. I will more understand if I talk about what I have read with others.	3.55	1.15	3.75	1.15	.23
25. I use typographical features like bold fonts or italics to identify important information.	3.85	.92	3.93	.83	.71
26. I anticipate what information will come next while reading.	3.55	.82	3.78	.92	.22
27. I read slowly and carefully to make sure of what I read.	3.58	1.06	3.55	1.01	.90

Statements	Before RTS		After RTS		Sig. (2-tailed)
	\bar{x}	S.D.	\bar{x}	S.D.	
28. When a text becomes difficult, I re-read it to increase my understanding.	3.90	1.15	4.15	.89	.17
29. I take notes while reading to help me understand what I read.	2.65	1.15	3.03	1.05	.03 *
30. I paraphrase what I read in my own words to comprehend more.	4.15	1.08	4.50	.68	.01 *

* Significant at 0.05

Levels of frequency: 4.50-5.00 = always

3.50-4.49 = often

2.50-3.49 = sometimes

1.50-2.49 = seldom

1.00-1.49 = rare

As seen in Table 4, 14 out of 30 strategies were found significantly different. Students developed their metacognitive strategies mostly from moderate or “sometimes” level to “often” level. These included the guessing meaning of unknown words (Item1), skipping non-understandable parts (Item5), skimming for the topic and main idea (Item7), using titles and pictures to predict the content (Items 10,11), predicting what comes next (Item 12), reading texts many times (Item 14), underlying main idea (Item 13), and taking notes while reading (Item 15). Moreover, they read more with their classmates (Item 6) and tried to find techniques to read faster (Item18). Also, students read the texts with many paragraphs more frequently (Item 19) and they always paraphrased what was read in their own words (Item 30).

What are the students' opinions towards the use of RTS in reading class? (Research question 3)

After using RTS, students were asked to respond to the opinions questionnaire and reflected their opinions in the interviews. The results are presented as follows.

Table 5: Students' opinions towards the use of RTS

Statements	Mean	S.D.
1. I enjoyed reading English passages when I read with friends.	4.35	.80
2. I could understand English passages better when I read with my friends.	4.45	.68
3. "Predicting" activated my background knowledge before reading.	3.95	.70
4. "Predicting" helped me understand English passages.	4.08	.70
5. "Questioning" helped me check my understanding of the English passages.	3.90	.70
6. "Questioning" helped me to develop critical thinking skills.	3.65	.80
7. "Clarifying" helped me comprehend the difficult parts of English passages.	3.88	.90
8. "Clarifying" helped me understand the correct meaning of difficult or unknown words, phrases, or sentences.	3.68	.80
9. "Summarizing" helped me focus on the main idea and important information in the English passages.	3.83	.70
10. I like being a group leader.	3.38	1.10
11. Being a group leader helps build up my confidence.	3.45	1.00
12. Being a group member makes me happier than being a group leader.	3.95	1.00
13. RTS made me become an active reader.	3.98	.80
14. RTS helps me finish reading the text.	4.10	.70

Statements	Mean	S.D.
15. RTS helps me understand the whole text.	3.95	.90
16. RTS helps me remember more words.	3.90	.90
17. RTS helps me think more critically.	3.90	.80
18. RTS encourages me to read more.	3.83	.80
19. I will continue using RTS when I read.	3.98	.80
20. I think other teachers should use RTS in reading classes.	4.03	1.00
Total	3.91	0.86

* Levels of agreement:

- 4.21-5.00 = strongly agree 3.41-4.20 = agree
 2.61-3.40 = moderately agree 1.81-2.60 = disagree
 0.00-1.80 = strongly disagree

According to Table 5, students “agree” with the use of Reciprocal Teaching Strategy in English reading ($\bar{x} = 3.91$, $SD = 0.86$). Their opinions as shown in Table 5 triangulated with those from interviews and observations can be further drawn, classified, and discussed in 4.1.4 – 4.1.8 as follows.

4.1.4 Opinions towards different stages of RTS

The first stage is “Predicting” strategy. Students “agreed” that it activated their background knowledge before reading (Item 3: $\bar{x} = 3.95$, $SD = 0.70$) and helped them understand English passages (Item 4: $\bar{x} = 4.08$, $SD = 0.70$). Most students reported that they can use their background knowledge, titles, or pictures to predict the content of the passages. Predicting strategy encouraged them to easily guess what the reading texts were about while some students thought it was hard to guess about the reading text because of the lack of background knowledge. Also, it was observed that the predicting strategy was successful in engaging students in responding. The following statements from interviews support these findings:

S5: “I could better understand the text when I tried to predict what the text was about from pictures or titles before starting a reading.”

S17: “I liked to predict the content of the texts with friends. We helped each other to look for what the text was about but I did not enjoy predicting alone because it was too hard for me to guess the content within a limited time, particularly during tests.”

S22: “Sometimes, I could not guess the content of the texts from the title since I did not know the meaning of the word.”

The second stage is the “Questioning” strategy. This helped students check their understanding of the English passages (Item 5: $\bar{x} = 3.90$, $SD = 0.70$) and helped them to develop critical thinking skills (Item 6: $\bar{x} = 3.65$, $SD = 0.80$). Combined with results from interviews, it can be concluded that most students felt happy asking questions about the main ideas or important information of the reading texts. This stage made them understand the texts and improve their critical thinking ability. However, some students found that it was not easy to cover all the important information of the reading texts. Students' quotes were displayed as follows:

S24: “I enjoyed sharing the ideas or point of views in asking and answering the questions from the reading texts.”

S19: “Questioning strategy gave us a chance to criticize interesting issues in order to answer the questions correctly and also enhance our critical thinking ability.”

S1: “I felt relaxed to answer the questions when the group leader asked the questions. On the other hand, when it was my turn, I struggled with creating various questions to ask my group members to check their understanding of the reading text.”

The third stage is “Clarifying” strategy which helped them comprehend the difficult parts of English passages (Item 7: $\bar{x} = 3.88$, $SD = 0.90$) and helped them understand the correct meaning of the difficult or unknown words, phrases, or sentences (Item 8: $\bar{x} = 3.68$, $SD = 0.80$). Students mentioned that clarifying strategy worked well because they could understand the English texts clearly and could identify the main ideas of the English texts. The students' additional opinions are as follows:

- S34: “I thought that clarifying strategy was useful since it made me clear about confusing things from the reading texts such as the meanings of words.”
- S7: “I liked this stage because I can recheck my understanding whether it was correct.”
- S2: “I learned many new words from the reading texts when the group leader led to clarify the difficult parts of English texts.”

The last stage is the “Summarizing” strategy. Students “agreed” that it helped them focus on the main idea and important information of the English passages (Item 9: $\bar{x} = 3.83$, $SD = 0.70$). Most students said that they comprehend more by summarizing the main points of the reading text. Also, summarizing strategy guided them to realize that they did not have to understand every part of the reading texts. The following quotes confirmed these findings.

- S16: “Summarizing the texts helped me understand the important information easily and quickly.”
- S39: “I was sure what the main idea or important detail was when I had to conclude the English reading texts.”

4.1.5 Opinions towards group working during RTS

Students enjoyed reading English passages when they read with friends (Item 1: $\bar{x} = 4.35$, $SD = 0.80$). Students could understand English passages better when they read with friends (Item 2: $\bar{x} = 4.45$, $SD = 0.68$). They also like being a group leader (Item 10: $\bar{x} = 3.38$, $SD = 1.10$). Being a group leader helped build their confidence (Item 11: $\bar{x} = 3.45$, $SD = 1.00$). And being a group member made them happier than being a group leader (Item 12: $\bar{x} = 3.95$, $SD = 1.00$). Most students felt happy and satisfied reading various reading texts in groups. Reading with group members helped improve reading ability. This made them understand the main points or important information of the reading texts. The quotes are shown below.

- S9: “I enjoyed reading the reading texts in the group.”
- S4: “I felt confident when reading texts with friends.”

S35: “I liked working in my group because I can share information and opinions and we can help each other.”

4.1.6 How RTS makes better readers

Based on the findings, RTS made students become active readers (Item 13: $\bar{x} = 3.98$, $SD = 0.80$). RTS helped students understand the whole text (Item 15: $\bar{x} = 3.95$, $SD = 0.90$) and finish reading the text (Item 14: $\bar{x} = 4.10$, $SD = 0.70$). Moreover, RTS helped students think more critically (Item 17: $\bar{x} = 3.90$, $SD = 0.80$) and helped students remember more words (Item 16: $\bar{x} = 3.90$, $SD = 0.90$). Most students thought that RTS made them become better readers since they could understand some difficult parts of the texts or find the main ideas with the stages of RTS. Some students' opinions are presented below.

S28: “I could understand the texts and identify main ideas when I read them with the use of RTS.”

S13: “RTS made me read the texts critically.”

S31: “RTS helped me know my own reading strategies. This made me understand the whole text or main ideas easily.”

4.1.7 How RTS becomes inspirational for readers of English language

According to the findings, it can be concluded that RTS encouraged students to read more (Item 18: $\bar{x} = 3.83$, $SD = 0.80$) and continue using RTS when reading in English (Item 19: $\bar{x} = 3.98$, $SD = 0.80$). Most students thought other teachers should use RTS in reading classes (Item 20: $\bar{x} = 4.03$, $SD = 1.00$). Most students mentioned that they still apply RTS in their English reading. Some excerpts from the interviews are shown below:

S38: “I liked to read the texts with the use of RTS because I enjoy sharing ideas with group members.”

S25: “I learned new difficult words after reading with RTS.”

S6: “RTS helped me improve both critical thinking ability and metacognitive awareness.”

4.1.8 Problems and challenges

Although most students responded positively towards RTS, some problems were also found. Firstly, being a group leader became an issue during RTS. As seen in Table 5, being a group leader was perceived as the lowest score (Item 10: $\bar{x} = 3.38$, $SD = 1.10$) because several students did not like being a group leader. Some students felt uncomfortable leading group members read the texts. While some students enjoyed being a group leader, more than half felt uncomfortable. According to the interview and the open-ended questions, the following quotes from the students are shown:

S12: “I did not like to be a group leader. I was not confident in myself when group members stared at me while I was speaking.”

S8: “I felt pressured when I had to help group members understand the passages. I was afraid of making some mistakes especially difficult passages.”

S33: “I felt bad when my friends did not listen to what I tried to describe during the RTS process.”

However, some enjoyed being leaders as shown in the following report.

S19: “Being a group leader gave me the courage to speak up or share the ideas confidently in front of my friends.”

S6: “I was satisfied to be a group leader because it made me more active to prepare myself before starting reading activities.”

However, students who acted as a group leader were quite nervous while they were leading group members to read the passages only in the first three weeks and they were gradually more confident later. Secondly, some students found that the four stages of RTS were quite complicated. The followings are examples of students' views:

S7: “I did not want to memorize what to do in the reading process.”

S24: “It took too much time to follow the procedures from predicting to summarizing. One text took 90 minutes. For me, I could read 2 - 3 reading texts within this time.”

When considering the interview, some students stated it was boring to read easy texts with RTS because it wasted time. However, most students felt happy because RTS helped them comprehend difficult texts even if they spent more time reading.

Interestingly, some students suggested something that might be useful for teaching reading as follows:

S1: “I would like to work with a new group when I read a new text.”

S40: “Games should be applied as an activity for “questioning” to ask and answer the questions from the reading texts for more challenging and joyful learning.

4.2 Discussions

Major findings can be discussed as follows:

4.2.1 Reading comprehension ability

Based on the findings of this study, the participants significantly improved their English reading comprehension after the use of Reciprocal Teaching Strategy. RTS helped them to use the four key strategies meaningfully in their English reading class; that is, they learned to predict what the text was about, to make questions and ask for group members to share answers to understand the text, to clarify unclear parts or sentences from the reading text and to summarize and identify the main idea or important information from the text that they had read. The four key strategies enabled them to overcome difficulties when reading English texts. From the mentioned findings, it can be concluded that RTS is a useful reading strategy for students to improve their reading comprehension ability. It allows students to think about their reading process and gradually go through the stages to understand the main ideas of the texts. These findings were in accordance with studies from Konpan (2006), Pilten (2016), Rattanapong (2014), and Sari (2021) who found that RTS had positive effects on English reading comprehension. However, this current study found that the score from comprehension level is not at a satisfactory level even though there was a significance increase after the use of RTS. One explanation of getting a low score is that students were required to answer questions of comprehension level in English, thus, expressing themselves in English language might be a problem in conveying meaning. However, this signifies that “comprehension level” needs to be more improved both in terms of meaning and how to express that meaning in English. This is very important as “comprehension level” is the basis to develop the higher cognitive ability.

4.2.2 Critical thinking skills

From the study of the use of RTS to improve critical thinking ability, it was found that students' skills in application, analysis, and evaluation increased significantly after the experiment. Their ability to synthesize increased slightly, even though with no statistical difference. RTS can help foster critical thinking skills. This is consistent with the findings of Meyer (2010) and Tseng, S. S., & Yeh, H. C. (2018) suggesting that the use of RTS in the “question and answer” session during reading activities helps students to become more critical. Yousefi and Mohammadi (2016) claimed that teaching students to think critically about what they read not only helps them reflect and evaluate their reading but also helps them make a judgment and shapes their beliefs. Most students were very active in expressing their opinion during reading tasks especially questioning and answering sessions and they shared the answers meaningfully based on their different perspectives in the reading group. Students in this study reported that forming different-level questions helped them become more critical when approaching the reading texts. RTS can be a powerful tool in assisting students to acquire higher levels of critical thinking skills.

4.2.3 Metacognitive awareness

Students used the metacognitive reading strategies at “sometimes” level before the use of RTS and then increased the metacognitive reading strategies at “often” level after the use of RTS. The findings identified that students could control their learning process to enhance English reading ability related to the four stages of RTS training: predicting, questioning, clarifying, and summarizing to enhance English reading ability. While students were reading English reading texts, they tried to comprehend the texts with various reading strategies. To illustrate, students used titles or pictures to predict the content of the texts including guessing the meaning of unknown words from the context; they took notes and guessed what would happen next as they were reading. They also underlined the main ideas while reading and they read the texts many times and attempted to find the topics and main ideas by skimming. Such findings correspond with O'Malley & Chamot (1990) and Wang (2003) who claimed that reciprocal teaching is one of the reading strategies that helps readers be more aware of how they think. It allows students to think about how they read, come up with a plan, monitor

their own reading in order to construct their own knowledge, and self-evaluate their reading process. From the interviews, students reported that these reading strategies happened during RTS practice. RTS encouraged them to improve their metacognitive awareness and to become successful in reading English texts.

4.2.4 Opinions towards the use of RTS in English reading class

Students had positive opinions towards the RTS and also believed that RTS was helpful to them. They learned how to predict about the texts using their background knowledge or titles and pictures, ask and answer questions, clarify unclear information or difficult words, and summarize the main ideas of the texts. The use of four stages of RTS took place within the social context in the classroom where 2 main interactions occurred 1) teacher and students, and 2) students and students. Students were observed to cooperate and actively contribute to group work. This is relevant to Soranastaporn & Ratanakul's findings in 2000 that students had opportunities to share their ideas with others and develop their reading comprehension. Many of them enjoyed being a group leader and building self-confidence by helping their peers. This finding corresponds with the previous study showing that more capable students provided less capable students with guidance and support (Adunyaritigun, 1999). Finally, students in this current study mentioned that they would apply RTS when they read English texts in the future. This finding reflects that RTS can become an essential reading tool for lifelong learning to develop independent readers. This implication is consistent with Palincsar's claim in 2013 that RTS helped motivate students to apply relevant strategies to be successful readers.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

5.1 Conclusion

This study investigated the use of Reciprocal Teaching Strategy (RTS) to enhance English reading comprehension, critical thinking skills, and metacognitive awareness, and general opinions towards the use of RTS. When considering the participants' background knowledge and the achievement after RTS, it can be said that RTS can bring positive results in developing reading ability. The main findings are as follows.

