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互惠式教學法對不同英語能力學生的閱讀理解之成效

The Effects of Reciprocal Teaching on Reading Comprehension

of Students with Different Competence in English

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摘要

許多研究顯示「互惠式教學法」能有效地提升學生的閱讀理解能力；然而，在台灣，尚未有研究同時囊括兩個不同能力的群組進行此法教學並比較其不同。因此，本研究旨在檢視「互惠式教學法」施行於不同英語能力的台灣國中生，探討其英語閱讀理解方面的提升成效，及他們對此教學法的回應及建議。

參與本次研究的對象為台中市某國中的六十四位國三學生，學校依照他們上學期的英語平均成績將其分為兩個班級：排名前半的學生編入「成就較高班」，而另一半學生編入「成就較低班」。這兩班的英文老師（也是本次研究者）進行了為期五週，每週兩次的互惠式教學研究實驗。實驗中使用的閱讀教材為九篇敘述性文章，皆取自各版本教科書及英語學習雜誌；而研究工具則採用取自全民英檢的初級閱讀理解試題為前後測試卷，及一份具體探討學生對此教學實驗看法的回饋問卷。為分析前後測分數的變化，本研究使用成對樣本 t 檢定的方式來判斷兩組學生是否有顯著進步；而研究對象對於此教學法的回應和建議則透過描述性統計的方式來呈現。

根據本次研究結果顯示，「互惠式教學法」對「成就較高班」及「成就較低班」的學生們在英語閱讀理解方面皆有顯著進步，而大多數的實驗對象對「互惠式教學法」抱持正面肯定的態度，並認為此法同時提升他們的學習興趣、引領他們反思自己的學習或思考過程……等等。其中，針對四個閱讀策略，兩班都認為「預測」最簡單，而「釐清」最有助益，但「成就較高班」認為最難的是「提問」，而「成就較低班」則認為是「摘要」。依據上述結果，本研究建議「互惠式教學法」可融入一般課室英語教學，不同英語能力的學生都將各有收穫，值得一試；此外，結論中並提出實施此法的建議，期盼能為未來研究提供參考。

關鍵字:互惠式教學法、閱讀理解、不同能力

Abstract

A lot of research showed that reciprocal teaching could promote students' reading comprehension effectively, but few related studies in Taiwan have been conducted to examine the effects by including students of different English competence in a real teaching scenario and comparing the differences between them. Therefore, the purpose of the present study is to explore the effects of reciprocal teaching on reading comprehension of students with different proficiency levels, and to investigate their responses and suggestions to the intervention.

The participants were 64 ninth graders in a junior high school in Taichung City. Based on their average English scores in the previous semester, the top 50% of the two classes went to a higher achiever class while the rest to a lower achiever class. In this study, the former was assigned as the higher achiever group, and the latter as the lower achiever group. Meanwhile, the researcher was the teacher for both groups. The reciprocal teaching intervention comprised ten sessions during five weeks, i.e. two sessions per week. The reading materials were nine descriptive articles from either textbooks or English magazines. The research instruments were a reading comprehension test from GEPT and a perception questionnaire. To analyze the results from pretest and posttest, paired sample t-test was used to investigate whether the two groups showed significant improvement. Besides, the responses and suggestions to the intervention were presented via descriptive statistics.

According to the results, reciprocal teaching is effective in promoting reading comprehension of students with different proficiency. Most of the participants were positive about the treatment and credited it for increasing learning interests, enhancing metacognition, etc. Among the four reading strategies, both groups thought predicting was the easiest while clarifying the most helpful. But, in terms of the most difficult

strategy, the higher achievers voted for questioning whereas the lower achievers chose summarizing. As revealed in the findings, reciprocal teaching can be incorporated in the English classroom in junior high schools because students of different competence would benefit from it in some way. Furthermore, suggestions were included in the conclusion for future research.

Key Words: reciprocal teaching, reading comprehension, different competence

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Chapter One Introduction

This introductory chapter comprises four sections. The first part starts with the background and motivation of the present study. The second section illustrates the significance of this study. Next, the research questions to be addressed are presented in the third part. Finally, an overview of the chapters in this thesis is included at the end of this chapter.

Background and Motivation

Reading plays an important role in learning. In a first language context, learners have to develop the reading ability first before they can proceed to learn new information or knowledge via reading (Alvermann & Earle, 2003). Moreover, readers start to ask questions requiring deep thoughts after learning to read actively (Molden, 2007). The ability to ask good questions is often associated with the ability to think analytically (Paul & Elder, 2001). In brief, reading ability forms the basis of further learning and thinking.

Reading plays a crucial role in second and foreign language learning. Language input is usually initially received via listening in a first language. However, it is often via reading that learners are exposed to language input in a second or foreign language (Schramm, 2008). Since English is a foreign language in Taiwan, reading may be the most principal source of language input for EFL learners in Taiwan. Stated another way, EFL learners in Taiwan have much more chances to read English than to listen to, speak in, or write in English.

With the understanding of the importance of English, the Ministry of Education (MOE) in Taiwan implemented English instruction to Grade 3 curriculum in 2005. Besides, more and more parents have their pre-school children take English classes

before they begin the formal courses in elementary schools. Even with English courses at school, many students attend extra classes after school. However, with so much attention paid to English, there are still one third of the junior high school students identified as underachievers, which leads to the polarization of students' English proficiency (Hsu & Chen, 2007).

To solve the problems mentioned above, many plans and programs are implemented to help struggling English learners. For example, *Focus 300* aims to promote the reading habits of elementary school children in remote areas. Remedial instruction offers lessons for underachievers to meet their individual needs. However, little attention is paid to regular classrooms. In addition to taking care of the struggling students after class, there may be some approaches that can benefit both good readers and poor readers.

Reading is a multifaceted process requiring both decoding and meaning construction. Successful readers sometimes rely more on reading strategies than decoding ability to construct meaning (Adams, 1990; Goodman, 1967; Pressley, 2000). However, generally speaking, English teachers in Taiwan spend most of the class time on teaching decoding skills, ignoring reading comprehension strategies (Chen, 2003; Hsu, 2009; C. Wu, 2002). Students always learn passively, i. e. listen to lecture quietly or take notes consistently with little thinking. They seldom participate actively in class. In the long run, they become either bored with the course or overwhelmed by the ineffective learning.

In fact, the effectiveness of reading strategy instruction on reading comprehension has been proved in many studies (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007; Dymock, 2007). Reciprocal teaching, a method for reading strategy instruction, was first proposed by Palincsar and Brown (1984). After they developed the framework, a number of studies were conducted to investigate how

reciprocal teaching help language learners (Alfassi, Weiss, & Lifshitz, 2009; Ash, 2005; Goodman, 2005; Lysynchuk, Pressley, & Vye, 1990; Myers, 2005; Takala, 2006; Williams, 2010). Reciprocal teaching benefits learners with different proficiency levels (Alfassi et al., 2009; Ash, 2005; Goodman, 2005; Lysynchuk et al., 1990), in different settings (Myers, 2005; Williams, 2010), and in language contexts other than English (Takala, 2006).

In Taiwan, plenty of studies were conducted to explore the effects of reciprocal teaching on EFL learners (Chern, 2005; Chou, 2008; Shiau, 2010; Su, 2010; Wu, 2012). Some of them probed the issue in terms of either a single group of students (Chern, 2005; Shiau, 2010; Wu, 2012) or the control/ experimental homogeneous group design (Chou, 2008; Su, 2010). However, few studies have tapped into the comparison of the effects of reciprocal teaching on students of different English proficiency levels. Therefore, the present study is motivated to bridge the gap in existing literature and explore how reciprocal teaching helps EFL learners of different competence in English.

Significance of the Study

The present study is significant in many ways.

First, the present study explored the impact of reciprocal teaching on reading comprehension of learners of different English proficiency levels. Previous studies tended to employ the control-and-experimental-group design to investigate the effect of reciprocal teaching (Chou, 2008; Su, 2010). However, the present study, based on the previous findings of positive impacts on reading comprehension, divided students of different proficiency into either a higher achiever group or a lower achiever group, and both groups participated in the intervention. Thus, the present study provided a different point of view to explore the effects of reciprocal teaching on reading

comprehension and the application of reciprocal teaching in a real teaching scenario in which students are at different proficiency levels.

Moreover, the present study evaluated the effects of reciprocal teaching from the perspective of Taiwanese EFL junior high school students. It explored students' attitudes and preference towards each of the four strategies.

Research Questions

The research questions to be addressed in the present study are as follows:

1. Do both higher achievers and lower achievers improve their reading comprehension after reciprocal teaching?
2. How do higher achievers and lower achievers perceive reciprocal teaching procedures?

The first research question will be answered by the results of the pretest and the posttest of the reading comprehension. Paired sample t-test will be employed to measure the scores of the pretest and posttest in reading comprehension in each class. The result of the paired sample t-test showed whether there is a significant effect of reciprocal teaching in each group. It will also show if there is any significant difference between the two groups.

The second research question will be explored by examining students' responses to the perception questionnaire. The results will reveal how students perceive reciprocal teaching and what suggestions they have in terms of future application of reciprocal teaching.

Overview of the study

This thesis is composed of five chapters. The first chapter provides a brief introduction to the research background and motivation, the significance of the study,

and the research questions. After the introductory section, literature about reading theory, reading strategies, explicit instruction of reading strategies and reciprocal teaching are reviewed in the second chapter. Next, the research method, including setting, participants, reciprocal teaching intervention, materials, research instruments, data collecting procedures, and data analysis as well as the pilot test, are included in Chapter Three. Then, the results of data and findings of the analysis are discussed in Chapter Four. Finally, summary of the major findings, pedagogical implications, limitations and suggestions for future research are presented in Chapter Five.