1. The use of RTS in English reading class can significantly improve students' reading ability.
2. Students who use RTS in their English reading can significantly improve the cognitive levels specifically knowledge, comprehension, application, analysis, and evaluation. They could improve the most at “knowledge” level while the least at the “synthesis” level.
3. The use of RTS can make students more aware of metacognitive strategies.
4. Students have positive opinions towards the use of RTS at all stages.

5.2 Implications from the study

The findings of this study suggest pedagogical implications for teaching English reading skills as follows. The four strategies in the RTS should be applied in English reading class. Predicting, questioning, clarifying, and summarizing need to be explicitly taught. At first, students may feel uncomfortable with the RTS, so they should be given enough time for practicing each of the four strategies, applying the RTS in reading tasks, and taking the role of discussion leader. Teachers should provide students with sufficient scaffolding at the beginning and gradually minimize their role. When students apply RTS in English reading by themselves, support should be provided as necessary.

Among the 4 strategies, questioning may need to be more emphasized since different questions can reflect different levels of critical thinking. Therefore, training students to formulate questions of different cognitive levels is important in developing

both comprehension and critical thinking skills. It is also suggested that the questioning stage can be done in the form of games or competitions to arouse interest and to include the element of fun.

5.3 Limitations and recommendations for future studies

5.3.1 This study was carried out in a short period of time (only one semester), so it is recommended that longer engagement should be considered especially for the training or scaffolding stage. The longer time could help them become familiar with reading through RTS and improve their reading process more effectively.

5.3.2 Students in this study took turns acting as a leader for group discussion and this brought different reactions and perceptions among students. Further studies should explore how the role differences impact any aspects of learning and acquisition.

5.3.3 Students in the current study worked in the same group for the whole semester. This might be a constraint for their learning experience. Group members' rotation might be taken into consideration in further research.

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APPENDICES

Appendix A RTS Training
(Lesson plan, 2 Reading texts and 2 Formative tests)

Lesson Plan (RTS Training)

Time: 90 minutes

Objectives: By the end of this lesson,

1. Students will be able to understand how to use the four stages of RTS.
2. Students will be able to identify the main idea and give the details of the text.
3. Students will be able to discuss and extend their thinking about the text they read.

Assessment:

1. Observe the students' performance while reading with RTS in the class.
2. Check the students' understanding from the formative test.

Instructional activities:

Times (minutes)	Activity
10	<p>Procedure:</p> <ul style="list-style-type: none"> - Teacher presents what the four stages of RTS are (predicting, questioning, clarifying and summarizing) - Introduce the students that the teacher will model how to use four stages of RTS in the reading text. This will help them to understand how to use these strategies clearly and systematically. <p>1st stage: Predicting</p> <ul style="list-style-type: none"> - Teacher serves as a leader of group discussion (whole class in this training). The leader (teacher) will lead students to practice using the four strategies by starting the first stage. Give students the reading text and ask them to predict what the text is about. They can predict by using the topic or pictures.

Times	Activity
	2nd and 3rd stages: Questioning and Clarifying
15	- The leader (teacher) and students read the text silently.
20	- After finishing the reading, the leader and the students discuss their earlier predictions. Then the leader asks questions about the main content. Students try to answer the questions. (Questioning)
15	- The leader asks students about the unclear or difficult parts from the text and helps clarify the unclear parts or words to increase more understanding. (Clarifying)
	4th stage: Summarizing
10	- The leader asks students to summarize the main ideas and important information.
	Follow-up exercise (For research purpose only)
20	Let each student do the exercises to answer the questions from the text to check their understanding.

Reading comprehension rubric (Follow-up exercise)

Assessed targets	Scores		
	2	1	0
Knowledge	Identifies thorough important information of the text clearly	Identifies some information of the text but still lacks some important idea	Identifies information inconsistently with the text
Comprehension	Summarizes in own words by identifying main points and elaborating some points with supporting details from the text	Summarizes in own words but lacks some main points or includes some irrelevant details	Summarizes in own words but inconsistently with the text

Assessed targets	Scores		
	2	1	0
Application	Applies information from the reading text in real life with clear or reasonable supporting points	Applies information from the reading text in real life with vague or irrelevant supporting points	Unable to apply the concepts from the text to own real life
Analysis	Analyzes text ideas critically, shares opinions, and provides relevant complete supporting details	Analyzes text ideas generally, shares opinions, and provides relevant rather supporting details	Analyzes vague text ideas, shares opinions, and provides irrelevant supporting details
Synthesis	Express new ideas with clear supporting details in various situations related to the reading text	Express new ideas with unclear or vague supporting details in various situations related to the reading text	Does not express any new ideas
Evaluation	Make predictions, interpretation, or draws conclusions with clear explanation using information from the text and personal background knowledge or beliefs	Make predictions, interpretation, or draws conclusions but there are some confusing points	Does not make predictions, interpretation, or draws conclusions
Total	20		

Reading text 1

Life- savers!



Teen hero saved two people

Blake White is only thirteen years old, but he's a hero! Blake is a life saver with the Golden Bay Life-Saving Club in Fremantle, Australia.

One afternoon, Blake saw a group of adult swimmers in danger. The waves were over two metres high, but he wasn't afraid. He took a surfboard and jumped into the sea. He brought one of the swimmers back to the beach.

And Blake didn't stop there. He went back and rescued another person!

Dog saved four people, two cats and a parrot

Haley King is thirteen years old and her dog Sammy is thirteen, too.

Sammy has only got three legs. But she is a life-saver! On a cold night in February, a fire broke out in the Kings' house. Sammy's family didn't hear the fire and they didn't smell the smoke. But Haley's mum woke up when she felt the dog's paw on her face.



Haley's parents woke up Haley and her brother, Tom, and quickly took them outside. Then her dad went back into the house and rescued their two cats and their parrot. And he didn't forget Sammy, of course!

Life- savers!

Questions

Direction: Answer the following questions in English.

1. Who brought the swimmers back to the beach? (Knowledge)

.....

2. How did Blake feel when he saw the high waves? (Knowledge)

.....

3. Why is Blake a hero? (Comprehension)

.....

.....

4. What does “rescue” mean? (Comprehension)

.....

5. What happened in the Kings’ house? (Knowledge)

.....

6. Why did Sammy put its paw on Mrs. King’s face? (Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. If you were Blake, would you save the adult swimmers? Why or why not? (Application)

.....

.....

8. From reading this text, which event is the most dangerous in your opinion? Why? (Analysis)

.....
.....

9. After Haley’s parents took everyone out the house, what do you think they will do next? (Synthesis)

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

10. How did you feel after you finished reading these two stories? Why? (Evaluation)

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

Reading text 2



Life in 2100

Hi there! Can you help me? I'm doing a project at school.
The title? 'Will life be better in 2100?' What do you think?
Thanks for your ideas, gang!
Josh

Comments

a Hi Josh! I think life will be great. People will live in 'smart house'.
A central computer will control the temperature, the lights,
everything!

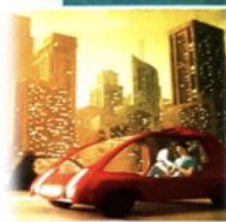
These houses will be ecological and use solar energy and recycled
Water. A 'smart' mirror in the bathroom (that's right, it's a mirror
with a computer!) will check your health. And guess what? Robots
will cook and do the housework. **Maya**

b Pollution is a big problem today, but will be a bigger problem in
100 years. So people won't use cars with petrol. They will drive in
electric cars on underground roads. And there will be electric buses
with computer for drivers! The best thing? People will be able to
travel in time. Now that will be exciting! **Rosie**

c Hi Josh. Life will be better in 2100 – in space! People will live on
the Moon and Mars in special cities. They will grow food and send
it to the earth in a **huge** space craft. Space stations will orbit the Earth and control the
climate. There will also be holidays in space! How cool is that? **Brandon**

d Will life be different in 100 years? Yes, it will. Will life be better? No, it won't!
Climate change will cause floods and droughts. Rich people will live for a long time,
maybe 200 years! But life won't be easy for most people. They won't have food and
water. **Faith**

e Well, Josh, the good news is ... there won't be any schools! Students will have lessons
at home on their computers. They'll be in contact with other students all over the world in
a 'virtual' classroom. The bad news is ... teachers will still give us homework in the
future! **Elliot**



Life in 2100

Questions

Direction: Answer the following questions in English.

1. Who is doing a school project? (Knowledge)

.....

2. Will people use cars with petrol in 2100? (Knowledge)

.....

3. How will students have lessons? (Knowledge)

.....

4. Describe the word “smart mirror” in your own word. (Comprehension)

.....

.....

5. What does “**huge**” in part C mean? (Comprehension)

.....

.....

6. Why won't people have food and water in 100 years? (Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. Do you think whose idea can be a fact soon? Why? (Application)

.....

.....

8. Compare your present school with the school in this text. (Analysis)

.....
.....

9. Imagine the “smart thing” that will be available in 2040 except “smart houses” and “smart mirror”. (Synthesis)

.....
.....

10. Do you think your life will be better in 20 years from now? How? (Evaluation)

.....
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.....

Appendix B RTS Practice
(Lesson plan, 10 Reading texts and 10 Formative tests)

Lesson Plan (RTS Practice)

Time: 90 minutes

Objectives: By the end of this lesson,

1. Students will be able to understand how to use the four stages of RTS.
2. Students will be able to identify the main idea and give the details of the text.
3. Students will be able to discuss and extend their thinking about the text they read.

Assessment:

1. Observe the students' performance while reading with RTS in the class.
2. Check the students' understanding from the formative test.

Instructional activities:

Times (minutes)	Activity
10	<p>Procedure:</p> <ul style="list-style-type: none"> - The students will be divided into 10 groups each consisting of 4 members. One member of each group serves as a leader of the group discussion. The group leader will lead their members to practice using the four strategies: predicting, questioning, clarifying, and summarizing. <p>1st stage: Predicting</p> <ul style="list-style-type: none"> - Each Leader asks group members to predict what the text is about. They can predict by using the topic or pictures.

Times	Activity
15	<p>2nd and 3rd stages: Questioning and Clarifying</p> <p>- Let each leader and group members read the text silently.</p>
20	<p>- After finishing the reading, the leader and the students discuss their earlier predictions. Then the leader asks questions about the main content. Students try to answer the questions. (Questioning)</p>
15	<p>- The leader asks group members about the unclear or difficult parts from the text and helps clarify the unclear parts or words to increase more understanding. (Clarifying)</p>
10	<p>4th stage: Summarizing</p> <p>- The leader asks group members to summarize the main ideas and important information.</p>
20	<p>Follow-up exercise (For research purpose only)</p> <p>Let each student do the formative test to answer the questions from the text in order to check their understanding.</p>

Reading comprehension rubric (Follow-up exercise)

Assessed targets	Scores		
	2	1	0
Knowledge	Identifies thorough important information of the text clearly	Identifies some information of the text but still lacks some important idea	Identifies information inconsistently with the text
Comprehension	Summarizes in own words by identifying main points and elaborating some points with supporting details from the text	Summarizes in own words but lacks some main points or includes some irrelevant details	Summarizes in own words but inconsistently with the text

Assessed targets	Scores		
	2	1	0
Application	Applies information from the reading text in real life with clear or reasonable supporting points	Applies information from the reading text in real life with vague or irrelevant supporting points	Unable to apply the concepts from the text to own real life
Analysis	Analyzes text ideas critically, shares opinions, and provides relevant complete supporting details	Analyzes text ideas generally, shares opinions, and provides relevant rather supporting details	Analyzes vague text ideas, shares opinions, and provides irrelevant supporting details
Synthesis	Express new ideas with clear supporting details in various situations related to the reading text	Express new ideas with unclear or vague supporting details in various situations related to the reading text	Does not express any new ideas
Evaluation	Make predictions, interpretation, or draws conclusions with clear explanation using information from the text and personal background knowledge or beliefs	Make predictions, interpretation, or draws conclusions but there are some confusing points	Does not make predictions, interpretation, or draws conclusions
Total	20		

Reading text 1

What's your best friend like?



My best friend's name is Madison. She's 13. We're in the same class, and we always sit together. She's good at Maths and helps me with my homework. She's got long fair hair and green eyes. Madison is quite tall, and she's got a lovely smile. She's very generous, and I can tell her all my problems. We both love shopping and sport... and fast food! **Samantha**



My best friend is Simon. He's 12. He's got short dark hair, and he's quite short. He's got a cheeky smile and he's really funny. I love his jokes! We don't go to the same school, but we hang out together at the weekends. We've got the same interests. We both like computer games, and we often listen to music on the same MP3 player! Simon and I only argue about one thing — football! **Joe**

What's your best friend like?

Questions

Direction: Answer the following questions in English.

1. Who is Samantha's best friend? (Knowledge)

.....

2. What is Madison like? (Knowledge)

.....

.....

3. Do Simon and Joe go to the same school? (Knowledge)

.....

4. Why do you think Samantha always shares her problems with Madison? (Comprehension)

.....

5. What do Simon and Joe have in common? (Comprehension)

.....

6. Is Madison a "caring person"? How do you know? (Comprehension)

.....

Direction: Answer the following questions in English or Thai.

7. What kind of friend don't you like in your real life? Why?

(Application)

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

8. What makes a good friend in your opinion? (Analysis)

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

9. If your friend lies to you, are you angry with him/her? Why?

How do you deal with this problem? (Synthesis)

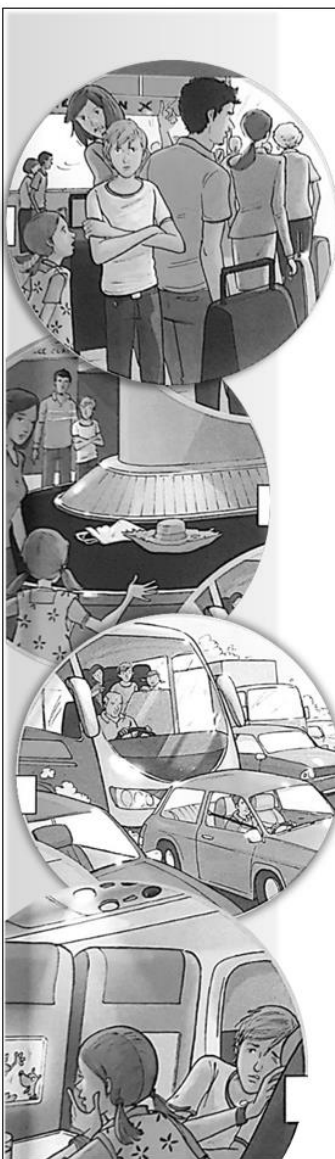
.....
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.....

10. From the reading text, which person can be a better friend for you?

Why? (Evaluation)

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.....
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.....

Reading text 2



Email of the week

My last summer holiday was fantastic. There was only one problem – the journey home!

We went to Italy three months ago (that's me, my mum and dad, and my four-year-old sister Ruby). We stayed in a cool hotel near the sea. I went swimming every day and played football with some Italian boys on the beach. I also ate great pizzas and ice cream!