Chapter Two Literature Review

This chapter provides a theoretical background of the present study. Reading theories are presented first. Then, reading strategies are reviewed and followed by explicit instruction of reading strategies. Finally, reciprocal teaching is introduced to promote reading comprehension with the four reading strategies.

Reading Theory

Reading models.

Reading is a psycholinguistic process in which it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs (Goodman, 1967). Among various reading models, bottom-up reading, top-down reading and the interactive reading are the most widely cited ones (Brown, 2001). A bulk of research documents how reading theory has progressed from bottom-up, top-down to the current interactive model.

In the past, reading was considered as a passive, receptive and decoding process. In the bottom-up model, readers extract the meaning of the text by recognizing different kinds of linguistic signals, such as morphemes, words, phrases, and grammatical rules (Brown, 2001). However, the over-simplified processing was challenged by Goodman (1988), who pointed out this difference between bottom-up and top-down models. Different from bottom-up model, top-down model explains that the process of reading is driven by a more general concept, rather than linguistic segments. In other words, construction of meaning starts from the reader's application of prior knowledge and experience to infer from the context. In the top-down model, readers make predictions based on the context or their background knowledge. To understand a text, readers confirm or deny the prediction by the clues they attain

during the reading process.

After the debate between the bottom-up and the top-down models, however, researchers on reading have recently reached consensus on interactive model, the combination of bottom-up and top-down models (Brown, 2001). In the interactive model, readers shift from bottom-up to top-down and vice versa to compensate for the comprehending failure and to strive for meaning. To sum up, this model balances the insufficiency of either the bottom-up model or the top-down one. Instead of passive decoding, the interactive model includes the interaction between the reader and the text.

Among the substantial body of research on reading theory, most reading models are L1-based. L1 models are helpful to explain the reading process in general. However, they are not specific enough to indicate the unique characteristics of L2 reading. Therefore, Bernhardt (2005) presented an interactive compensatory version of the reading model. The three-dimensional reading model illustrates the L2 reading process in terms of not only textual processes and intratextual variables but also L2-specific factors. First, textual processes include word recognition, syntactic processes and graphophonic ones. Second, intratextual variables contain prior knowledge and strategies. Last but not least, the L2-specific factors indicate the important roles that L2-proficiency and difference between L1 and L2 play in the reading process. Though different from each other, Bernhardt's model and its previous counterparts share a goal: to explain the interactive nature of the process of achieving comprehension.

Reading comprehension.

Snow (2002) defined reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written

language. Based on the involvement of literal and inferential understanding of what is read, comprehension was explained in terms of three elements: the reader, the text, and the activity or purpose for reading (Samuels, 1993). Besides, comprehension occurs within a larger sociocultural context that shapes and is shaped by the reader. In other words, readers can be both passively shaped and actively participating in the process of comprehending. Since readers can participate actively in the reading process, they may employ some methods to approach comprehension more effectively. One of the good methods to facilitate comprehension is to use reading strategies.

Reading Strategies

The National Reading Panel (2000) indicates that reading strategies, such as comprehension monitoring, question generation and summarization, have accumulated sufficient empirical evidence for effectiveness. In the following section, existing definitions of reading strategies will be presented first and then some empirical studies supporting the effects of reading strategies will be discussed.

Definitions of reading strategies.

Reading strategies were early viewed as an action employed by the reader to construct meaning (Garner, 1987). To be more specific, Gambrell and Dromsky (2000) defined reading strategies as plans that engaged the reader in gathering, monitoring, evaluating ,and using text information to solve problems encountered during the reading process.

In terms of interactive reading model, reading strategies are considered a variety of behaviors that interact with each other so as to help readers tackle a text, construct meaning, and develop language proficiency (Devine & Kania, 2003; Walczyk & Griffith-Ross, 2007). However, Cohen (1990) did not focus on the

interaction between readers and texts, but emphasized the characteristics of readers' awareness. He indicated that reading strategies were mental processes which readers consciously chose to take to achieve the reading tasks.

Instead of coping with the issue of definitions, some researchers have moved a step further to discuss what a strategic reader does while reading. Readers were considered to possess a strategy repertoire from which they were able to retrieve appropriate reading strategy to deal with their reading difficulties and to accomplish their reading tasks. Though they had adequate knowledge to solve the problems, they might not be able to activate it constructively (Schoenfeld, 1987). Once they had the ability to employ proper reading strategies flexibly and successfully, they showed the characteristics of strategic readers (Hsiao & Oxford, 2002).

According to Block (1986), readers were categorized as integrators and non-integrators. The former focused on getting the main ideas during reading while the latter on recalling the details. Furthermore, integrators related the text information to their prior knowledge, became aware of text structure, monitored their comprehension process consistently and made efforts to solve the problems they encountered. Since the characteristics mentioned above contributed to their reading comprehension, integrators could be viewed as strategic readers. Moreover, Long and Long (1987) analyzed the differences between successful readers and unsuccessful readers. Successful readers were found to focus their attention on the key points and to relate the text to their background knowledge. This finding echoed Block's (1986) conclusion and indicated some characteristics strategic readers shared in common.

Empirical studies on reading strategies.

A growing number of studies are now available to shed light on the effects of specific reading strategies: analyzing grammar (Layton, Robinson, & Lawson, 1998),

identifying text structure (Carrell, 1985; S. Dymock, 2005; Fisher, Frey, & Lapp, 2008), metacognitive strategies (Fitzgerald, 1995; Kletzien, 1992; Long & Long, 1987; Mokhtari & Reichard, 2002), and semantic mapping (Chuang, 2010; Sinatra, Stahl-Gemake, & Burg, 1984). These studies on reading strategies have been proved to help students enhance reading comprehension, build confidence in reading and raise awareness of reading strategies.

Since many reading strategies were proved helpful to enhance reading comprehension, researchers went further to examine the reading process and to identify the characteristics strategic readers had in common. Hosefeld (1977) compared reading strategies of successful L2 readers with those of unsuccessful L2 readers. Successful readers were found to employ more strategies, such as reading in broad phrases and skipping unimportant words, to get the main idea. In contrast, unsuccessful readers focused on decoding and read in short phrases. They were not flexible enough to skip unimportant words/information and were unable to use their prior knowledge to decode unknown words. The result revealed that the successful readers used more top-down strategies whereas the unsuccessful readers used more bottom-up ones.

Carrell (1989) conducted a study on the strategy use of 75 native English speakers learning Spanish and 45 native Spanish speakers learning English. The results showed that proficient English learners used more top-down strategies, while less-proficient Spanish learners used more bottom-up strategies in reading.

Interestingly, it seemed that the studies reviewed above showed that the difference between good readers and poor readers is their tendency to choose the strategies. In other words, good readers tended to use effective strategies consistently and comprehend successfully while poor reader tended to choose less effective strategies and fail to reach comprehension frequently. However, recent research challenged the

simplified relationship between reading strategies and reading comprehension. Carrell (1991) indicated that “use of certain reading strategies does not always lead to successful reading comprehension, while use of other strategies does not always result in unsuccessful reading comprehension.”

Anderson (1991) conducted a qualitative and quantitative study to examine individual difference in strategy use by L2 learners. The participants were engaged in two reading tasks: taking a reading comprehension test and reading academic texts. As revealed in the results, both good readers and poor readers used the same kinds of strategies in either task. Their reading comprehension depended not on how many reading strategies were used but on how the strategies were applied. Moreover, the poor readers in the case study appeared to know what strategies to use but might not know how to make sure whether she applied them successfully. These phenomena suggested that strategic readers not only know what strategies to apply but also when, why, and how to apply them appropriately.

To sum up, many studies evidence the value of reading strategy. However, assessment of comprehension is common in the classroom while strategy instruction is rare (Kelly, Moore, & Tuck, 1994; Stricklin, 2011). Therefore, explicit instruction of reading strategies is highly needed.

Explicit Instruction of Reading Strategies

King and Johnson (1999) claimed that the implementation of reciprocal teaching is explicitly beneficial for the students in acquiring and utilizing strategies while reading. When implementing reciprocal teaching in their classrooms, Pilonieta and Medina (2009) mentioned that explicit instruction of strategies was one of the key elements found in effective comprehension strategy training. The following section will first discuss the value of explicit instruction of reading strategies, and then move

on to the importance of urging explicit instruction of reading comprehension in junior high school classrooms

The value of explicit instruction of reading strategies.

Though the value of reading comprehension strategies has been well-established, some teachers undervalued the necessity of reading strategies (Denton & Fletcher, 2003). Denton and Fletcher (2003) indicated the misunderstanding of the nature of reading strategies. Those who assumed that reading comprehension would develop naturally without any formal instruction placed reading in the same developmental pattern as speaking. In fact, children's ability to acquire speech naturally relies on the exposure to it. However, reading and speaking do not share the same progression in common. Besides, people have been communicating via speech for a much longer time than via the print (Boulware-Gooden et al., 2007; Wren, 2002). Therefore, reading strategies are prerequisites for fluent reading and need to be taught through formal education.

In fact, considerable research has documented the effectiveness of reading strategy instruction and proved that reading strategies could be taught and trained via explicit instructions (Boulware-Gooden et al., 2007; Dymock, 2007; Herrmann, 1988; Onofrey & Theurer, 2007; Paris, Wasik, & Turner, 1991; Pressley, 2000; Snow, 2002). Snow (2002) indicated that teachers played a vital role in helping students develop reading strategies. Reading strategies should be taught explicitly and modeled for sufficient time. Thus, with appropriate instruction, students at all grade levels would learn to promote their comprehension development and prevent reading comprehension problems.