After two amazing weeks, it was time to go home. We left the hotel at 3 pm and went to Pisa Airport by coach. The hotel was only 25 kilometres from the airport and our flight was at 7 pm, so we had lots of time. But there was a terrible traffic jam on the motorway and we arrived at the airport at 6 pm!

We saw big queues at the check-in. There was a problem with the computers! Fortunately, our plane was late. Its new departure time was 9.15 pm.

We went through passport control at 8 pm.

And then we waited... and waited. Ruby was hungry and thirsty, and she cried a lot. At 10 pm, we had bad news. Our flight was cancelled.

We found a hotel near the airport at midnight. We had a flight at 7.30 am. So the next morning we were very tired. My sister Ruby cried again!

Ruby watched cartoons on the plane and I listened to my MP3 player. We arrived at Heathrow Airport at 9 o'clock in the morning! And then, guess what? Our suitcases weren't at baggage reclaim. They were still in Italy!

By Sam

Email of the week

Questions

Direction: Answer the following questions in English.

1. What was their holiday destination? (Knowledge)

.....

2. What did Sam do during the holiday? (Knowledge)

.....

3. On their way back, how long did it take from the hotel to the airport?
(Comprehension)

.....

4. Why did Ruby cry a lot? (Comprehension)

.....

5. When did they arrive at Heathrow Airport? (Knowledge)

.....

6. After they arrived at Heathrow Airport, what happened to their
suitcases? (Comprehension)

.....

Direction: Answer the following questions in English or Thai.

7. What would you do if you had to wait for a long time before your flight? (Application)

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

8. How did Sam's family feel about their summer holiday at Italy? Why do you think so? (Analysis)

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

9. Would you like to go to Italy? Why or why not?

If not, which country would you like to go? Why? (Synthesis)

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

10. "The hotel was 25 kilometres from the airport, so they left the hotel at 3 pm and their flight was at 7 pm". Was it a good travel plan? Why? Would you do the same? (Evaluation)

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.....

Reading text 3

Penpal Exchange

Hi Kirsty

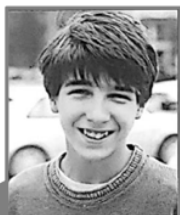
I live in Los Angeles with my mom and dad. I usually get up at 6.30 am. That's too early! I go to school by bus. My favorite subject is music. In the afternoon I watch TV or play computer games. But I always have too much homework!

At the weekend I usually hang out with my friends at the skate park. I play baseball and basketball, too. And I sleep a lot!

I play the drums. My mom says, 'You make too much noise!' So I don't often play them at home. But I also love reading.

Sport, music, computers, sleep - that's my life! What do you do in your free time? Have you got any hobbies?

Jacob



Jacob

Hi Jacob

Thank for your message. I live in Glasgow with my mum, my stepdad, my brother and sister, and my two cats – Jam and Honey! I love music. But I don't play a musical instrument.

My favorite band is Franz Ferdinand (they're from Glasgow!). Do you like them? My favorite subject is sport. I play football in the girls' football team. I'm a Rangers fan and I often go to matches with my family. But my sister doesn't come. She prefers dancing. I collect Rangers souvenirs. I spend too much money on them. And my bedroom is untidy because I've got too many things! I don't like TV. In the evening I listen to music or read a book. Write soon!

Kirsty



Kirsty

Penpal Exchange

Questions

Direction: Answer the following questions in English.

1. Who lives in Glasgow? (Knowledge)

.....

2. How many people are there in Jacob's family? Who are they?
(Knowledge)

.....

3. Why doesn't Jacob often play the drums at home? (Comprehension)

.....

.....

4. Is Jacob a sociable person? How do you know it? (Comprehension)

.....

.....

5. Why does Kirsty collect Rangers souvenirs? (Comprehension)

.....

.....

6. Why doesn't Kirsty's sister go to football matches with her?
(Knowledge)

.....

.....

Direction: Answer the following questions in English or Thai.

7. In what way could you apply Jacob and Kristy’s lifestyle?

(Application)

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

8. “I’m a Rangers fan, so I spend much money on Rangers souvenir”. Do you agree with her? Why or why not? (Analysis)

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

9. Do you think these two students’ lifestyles are similar or different from Thai students’ lifestyles? How? (Synthesis)

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

10. What do you think about Jacob and Kirsty’s hobbies? Which one is the most / the least useful? Why? (Evaluation)

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Reading text 4

Animals at risk

Litter is ugly. But did you know it can hurt wildlife? Make sure you throw away all your rubbish carefully. You can also organise litter collection days at your school or in your

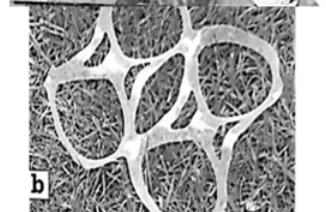
1 Four-pack rings – no fun for birds

Plastic drink rings are really useful to people, but birds can put their heads through the rings and then get stuck. They can't find food or eat. But you can help. First cut each ring with scissors, and then put them in the bin.



2 Chewing-gum – a sticky problem

Chewing-gum makes a terrible mass. And it can hurt birds. So be careful where you put it. The gum gets stuck to a bird's beak or feathers, and then it can't eat or keep clean.



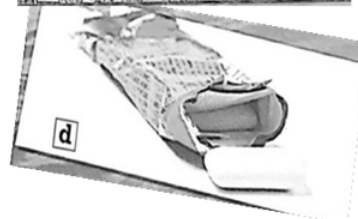
3 Plastic-bags – plastic snacks

There are millions of plastic bags in the sea and they can hurt marine animals and sea birds. Scientists find lots of plastic inside their stomachs, and sometimes the bags get stuck on their legs and wings. So be careful where you throw your plastic bags.



4 Bottles and cans – not a great home

There are lots of bottles and cans in the countryside. And small animals think, 'What a great place to live!' It is easy for them to go in but difficult for them to get out! So take those empty bottles and cans home and recycle them.



Animals at risk

Questions

Direction: Answer the following questions in English.

1. How does plastic drink rings hurt birds? (Knowledge)

.....

2. What should you do with plastic drink rings before putting them in the bin? (Knowledge)

.....

3. How can chewing gum affect birds? (Comprehension)

.....

.....

4. What do scientists find inside marine animals' stomach? (Knowledge)

.....

.....

5. Based on no.4, what are the “do” and “don’t”? (Comprehension)

.....

.....

.....

6. According to the title “Animals at risk”, what are examples of risks? (Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. How would you apply the given facts in your daily life? (Application)

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

8. Which type of litter is the biggest problem for animals? Why?
(Analysis)

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

9. Why is this happening? (Synthesis)

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

10. How do you feel about the given information? Who could be blamed?
Why? (Evaluation)

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.....

Reading text 5

African safari

My holiday blog by Jessica

Day 1

The flight to Zambia took 16 hours! Our guide, Adam, drove us to the camp from the airport. The Jeep was very uncomfortable, but finally we got to the camp. We sat by the river and saw lots of hippos. Then we ate cake and drank tea. At four o'clock we went for a drive. We saw zebras and giraffes. Cool! On our way back to the camp, we met some lions. Lucky we were in the jeep!



Day 2

The first night in the chalet was very noisy! I'm sure I heard lions. I had a bad night. We got up at 5 am for a morning drive. We saw a family of elephants. Awesome! In the afternoon we went to a market and bought souvenirs.

Day 3

This morning we went on a walking safari. A rhinoceros ran towards us. Scary! We took lots of photos. After the walk we swam in the swimming pool. In the evening Adam made a fire and we had a barbecue. There weren't any leopards today. Maybe tomorrow.



African safari

Questions

Direction: Answer the following questions in English.

1. How long was the flight to Zambia? (Knowledge)

.....

2. What did they see on their way back to the camp? (Knowledge)

.....

3. Why did they say “Lucky we were in the jeep!”? (Comprehension)

.....

.....

4. What happened on the first night in the chalet? (Knowledge)

.....

5. Why did they feel impressed on the 2nd day? (Comprehension)

.....

6. What did they miss on the 3rd day? (Comprehension)

.....

Direction: Answer the following questions in English or Thai.

7. If you were Jessica, what would you do to sleep better on the 2nd night?

(Application)

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

8. From the reading text, which activity is the most dangerous in your opinion? Why? (Analysis)

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

9. What can be drawn as the highlights of the trip? (Synthesis)

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10. Do you think this family was well-prepared for the trip? Why or why not? (Evaluation)

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Reading text 6

Strange but true!

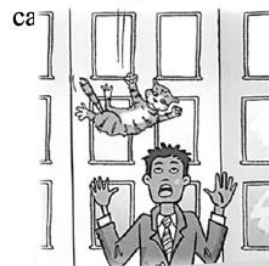
The world is a very strange place. Read these amazing true stories.

Lily Foster was watching TV when her phone rang. She got up from her chair and answered the phone in the next room. She was talking on the phone when a lorry crashed into her house. The lorry destroyed her sitting room, her TV, and her chair! And the phone call? It was a wrong



An old woman was sleeping in her apartment in San Francisco when she heard the sound of breaking glass. She walked into her living room and saw a burglar. They were both very surprised! The 73-year-old woman offered the burglar food and then they started chatting. She was showing him her family photos when he fell asleep. So what did she do next? She called the police!

A woman was playing with her cat in her apartment when it fell out of the window. Jamie Baldwin was walking in the street below when the cat landed on him - and it was safe! But that wasn't the end of the story. One year later, Jamie was walking along the same -street in Detroit when he heard a noise. He looked up ... and he



Write to us with your amazing stories.

Strange but true!

Questions

Direction: Answer the following questions in English.

1. What was Lily doing before her phone rang? (Knowledge)

.....

2. What happened while Lily was talking on the phone? (Comprehension)

.....

3. Why did the old woman wake up? (Comprehension)

.....

4. Where did the old woman see the burglar? (Knowledge)

.....

5. What were the woman and her cat doing? (Knowledge)

.....

6. What happened while Jamie was walking in the street?

(Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. What do you learn from the story of the old woman and the burglar?

(Application)

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

8. Why didn't the cat die even if it fell out of the window of the apartment? (Analysis)

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

9. If you were the old woman who saw the burglar, what would you do?

(Synthesis)

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

10. Which true story is the strangest for you? Why? (Evaluation)

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.....

Reading text 7

Robot World

What do you think of when you see the word 'ROBOTS'? Science-Fiction metal monsters or machines that look like people? Robots are all around us today and they do a lot of different things.

Karel Capek, a Czech writer, used the word 'robot' for the first time in 1921. It comes from the Czech word robota. In his play 'R.U.R.' (Rossum's Universal Robots), a factory makes robots. Unfortunately, the robots kill all the humans and control the world! It's a scary story.

Today, we find robots in lots of different places from factories to hospitals. In car factories, robots do boring, dangerous or difficult jobs such as cutting metal or painting the body of the car. Some robots guard museums at night. Others vacuum the floors in offices and homes!

These robots don't look like people, but they are similar. In humans, the brain sends messages to different parts of the body and controls its movements. In robot technology, a main computer controls the movements of the robot in the same way.

Robots are very useful for exploring space. Russian robots walked on the Moon in the 1970s, and the Americans Landed two robots on Mars in 2004. But why send robots into space? Well, robots can go to places that are dangerous for humans. They don't need oxygen or food and drink, and they can survive extreme temperatures. In space this is important. Temperatures can go from 120 °C in the sun to -100 °C in the dark!

These days, the most advanced robots can hear, see and make decisions. They have AI or 'artificial intelligence'. In the future, we will use robots in many more different ways. Doctors will use very small robots called nanobots to treat illnesses. They are so small that you can't see them!



Robot World

Questions

Direction: Answer the following questions in English.

1. When did Karel Capek invent the word “robot”? (Knowledge)

.....

2. Where can we find robots today? (Knowledge)

.....

.....

3. What controls a robot’s movements? (Knowledge)

.....

.....

4. Why are robots useful in space? (Comprehension)

.....

.....

.....

5. Why are the robots these days called “advanced robots”?

(Comprehension)

.....

.....

6. What can robots with AI do? (Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. If you have a robot, what do you want it to help the most? Why?

(Application)

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

8. How will robots affect human in the future? (Analysis)

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

9. What kind of robot is the most useful for your family in your opinion?

(Synthesis)

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

10. Do you think the world will be a better or worst place to live if we have lots of advanced robots? Why do you think so? (Evaluation)

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

Reading text 8

Red Nose Day

- Who wear red nose? Well, the obvious answer is clowns. Red nose are part of their traditional make-up. But on one special day in March every two years, millions of British people wear them, too. And what's this special day called? Red Nose Day, of course!
- On Red Nose Day, you can help people and have great fun, too. People all over the country buy millions of plastic red nose - and all the money goes to charity. children and teenagers wear them to school and university. Even adult wear them to work! Most schools have special Red Nose Day events. Last year some students in Oxford wore ~~pyjamas~~ all day at school. And in a school in Cambridge, students dressed as superheroes.
- In a special TV ~~programme~~, celebrities and comedians do silly things and viewers phone in and pay money. In 2011 people gave more than £74 million in a single day. The Prime Minister, ~~Take that~~ and Susan Boyle were on the show. One year, a group of celebrities, including pop stars, climbed Mount Kilimanjaro in Tanzania to raise money.
- An organization called Comic Relief started Red Nose Day in 1985. A group of comedians decided to use comedy and laughter to educate people about poverty in the UK and Africa. Its first TV ~~programme~~ was on Christmas Day on the BBC. Its first TV ~~programme~~ was on Christmas Day on the BBC. The grand total raised for charity since Comic Relief began is over 650 million! 60 per cent goes to charities in Africa and 40 per cent to Charities in the UK. The money helps poor families, the old and the sick. it also helps young people to get a better education.



Red Nose Day

Questions

Direction: Answer the following questions in English.

1. When is the Red Nose Day? (Knowledge)

.....

2. What is the purpose of wearing red noses? (Comprehension)

.....

.....

3. What did students in Oxford and Cambridge do last year? (Knowledge)

.....

.....

4. How much did Red Nose Day raise in 24 hours in 2011? (Knowledge)

.....

5. Who climbed Mount Kilimanjaro? Why? (Comprehension)

.....

.....

.....

6. Where does the raised money go? Who can it help? (Comprehension)

.....

.....

.....

Direction: Answer the following questions in English or Thai.

7. If you were in a group of people who wear red noses, would you act differently or similarly? Why? (Application)

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

8. What do you think about Red Nose Day? Is it good? (Analysis)

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

9. What are the other things that can be done to raise money on Red Nose Day? How? (Synthesis)

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

10. For school students, what may be the best way to raise money for charity purpose? (Evaluation)

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

Reading text 9

The footprints in the snow

The snow was falling again. It was cold and the sun was sinking in the sky. Donna and Richard were walking slowly under the tall trees. They were high up the side of a hill. In the distance they could see the small town of Darksville, their destination. But they still had a long way to go before evening.

'This is a crazy time of year for a walking holiday,' said Donna.

'It's cool,' said Richard.

'Cool?' said Donna. 'It's freezing!'

And they laughed.

But a little later, they were walking through the forest when Donna saw footprints in the snow. They weren't human footprints. They were huge.

'what made these footprints?' asked Donna nervously.

'I don't know,' said Richard. 'Maybe a bear?'

Donna didn't like the idea of a bear. It worried her.

'We have to walk faster,' she said. 'I want to get to Darksville.'