Snow's (2002) validation of explicit strategy instruction was not new. Herrmann (1988) suggested that teachers use direct explanation to help students

understand how reading process worked and how to learn from text. She first encouraged teachers to model reasoning process experienced by successful readers. This mental modeling made invisible reasoning process become visible to students. Next, the teacher asked students to articulate how they construct meaning from the text. Additional explanation was provided by the teacher to make students reason like experienced readers. With the scaffolding from the teacher, students gradually understand the rationale of reading and using the strategies. Pressley (2002) echoed the idea with contention for acquainting students with a strategic process and to teaching them a small repertoire of strategies.

Boulware-Gooden et al. (2007) conducted a study to enhance reading comprehension and vocabulary achievement of 119 third graders via explicit strategy instruction. They divided students into the intervention group and the comparison group. Both groups participated in the same instruction activities, but only the intervention group was supplemented with direct strategy instruction. After a five-week intervention, the intervention group outperformed the comparison group by a 40% difference in gains in vocabulary and a 20% difference in gains in reading comprehension.

The importance of explicit strategy instruction in junior high school.

Though being documented to contribute to students' reading comprehension, reading comprehension strategy instruction has made little progress in classrooms (Drukin, 1978/1979; Kelly et al., 1994; Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998; Sporer, Brunstein, & Kieschke, 2009). An early observation of the lack of reading strategy instruction was made by Drukin (1978/1979), who found that many assessments of reading comprehension existed in elementary school classrooms but little explicit comprehension instruction was

implemented to help students tackle the text. To be more accurate, less than 1% of the reading period was spent on teaching reading strategies.

Almost three decades later, Pressley et al. (1998) investigated instructional practice in ten fourth-grade and fifth-grade classrooms and found that direct teaching of reading strategies was minimal. Some of the teachers mentioned strategy use, but they did so in a passive manner. They taught the strategies neither actively nor explicitly. Some teachers taught students to use strategies to find keys to reading comprehension questions on tests, but their students were not observed using the strategies during reading. While some teachers tried to incorporate strategy use in their instruction, most teachers just ignored teaching the use of strategies. The absence of explicit instruction about reading strategy has been noticed recently (Pressley, 2006; Sporer et al., 2009; Taylor, Peterson, Pearson, & Rodriguez, 2002).

Although strategy instruction should help students at all grade levels (Sweet & Snow, 2003), Paris et al. (1991) proposed a special need for adolescent learners to receive explicit strategy instruction. In terms of reading, by adolescence, children began to show tendency to use strategies, which made them able to respond actively and adequately while reading. Moreover, even though most readers should have already grasped basic reading process by age 12, they still lacked well-articulated concepts about effective strategy use and needed explicit instruction to tell them what strategy to apply, how they functioned, and why they enhanced comprehension. Via explicit instruction, students can learn the effective strategy use and be reminded to enforce the strategy.

In conclusion, explicit instruction on reading strategies promotes the development of comprehension. Not only L1 learners, but also EFL learners need to receive strategy instruction through formal education. When thinking of reading strategy instruction, many teachers and researchers think of reciprocal teaching.

Reciprocal Teaching

Definition of reciprocal teaching.

Reciprocal Teaching was an instructional method first described by Palincsar (1982) and by Palincsar and Brown (1984). The details of this method were elaborated in their later articles. Characterized as a dialogue between the teacher and students, reciprocal teaching was an instructional procedure to foster and to monitor reading comprehension. To achieve the goals of comprehension-fostering and comprehension-monitoring, the dialogue between the teacher and students should be carried on with four strategies: predicting, questioning, clarifying, and summarizing (Palincsar, David, & Brown, 1989).

Four strategies of reciprocal teaching.

In reciprocal teaching, four metacognitive strategies, predicting, questioning, clarifying, and summarizing are utilized to construct meaning of the text. To start with, predicting involves activating students' schemata to make a reasonable guess about the topic, the following passages, and the author's purpose (Palincsar & Brown, 1984). When making a prediction, students can read the title and the pictures to activate the prior knowledge before reading. During reading, students may confirm, reject, or revise their predictions (Hashey & Connors, 2003). Students can also look back and forth to collect more information for further prediction. To sum up, predicting motivates students to read and provides them with a purpose for reading (Stricklin, 2011).

Second, questioning requires students to recognize the main idea and specific features, so they can promote their comprehension and create their own questions (Palincsar & Brown, 1984). Students may generate a variety of questions. Hashey and

Connors (2003) categorized them into “skinny” questions and “fat” questions. The former can be answered simply with yes, no, or any short responses based on the text while the latter call for deeper thoughts and complete answers. Fat questions are similar to what a teacher may ask on a test because students need sufficient comprehension to answer them. In other words, fat questions are indicators of reading comprehension. Therefore, students are encouraged to generate questions of this kind. In brief, questioning enhances students’ comprehension because students must understand what they have read in order to propose questions (Stricklin, 2011).

Next, clarifying helps students to tackle the unknown words and unclear ideas by monitoring their reading comprehension (Palincsar & Brown, 1984). When examining their comprehension by themselves, students can utilize the context clues and employ the idea of prefix and suffix to construct meaning. When sharing ideas in group discussions, students can provide their peers with their different background knowledge and strategy use. More specifically, while using the strategy of clarifying, students utilize their metacognition process to monitor their reading comprehension. Accordingly, clarifying can also promote comprehension and encourage students to become independent readers who can repair comprehension breakdown by themselves (King & Johnson, 1999).

Finally, summarizing requires students to separate the main idea from the supporting details. It requires highly integration of different skills which students need to make a clear and concise summary (Palincsar & Brown, 1984). According to Hashey and Connors (2003), summarizing helps to enhance students’ comprehension since it requires them to concentrate on the key points and to exclude all the details. Besides, summarizing was viewed as the strategy which indicated whether students comprehended the text after they finished the summaries of each paragraph (King & Johnson, 1999).

The four strategies above can be arranged in different order to accommodate individual needs. In fact, Palincsar and Brown (1984) did not arrange the four strategies in a fixed order. They only emphasized that the four strategies should be instructed one after another. Moreover, before introducing a new strategy, a review of the previously taught strategies is important.

Empirical studies on reciprocal teaching.

Originally designed for adequate decoders but poor comprehenders in junior high schools, reciprocal teaching has been proved to be an effective teaching method in a variety of settings (Alfassi, Weiss, & Lifshitz, 2009; Ash, 2005; Chern, 2005; Goodman, 2005; Lysynchuk, Pressley, & Vye, 1990; Myers, 2005; Palincsar & Brown, 1984; Takala, 2006; Williams, 2010). Similar to the experiment in Palincsar and Brown's (1984), poor readers were recruited in the studies of Goodman's (2005) and Lysynchuk et al.'s (1990). However, gifted and advanced students were found in Chern's (2005) and Ash's (2005) studies. Besides, research was done with average students in a classroom setting (Myers, 2005; Williams, 2010), as well as with students who have intellectual disabilities (Alfassi et al., 2009; Takala, 2006). Beside Takala (2006), Chou (2008) and Wu (2012) explored the effects of reciprocal teaching on students' reading comprehension in EFL contexts. Except in Takala's (2006) study, however, there have been few attempts to include students of different proficiency levels in a study and explore whether they perceive and benefit from reciprocal teaching in the same way.

Besides developing the framework of reciprocal teaching, Palincsar and Brown (1984) provided empirical studies to evaluate this method. Palincsar and Brown (1984) recruited 12 seventh graders all classified as "adequate decoders, but poor comprehenders." The participants were equally divided into the experimental group

and the control group. The former received reciprocal teaching intervention for 20 sessions, thirty minutes each, while the latter was instructed in the traditional way. Both groups were assessed by a pretest and a posttest of standardized comprehension tests. In terms of the results, the reciprocal teaching group improved significantly in reading comprehension tests. However, this salient finding seemed to be controversial to some researchers (Carver, 1987; Pearson, 1985).

To verify the effects of reciprocal teaching on reading comprehension, Lysynchuk et al. (1990) made a constructive replication (Lykken, 1968) of Palincsar and Brown's (1984). In the study, 72 participants, 36 fourth graders and 36 seventh graders, participated in 13 sessions of reading experiment. Participants of the identical grade were grouped into the reciprocal group and the control group. The procedure and the type of comprehension measures were similar to those in Palincsar and Brown's (1984). This design yielded a great increase of scores from the pretest to the posttest of reading comprehension. Even recently, reciprocal teaching has been verified with statistically significant results to show the effect on reading comprehension improvement of poor readers (Goodman, 2005).

Besides struggling readers, proficient readers could also benefit from reciprocal teaching beyond standardized comprehension measurements (Ash, 2005; Chern, 2005). In Chern's (2005) study, 34 English-gifted junior high school students participated in an intensive course, five days a week, three hours a day. After the reciprocal teaching strategy instruction, students not only finished reading an English book but also developed their thinking. Judging from their worksheets requiring students to generate questions, Chern (2005) found that the questions shifted from those started with *what*, *where* and *when* to those with *why* and *how*. Stated another way, students paid more attention to logical interpretation of the text rather than to literal understanding with reciprocal teaching.

Similarly, Ash (2005) described a class in which a group of advanced students were instructed with reciprocal teaching to read a series of letters exchanged by a couple. It was definitely easy for those good readers to comprehend the texts. However, by reciprocal reading, they not merely achieve literal and inferential understanding but also identify their purposes for reading and think critically about the author's point of view.

In addition to studies conducted in groups of similar proficiency levels, a substantial body of research documents the effects of reciprocal teaching for average students of mixed levels in a classroom setting (Myers, 2005; Williams, 2010). Williams (2010) implemented reciprocal teaching in an intact class for more than three months in order to enhance English learners' reading comprehension of expository texts. Based on the teacher's observation, students' improvement showed that reciprocal teaching not only prepared them to elicit the literal meaning of a text but also provided them with a better understanding of the text.

Kindergarten students used to be considered too young to learn a sophisticated reading strategy like reciprocal teaching. However, Myers (2005) conducted a classroom action-research project and adapted reciprocal teaching for kindergarten students via read-aloud. Since the kindergarteners were unable to read text by themselves, the materials were books that the students were familiar with. During the three-month instruction, students were assessed by three instruments: interviews, anecdotal records and rubric assessment. The findings showed that the kindergarteners were capable of thinking metacognitively and asking questions which arose from critical thinking. This project offered evidence that even students with limited language proficiency, like kindergarteners, ESL and EFL learners, could benefit from reciprocal teaching.

Different from the studies mentioned above, a body of research was done to

further investigate whether reciprocal teaching could help students with proficiency lower than “poor readers,” i.e. intellectually disabled students (Alfassi et al., 2009; Takala, 2006). Alfassi et al. (2009) investigated the effects of reciprocal teaching on students with intellectual disability. Seventy-five students aged 15 to 21 participated in 24 sessions of either reciprocal teaching strategy instruction or traditional remedial methods of skill acquisition. Two kinds of reading comprehension tests and a reading literacy assessment were administered. Results from all measures provided support for the claim that reciprocal teaching was superior to the traditional remedial methods.

Takala (2006) examined the effects of reciprocal teaching on reading comprehension of elementary school students of different proficiency levels: pupils with typical development and those with moderate or severe specific language impairment. The study contained six similar interventions, three in the mainstream course and three in specific language impairment course. The three interventions in each course include fourth-grade and sixth-grade science classes and fourth-grade history classes. The interventions were implemented in Finnish and lasted five weeks each, two lessons per week, and a total of ten to fifteen sessions. The instruction and discussion took place with the whole class, and no small groups were arranged. Based on pretests, posttests and delayed posttests, the best results were achieved by the mainstream students. However, some positive development could also be noticed in the special education groups. Similar to Alfassi et al. (2009), Takala (2006) challenged the common perception that intellectually disabled people could hardly improve their literacy via reciprocal teaching.

Besides Takala’s (2006) research mentioned above, Chou (2008) and Wu (2012) investigated the effects of reciprocal teaching in EFL contexts. Chou (2008) recruited 70 ninth-grade junior high school students from two mixed-level classes and implemented a ten-week reading course. The experimental group received the

reciprocal teaching intervention while the control group received the traditional reading instruction. After analyzing the data collected by a reading comprehension test, think-aloud protocols and a response questionnaire, Chou (2008) concluded that reciprocal teaching was more beneficial in promoting subjects' reading comprehension and the subjects reported positive attitudes towards this approach.

Wu (2012) conducted another study to explore the effect of reciprocal teaching on four Taiwanese junior high school students who were considered to be struggling readers. After fourteen sessions, they read six story books via reciprocal teaching and responded to a perception questionnaire. Besides, the researcher's teaching journal and the subjects' weekly worksheets were utilized to collect the data. The results showed that reciprocal teaching could benefit low achievers' learning and most of them were positive about the effect of reciprocal teaching.

To sum up, the effect of reciprocal teaching on reading comprehension has been widely investigated with students in different settings. Positive results have been obtained in many studies. However, most researchers looked at learners of a specific proficiency level. Little research includes students of different proficiency levels in one study and implements the intervention with groups, especially in an EFL junior high school context. The current study aims to explore the acceptability of reciprocal teaching from the perspective of Taiwanese EFL junior high school. With hopes to offer all students the foundation they need in their independent reading, the present study implemented explicit strategy instruction via reciprocal teaching to help students acquire and use strategies while reading.

Chapter Three Method

This chapter is composed of seven parts. The first part briefly illustrates the setting of the present study. The second section described the background of the participants. The procedure of the intervention is introduced in the third part. The reading materials used in the intervention are illustrated in the fourth section. The fifth part presents the research instruments. Finally, data-collecting procedures and data analysis are provided in the end of the chapter.

Setting

The present study was conducted in School A, a junior high school in central Taiwan. School A is a large school with a student population of 2,100 in 63 classes. The social and economic status of parents is above average.

Based on the current MOE regulation, junior high school students in Taiwan should be arranged into a class by means of normal class grouping. That meant the distribution of students' general competence should be similar among classes. However, English was one of the three subjects that could be instructed by academic competence-based grouping.¹ To be more specific, students in every two or three classes could be grouped into a new class based on their English proficiency. School A adopted this policy of placing students according to their proficiency level in English. The study was conducted in two of the classes in School A.

¹ According to current MOE regulation, only English, mathematics and natural science classes can be instructed by academic competence-based grouping to avoid the difficulties arising from bimodal distribution and to facilitate teaching and learning.

Participants

The participants of this study were 64 ninth-graders from two classes in School A. All of them had been receiving compulsory English education for at least six years. Based on the English proficiency, i.e. their average English scores in the previous semester, students were divided into two new classes for English instruction. In other words, the top 50% of the two classes went to a higher achiever class while the rest to a lower achiever class. In the present study, the former was assigned as the higher achiever group, and the latter as the lower achiever group. The researcher was the teacher for both groups.

According to Palincsar et al. (1989), students participating in reciprocal teaching should be taught in small and heterogeneous groups, so every one of them can practice sufficiently while receiving feedback about his or her own performance. Before starting reciprocal teaching intervention, the teacher divided the participants into groups of four based on the average of their English grades last semester. To make the groups formed heterogeneously, the top eight participants were the first members in each group, and the next eight participants were put in groups in a reverse order. For example, in terms of the second member, number nine was put in the same group with number eight while number ten with number seven. The same steps were repeated until there were four participants in every group. Throughout the teaching intervention, the demonstration and discussion were carried out in groups. The group members stayed the same through the experiment.

Materials

There were nine articles for the participants to read during the treatment. The materials were partly, seven out of nine articles, selected from the textbooks and partly, two articles, from an English magazine called *ABC Interactive English*.

The rationale for selecting material from textbooks was to make sure the articles were suitable for participants' English proficiency. However, to ensure the variety, the articles were chosen from textbooks published by three publishers, Nani (南一), Kang Hsuan (康軒) and Han Lin (翰林) publishing companies. The articles all came from Book Five and Book Six, which suited the participants' current English language level. Some vocabulary and sentence patterns in the articles may be new to the participants. However, the gap between what the participants had learned and what they had not gave the participants a chance to negotiate with the text for meaning. After the researcher surveyed Book Five and Book Six of junior high school English textbooks, seven articles were collected: 2 from Nani (南一), 2 from Kang Hsuan (康軒), and 3 from Han Lin (翰林).

According to Risko, Walker-Dalhouse, Bridges, and Wilson (2011), providing appropriate reading material beyond textbooks holds possibilities of deepening students' interest, engagement, and comprehension. The reason for choosing articles from the magazine was to provide materials of different genres and styles. Textbook articles tend to be confined to the sentence structure and vocabulary based on a prescribed level of proficiency. Therefore, articles in textbooks tend to present stories or articles with little content diversity and limited genre. In terms of the diversity of genres and topics, magazines serve a complementary function to textbooks. Among various kinds of magazines, a language learning magazine, *ABC Interactive English*, were selected for the present study for two reasons. First, every issue of the magazine contains dialogues, features, short stories, comic strips, etc. Each falls into different genres and each is shown with its optimal writing style for students of the elementary level in the General English Proficiency Test (GEPT), published by the Language Training and Testing Center. Second, though different from a textbook, the magazine offers articles relevant to the students' lives. Sometimes a magazine article is just an

extension from a textbook topic because the magazine is designed for English learners of the basic proficiency level, where most junior high school students are. Therefore, familiarity to the topics and interests in the issues may motivate the participants to read. In short, the combination of articles from textbooks and a language learning magazine just provides a good balance of varieties of topics, genres, and styles. Table 1 below summarizes the readability and length of the nine articles.

Table 1
The Readability and Length of the Reading Materials

Articles	Readability	No. of Words	No. of New Words	No. of Sentence patterns
1. Solar Power	6.1	164	14	2
2. Modern Cellphones	6.4	197	15	2
3. The Astronaut's Life in Outer Space	6.8	167	16	2
4. Honest Abe	6.7	152	11	1
5. Guinness World Records	7.1	188	15	1
6. Sleeping boxes	6.5	151	10	1
7. Ryan's Well	6.4	159	10	2
8. A Tomato a Day Keeps the Doctor Away	7.2	155	14	1
9. Walt Disney's Magic	7.9	163	15	1

Reciprocal Teaching Intervention

Reciprocal teaching intervention was incorporated into the English reading course for the two groups. The intervention lasted for five weeks, with two 45-minute sessions per week. The teaching intervention consisted of three stages: demonstration of four strategies, teacher-led discussion, and student-led discussion.

During the intervention, the teacher first made the reasoning process visible and comprehensible through the demonstration of four strategies in Stage I. Next, the teacher led the discussion in Stage II and transferring the reading responsibility to students gradually by guiding them to apply the four strategies. Finally, students applied four strategies independently to tackle the text and solve reading problems during discussion in Stage III.

Stage I: Demonstration of four strategies.

Stage I contained two sessions. Two strategies were introduced in each session respectively. Since explicit instruction was strongly recommended for reading strategy instruction (Snow, 2002), the teacher defined and explained the target strategies directly in the beginning of each session in order to help students monitor and regulate their comprehension process. After the explanation, the students understood how reciprocal teaching worked.