It was getting dark now. Donna and Richard weren't talking. They were worrying about those footprints. They were walking round a frozen pond when Richard said 'Look!' Donna saw a small wooden house. But all the windows were broken and the door was destroyed. And then she saw the footprints...

'Richard,' said Donna quietly. 'It's that thing again.'

'I don't understand,' said Richard.

'Did a yeti do this?' asked Donna.

'Yetis don't exist. Not in America.'

'Then what was it?' asked Donna. 'Bigfoot? A monster?'

'Don't be silly, Donna,' said Richard. But he was scared.

And then they heard a loud sound. A human didn't make it. A bear or a wolf didn't make it. It was terrible! And Donna and Richard started to run...

The footprints in the snow

Questions

Direction: Answer the following questions in English.

1. Where were Donna and Richard walking to? (Knowledge)

.....

2. How did Donna feel while walking? (Knowledge)

.....

3. What were the footprints like? (Knowledge)

.....

.....

4. Why was Donna nervous? (Comprehension)

.....

.....

5. What is a small house made of? (Comprehension)

.....

.....

.....

6. Why did they start to run? (Comprehension)

.....

.....

.....

.....

Direction: Answer the following questions in English or Thai.

7. If you were them, would you run? Why or why not? (Application)

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

8. In your opinion, what made the footprints and the terrible sound?
(Analysis)

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

9. If you were a writer, how would you end this text? (Synthesis)

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

10. Do you believe in creatures such as the “yeti” and “monster”? Why or
why not? (Evaluation)

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

Reading text 10



King Arthur

was only 15 when he did an incredible thing. he pulled a sword out of a stone... and became king!

Later, Merlin magician took Arthur to a mysterious lake. Then a woman gave him another sword with special powers-Excalibur! He had a beautiful palace at Camelot and his knights sat with him at a round table.

They had many adventures. They saved princesses, fought with bad knights, and killed dragons. At the end of his life, Arthur returned to the lake and a boat took him to the island of Avalon.

Robin Hood

was a thief and he didn't like rules

- but English people loved him! His great enemy was the nasty Sheriff of Nottingham. Robin didn't live in a house. He lived in the middle of Sherwood Forest with his gang. His best friends were Little John and Will Scarlet. Maid Marian was his true love. He wore green clothes and was a fantastic archer. He could hit a small object from 300 metres! Robin and his men robbed rich people and gave their money to poor people.

Boudicca

was the queen of the Iceni tribe in Britain. She was very tall and had long red hair. She wore a lot of gold and rode a chariot. In AD 60 the Ancient Romans ruled Britain and asked the people for money (taxes). But Boudicca hates the Romans and she decided to fight. She had an army of 30,000 men and they attacked the city of London. The Romans had a smaller army, but they beat the British army and killed thousands of Britons. The Romans tried to catch Boudicca but she drank poison and died.

Three British heroes

Questions

Direction: Answer the following questions in English.

1. What did King Arthur do to become the king? (Comprehension)

.....

2. Who saved princesses, fought with bad knights, and killed dragons?
(Knowledge)

.....

3. What can Robin do well? (Knowledge)

.....

4. What did Robin do after he robbed rich people? (Comprehension)

.....

5. What was Boudicca like? (Knowledge)

.....

6. Why did Boudicca drink poison? (Comprehension)

.....

.....

Direction: Answer the following questions in English or Thai.

7. If you could choose one hero, who would you like to be? Why?

(Application)

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

8. What kind of person are King Arthur, Robin Hood and Boudicca? Why do you think so? (Analysis)

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

9. If you were Boudicca, would you drink poison? Why or why not?

(Synthesis)

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

10. Based on three British heroes' action, who can be a good role model for you the most? (Evaluation)

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

Appendix C Pre-test and Post-test

Pre-test / Post-test

Directions: Read these two reading texts and answer the questions.

Reading 1: For questions 1 - 15

Welcome to the **New York City Marathon** – the most exciting event ever!



A This is one of the biggest marathons in the world. An incredible 46,795 runners finished the race in 2011!

B Thousands of spectators stand by and cheer the thousands of runners and give them bottles of water as they run past. The 26-mile race is held every year on the first Sunday of November.

C The race started on 13th September, 1970. It became really popular in 1978 when the Norwegian, Grete Waitz, broke the women's world record and ran the 26 miles in an amazing two hours, 32 minutes and 30 seconds. And yes, of course, there was another party at the finish line!

D The marathon runs through all of New York's five boroughs. It starts with a blast from a cannon and shouts from the crowd and ends with cheers and a celebration at the finish line in Central Park.

E It's a crazy event! The atmosphere is unique. It's one big party! Some people wear fancy dress and play drums. Everyone has fun. It's an experience no runner or spectator can ever forget!

Questions 1 - 15

Questions 1 - 6: Answer in English.

1. How many runners completed the New York City Marathon in 2011?
(Knowledge)

.....

2. How often is the marathon held? When is the marathon held?
(Knowledge)

.....

3. How many kilometers do the runners have to finish? (1 kilometer =
0.621 miles) (Comprehension)

.....

4. Why does the writer mention Grete Waitz? (Comprehension)

.....

.....

5. What do the runners do at Central Park? (Knowledge)

.....

6. What is the atmosphere of the event compared with? (Comprehension)

.....

.....

Questions 7 - 15: Answer either in English or Thai.

7. Why would it be a good idea to join a marathon? (Application)

.....

.....

8. In what way does the New York City Marathon inspire you?

(Application)

.....

.....

9. Where would be the most remarkable place to be held the biggest marathon in Thailand? Why? (Application)

.....
.....

10. Why would some people wear fancy dress at New York city marathon? (Analysis)

.....
.....

11. How do the spectators at the marathon feel? Why do you think so? (Analysis)

.....
.....

12. If you were to join the marathon as a spectator, what would you do to make yourself belong to the group of spectators? (Synthesis)

.....
.....

13. Why does the writer say “No runner or spectator can ever forget”? (Synthesis)

.....
.....

14. Do you think continuously running for 26 miles is good for your health? Why or why not? (Evaluation)

.....
.....

15. What do you think of a woman who could run the 26 miles in 2 hours, 32 minutes and 30 seconds”? (Evaluation)

.....

.....

Reading 2: For questions 16 - 30

The King of Speed

He is the youngest driver to win the Formula One World Championship.

Who is he? Lewis Hamilton, the King of Speed!

- A Lewis Hamilton was born in Stevenage, UK on 7 January 1985. His parents divorced when he was only two. He lived with his mother for his first twelve years, then he lived with his father and stepmother.
- B Lewis became interested in racing when he was only six. His father bought him a radio-controlled car, and soon after, a go-kart. Lewis won his first British karting championship when he was only ten. And 10-year-old Lewis also met the McLaren team owner Ron Dennis and told him, ‘I want to race in Formula 1.’
- C When he was still only 13, Lewis joined the McLaren and Mercedes-Benz Young Driver Support Programme. But he did other sports, too, and played for his school football and cricket teams.
- D He began his car racing career in 2001 when he joined the McLaren racing team. In his first season in Formula One in 2006, Lewis won an amazing four times. In his second season, he came second in the championship. And in 2008, when he was still only 23, he won the trophy!
- E Lewis is an inspiration to young people all around the world. He has also got his own heroes, including his father, Nelson Mandela and Martin Luther King.
- F In his spare time, Lewis enjoys listening to music. His favourite music is R & B, reggae and hip-hop. His favourite artists include De La Soul, 2Pac and Bob Marley. But he also likes playing the guitar, too!
- G Some of his other hobbies are going to the gym, cycling and tennis. He’s also got a black belt in karate! But Lewis isn’t active all the time. He also loves reading, watching DVDs and hanging out with family and friends.



Questions 16 - 30

Questions 16 - 21: Answer in English.

16. Who is Lewis Hamilton? (Knowledge)

.....

17. What did he achieve when he was 10? (Knowledge)

.....

18. Why did he race in Formula 1? (Comprehension)

.....

19. How old was he when he began his car racing career?
(Comprehension)

.....

20. What are Lewis's other hobbies? Give at least 4 examples.
(Knowledge)

.....

.....

21. Why is he an inspiration to young people all around the world?
(Comprehension)

.....

Questions 22 - 30: Answer either in English or Thai.

22. Based on Lewis' father action, what could be used as a way to inspire children? (Application)

.....

.....

23. What do you learn from Lewis's progress or his development?
(Application)

.....

24. In what way could you apply Lewis' lifestyle? (Application)

.....
.....

25. Why is car racing appropriate for Lewis? (Analysis)

.....
.....

26. Why Lewis Hamilton is called "The King of Speed"? (Analysis)

.....
.....

27. What would be the other possible name for Lewis if not "The King of Speed"? (Synthesis)

.....
.....

28. If you were Lewis's father, would you support your son to join car racing? Why or why not? (Synthesis)

.....
.....

29. Is Lewis a good role model for young people? Why? (Evaluation)

.....
.....

30. Would it be appropriate to give Lewis an award?
If yes, why? What kind of award would you consider?
If no, why not? (Evaluation)

.....
.....

Appendix D Survey Questionnaire

Survey questionnaire

Direction: Think about what you usually do to help you understand an English reading text. Read the list of statements below and tick in the box where it is appropriate with you.

Levels of frequency: **5 = always** **4 = often** **3 = sometimes**
 2 = seldom **1 = rare**

Items	Levels of frequency				
	5	4	3	2	1
1. I guess the meaning of unknown words from the context.					
2. I have to use the dictionary to look up the unknown words.					
3. I examine what is reading instruction or exercise questions.					
4. I translate what I read into Thai.					
5. I will skip words or parts that I do not understand.					
6. I read with my classmates.					
7. I try to find the topic and main idea by skimming.					
8. I read silently more than read aloud.					
9. I read and do the reading exercise on my own although the teacher does not give any explanations.					
10. I use titles to predict the content of the text.					
11. I use pictures to predict the content of the text.					
12. I predict what will happen next while I am reading.					
13. I underline the main idea while reading.					
14. I always read the text many times.					
15. I would read the texts and do the exercise after reading for better understanding.					

Items	Levels of frequency				
	5	4	3	2	1
16. I try to get the meaning of all words in the text.					
17. I like to search for more information if I don't understand some parts in the text.					
18. I try to find some techniques to read faster.					
19. I like reading the texts with many paragraphs.					
20. I try to visualize what I read to help me understand what I read.					
21. I have a purpose in mind when I read.					
22. I use my background knowledge to help me understand what I read.					
23. When reading, I decide what to read and what to ignore.					
24. I will more understand if I talk about what I have read with others.					
25. I use typographical features like bold fonts or italics to identify important information.					
26. I anticipate what information will come next while reading.					
27. I read slowly and carefully to make sure of what I read.					
28. When a text becomes difficult, I re-read it to increase my understanding.					
29. I take notes while reading to help me understand what I read.					
30. I paraphrase what I read in my own words to comprehend more.					

แบบสำรวจพฤติกรรมการอ่านภาษาอังกฤษ

คำชี้แจง: ประเมินพฤติกรรมการอ่านภาษาอังกฤษของตนเอง และใส่เครื่องหมาย ✓ ลงในช่องที่กำหนดให้เพื่อระบุความถี่ของการใช้พฤติกรรมการอ่านนั้น ๆ

ระดับความถี่: 5 = ประจำ 4 = บ่อยครั้ง 3 = บางครั้ง
 2 = นาน ๆ ครั้ง 1 = น้อยครั้ง

กลวิธี	ระดับความถี่				
	5	4	3	2	1
1. ฉันเดาความหมายของคำศัพท์ที่ไม่รู้จักจากรูป					
2. ฉันหาความหมายของคำศัพท์ที่ไม่รู้จักจากพจนานุกรม					
3. ฉันอ่านคำสั่งและคำถามก่อนจะอ่านเรื่อง					
4. ฉันแปลเรื่องที่อ่านเป็นภาษาไทย					
5. ฉันข้ามคำศัพท์หรือประโยคที่ฉันไม่เข้าใจขณะที่อ่าน					
6. ฉันอ่านเรื่องกับเพื่อนของฉัน					
7. ฉันจะกวาดสายตาอ่านเรื่องอย่างรวดเร็วเพื่อหาใจความสำคัญของเรื่อง					
8. ฉันอ่านเรื่องในใจมากกว่าการอ่านออกเสียงดัง					
9. ฉันอ่านเรื่องและตอบคำถามด้วยตนเองแม้ว่าครูไม่ได้สอน					
10. ฉันคาดเดาเนื้อเรื่องจากชื่อเรื่อง					
11. ฉันคาดเดาเนื้อเรื่องจากรูปภาพ					
12. ขณะที่ฉันอ่าน ฉันจะคาดเดาเหตุการณ์ต่อไปที่จะเกิดขึ้น					
13. ฉันจะขีดเส้นใต้ข้อความสำคัญของเรื่องที่อ่าน					
14. ฉันมักจะอ่านเรื่องซ้ำ ๆ หลายครั้ง					

กลวิธี	ระดับความถี่				
	5	4	3	2	1
15. ฉันอ่านเรื่องและทำแบบฝึกหัดหลังการอ่านเพื่อให้เข้าใจเรื่องที่อ่านได้ดีขึ้น					
16. ฉันพยายามที่จะเข้าใจความหมายของคำทุกคำในเนื้อเรื่อง					
17. ฉันมักจะหาข้อมูลเพิ่มเติมถ้าฉันไม่เข้าใจเนื้อเรื่องบางส่วน					
18. ฉันพยายามหาเทคนิคการอ่านที่ช่วยให้ฉันอ่านได้เร็วขึ้น					
19. ฉันอ่านเรื่องยาวที่มีหลายย่อหน้าได้					
20. ฉันพยายามนึกภาพตามเกี่ยวกับสิ่งที่อ่านเพื่อช่วยให้ฉันเข้าใจสิ่งที่อ่าน					
21. ขณะอ่าน ฉันจะมีจุดประสงค์การอ่านอยู่ในใจ					
22. ฉันใช้ความรู้ที่ฉันมีมาก่อนเพื่อที่จะช่วยให้เข้าใจเรื่องที่กำลังอ่าน					
23. ขณะที่อ่าน ฉันรู้ว่าฉันควรอ่านส่วนใดและอ่านข้ามส่วนใด					
24. ฉันจะเข้าใจเรื่องที่อ่านมากขึ้นถ้าฉันได้คุยกับคนอื่นเพื่อแลกเปลี่ยนสิ่งที่อ่าน					
25. ฉันใช้ตัวช่วยเดาต่าง ๆ ที่ปรากฏในบริบทเพื่อช่วยทำความเข้าใจในสิ่งที่อ่าน					
26. ขณะที่ฉันอ่านเรื่อง ฉันพยายามทบทวนเนื้อเรื่องที่ฉันอ่านมาก่อนหน้านี้					
27. ฉันอ่านซ้ำและระมัดระวังเพื่อให้แน่ใจว่าฉันเข้าใจสิ่งที่อ่าน					
28. ถ้าเรื่องยาก ฉันจะอ่านซ้ำเพื่อเพิ่มความเข้าใจ					
29. ขณะที่อ่าน ฉันจะจดบันทึกใจความสำคัญของเรื่อง					
30. ฉันจะเข้าใจเรื่องที่อ่านมากขึ้นเมื่อถอดความเป็นภาษาของฉัน					

Appendix E Opinions Questionnaire

Opinion questionnaire
“Opinions toward Reciprocal Teaching Strategy (RTS)”

Part A: Tick in the box where it is appropriate with you.