What should be noted is that the demonstration aimed to familiarize subjects with the four metacognitive skills: predicting, clarifying, summarizing, and questioning. Among them, no particular order was required. However, it is recommended that the strategies should be taught one at a time with a review of the strategies taught earlier. Besides, repeated practice and strategy application should be sufficient to ensure the effects (Hashey & Connors, 2003; Palincsar & Klenk, 1992).

In Session 1, predicting and clarifying strategies were covered. In the first five

minutes, a handout of guides for roles in reciprocal teaching (See Appendix A) and a worksheet with the assigned article (Appendix B), both adapted from Oczkus (2003), were distributed to the students. The handout consisted of 11 procedural prompts often employed in four strategies while the worksheet comprised an article for demonstration. The procedural prompts on the handout functioned as clues to specify the strategies and to guide beginners to think in the logic of the strategies. Eventually, participants would become familiar with them. The worksheet was for students to make a record of their reasoning process. This recording helped students become familiar with the content by writing down what they had in mind.

After the distribution, the teacher explained what predicting was and demonstrated how to predict by reading the title and by looking at the picture along with the article. Next, students were asked to write down their prediction(s) on the worksheet. Then, the teacher invited the students to read the first paragraph aloud to confirm the previous prediction. After the participants got a clear idea of the first paragraph, the teacher made another prediction about what would happen in the second paragraph. Meanwhile, students were also encouraged to predict with the teacher. Still, they had to write down the prediction on the worksheet. Then, students read the second paragraph together to check the prediction. If the prediction did not match the content, they could revise it. If it was right, they could move on to the next paragraph. The same steps were repeated until the reading was completed. During the demonstration, new vocabulary was not explained. New words and questions were saved for the next part of the session, which was the demonstration of the strategy of clarifying.

In the second part of the session, the instructor introduced the strategy of clarifying. The instructor first bold-faced and underlined the unknown words and confusing ideas in the article (See Appendix B). Then, the teacher modeled to solve

the problems by clarifying, including using the context to get the possible meaning or employing the prior knowledge to make meaningful and reasonable guesses. Students also needed to finish the clarifying part on the worksheet. At the end of Session 1, students were asked to think about what the main idea of the article was. This technique connected their present knowledge of the article to the next strategy, summarizing.

The strategy of summarizing was introduced in the first part of Session 2. The instructor started with introducing the difference between the main ideas and supporting details. Students needed to know that a summary could only include the essence of an article, not the details of it. The idea of topic sentences might help the student locate the key point illustrated in a paragraph in some descriptive articles. Besides, topic sentences might serve to facilitate the use of predicting strategy. Experienced readers can begin with the topic sentence, make a possible guess about the development, and predict the future events. The double benefits provided by topic sentences proved again that the four strategies are reciprocal and can work together. After the brief introduction of the difference between key points and supporting sentences, the instructor modeled how to make a summary in one or two sentences for the two paragraphs.

Finally, the teacher introduced the strategy of questioning in the second part of Session 2. At first, the instructor invited students to generate questions about the assigned article. With the gist in mind, students generated questions of all kinds quickly. The instructor wrote down the questions which were raised by the volunteers on the blackboard and put them into two categories: skinny questions and fat questions (Hashey & Connors, 2003). The former could be answered simply with yes, no, or any short responses based on the text while the latter call for deeper thoughts and complete answers. The instructor asked students what kinds of questions would

be proposed by the teacher more frequently and showed them how to get the correct answers to the questions. Then, the students would understand that this technique will bring them closer to the kinds of questions that teachers have in mind.

A sample is provided in Appendix C to demonstrate the use of four strategies to read the first paragraph of an article named *Solar Power* in Book Five from Kang Hsuan (康軒).

One article, i. e. *Solar Power*, was used in Stage I to demonstrate four strategies. Using the same article benefited the demonstration in two ways. One advantage was Session 2 could start without delays caused by unfamiliarity with a newly-introduced article. In other words, students could make use of the third and fourth strategies immediately in Session 2 since they were already familiar with the content of the article. It could ensure the teaching procedure to be carried out efficiently within a period of limited time. The other advantage of using the same article was to show students that the four strategies of reciprocal teaching can be integrated into the reading of one article. Stated another way, participants could apply all four strategies to one article and gained a clearer comprehension of it.

Stage II: Teacher-led discussion.

According to Wood, Bruner, and Ross (1976), a novice is guided by an expert to solve a problem or to achieve a goal beyond his actual developmental level in the process of scaffolding. In reciprocal teaching, scaffolding is used in the context of group discussion as a method to support and guide students in the zone of proximal development (Paris & Winograd, 1990). After learning the four reading strategies, students started to take more responsibility to complete the following tasks. With teacher's guidance, they learned to practice the four strategies in the second stage, Teacher-led discussion.

Teacher-led discussion contained four sessions, Session 3 to Session 6. Only one target strategy was covered in each session. The teacher started a session with a brief review of the target strategy. After the review, the teacher led the students to read the first paragraph of the article using the target strategy and invited them to practice it with the remaining paragraphs. Meanwhile, the students took time observing the reasoning process of an experienced reader or their capable peers. They were also encouraged to apply the strategies. Lesson plans of these four sessions are provided in Appendix D.

In order to reduce students' anxiety with speaking in English and to make them feel free to express their ideas, students were allowed to speak in Chinese in Stage Two and Stage Three. However, speaking in English during the discussion was also encouraged. If some students talked in English, they might make progress in not only the reading comprehension but also the other three skills. Besides, to keep track of the learning process, students were asked to complete worksheets for each session. In terms of predicting and clarifying, they could write in Chinese. As for summarizing and questioning, they should finish these sections in English.

In Session 3, the strategy of predicting was practiced. In the beginning, the instructor reviewed the definition of predicting and demonstrated when and how to use it with the title of Article 2. Then, the teacher asked for volunteers to make predictions about the first paragraph. Next, both the teacher and other students gave comments on the predictions. If they didn't think the prediction is correct, they could revise it. After everyone expressed their opinions, the teacher guided students to read the first paragraph aloud to check the prediction. The same steps were repeated until they finished the last paragraph. In the last five minutes, the teacher wrapped up the session by either reviewing the target strategy or inviting students to share their feedbacks about the strategy.

In Session 4, the strategy of clarifying was included. After reviewing the definition of clarifying, the teacher showed the students when and how to use it by clarifying the new word in the title. Next, the teacher asked students to read the first paragraph with clarifying strategy by themselves. Then, the teacher asked for volunteers to share the problems they encountered while reading and how to solve them. The teacher praised the volunteers when they got the correct answers. On the other hand, she provided guidance when the clarification went wrong. The same steps were repeated for the next two paragraphs. To wrap up this session, the teacher invited one or two students to make a summary of what they had learned that day. This summarizing technique would be related to the target strategy in the next session.

In Session 5, the teacher first reminded the students with what they did in the end of the previous session, i.e. making a summary. After giving a brief review of summarizing, she talked about the ideas of a topic sentence and supporting details. This would help the students to tell the major idea from the minor ones. Then, she guided students to read the first paragraph of Article 4 and demonstrated how to summarize it. Next, all of the students read the second paragraph aloud, and some of them were chosen to share their summaries with the class. The teacher and students discussed which summary best captured the gist of the article. Some feedbacks were given both by the teacher and by their peers. The same steps were repeated for the last paragraph. Because clarifying strategy were more complex than the previous ones, the teacher ended this session with a review of what were covered that day.

In Session 6, after reviewing the definition of good and bad questions, the teacher guided the students to read the first paragraph together and demonstrated to generate two fat (good) questions and two thin (bad) ones. Next, the teacher invited students to discuss the difference between the two kinds of questions. Then, she classified questions into four categories and offered examples for students to imitate

later. After that, the students read the second paragraph and shared their own questions with the class. The peers could provide comments to modify the questions. The same steps were repeated for the remaining paragraphs until they finished reading. During the four sessions, the time for teacher guidance was reduced as the students took more and more responsibility for reciprocal teaching.

Stage III: Student-led discussion.

Student-led discussion contained four sessions, Session 7 to Session 10, and was conducted in the form of group discussions. In this stage, all the members in a group had to take turns playing different roles, i.e. predictor, clarifier, summarizer, and questioner. Besides, the predictor has to be the group leader, too. The group leaders should be responsible for cuing other group members to do their jobs.

In the beginning of each session, the teacher distributed a worksheet to each group for them to make a record. Next, the teacher briefly reminded students what each role should do in the discussion. Table 2 lists the tasks of each of the four roles in reciprocal teaching. Then, the student-led group discussion started. The group leader cued each role. When one person was talking, the other group members either listened carefully or provided their comments. Instead of dominating the discussion, the teacher walked around as a facilitator. The teacher offered help if needed.

Table 2
Description of the Four Roles in Reciprocal Teaching

Roles	Tasks
Predictor	Read the paragraph first and make predictions about the target paragraph. Other group members will comment on the predictions

	or provide their own.
Clarifier	Read the target paragraph and report the problems he/ she encounter. Then, share his/ her solutions to cope with the problems. Other group members will comment on the clarifications or provide their own solution. Moreover, they may share other problems.
Summarizer	Summarize the target paragraph. Other group members will comment on the summary or provide their own
Questioner	Generate questions about the target paragraph. Other group members will share the answers to the questions, comment on the questions or generate their own questions.

The design of the reciprocal teaching intervention mentioned above is summarized in Table 3 below.