Levels of agreement: **5 = strongly agree** **4 = agree**
 3 = moderately agree **2 = disagree**
 1 = strongly disagree

	Levels of agreement				
	5	4	3	2	1
1. I enjoyed reading English passages when I read with friends.					
2. I could understand English passages better when I read with my friends.					
3. “Predicting” activated my background knowledge before reading.					
4. “Predicting” helped me understand English passages.					
5. “Questioning” helped me check my own understanding of the English passages.					
6. “Questioning” helped me have the critical thinking skills.					
7. “Clarifying” helped me comprehend the difficult parts of English passages.					
8. “Clarifying” helped me get the correct meaning of the difficult or unknown words, phrases, or sentences.					
9. “Summarizing” helped me focus on the main idea and important information of the English passages.					
10. I like being a group leader.					

	Levels of agreement				
	5	4	3	2	1
11. Being a group leader helps build up my confidence.					
12. Being a group member makes me happier than being a group leader.					
13. The RTS made me become an active reader.					
14. RTS helps me finish the text.					
15. RTS helps me understand the whole text.					
16. RTS helps me remember more vocabulary.					
17. RTS helps me think more critically.					
18. RTS encourages me to read more.					
19. I will continue using RTS when I read.					
20. I think other teachers should use the RTS in reading classes.					

Part B: Respond to the following questions in writing.

1. What are your general opinions/impressions about this practice method?

.....

2. What do you like about this practice?

.....

3. What do you dislike about this practice?

.....

4. What suggestions would you like to make?

.....

	ระดับคะแนน				
	5	4	3	2	1
13. ขั้นตอนการสอนด้วย RTS ทำให้ฉันเป็นผู้อ่านที่กระตือรือร้น					
14. RTS ช่วยให้อ่านเรื่องจนจบ					
15. RTS ช่วยให้อ่านเข้าใจเรื่องทั้งหมด					
16. RTS ช่วยให้อ่านคำศัพท์ได้มากขึ้น					
17. RTS ช่วยฉันให้เกิดการคิดอย่างมีวิจารณญาณมากขึ้น					
18. RTS ส่งเสริมให้อ่านอยากอ่านมากขึ้น					
19. ฉันจะยังคงใช้ RTS ช่วยฉันในการอ่านเรื่องต่อไป					
20. ฉันคิดว่าครูคนอื่น ๆ ควรใช้การสอนการอ่านด้วย RTS ในห้องเรียน					

ตอนที่ 2: เขียนตอบคำถามต่อไปนี้

1. นักเรียนมีความคิดเห็นอย่างไรต่อการฝึกการอ่านด้วย RTS

.....

2. นักเรียนชอบอะไรเกี่ยวกับการอ่านด้วย RTS

.....

3. นักเรียนไม่ชอบอะไรเกี่ยวกับการอ่านด้วย RTS

.....

4. ข้อเสนอแนะอื่น ๆ

.....

Appendix F Interview questions

Interviews questions

Group

1. Do you think that RTS is helpful to you in reading texts in English?
How?
2. Do you like or dislike it? Why? Why not?
3. What do you think of each stage of RTS practice? How does each stage help you comprehend the text in English or develop your critical thinking ability?
4. Do you think other teachers should use the RTS in reading classes?
Why? Why not?
5. How much are you satisfied with your role as the leader? Why?
6. How much are you satisfied with your role as a group member? Why?
7. What did you find as the problems or difficulties in using this method of reading practice?
8. What did you enjoy the most?
9. What did you enjoy the least?
10. In what way do you think you have improved yourself? (Reading ability, Thinking ability, Leadership skills, Communication, Cooperative learning, etc)

คำถามสัมภาษณ์

กลุ่ม

1. นักเรียนคิดว่า RTS เป็นประโยชน์สำหรับนักเรียนในการอ่านเรื่องภาษาอังกฤษหรือไม่ อย่างไร
2. นักเรียนชอบการฝึกอ่านด้วย RTS หรือไม่ เพราะเหตุใด
3. นักเรียนมีความเห็นอย่างไรต่อขั้นตอนต่าง ๆ ของ RTS แต่ละขั้นตอนช่วยให้เข้าใจเนื้อเรื่องหรือช่วยพัฒนาการคิดอย่างมีวิจารณญาณอย่างไร
4. นักเรียนคิดว่าครูคนอื่นควรใช้วิธีการสอนการอ่านด้วย RTS ในห้องเรียนหรือไม่ เพราะเหตุใด
5. นักเรียนรู้สึกพอใจกับบทบาทการเป็นผู้นำหรือไม่ เพราะเหตุใด
6. นักเรียนรู้สึกพอใจกับบทบาทการเป็นสมาชิกในกลุ่มหรือไม่ เพราะเหตุใด
7. อะไรเป็นปัญหาของการอ่านด้วย RTS
8. นักเรียนสนุกกับสิ่งใดมากที่สุดระหว่างการอ่านด้วย RTS
9. นักเรียนสนุกกับสิ่งใดน้อยที่สุดระหว่างการอ่านด้วย RTS
10. นักเรียนคิดว่านักเรียนพัฒนาตัวเองในทางใดบ้าง (ความสามารถในการอ่าน, ความสามารถในการคิด, ทักษะความเป็นผู้นำ, การสื่อสาร, การเรียนแบบร่วมมือ)

Appendix G Teacher's logs

Teacher's logs

Date: **Time:**

Title of the reading text:

Group

Predicting:

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Questioning:

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Clarifying:

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Summarizing:

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Remarks:

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PAPER 1

PROCEEDINGS

Using Reciprocal Teaching Strategy to develop English Reading Comprehension, Critical Thinking, and Metacognitive Awareness

Apisara Kaewsuan¹
Nisakorn Charumane²

Abstract

This study employed Reciprocal Teaching Strategy (RTS) to develop English reading comprehension, critical thinking skills, and metacognitive awareness. The participants were 40 junior high school students who were an intact class group having similar English language proficiency level, and they were taught to read English texts by applying RTS. The instruments used in this study were RTS teaching materials, reading tests, and survey questionnaires. The data were quantitatively analyzed. The findings showed that students received higher scores in English reading comprehension and critical thinking posttest at 0.01 significant level and students became more metacognitively aware after using RTS. This study highlights RTS and its use as an alternative strategy to improve students' reading comprehension, critical thinking skills, and metacognitive awareness.

Keywords: Reading comprehension, Critical Thinking, Junior high school, Reciprocal Teaching Strategy, Metacognitive awareness

Introduction

In Thailand where English is taught as a foreign language, it serves as a crucial tool for communicating, pursuing education, seeking information or knowledge, pursuing a livelihood, and fostering an understanding of the cultures and perspectives of the global community (Ministry of Education, 2008). For education, students need to master four skills: listening, speaking, reading, and writing to communicate successfully in English. Among these skills, reading skills seem to be essential as it is the main tool to access useful information which is mostly written in English and to learn new knowledge in daily life. Moreover, it is stressed by the Office of the National Education Commission (2002) about the importance of reading proficiency in the 21st

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century as a tool for fostering lifelong learning since it is regarded as one of the most important skills for accessing and acquiring knowledge.

As stated in the curriculum objectives about reading skills (Ministry of Education, 2008), Thai students can identify the main ideas and important details about what they have read from various types of media. Chomchaiya (2014) claimed that Thai students still struggled with English reading comprehension because they were unmotivated to read English reading texts. Conventional instructional techniques were still being used by Thai English teachers such as chalk and talk method. Thus, reading comprehension is important since it is a flexible and ongoing cognitive and constructive process (Woolley, G., & Woolley, G., 2011). Improving reading comprehension can lead to reaching deeper meaning in the texts; that is, readers can take the information they have read to answer questions, write opinions or even create something new such as making connections information what they read until they can create new ideas or new information. When critical thinking abilities occur, readers are able to reason, criticize, solve problems, and apply these skills in real life which is related to Thai national policy in education to require students to have critical thinking ability and to acquire the reading habit and continuous thirst for knowledge (Office of the National Education Commission, 2002).

To encourage students to achieve the expected outcomes, the provided textbooks must serve the objectives stated in the curriculum. They need to be systematically designed, evaluated and improved according to the requirements of the students. Based on my teaching experience, my school has used coursebook "x" for junior high school students for two years. I observed that most exercises in the reading part of each unit in the coursebook do not contain various questions to improve enough reading comprehension and critical thinking. However, students' reading comprehension and critical thinking are influenced not only by a good coursebook but also by effective teaching methods. Previous research has found that Thai students' English reading ability did not reach a satisfactory level of competency. The teaching methods used in Thai classrooms were one of the major factors. That is, most teachers taught reading by translating texts for students (Sawangsamutchai, 2016), therefore they did not have the opportunity to read and think by themselves. They are unable to read in order to summarize and interpret the key concepts. As a result, students struggled with reading comprehension and critical reading since teachers may not have assisted them in a suitable way. Furthermore, Tamrackitkun (2010) claims that some English teachers are unfamiliar with the process of teaching reading. Thus, students are not properly instructed to develop their reading abilities.

Palincsar and Brown (1985), Cotterall (1990), and Allen (2003) suggested that Reciprocal Teaching Strategy (RTS) is one of the useful reading instruction methods which covers cognitive and metacognitive processes and helps students become independent readers by improving reading comprehension and critical thinking. In this method, teachers guide students to choose and apply appropriate reading strategies.

Then, students will construct their own knowledge and create their own rules. After applying these strategies in cooperative groups, they will be able to read independently. According to Brown & Palincsar (1985), RTS is an instructional technique in which students take turns leading a group discussion about the reading texts. There are four stages of RTS: predicting, questioning, clarifying, and summarizing. "Predicting" is to guess the content of what the text will be about before reading. Then, "questioning" is to ask and answer questions about the text. Next, clarifying is to explain ambiguous parts of the text that are unclear. The last stage is to sum up the main points or important information of the reading text. This strategy also provides a higher order thinking level (Meyer, 2010) because it encourages students to think about their own thought process during reading. Importantly, it encouraged students to actively participate in their reading group and to monitor their comprehension as they were reading. Questioning and answering during reading could help students develop critical thinking skills which is consistent with Oczkus (2018) who claimed RTS improved students' reading comprehension and critical thinking and helped them to become metacognitive and reflective in their strategy use.

As discussed above, the reading materials and instructional techniques reveal some gaps which may lead to unsatisfied reading goals. Therefore, this study was intended to supplement the reading materials by adopting Bloom's taxonomy of cognitive levels (Bloom, 1964); that is, knowledge, comprehension, application, analysis, synthesis, and evaluation in order to develop students' English reading comprehension and critical thinking. RTS was used as the teaching method to enhance English reading comprehension and critical thinking. Furthermore, this study also examined students' use of metacognitive strategies in their reading. Thus, the following research questions were formulated.

Research Questions

1. To what extent does RTS develop English reading comprehension and critical thinking skills?
2. To what extent does RTS increase the students' metacognitive awareness when reading in English?

Research Methodology

Participants

The participants of the study were 40 junior (Matayomsuksa 2) high school students at a public school in Huaiyot district, Trang province. They were an intact class group which was homogeneous in terms of English proficiency level indicated by their grade in English which was average at B level.

Instruments

1. RTS teaching materials

The reading materials were adapted from a coursebook prescribed by the Ministry of Education to be used with junior high school students in a public school, Trang, Thailand. The researcher selected 12 passages from the coursebook and adapted or supplemented them with the exercises and practice to suit the purpose of this study. The 12 lesson plans were also written to include Reciprocal Teaching Strategy. There were twelve lessons covering twelve topics. Two passages were used for RTS training and ten were used for RTS practice. There was also a formative test at the end of each lesson. The content validity of these materials was examined by the three experts in the area of ELT. The revised version was unanimously approved. The IOC was 0.95. Then the tests were piloted with 30 Mattayom 2 students who were not involved in the study. This group of students was chosen because their English proficiency level was comparable to those of the participants in the study. The reliability of the test was 0.86.

2. Pre-Post reading test

In this study, a reading test was used two times as the pre-test and the post-test. To assess students' reading comprehension and critical thinking skills, the reading test was written consisting of two reading passages adapted from the coursebook prescribed by the Ministry of Education. Each passage had 15 questions based on Bloom's Taxonomy of cognitive levels: 3 questions at knowledge level, 3 questions at comprehension level, 3 questions at application level, 2 questions at analysis level, 2 questions at synthesis level, and 2 questions at evaluation level (Bloom, 1964). The whole test included 30 questions. The format of the reading test was subjective requiring students to supply their own answers. For the questions at knowledge level and the questions at comprehension level, they were required to answer in English. For the other higher levels, they could answer either in Thai or English. Doing this could avoid language problem and they could be encouraged to freely express their thoughts or opinions. To assure the content validity of the test, it was verified by three experts and some items were revised as suggested. The IOC was 0.97. Then the test was piloted with 30 Mattayom 2 students who were not involved in the study. This group of students had the same English language proficiency level as the participants of the study. The reliability was 0.78.

3. Formative tests

After finishing practicing the RTS of each lesson (all 10 lessons), students got the formative test in which they would answer 10 questions from the reading text to measure their reading ability. Questions on the 10 formative tests were based on Bloom's Taxonomy: 3 questions at knowledge level, 3 questions at comprehension level, 1 question at application level, 1 question at analysis level, 1 question at synthesis level, and 1 question at evaluation level (Bloom, 1964). These tests were reviewed and

approved by the 3 experts. Bloom's Taxonomy (Bloom, 1964). These tests were reviewed and approved by the 3 experts.

4. Survey questionnaire

The purpose of the survey questionnaire was to collect information on how students perceive their English reading ability and reading strategies. There were 30 items of questions to check the students' perceptions on the level of their reading skills based on metacognitive strategies. It was adapted from Ruangroj (2012). The levels of perceptions were in five scales; 5 (always), 4 (often), 3 (sometimes), 2 (seldom), and 1 (never). To assure the content validity of the questionnaire, it was verified by three experts and some items were revised as suggested. The IOC was 0.86. The questionnaire was then translated into Thai to avoid language problem and the content was approved by the researcher's advisor. The Thai version was piloted with the same group of students participating in the pilot of the reading test. The reliability was 0.87.

Treatment procedures

The experiment was conducted within 1 semester. The participants were firstly trained with RTS before they took turns being a leader in the process of RTS. The procedures were as follows.

1. The training stage

Participants were taught and trained to use RTS. The researcher who also acted as the teacher in this study taught and trained students with the four strategies of RTS within two weeks in a weekly 90-minute period. This was provided as a scaffolding stage to assist students and to get them familiarized with RTS use. The teacher modelled the use of each strategy in reading activities: predicting, questioning, clarifying and summarizing. The participants practiced in small groups. The training took 3 hours altogether.