Table 3

The Design of the Reciprocal Teaching Intervention

Session	Strategy introduced	Instruments/ materials
Stage I. Demonstration of four strategies		
1	Prediction and clarification	A handout, Worksheet 1, Article 1

2	Summarizing and questioning	A handout, Worksheet 1, Article 1
Stage II. Teacher-led discussion		
3	Prediction	Article 2
4	Clarification	Article 3
5	Summarizing	Article 4
6	Questioning	Article 5
Stage III. Student-led discussion		
7	Integrated strategy use	Worksheet 2, Article 6
8		Worksheet 3, Article 7
9		Worksheet 4, Article 8
10		Worksheet 5, Article 9

Research Instruments

Two research instruments were adopted in the present study: an English reading comprehension test and a perception questionnaire.

An English reading comprehension test.

Similar to the study conducted by Miller, Miller, and Rosen (1988), a ten-item English reading comprehension test is used to measure the students' performance. The

English reading comprehension test employed in the present study is chosen from GEPT based on two reasons. First, the reading comprehension test from GEPT is a standardized measurement, of which the validity and reliability have been established. Second, the elementary level of GEPT is generally recognized as the proficiency level a graduate of the junior high school should have. For the ninth-grade participants, some of the questions in the test may appear slightly difficult. In other words, the participants needed to tackle the text using some strategies.

Though the pretest and posttest of the reading comprehension tests chosen from GEPT should be equivalent, they were still further analyzed to ensure the equivalency. First, the two tests shared the same format. Both tests contained four passages about daily life and ten questions based on the passages. Second, each test included four types of passages: a notice, a letter, an advertisement, and a descriptive article. Third, the distribution of question objectives was similar. Among the ten questions, three questions asked for main idea while three for specific details and four for inference. Due to the similarity mentioned above, the pretest should be equal to the posttest.

Besides, the reading comprehension test employs a set of anchor questions to determine the improvement in the students' reading comprehension. In the pretest and the posttest, the second passage and Question 2 to Question 5 were the same. In other words, the article and the three questions that follow were identical. Since the pretest and posttest were not exactly the same, the anchor questions helped the researcher to make more accurate judgments about the students' performance between the pretest and the posttest.

Before the instruction, a reading comprehension pretest was administered to both groups. The purpose of the pretest was to assess the reading comprehension proficiency of the participants before the teaching intervention. The pretest was composed of four articles, and each article was followed by one to three reading

comprehension questions presented in the form of multiple choices (See Appendix D). The questions were designed to investigate the subjects' understanding of the text and to examine if they could integrate information in the text to solve the problems they encountered during reading.

After the reciprocal teaching intervention, a reading comprehension posttest was conducted in both groups. The purpose of the posttest was to tap into the effects of the instruction. In Rosenshine & Meister's (1994) review, to avoid practice effect, many studies assessed student comprehension improvement with questions from new passages (not seen before). Similarly, most of the test items in the reading comprehension posttest were different from those in the pretest in the present study except for the set of anchor questions. Since both tests were adopted from the GEPT reading comprehension sections, the reliability and validity should be the same. Thus, the results of the test scores should be valid and reliable.

To verify the difficulty level of the pretest and posttest of the reading comprehension, both tests were piloted before the start of the formal study. Two groups of students with similar background to the target participants were invited to take the pilot of pretest and posttest of reading comprehension. Two ninth grade classes in School X other than the target participants were selected to take the same tests which would be administered in the formal study. One of the pilot classes was a higher achiever class, and the other was a lower achiever class. The former was called Group A while the latter called Group B. Just like the formal study, the students in Group A and those in Group B originally came from two intact classes and were divided into two different classes based on their English proficiency.

A comparison of the reading comprehension between the pretest and posttest was made. Table 4 shows the mean scores of the two groups. Group A's means of the pretest and posttest scores were 78.75 and 81.25 respectively. On the other hand, the

means of the pretest and posttest scores of Group B were 35.19 and 35.93 respectively. Besides, analysis of a paired samples t-test revealed that there was no significant difference in the progress of both groups, $p=.314$ in Group A and $p=.869$ in Group B. Thus, with either subtle or non-significant differences, the reading comprehension pretest and posttest are considered to be of equal difficulty level.

Table 4

The Results of Pre-and Posttest in Reading Comprehension in Group A and Group B

Group	Pretest Means (SD)	Posttest Mean (SD)	Paired Samples T-test <i>t score</i>
Group A (N=32)	78.75 (15.69)	81.25 (14.24)	.314
Group B (N=31)	35.19 (13.97)	35.93 (19.86)	.869

A perception questionnaire

Adapted from Chern's (2005) questionnaire and inspired by previous research (Rosenshine & Meister, 1994; Shiau, 2010), a Perception Questionnaire (See Appendix E) was composed to probe into participants' perception of reciprocal teaching. The questionnaire includes seven questions which can be further divided into four categories. The first part is about students' overall perception in learning through reciprocal teaching. Item 1 aims at investigating the impact of reciprocal teaching on general English learning experience. The second category is about the students' evaluation of the four strategies of reciprocal teaching. Item 2 is to locate the strategy that participants have the least problems with, while Item 3 is used to find out the most difficult strategy for the participants. Item 4 is designed to explore which strategy functions most effectively in terms of helping participants understand a

passage. The third part is about the students' belief of reciprocal teaching in promoting their English reading comprehension and interests. Item 5 asks participants if reciprocal teaching improves their reading comprehension. Item 6 asks participants if reciprocal teaching increases their interest in reading English articles. The fourth category is about the students' attitudes toward reciprocal teaching. Item 7 aims to see if participants like reciprocal teaching and if they have any suggestion for improvement. More than half of the questions are open-ended questions, except for Items 2, 3 and 4. The design of the three questions requires the students to choose the most prominent one out of the four strategies. This is to explore if there is any significant preference between the high achiever group and the low achiever group. Besides, in order to reduce students' anxiety with reading in English and the possibility of misunderstanding caused by language barriers, the Chinese version of the Perception Questionnaire (See Appendix F) was used.

Data-collecting Procedures

The design of the present study consisted of three parts. The first part was a pretest of reading comprehension for both higher achiever group and lower achiever group. Next, a reciprocal teaching intervention was conducted in each group. Finally, a reading comprehension posttest and a perception questionnaire on the reciprocal teaching instruction were administered to both groups in the third part. Table 5 presents the three parts of the present study.

Table 5
Three Parts of the Present Study

Part	Time	No. of sessions	Activities
1	Week 1	1	A pretest of reading comprehension
2	Week 2-6	10	Reciprocal teaching intervention 1. Demonstration of four reading strategies 2. Teacher-led discussion 3. Student-led discussion
3	Week 7	1	A posttest of reading comprehension A perception questionnaire

Two kinds of data were collected in this study: the scores of the pretest and the posttest of the reading comprehension and the responses to the questionnaire.

Before the administration of reading instruction, a reading comprehension pretest was administered to both groups in the first week. With the intensive instruction, the participants were expected to be more familiar with the application of the four strategies. The reading materials for the course were identical for both groups. After the instruction in each group, a reading comprehension posttest was administered to all participants. Students' scores of both tests were collected for further analysis.

Additionally, after the teaching intervention, a perception questionnaire on the reciprocal teaching instruction was administered, too. The subjects' responses to the questionnaire were the other source of data.

Data Analysis

To investigate the first research question, “Do both higher achievers and lower achievers improve their reading comprehension after reciprocal teaching?,” the Statistical Package for Social Science (SPSS) was used for data analysis. Two paired sample t-test was employed to measure the scores of the pretest and posttest in reading comprehension in each class. With this analysis, the first research question would be answered based on whether there were significant differences in the participants’ reading comprehension in each group.

To explore the second research question, “How do higher achievers and lower achievers perceive reciprocal teaching procedures?,” the participants’ responses to the perception questionnaire would be analyzed. The participants’ perceptions to the reciprocal teaching intervention would be shown with frequency counts to find the most salient items on the questionnaire. Descriptive statistics would be utilized to analyze the results from the response questionnaire. With this analysis, the second research question could be answered.

Chapter Four Results and Discussion

This study was designed, firstly, to investigate whether both the higher achievers and lower achievers in a junior high school in Taiwan can improve their reading comprehension after reciprocal teaching. Secondly, it was to compare the potential difference in the responses of higher achievers and lower achievers toward the reciprocal teaching procedure. Therefore, two sections are included in this chapter. The first section describes the results of the reading comprehension tests in the pretest and posttest in both groups. The second part presents the perceptions toward the reciprocal teaching instruction.

Results of the Reading Comprehension Tests

In order to evaluate the effects of reciprocal teaching on the participants in the higher achiever group and the lower achiever group, a paired sample t-test was performed to compare the difference of the pretest and the posttest in each group.

Table 6 presents the means of both groups in the reading comprehension test. Results of the statistical analysis suggested that the higher achiever group's means of the pretest and the posttest were 71.88 and 89.69 respectively. A paired sample t-test indicated a significant difference between the means of these two tests performed by the thirty two participants in the higher achiever group, $p=.000$.

Compared with the higher achiever group, the lower achiever group yielded even more improvement in grades. Results of the statistical analysis revealed that the lower achiever group's means of the pretest and the posttest were 23.44 and 47.19 respectively. Moreover, a paired sample t-test showed a significant difference between these two tests performed by the thirty two participants in the lower achiever group, $p=.000$.

Table 6

Results of the Pre-and Posttest in Reading Comprehension in Both Groups

Group	Pretest Means (SD)	Posttest Mean (SD)	Paired Samples T-test <i>t score</i>
High (N=32)	71.88 (15.33)	89.69 (8.98)	6.14***
Low (N=32)	23.44 (16.97)	47.19 (25.93)	5.85***

Note: High= Higher-achiever Group and Low= Lower-achiever Group

***: $P < .001$

Table 7 provides information about the participants' improvement concerning the three anchor questions. Except for the 21 participants who got the full mark in the anchor questions, nine of the remaining 11 (82%) improved their scores from pretest to posttest. Results of the statistical analysis suggested that the nine participants' means of the pretest and the posttest were 17.78 and 28.89 respectively. A paired sample t-test indicated a significant difference between the means of the pretest and that of the posttest performed by 9 participants who made progress in the higher achiever group, $p=.013$.