2. The treatment stage involving RTS procedure

After the training stage, the participants were divided into 10 groups; each consisting of 4 members. One member of each group served as a leader of group discussion. Before class every week, the teacher asked ten leaders to collect the reading texts in order to help them prepared before they led their groups. They could talk about the text with the teacher if needed. In class, each group leader led their members to practice using the four strategies. The procedures of group work were detailed as follows:

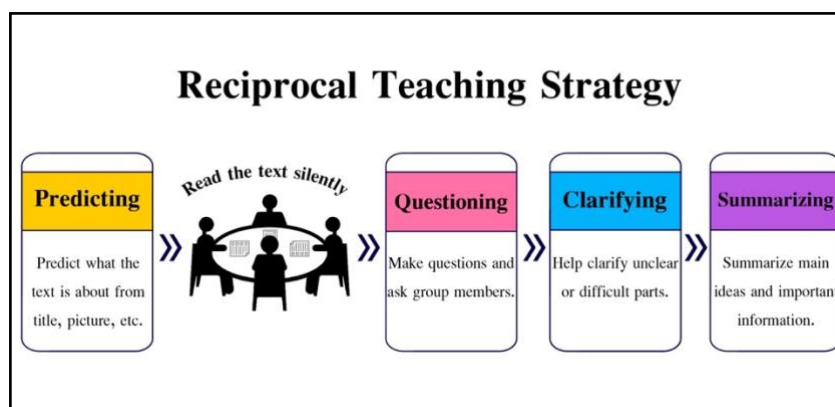


Figure 1: The stages of Reciprocal Teaching Strategy (RTS)

Before reading, each leader asked group members to predict what the text could be about according to their own background knowledge. Then, the group members could jot down their predictions. Secondly, the leader and the group members read the text silently. Thirdly, each leader made questions about the main content and the group members helped to answer the questions and also discussed their predictions. Group members could jot down the answers during the discussion. Fourthly, each leader and group members helped clarify unclear or difficult parts from the reading text. Lastly, each leader asked group members to summarize the main ideas and important information.

In carrying out the task, group members were allowed to use both Thai and English to communicate their ideas. The teacher moved from group to group to monitor their discussion and to provide assistance if needed.

The same procedure was repeated when each group practice RTS with the next lesson. A new member in the same group who has not led the group discussion would take a role in leading the group discussion of the new lesson. Each member had chances to lead the group or act as a group leader at least 2 times throughout the whole semester.

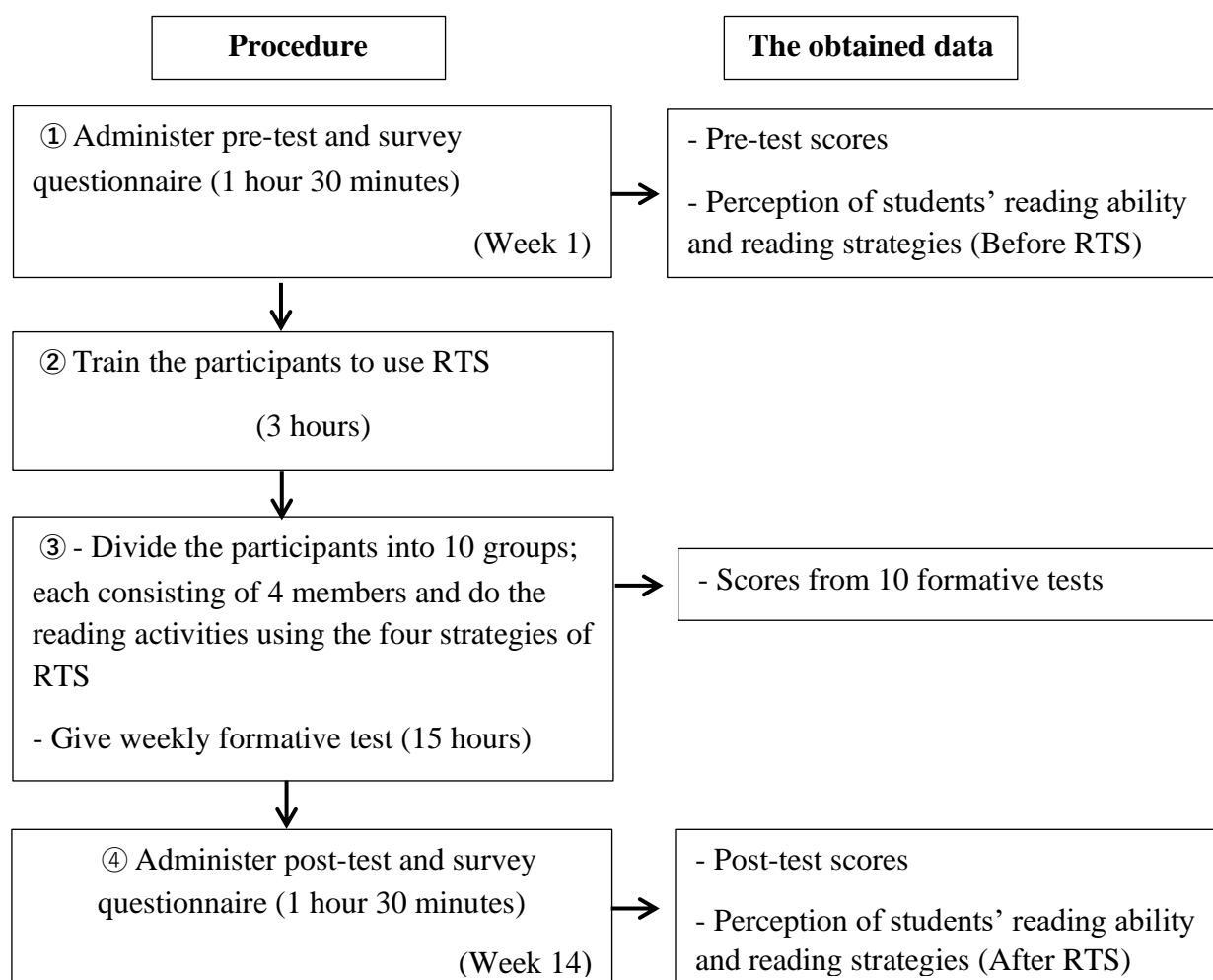
Data collection procedure

Before the treatment phase, the participants were assessed using the pre-test and survey questionnaire. This was done in the first week taking about one and a half hour.

The participants were trained during weeks 2-3 and they used reciprocal strategies during weeks 4-13 totalling 15 hours following the procedures described in Treatment procedures. While the students were working in groups, the researcher acted as a facilitator. The formative tests were given to students at the end of each lesson.

After the 15 hours practice, the participants were assessed again in week 14 using the post-test and survey questionnaire. The time given was about one and half hour.

Figure 2: The treatment and data collection procedure



Analyses

The scores of the pre-test, post-test and ten formative tests were calculated using descriptive statistics. Means, standard deviations, and paired-sample t-test were reported accordingly.

Data from the survey questionnaires were calculated with means, standard deviations, and paired-sample t-test.

Findings

RQ1: To what extent does RTS develop English reading comprehension and critical thinking skills?

1. Students' overall reading comprehension

Table 1: Comparison of the overall scores from pretest and posttest

Pre		Post		t	df	Sig. (2-tailed)
\bar{X}	S.D.	\bar{X}	S.D.			
7.99	2.83	11.08	4.45	5.04 *	39	.00

* Significant at 0.01

The English reading test, employed in this study, contained the total score of 30. Based on the Table 1, the mean score of the pretest of 40 students was 7.99 (S.D. = 2.83), whereas the mean score of the posttest was 11.08 (S.D. = 4.45). Although the mean score of the posttest was higher than the pretest, it was less than 50%. However, there was the significant difference between the pretest and the posttest at the level of 0.01. Still, it can be said that students can significantly improve their English reading comprehension after the use of RTS.

When considering students' progress throughout the course of RTS treatment, results from formative tests are shown in the following figure.

Figure 3: Reading comprehension scores from formative tests

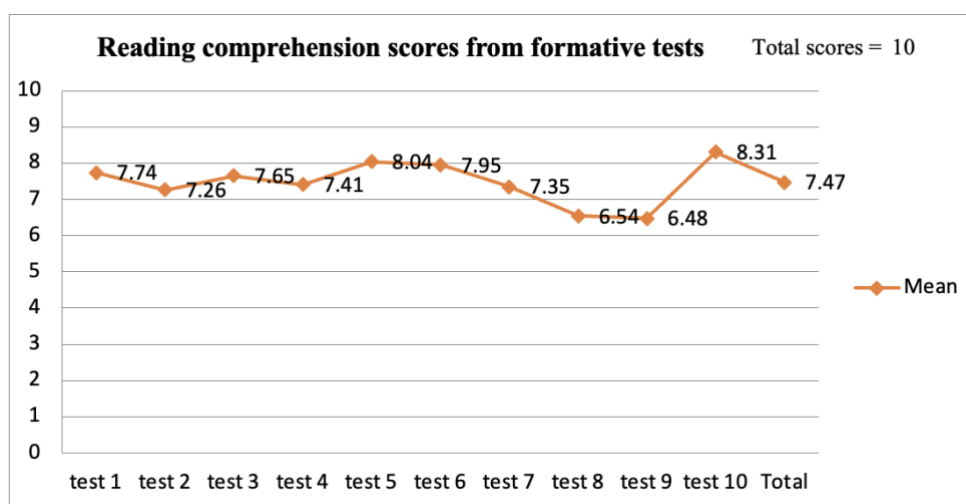


Figure 3 shows the students' scores from ten formative tests during the use of RTS. The mean scores of the first test to the seventh test were quite stable ($\bar{X} = 7.74, 7.26, 7.65, 7.41, 8.04, 7.95,$ and 7.35 respectively) before they decreased slightly on the eighth and ninth tests ($\bar{X} = 6.54$ and 6.48). However, the average score on all tests was 7.47 .

The results clearly showed that students kept practicing the use of RTS until they gradually improved their ability in answering the questions of each test as well as improved their understanding of the reading texts.

2. Critical thinking skills

To explore further into their cognitive levels reflecting critical thinking skills, Table 2 shows the findings from the comparisons of scores between pretest and posttest.

Table 2: Comparison of different cognitive levels between pretest and posttest

Cognitive levels		Pre			Post			T	df	Sig. (2-tailed)
		\bar{X}	%	S.D.	\bar{X}	%	S.D.			
Knowledge	6	2.83	47.17	1.14	3.29	54.83	1.23	2.20 *	39	.03
Comprehension	6	.99	16.50	.83	1.50	25.00	1.00	2.84 **	39	.01
Application	6	1.03	17.17	.49	1.70	28.33	1.21	3.65 **	39	.00
Analysis	4	1.04	26.00	.63	1.50	37.50	1.04	2.78 **	39	.01
Synthesis	4	.88	22.00	.70	1.09	27.25	.99	1.43	39	.16
Evaluation	4	1.24	31.00	.62	2.00	50.00	1.13	4.35 **	39	.00

As shown in Table 2, the mean scores of the posttest of knowledge, comprehension, application, analysis, and evaluation were significantly higher than the pretest ($p = 0.01, 0.05$). It was indicated that the students had improvement in all cognitive levels except synthesis level which slightly increased but not at the significant level ($p = 0.16$). Still, it could be fair to say that the use of RTS can level up students' reading comprehension and some levels of critical thinking.

More data from formative tests reveal the ongoing development of critical thinking skills during the RTS practice. Figure 4 and 5 presents such findings which are in line with the results from pretest and posttest.

Figure 4: Development of cognitive levels during the RTS practice identified by individual formative tests

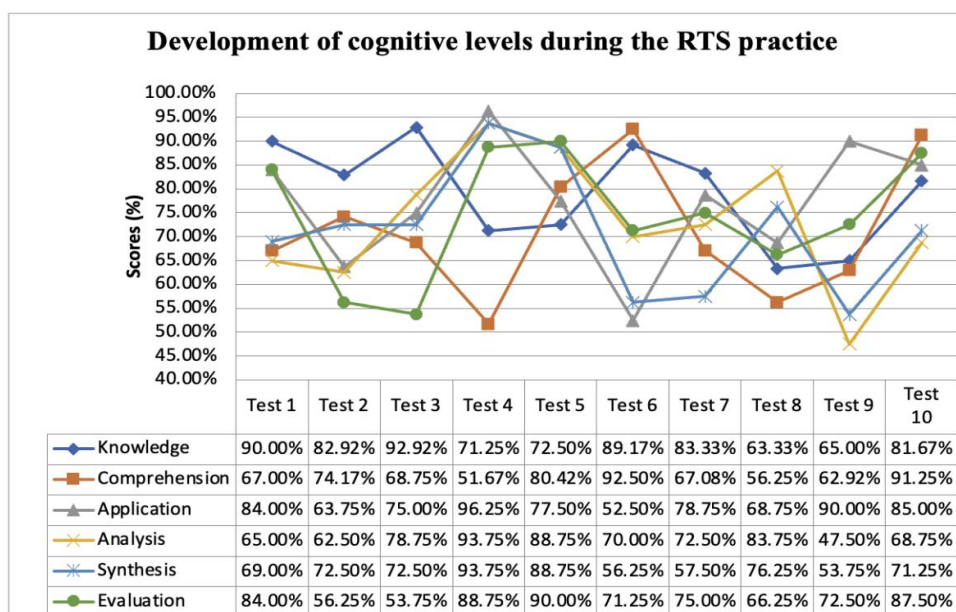


Figure 5: Development of cognitive levels during the RTS practice identified by all the formative tests

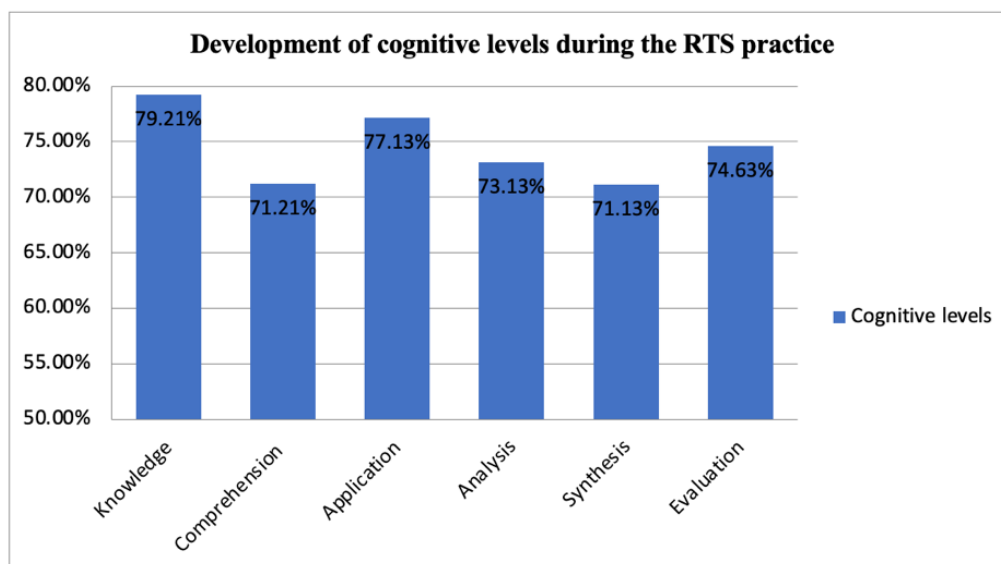


Figure 4 illustrates the ongoing development of cognitive levels reflected in each formative test and Figure 5 summarizes the development of cognitive levels during the RTS practice. As seen in both figures, scores obtained at each cognitive level by different tests were generally above average (more than 50%). Students did best at knowledge and application levels (Figure 5: 79.21% and 77.13% respectively). The cognitive level which was found the lowest was synthesis (Figure 5: 71.13%). This result was in line with that found in the comparison of pretest and posttest in Table 2 confirming that the ability to synthesize may not increase as much as other cognitive levels.

RQ2: To what extent does RTS increase the students' metacognitive awareness when reading in English?