Similar to the higher achiever group, the lower achiever group yielded improvement in grades in terms of the anchor questions. Except for the only participant who got the full mark in the anchor questions, 17 out of the 31 remaining participants (53%) made progress from pretest to posttest. Results of the statistical analysis revealed that the lower achiever group's means of the pretest and the posttest were 6.77 and 16.45 respectively. Besides, a paired sample t-test showed a significant difference between the means of the pretest and posttest by 17 participants who

improved in the lower achiever group, $p=.000$.

Table 7

Result of the Anchor Questions in Reading Comprehension in Both Groups

Group	People making improvement	Pretest Means (SD)	Posttest Means (SD)	Paired Samples t-test t score
High (N=11)	9(82%)	17.78(8.33)	28.89(3.33)	3.16*
Low (N=31)	17(53%)	6.77(7.48)	16.45(10.50)	5.303***

*: $P < .05$

***: $P < .001$

Table 8 below contains details about the improvement in the three anchor questions.

Table 8

Improvement in Anchor Questions

Group	The Number of the Participants Who Got Improved		
	Question 2	Question 3	Question 4
High (N=11)	2(18%)	2(18%)	6(55%)
Low (N=31)	7(23%)	11(35%)	12(39%)

As can be seen from the data presented in Table 8, the most prominent improvement in Group H was consistent with that in Group L. To be more specific, the most salient improvement fell on Question 4 in both groups. One explanation for this consistency is that Question 4, which required participants to utilize the context to make an

inference, is relatively easier than any other anchor questions. On the other hand, Question 2 needed participants to make an overall inference on the main idea while Question 3 evaluated whether they were sure of more details, the four facts. Among the three questions, Question 3 appeared to be the most difficult with the least number of participants getting it right.

Results of the Perception Questionnaire

This section explores the participants' perception toward reciprocal teaching instruction. The exploration was presented by analyzing the results of the perception questionnaire. The results were discussed following the sequence of the four categories described in the previous chapter (See *a perception questionnaire*, P.33): (1) students' overall perception towards learning via reciprocal teaching, (2) students' reflection on their practice of the four reading strategies, (3) students' belief of reciprocal teaching in promoting reading comprehension and interests, (4) students' attitudes toward using reciprocal teaching in the future.

Students' overall perception towards learning via reciprocal teaching.

The participants' responses to the first question "*What do you learn most from the class*" fell into the following five categories: (1) the four reading strategies of reciprocal teaching, (2) motivation to learning English (including being more interested in English, being more motivated to learn English, being more involved in English class, etc.), (3) metacognitive awareness (including being more aware of one's own thinking and being more aware of how to read), (4) language proficiency (including improvement in listening, speaking, reading, writing, etc.), and (5) cognitive awareness (including knowing one's strengths and weaknesses, etc.).

Table 9 below summarizes the categories and provides the numbers and percentages

of the participants who mentioned them as helpful.

Table 9

Overall Perceptions towards Learning via Reciprocal Teaching in Both Groups

Categories	High (N=32)	Low (N=32)
	Frequencies (Percentages)	Frequencies (Percentages)
Reading strategies of reciprocal teaching	19 (59%)	17 (53%)
Motivation to learning	8 (26%)	16 (50%)
Metacognitive awareness	9 (28%)	5 (16%)
Language proficiency	8 (26%)	4 (13%)
Cognitive awareness	5 (16%)	4 (13%)

More than half of the participants in each group mentioned that they learned a lot about the four reading strategies via reciprocal teaching. The replies from both groups are presented as follows. Participants H1 to H32 belong to higher achiever group whereas participants L33 to L64 belong to lower achiever group. All of them wrote down their responses in Chinese, and the researcher translated them into gists in English.

I've learned how to clarify. I always saw a lot of new words while reading. I didn't know what they meant so I gave up moving on. Now I know what to do when I see unknown words. For example, I can use the context to make a guess. It is easy and fun for me. It's like gambling. (Participant H2)

I've learned a lot about predicting. In the past, I didn't predict after I read

the title of the article. Now I like predicting because it is easy and helpful. I could easily make precise predications based on the information I had known. Besides, I couldn't wait to read the next paragraph because I wanted to know if I was right. (Participant H11)

I've learned how to ask questions as if I were an English teacher. This strategy helped me to think like a teacher and predict what may be tested on a reading comprehension test. (Participant L35)

I've learned about summary. I used to know nothing about summary. In the very beginning, I could only summarize an article with intuition. Now I know I may start from the topic sentence. It may not work every time. But, it's easy and worth trying. I will apply this technique to my writing in the future. (Participant L44)

As can be seen from the above remarks, the four reading strategies not only helped participants understand the texts better but also provided them with something beyond reading comprehension. Participant 11 was motivated to read on after he made reasonable predictions. Instead of giving up reading, Participant 2 considered it interesting to guess the meaning of unknown words. Participant 44 learned a new tip to write and was willing to apply it in the future. Participant 35 found a new way to prepare for reading comprehension tests.

Sixteen participants (50%) in the lower achiever group considered reciprocal teaching intervention motivated them to learn English while only eight participants (25%) in the higher achiever group made such responses.

It was great to do brainstorming with my group members. It was even greater to figure out an unknown word or phrase by ourselves. I like to learn English by discussing with my friends. (Participant H4)

I liked to discuss with my group members because it is more interesting and less stressful. "Two heads are better than one." (Participant L37)

I was poor at English. I used to nod in English class because I didn't understand what the teacher was talking about. But, when we had the English class in the discussion room, the class seemed to be interesting. I had to read, so I could do the discussion with my group members. I really enjoyed working with my classmates. (Participant L62)

As can be seen from the remarks above, interests in group discussion motivated them to read. Staying with their group members made many participants feel at ease, and employing the four strategies helped them make contribution to the discussion. After accomplishing the task, they also gained confidence and sense of achievement. Similar feedbacks were found in the higher achiever group.

As for metacognitive awareness, nine (28%) participants from the higher achiever group talked about the awareness of thinking while five (16%) participants from the lower achiever group mentioned it.

I learned how to think efficiently and how to figure out unknown words and phrases. (Participant H18)

Summarizing helps me a lot. When I had to do summary, I reminded

myself of looking for topic sentences. Then, I could get the main idea quickly. (Participant H28)

I would try “clarifying” more frequently because I could memorize a new word more easily in that way. (Participant L49)

The other two participants in the higher achiever group were aware of the change in their reading habits.

I used to be a passive listener. But I enjoy being an active reader now.
(Participant H6)

I used to give up easily when I got stuck during reading. Now, I will try to move on with the four strategies. (Participant H9)

As far as the language proficiency is concerned, eight (26%) participants in the higher achiever group and four (13%) subjects in the lower achiever group thought that they made progress in English proficiency. Interestingly, participants from lower achiever group all focused on learning new words and phrases while two subjects from higher achiever group refer the progress to writing skills and more practice of speaking and listening. Some of their feedbacks are listed below.

I practiced speaking (reading the paragraphs aloud) and listening (listening to my group members’ sharing) more frequently than I used to. (Participant H2)

I've learned how to write in English. The use of topic sentences is really easy and convenient. Topic sentences can differentiate major ideas from minor details. This idea helps me a lot. (Participant H10)

I've learned a lot of new words and phrases. (Participants L42, L48)

As for cognitive awareness, five (16%) participants in the higher achiever group and four (13%) subjects in the lower achiever group showed that they were aware of the current state of their English proficiency. The following are some of their remarks.

I've learned about the structure of an English article. (Participant H13)

I am not good at posing a question in English. (Participant H21)

My English is not good enough for me to learn reciprocal teaching.
(Participant L57)

Students' reflection on their practice of the four reading strategies.

This section presents the participants' replies to the following three questions:

"Which strategy is the easiest for you to learn?", "Which strategy is the most difficult for you to learn?" and "Which strategy helps you most to understand the articles?"

Table 10 summarizes the participants' responses by listing the number of and percentages of the participants who chose the item.

Table 10

Reflection on Practice of the Four Reading Strategies

Strategies	Group	Predicting	Clarifying	Summarizing	Questioning
Easiest	High	12(38%)	10(31%)	7(22%)	3(9%)
	Low	20(63%)	4(13%)	4(13%)	4(13%)
Most difficult	High	3(9%)	4(13%)	2(6%)	23(72%)
	Low	3(9%)	9(28%)	12(38%)	8(25%)
Most helpful	High	1(3%)	15(47%)	10(31%)	6(19%)
	Low	3(9%)	15(47%)	5(16%)	9(28%)

As revealed in

Table 10, most participants in both group considered it the easiest to make predictions. Nearly two thirds of the participants in lower achiever group thought predicting was the easiest. They provided the following reasons.

I think predicting is the easiest strategy of the four because the title is the shortest part in an article. It's easy to see the key point. (Participant H13)

I think predicting is the easiest because I could make a guess about the main idea based on the title. Sometimes, there was a picture along with the article. This made it easier for me to get the precise prediction. (Participant L47)

I always did predicting by intuition. It usually worked. (Participant L52)

Some participants explained why predicting was easier for them in terms of the affective factors.

I was not very good at English. But, predicting was easy for me because it didn't matter whether I got the prediction right. For me, it was the least stressful among the four strategies. (Participant H22)

I could utilize my imagination to get myself closer to the main idea of the article. It was free and cool! (Participant L63)

The feedbacks from higher achiever group were similar to those from lower achiever group. Interestingly, instead of using the terms, “intuition” and “imagination,” some participants in higher achiever group mentioned “background knowledge.”