3. Metacognitive Awareness

Table 3: Comparison of Metacognitive Awareness from survey questionnaire

Pre		Post		t	df	Sig. (2-tailed)
\bar{X}	S.D.	\bar{X}	S.D.			
3.44	.50	3.78	.48	7.06 *	39	.00

* Significant at 0.01

Table 3 showed metacognitive awareness from survey questionnaire before and after the use of RTS. It revealed that the awareness of metacognitive strategies used significantly increased from moderate or "sometimes" level (pre: $X = 3.44$, S.D. = 0.50)

to a higher or “often” level (post: $X = 3.78$, $S.D. = 0.48$). This indicated that students became more metacognitively aware as they used RTS. The detailed comparisons are shown in Table 4 below.

Table 4: Comparison of the Metacognitive Strategies before and after the use of Reciprocal Teaching Strategy

Statements	Before RTS		After RTS		Sig. (2-tailed)
	\bar{X}	S.D.	\bar{X}	S.D.	
1. I guess the meaning of unknown words from the context.	3.23	.80	3.97	.73	.00 *
2. I have to use the dictionary to look up the unknown words.	3.63	.88	3.75	.98	.42
3. I examine what is reading instruction or exercise questions.	4.13	.82	4.03	.86	.42
4. I translate what I read into Thai.	3.60	.98	3.83	.96	.15
5. I will skip words or parts that I do not understand.	3.43	1.20	3.87	1.04	.03 *
6. I read with my classmates.	2.93	1.12	3.83	.90	.00 *
7. I try to find the topic and main idea by skimming.	3.45	1.11	3.80	1.02	.04 *
8. I read silently more than read aloud.	4.25	1.01	4.35	.86	.61
9. I read and do the reading exercise on my own although the teacher does not give any explanations.	2.80	.91	3.13	1.02	.09
10. I use titles to predict the content of the text.	3.15	1.00	3.95	1.01	.00 *
11. I use pictures to predict the content of the text.	3.55	.90	4.28	.85	.00 *
12. I predict what will happen next while I am reading.	3.13	1.18	3.80	.94	.00 *
13. I underline the main idea while reading.	2.83	1.11	3.38	1.13	.00 *
14. I always read the text many times.	3.58	1.22	3.95	1.04	.05 *
15. I would read the texts and do the exercise after reading for better understanding.	2.98	.89	3.60	1.01	.00 *
16. I try to get the meaning of all words in the text.	3.75	.71	3.88	.88	.39
17. I like to search for more information if I don't understand some parts in the text.	3.18	.78	3.38	.95	.16

Statements	Before RTS		After RTS		Sig. (2-tailed)
	\bar{X}	S.D.	\bar{X}	S.D.	
18. I try to find some techniques to read faster.	3.48	.99	3.82	.87	.03 *
19. I like reading the texts with many paragraphs.	2.45	.85	3.20	1.07	.00 *
20. I try to visualize what I read to help me understand what I read.	4.00	.93	4.10	1.03	.47
21. I have a purpose in mind when I read.	3.43	1.01	3.70	1.07	.16
22. I use my background knowledge to help me understand what I read.	3.90	.84	3.95	.75	.75
23. When reading, I decide what to read and what to ignore.	3.10	1.08	3.28	1.11	.31
24. I will more understand if I talk about what I have read with others.	3.55	1.15	3.75	1.15	.23
25. I use typographical features like bold fonts or italics to identify important information.	3.85	.92	3.93	.83	.71
26. I anticipate what information will come next while reading.	3.55	.82	3.78	.92	.22
27. I read slowly and carefully to make sure of what I read.	3.58	1.06	3.55	1.01	.90
28. When a text becomes difficult, I re-read it to increase my understanding.	3.90	1.15	4.15	.89	.17
29. I take notes while reading to help me understand what I read.	2.65	1.15	3.03	1.05	.03 *
30. I paraphrase what I read in my own words to comprehend more.	4.15	1.08	4.50	.68	.01 *

* Significant at 0.05

Levels of frequency: 4.50-5.00 = always
 3.50-4.49 = often
 2.50-3.49 = sometimes
 1.50-2.49 = seldom
 1.00-1.49 = rare

As seen in Table 4, 14 out of 30 strategies were found significantly different. Students developed their metacognitive strategies mostly from moderate or “sometimes” level to “often” level. These included guessing meaning of unknown words (Item1), skipping non-understandable parts (Item5), skimming for topic and

main idea (Item7), using titles and pictures to predict the content (Items 10,11), predicting what comes next (Item 12), reading texts many times (Item 14), underlying main idea (Item 13), taking notes while reading (Item 15). Moreover, they read more with their classmates (Item 6) and tried to find techniques to read faster (Item18). Also, students read the texts with many paragraphs more frequently (Item 19) and they always paraphrase what was read in their own words (Item 30).

Discussion

The findings of the study are discussed as follows:

1) Reading comprehension

Based on the findings of this study, students significantly improved their English reading comprehension after the use of Reciprocal Teaching Strategy. RTS helped them to use the four key strategies meaningfully in their English reading class; that is, they learned to predict what the text was about, to make questions and ask for group members to share answers in order to understand the text, to clarify unclear parts or sentences from the reading text and to summarize and identify the main idea or important information from the text that they had read. The four key strategies enabled them to overcome difficulties when reading English texts. From the mentioned findings, it can be concluded that RTS is a useful reading strategy for students to improve their reading comprehension. It allows students to think about their reading process and gradually go through the stages to understand the main ideas of the texts. These findings were in accordance with studies from Konpan (2006), Rattanapong (2014), and Pilten (2016) who found that RTS had positive effects on English reading comprehension. Their findings indicated that students' English reading achievement was significantly higher after the experiments: that is, students could improve their English reading comprehension after the use of RTS.

2) Critical thinking skills

From the study of how RTS could improve critical thinking, it was found that students' skills in applying, analyzing, and evaluating improved significantly after the experiment. Their ability to synthesize increased slightly, even though with no statistical difference. Still, it would be fair to say that RTS can help students to think critically. This finding was consistent with Meyer (2010) who claimed that using RTS in questioning and answering sessions helped students become more critical thinkers. According to Yousefi & Mohammadi (2016), critical thinking is a way to reflect and evaluate what is read, so it helps students make a judgment and shape their beliefs. Most students were very active in expressing their opinion during reading tasks especially questioning and answering sessions and they provided the answers meaningfully based on their different perspectives in the reading group. Thus, they were thinking critically. It can be concluded that the use of RTS can be an effective teaching method to enhance students' critical thinking.

3) Metacognitive strategies

As gathered from the findings, it can be seen that students used metacognitive reading strategies at the "sometimes" level before using RTS and then increased their use to the "often" level after using RTS. The results showed that students could control their own learning process to improve their English reading comprehension by the use of the four stages of RTS: predicting, questioning, clarifying, and summarizing. When the students read English reading texts, they tried different reading strategies to understand what they were reading. To illustrate, students used titles or pictures to predict what the texts would be about and to guess the meanings of difficult words from the context; they also took notes and guessed what would happen next and underlined the main ideas as they were reading. They have read the texts many times and also tried to skim for the main ideas. Based on O'Malley & Chamot (1990) and Wang (2003), it is claimed that reciprocal teaching is one of the reading strategies that helps readers be more aware of how they think. It allows students to think about how they read, come up with a plan, monitor their own reading in order to construct their own knowledge, and self-evaluate their reading process. RTS improves their metacognitive awareness and students become successful in reading English texts. Consequently, they can become independent readers, which is the goal of teaching reading for EFL students.

Conclusions

The findings of the current study indicated their reading achievement, and metacognitive awareness after the use of Reciprocal Teaching Strategy (RTS). RTS has improved English reading comprehension and critical thinking. The results showed that RTS using in their English reading can significantly improve the cognitive levels specifically knowledge, comprehension, application, analysis, and evaluation. They could improve the most at "knowledge" level while the least at "synthesis" level. During reading, RTS can make students become more aware of metacognitive strategies. Students could control their own metacognitive awareness to be successful in reading. At the same time, some students required the teacher's and group members' scaffolding and guidance to overcome their English reading difficulties. Importantly, sharing ideas or expressing comments in group discussions was helpful to increase better reading comprehension and critical thinking. Thus, RTS can be used by Thai English teachers as an effective teaching method in teaching reading. As students, they also must be actively involved in applying RTS to comprehend reading texts until they can generate more independent reading behaviors and improve their own better Metacognitive awareness.

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PAPER 2

SUBMITTED PAPER

Opinions towards the Use of Reciprocal Teaching Strategy in English Reading

ความคิดเห็นต่อการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทในการอ่านภาษาอังกฤษ

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Abstract

This study investigated the junior high school students' opinions on the use of Reciprocal Teaching Strategy (RTS) when reading in English. The investigation was conducted with forty students who were enrolled in the eighth grade at a public school located in the Huaiyot district of Trang province. Quantitative data were collected through the opinions questionnaire and calculated with means and standard deviations. Qualitative data were obtained from the open-ended questions in the questionnaires, the interviews, and the teacher's logs. It was found that most students agree with the use of reciprocal teaching strategy in English reading; that is, they had positive opinions using RTS stages of predicting, questioning, clarifying, and summarizing as well as the exchange of leading role in discussion group. It can be inferred from the findings that the reciprocal teaching strategy can be an engaging tool in a reading class and also can enhance students' inspiration to improve their English reading skills and to develop more positive attitudes when reading texts in English.

Keywords: Opinions, Reciprocal Teaching Strategy, English reading, Junior high school

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บทคัดย่อ

การศึกษานี้สำรวจความคิดเห็นของนักเรียนระดับมัธยมศึกษาตอนต้นเกี่ยวกับการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทในการอ่านเรื่องภาษาอังกฤษ กลุ่มตัวอย่างคือนักเรียนจำนวน 40 คน ซึ่งลงทะเบียนเรียนในระดับชั้นมัธยมศึกษาปีที่ 2 โรงเรียนของรัฐแห่งหนึ่งในอำเภอห้วยยอด จังหวัดตรัง ข้อมูลเชิงปริมาณได้มาจากแบบสอบถามความคิดเห็น สถิติที่ใช้ในการวิเคราะห์ ได้แก่ ค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน ข้อมูลเชิงคุณภาพได้มาจากคำถามปลายเปิดในแบบสอบถาม การสัมภาษณ์ และบันทึกการสังเกตของครู ผลการสำรวจความคิดเห็นของนักเรียนต่อการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาท พบว่า นักเรียนส่วนใหญ่เห็นด้วยกับการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทในการอ่านเรื่องภาษาอังกฤษ กล่าวคือ นักเรียนมีความคิดเห็นเชิงบวกต่อขั้นตอนการเดาเรื่อง การตั้งคำถาม การตรวจสอบความเข้าใจ และการสรุปเรื่อง ตลอดจนการแลกเปลี่ยนบทบาทการเป็นผู้นำในกลุ่มอภิปราย จึงสรุปได้ว่าการใช้วิธีการสอนแบบแลกเปลี่ยนบทบาทสามารถเป็นเครื่องมือที่น่าสนใจในชั้นเรียนการอ่านเรื่องภาษาอังกฤษ และอาจช่วยเพิ่มแรงบันดาลใจของนักเรียนในการพัฒนาทักษะการอ่านเรื่องภาษาอังกฤษ และพัฒนาทัศนคติเชิงบวกมากขึ้นเมื่ออ่านข้อความภาษาอังกฤษ

คำสำคัญ: ความคิดเห็น, การใช้วิธีการสอนแบบแลกเปลี่ยนบทบาท, การอ่านเรื่องภาษาอังกฤษ, ระดับชั้นมัธยมศึกษาตอนต้น

Introduction

In a knowledge-based society, reading plays an important role. It is a way to find out new information or learn new things when most resources are written in English. The Office of the Education Council (2017) emphasizes that reading has become an important skill for learning in the 21st century since it is a tool to encourage lifelong learning because it is regarded as one of the most important abilities for learners to access a huge quantity of information on a variety of subjects. As a result, reading skill improvement is seen as the primary objective of English instruction. Previous research has demonstrated that the level of English reading competence among Thai students is unsatisfactory since they faced difficulty with English reading comprehension (Chomchaiya, 2014; Uraiman, 2011). Thai schools' pedagogical teaching was a significant factor. One claim is that many instructors taught children to read only by translating materials for them (Sawangsamutchai & Rattanavich, 2016). In addition, Tamrackitkun (2010) mentioned that students were bored and unmotivated because Thai English teachers still used teacher-centered in learning English. Kongkert (2013) emphasized that Thai English teachers often read aloud and asked students to follow sentence by sentence and then answered the questions. Consequently, students were

limited from reading and thinking independently. From this limitation, it might be the right time to reconsider how to approach English reading class.

It is important for teachers to think carefully and choose the most appropriate methods and techniques. According to Fahas (2021), it was claimed that choosing a good technique needs to be considered based on the students' abilities and their needs so that their interest can be increased. Some experts recommended some teaching strategy to improve reading skills. One of the teaching methods to suit is Reciprocal Teaching Strategy (RTS). Palincsar and Brown (1984), Cotterall (1990), and Allen (2003) suggest that RTS helps readers understand texts and they can observe their own advancement. It uses a sociocultural strategy to model, explain, and teach strategies in a social, supportive atmosphere. "Predicting", "Questioning", "Clarifying", and "Summarizing" are the four processes of RTS to improve reading comprehension and critical thinking skills.

To provide further explanation, "predicting" is using prior knowledge to discuss or predict what the text might be about. Readers can later check their guesses while reading. Next, "questioning" helps students identify main ideas and important information by asking questions about the content in the text in order to check their understanding. Then, "clarifying" means students identify unclear or difficult parts from the reading text. Finally, "summarizing" indicates whether students understand the text by summarizing the main ideas and important information.

It is expected that the reading comprehension and reading attitudes of the students could be improved after the use of this strategy. Thus, this study aimed to experiment on the use of Reciprocal Teaching Strategy in a reading class and to investigate the students' opinions towards reading in English after using RTS.

Objective

The purpose of the study was to examine students' opinions about the use of Reciprocal Teaching Strategy in reading class. The research question addressed was:

What are the students' opinions towards the use of RTS in reading class?

Research Methodology

This study aimed to investigate students' perspectives on the application of the Reciprocal Teaching Strategy in reading class. Participants, instruments, the treatment, data collection, and data analysis are described in this section.

1. Participants

The study included 40 Mattayomsuksa 2 students from a public school in Huaiyot district, Trang province. They were grouped into the same homogeneous class in which they had similar level of English ability, as demonstrated by their English grade, which was mainly average at B level.

2. Instruments

The research instruments used to collect data consisted of RTS teaching materials, opinions questionnaire, interviews, and teacher's logs.

2.1 RTS teaching materials

The reading materials were adapted from a coursebook that was mandated by the Ministry of Education to be used with students enrolled in Mattayomsuksa 2 at a public school located in Trang, Thailand. The researcher chose 12 different sections from the textbook and then modified or added to those sections with various activities and practices in order to make them suitable for the aim of this study. The 12 lesson plans were created to use Reciprocal Teaching Strategy. The first two passages were used for RTS training and the others were used for RTS practice. Here are the topics of 12 reading passages:

Reading A Life in 2100 (For the 1st RTS training) Reading B Life-savers!
 (For the 2nd RTS training) Reading 1-10 (For RTS practice)

- Reading 1 What's your best friend like?
- Reading 2 Email of the week
- Reading 3 Penpal exchange
- Reading 4 Animals at risk
- Reading 5 African safari
- Reading 6 Strange but true!
- Reading 7 Robot World
- Reading 8 Red Nose Day
- Reading 9 The footprints in the snow
- Reading 10 Three British heroes

The teaching materials and the lesson plans were examined by the 3 experts who were experienced English language teachers to assure the content validity and they were revised as suggested. The IOC was found at 0.95

2.2 Opinions questionnaire

The opinions questionnaire was designed to obtain students' opinions about the use of Reciprocal Teaching Strategy in reading class. There were 20 questions in Part A that examined students' attitudes after the use of Reciprocal Teaching Strategy. It had five scales: 5 (strongly agree), 4 (agree), 3 (moderately agree), 2 (disagree), and 1. (strongly disagree). Part B included 4 open-ended questions. The questionnaire was translated into Thai to prevent students' misinterpretation. To assure the content validity of the questionnaire, the items were verified by three experts and revised as suggested. The IOC level was found at 0.86. The revised questionnaire was piloted with 30 Mattayomsuksa 2 students who were not involved in the main study. This group shared similar language level with students in the main study. The reliability of the opinions questionnaires was at 0.85. (See Appendix)

2.3 Interview questions

The objective of the interview was to interact with group members in order to obtain qualitative information regarding the students' perspectives towards English reading through RTS. The questions were similar to those in the opinions questionnaire but they were in the form of open-ended questions. To assure the content validity of the interview questions, they were verified by three experts and then revised as suggested. (See Appendix)

2.4 Teacher's logs

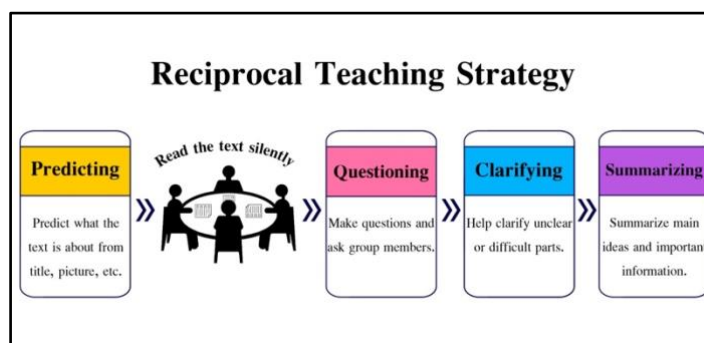
The teacher's logs were used to document the researcher's observations of how students apply the four stages of RTS: predicting, questioning, clarifying, and summarizing. It displayed how well the students performed during a reading class with RTS. It was also to discover if there were any problems while doing the reading activities. The structural form of the log was approved by the three experts. (See Appendix)

3. The treatment

The treatment was conducted within a single academic term. Within each week, class met in a 90-minute period. It was divided into two phases.

First, the participants were trained on how to use RTS for reading with the first two passages during the first two weeks. The teacher modeled the use of each strategy in reading activities from predicting, questioning, clarifying and summarizing. This was provided as a scaffolding stage to assist students and to get them familiarized with RTS use.

For the second phase, the participants were divided into 10 groups each consisting of 4 members. One member of each group acted as a leader of group discussion and led the members to practice reading with RTS process. Each week before class, the teacher asked 10 leaders come from each group to get the reading text and helped them prepare as group leaders of the week. Each members had chances to lead the group at least twice during the whole semester. The following figure shows the process of RTS in class.



During the reading process, the teacher moved from group to group to monitor their discussion and to provide assistance if needed including observing and taking notes on the students' use of RTS.

4. Data Collection

The data collection procedure can be described as follows.

During the treatment, the observation on the use of RTS stages was made and recorded in the teacher's logs on the weekly basis. At the end of the treatment, all the participants were asked to complete the opinions questionnaire. One week later, the ten groups were asked to participate in the group interviews. A 10 to 15 minute interview was conducted with each group in Thai language.

5. Data Analysis

Data from the opinions questionnaire were calculated with means and standard deviations.

Data from the open-ended questions, the interviews and teacher's logs were analyzed, interpreted, and summarized.

Findings and discussion

Students' opinions towards the use of RTS in reading class

After using RTS, students were asked to respond to the opinion questionnaire, and reflected their opinions in the interviews. The results are presented as follows.

Table 1: Students' opinions towards the use of RTS

Statements	Mean	S.D.
1. I enjoyed reading English passages when I read with friends.	4.35	.80
2. I could understand English passages better when I read with my friends.	4.45	.68
3. "Predicting" activated my background knowledge before reading.	3.95	.70
4. "Predicting" helped me understand English passages.	4.08	.70
5. "Questioning" helped me check my own understanding of the English passages.	3.90	.70
6. "Questioning" helped me to develop critical thinking skills.	3.65	.80
7. "Clarifying" helped me comprehend the difficult parts of English passages.	3.88	.90
8. "Clarifying" helped me understand the correct meaning of the difficult or unknown words, phrases, or sentences.	3.68	.80

Statements	Mean	S.D.
9. “Summarizing” helped me focus on the main idea and important information of the English passages.	3.83	.70
10. I like being a group leader.	3.38	1.10
11. Being a group leader helps build up my confidence.	3.45	1.00
12. Being a group member makes me happier than being a group leader.	3.95	1.00
13. RTS made me become an active reader.	3.98	.80
14. RTS helps me finish reading the text.	4.10	.70
15. RTS helps me understand the whole text.	3.95	.90
16. RTS helps me remember more words.	3.90	.90
17. RTS helps me think more critically.	3.90	.80
18. RTS encourages me to read more.	3.83	.80
19. I will continue using RTS when I read.	3.98	.80
20. I think other teachers should use RTS in reading classes.	4.03	1.00
Total	3.91	0.86

* Levels of agreement:

4.21-5.00 = strongly agree 3.41-4.20 = agree
 2.61-3.40 = moderately agree 1.81-2.60 = disagree
 0.00-1.80 = strongly disagree

As seen in Table 1, students “agree” with the use of Reciprocal Teaching Strategy in English reading ($\bar{x} = 3.91$, $SD = 0.86$). Their opinions as shown in Table 1 triangulated with those from interviews and observations can be further drawn, classified, and discussed as follows.

1. Opinions towards different stages of RTS

The first stage is “Predicting” strategy. Students “agreed” that it activated their background knowledge before reading (Item 3: $\bar{x} = 3.95$, $SD = 0.70$) and helped them understand English passages (Item 4: $\bar{x} = 4.08$, $SD = 0.70$). Most students reported that they can use their background knowledge, titles, or pictures to predict the content of the passages. Predicting strategy encouraged them to easily guess what the reading texts were about while some students thought it was hard to guess about the reading text because of the lack of background knowledge. Also, it was observed that the predicting strategy was successful in engaging students in providing the responses. The following statements from interviews support these findings:

S5: “I could better understand the text when I tried to predict what the text was about from pictures or titles before starting a reading.”

- S17: “I liked to predict the content of the texts with friends. We helped each other to look for what the text was about but I did not enjoy predicting alone because it was too hard for me to guess the content within a limited time, particularly during tests.”
- S22: “Sometimes, I could not guess the content of the texts from the title since I did not know the meaning of the words, but pictures of the texts helped me to predict the content.”

The second stage is “Questioning” strategy. This helped students check their own understanding of the English passages (Item 5: $\bar{x} = 3.90$, $SD = 0.70$) and helped them to develop critical thinking skills (Item 6: $\bar{x} = 3.65$, $SD = 0.80$). Combined with results from interviews, it can be concluded that most students felt happy asking questions about the main ideas or important information of the reading texts. This stage made them understand the texts and improve their critical thinking ability. However, some students found that it was not easy to cover all the important information of the reading texts. Students' quotes were displayed as follows:

- S24: “I enjoyed sharing the ideas or point of views in asking and answering the questions from the reading texts.”
- S19: “Questioning strategy gave us a chance to criticize interesting issues in order to answer the questions correctly and also enhance our critical thinking ability.”
- S1: “I felt relaxed to answer the questions when the group leader asked the questions. On the other hand, when it was my turn, I struggled with creating various questions to ask my group members to check their understanding of the reading text.”

The third stage is “Clarifying” strategy which helped them comprehend the difficult parts of English passages (Item 7: $\bar{x} = 3.88$, $SD = 0.90$) and helped them understand the correct meaning of the difficult or unknown words, phrases, or sentences (Item 8: $\bar{x} = 3.68$, $SD = 0.80$). Students mentioned that clarifying strategy worked well because they could understand the English texts clearly and could identify the main ideas of the English texts. The students' additional opinions are as follows:

- S34: “I thought that clarifying strategy was useful since it made me clear about confusing things from the reading texts such as the meanings of words.”
- S7: “I liked this stage because I can recheck my understanding whether it was correct.”
- S2: “I learned many new words from the reading texts when the group leader led to clarify the difficult parts of English texts.”

The last stage is “Summarizing” strategy. Students “agreed” that it helped them focus on the main idea and important information of the English passages (Item 9: $\bar{x} = 3.83$, $SD = 0.70$). Most students viewed that they comprehend more by summarizing the main points of the reading text. Also, summarizing strategy guided them to realize that they did not have to understand every part of the reading texts. The following quotes confirmed these findings.

S16: “Summarizing the texts helped me understand the important information easily and quickly.”

S39: “RTS helped me more confident when I had to conclude the English reading texts that what the main idea or important detail was.”

2. Opinions towards group working during RTS

It was found that students enjoyed reading English passages when they read with friends (Item 1: $\bar{x} = 4.35$, $SD = 0.80$). Students could understand English passages better when they read with my friends (Item 2: $\bar{x} = 4.45$, $SD = 0.68$). They also like being a group leader (Item 10: $\bar{x} = 3.38$, $SD = 1.10$). Being a group leader helps build up their confidence (Item 11: $\bar{x} = 3.45$, $SD = 1.00$). And being a group member makes them happier than being a group leader (Item 12: $\bar{x} = 3.95$, $SD = 1.00$). Most students felt happy and satisfied reading to read various reading texts in groups. They viewed that reading with group members helps improve reading ability. This made them understand the main points or important information of the reading texts. The quotes are shown below.

S9: “I enjoyed reading the reading texts in the group.”

S4: “I felt confident when reading texts with friends.”

S35: “I liked working in my group because I can share information and opinions and we can help each other.”

3. How RTS makes better readers

Based on the findings, RTS made students become an active reader (Item 13: $\bar{x} = 3.98$, $SD = 0.80$). RTS helped students understand the whole text (Item 15: $\bar{x} = 3.95$, $SD = 0.90$) and finished reading the text (Item 14: $\bar{x} = 4.10$, $SD = 0.70$). Moreover, RTS helped students think more critically (Item 17: $\bar{x} = 3.90$, $SD = 0.80$) and helped students remember more words (Item 16: $\bar{x} = 3.90$, $SD = 0.90$). Most students thought that RTS made them become better readers since they could understand some difficult parts of the texts or find the main ideas with the stages of RTS. Some students’ opinions are presented below.

S28: “I could understand the texts and identify main ideas when I read them with the use of RTS.”

S13: “RTS made me read the texts critically.”

S31: “RTS helped me know my own reading strategies. This made me understand the whole text or main ideas easily when I read the reading texts using appropriate strategy such as reading texts with friends.”

4. How RTS becomes inspirational for readers of English language

According to the findings, it can be concluded that RTS encouraged students to read more (Item 18: $\bar{x} = 3.83$, $SD = 0.80$) and continued using RTS when reading in English (Item 19: $\bar{x} = 3.98$, $SD = 0.80$). Most students thought other teachers should use RTS in reading classes (Item 20: $\bar{x} = 4.03$, $SD = 1.00$). Most students mentioned that they still apply RTS in their English reading. Some excerpts from the interviews are shown below:

S38: “I liked to read the texts with the use of RTS because I enjoy sharing ideas with group members.”

S25: “I learned new difficult words after reading with RTS.”

S6: “RTS helped me improve both critical thinking ability and metacognitive awareness.”

5. Problems and challenges

Although most students responded positively towards RTS, some problems were also found. Firstly, being a group leader became an issue during RTS. As seen in Table 1, being a group leader was perceived as the lowest score (Item 10: $\bar{x} = 3.38$, $SD = 1.10$) because a number of students did not like being a group leader. Some students felt uncomfortable to lead group members read the texts. While some students enjoyed being a group leader, more than half felt uncomfortable. According to the interview and the open-ended questions, the following quotes from the students are shown:

S12: “I did not like to be a group leader. I was not confident in myself when group members stared at me while I was speaking.”

S8: “I felt pressured when I had to help group members understand the passages. I was afraid of making some mistakes especially with difficult passages.”

S33: “I felt bad when my friends did not listen to what I tried to describe during the RTS process.”

However, some enjoyed being leaders as shown in the following report.

S19: “Being a group leader gave me the courage to speak up or share the ideas confidently in front of my friends.”

S6: “I was satisfied to be a group leader because it made me more active to prepare myself before starting reading activities.”

However, it could be noticed that students who acted as a group leader were quite nervous while they were leading group members to read the passages only in the first three weeks and they were gradually better confident later. Secondly, some students viewed that the four stages of RTS were quite complicated. The followings are examples of students' views:

S7: "I did not want to memorize what to do in the reading process."

S24: "It took too much time to follow the procedures from predicting to summarizing. One text took 90 minutes. For me, I could read 2 - 3 reading texts within this time."

When considering the interview, some students stated it was boring to read easy texts with RTS because it wasted time. However, most students felt happy because RTS could help them comprehend difficult texts even if they spent much time reading.

Interestingly, some students suggested something that might be useful for teaching reading as followed:

S1: "Working with the same group to read ten reading texts using RTS was quite boring, so I would prefer to work with other groups when I read a new text."

S40: "Games should be applied as an activity for "questioning" to ask and answer the questions from the reading texts for more challenging and joyful learning."

Discussions

Based on the findings, it can be inferred that the students had positive opinions regarding the RTS and perceived it as a helpful reading strategy. This similar result was found by Ramadan (2017) that students hold positive attitudes towards reading comprehension using Reciprocal Teaching Strategies. They considered the four strategies useful in facilitating reading comprehension. As a result, they learned how to make guesses about the content of the reading texts using their prior knowledge or titles and pictures, ask and answer questions, clarify any confusing information or difficult words, and summarize the main ideas of the texts or important information. The use of the four stages of RTS took place within the social context of the classroom, which consisted of two primary interactions: the first was between the teacher and the students, and the second was between the students themselves. Students were observed to co-operate and to actively contribute during group work. This is relevant to Soranastaporn & Ratanakul's findings in 2000 that students had opportunities to share their ideas with others and develop their reading comprehension. Many of them enjoyed being a group leader and building self-confidence from helping their peers. This finding corresponds with the previous study showing that more capable students provided less capable students with guidance and support (Adunyaritigun, 1999). Finally, students in this study mentioned that they would apply RTS in the future when reading English texts. This result shows that RTS can be an essential reading tool for fostering

autonomous readers to encourage their lifelong learning. This implication is consistent with Palincsar's claim in 2013 that RTS helped motivate students to apply relevant strategies to be successful readers.

Conclusion

Students have positive opinions towards the use of RTS at all stages- predicting, questioning, clarifying, and summarizing. The findings show that most students enjoyed reading texts in English through RTS, especially reading texts in groups because they can share knowledge or opinions from those reading activities. It is useful for them to listen to various points of view from their group members. Moreover, "questioning" is a meaningful stage of RTS to motivate them to dig into the texts so that they improved their critical thinking ability. As a result, RTS should be an effective strategy for English teachers to apply in the reading class as it can be viewed as a supportive learning tool which can produce autonomous readers carrying on their lifelong learning.

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