I could make prediction easily based on my background knowledge, and it seldom went wrong. Even if the prediction was not precise, it would not go too far. (Participant H4)

When asked which strategy appeared to be the most difficult, the two groups had different opinions. More than two thirds of the participants in the higher achiever group gave their votes to questioning. The reasons are presented as follows.

At school, we were trained to “answer questions,” not to “raise questions.” That's why we were not so good at generating questions. (Participant H12)

My English was too poor to express the ideas and to produce a question.
(Participant H27)

Questioning appeared to be easy. In fact, producing a “fat (good) question” took a lot of time because I had to look for the hidden message rather than the literal meaning. (Participant H31)

On the other hand, over one third of the participants in lower achiever group considered it most difficult to do summary. Some of them shared their experience of producing a summary and explained why it seemed to be tough.

My English was not good enough to produce a summary. Even though I could read and understand occasionally, I didn't know how to write a summary in English. (Participant L49)

There were too many unknown words for me to figure out. Even if I got the underlined word correct, there were still a lot of new words to me. The article remained a chaos for me, let alone finding the main idea.
(Participant L58)

Some participants justified their difficulty in applying the strategy of summarizing with their personal weakness.

I am not good at getting the main idea. It is always difficult for me to find the key points in textbooks. English articles are no exception. (Participant

L53)

When it came to the most helpful strategy, both groups agreed on clarifying. Almost half of participants in each group believed they benefited a lot from either utilizing the context clues or employing the idea of roots, prefixes, and suffixes. Most of them believed that taking control of the vocabulary was the key to successful reading. Some of them shared their experiences of making clarification and explained why this strategy was the most helpful for them.

I learned a lot of new words by clarifying. Besides, once I tried hard to apply the strategy to get the meaning of the word, I would not forget it easily. (Participant H5)

Clarifying helped me to get the meaning of unknown words. Vocabulary is the basis for understanding texts. After I knew the meaning of the vocabulary, it was possible for me to move on for the main idea of the paragraph. (Participant H7)

The strategy of clarifying simplified the difficulty of getting stuck by unknown words. Sometime, I know the sentence pattern, but I just couldn't get the meaning of the new word right. I used to give up reading when I saw some new words. Now, I know I can make a guess from the context. (Participant L46)

After I tried to break the new word into prefix and root, I could solve the problem of unknown words efficiently. Clarifying helps me to read faster

and more fluently. (Participant L59)

Students' belief of reciprocal teaching in promoting reading comprehension and interests.

This section describes the participants' responses to the two questions, "*Do you think the four strategies help you comprehend better?*" and "*Do you enjoy learning English in this way?*" Table 11 provides information about participants' belief of reciprocal teaching in the enhancement of reading comprehension and increase of interests.

Table 11
Belief in Promoting Reading Comprehension and Interests

Questions	Yes		No	
	High	Low	High	Low
Do you think the four strategies help you comprehend better?	30(94%)	25(78%)	2(6%)	7(22%)
Do you enjoy learning English in this way?	24(75%)	23(72%)	8(25%)	9(28%)

As can be seen in Table 11, over three fourths of the participants (78%) in lower achiever group considered that reciprocal teaching is the reason for their improvement in reading comprehension while the majority of the participants (94%) in higher achiever group believed that reciprocal teaching helped them comprehend better. The responses which both groups had in common are presented below.

I used to give up when I saw new words and couldn't figure out what it meant. Now I know I can use the four strategies to tackle the problem.

(Participant H13)

I used to read word by word. I had to read twice before I got the key points.

Now I can read faster. It is also easier for me to catch the main idea.

(Participant H25)

I learned a lot from group discussion. We could listen to different opinions and then chose the best answer. (Participant L34)

Many participants showed their appreciation for group discussion. However, in terms of group discussion, there are still some comments which were only revealed by participants from higher achiever group. The following are some samples.

I enjoyed discussing with my group members. I not only learned from their interpretation but also the way they did it. (Participant H16)

I was afraid of interrupting the teacher and asking her questions. But I could ask my classmates freely during the group discussion. (Participant H19)

Besides, as indicated in Table 11, about three fourths of the participants in both groups agreed that reciprocal teaching increased their interests in reading and motivated them to challenge themselves.

I like reciprocal teaching because it turned reading into an interesting guessing game to me. (Participant H11)

When I figured out the meaning of a new word, I felt a sense of achievement. This feeling motivated me to apply the strategies to other reading passages. (Participant H15)

The process of thinking is interesting to me. (Participant L37)

The four strategies help me read more fluently. I would like to try how good I am now. (Participant L49)

Students' attitudes toward using reciprocal teaching in the future.

The participants' responses to their attitudes toward reciprocal teaching will be reported in this section. Most participants would like to continue receiving reciprocal teaching (See Table 12.)

Table 12

Expectation of continuing Receiving Reciprocal Teaching

	Yes		No	
Questions	High	Low	High	Low
Do you expect the teacher to continue teaching this way?	29(91%)	30(94%)	3(9%)	2(6%)

As described in Table 12, the majority of the participants (91%; 94%) looked forward to receiving the English courses via reciprocal teaching. Some participants appreciated reciprocal teaching, for it made thinking a part of learning, and thinking in this way was interesting to them. The following is a list of their comments.

It is more interesting to think with my classmates than to copy what the teacher says in the classroom. (Participant H24)

The four strategies taught us to think, and group discussion motivated us to share. I had to think before I could share. After listening to others' sharing, we might think more deeply together. It's a good cycle. Everyone tried their best to make contribution. It's kind of team work. It is fun and helpful. (Participant H29)

Reciprocal teaching made English classes no longer boring. I want to learn English in such an easy way in the future. (Participants L52)

Besides, two participants from the higher achiever group valued reciprocal teaching because it represented multiple ways of teaching and offered them a chance to learn from different perspectives.

I like this teaching method. It's way different from before. It left a lot of room for students to think. So, we could learn not only from the teacher but also from our peers. (Participant H30)

I like this method because we were encouraged to make as many possible

answers as we can. They might be all correct. (Participant H32)

Furthermore, reciprocal teaching helped them memorize new words and have longer retention of the meaning.

I had problem memorizing vocabulary. But, I still remembered some words I had learned via reciprocal teaching when I saw them in other articles. (Participant H8)

It used to be difficult for me to memorize new words. However, I could remember most of the words I learned during the ten sessions. Once you thought about a word, it appeared to be impressive and became part of your memory easily. (Participant L41)

The teacher didn't force the students to speak in English during the discussion, but they were encouraged to do that. In fact, some of the higher achievers tried to conduct the discussion in English while most of the lower achievers didn't. As a result, some higher achievers expressed their appreciation for the chance to practice writing and speaking.

After reading these articles, I have a better understanding of organization of an article. I can tell a topic sentence from supporting details. This helps me a lot when I prepare for the writing test of GEPT. (Participant H22)

I enjoyed finishing the worksheet in English. We seldom had chances like these to express ourselves in English in the past. It was challenging.

(Participant H31)

Some participants thought that reciprocal teaching deserved more time for practice.

This method is so helpful that we should be given more time to practice it.

It should be practiced again and again until everyone is familiar with it.

Practice makes perfect. (Participant H30)

I think reciprocal teaching is useful. But, I still needed more time to learn it well. (Participant L47)

Finally, some participants supported reciprocal teaching for it changed a traditional classroom into a new learning environment.

There were more interactions between students and students, even students and the teacher. We should try this more often. (Participant H9)

When we discussed, everyone seemed to be more energetic than they used to be. (Participant L43)

The teacher would step down the platform and listen to our discussion.

This seldom occurred before. I feel closer to her now, so I am not afraid of asking her questions. (Participant L60)

Different from the participants who expected to receive reciprocal teaching, five subjects would not like to continue the course this way. Those from the lower achiever

group were worried about their low English proficiency.

My English is so poor that I don't understand it at all. (Participant L58)

I am poor at English, and this method should be employed in higher achiever group. (Participant L63)

Three participants from the higher achiever group thought they didn't benefit from this approach.

My English is good enough. I don't need the four strategies. (Participant H6)

The four strategies are time consuming. I don't have patience to go through all of them while reading. (Participant H9)

I think traditional teaching is more effective. Since we have to prepare for Basic Competence Test, I suggest we stick to the traditional way.
(Participant H26)

In addition to personal expectation, some participants offered suggestions for the intervention and future employment in class. The need of more time was a common suggestion.

When we were in the middle of our discussion, we sometimes ran out of time and had to wrap up in a hurry in the end of the class. If we had more

time, we might have come up with better questions or summaries.

(Participant H7)

We need time to discuss. But, time was always up before we finished all the discussion. (Participant L37)

Another highly recommended option was to include more genres in the reading materials. To keep enthusiasm and interests in reading, some participants expected to read more than only descriptive articles.

Maybe we can read something more challenging and interesting, such as *Harry Potter* or *The Twilight Saga*. (Participant H4)

Can we read poems via reciprocal teaching? I think it would be fun.

(Participant H12)

Discussion

The purpose of this study was to probe into the effects of reciprocal teaching on reading comprehension of students with different proficiency in English. First, it intended to examine the participants' improvement in comprehension of texts. Second, it aimed to explore the participants' perception toward reciprocal teaching and to investigate its practicability in EFL classes of different proficiency levels.

Effects of reciprocal teaching instruction on reading comprehension.

As revealed in the previous section (See Table 6), the reciprocal teaching

instruction has an impact on participants' reading comprehension in both groups. By comparing the reading comprehension tests between the pretest and the posttest, a significant difference was found in each group. The 72 participants in the present study showed a great progress in their reading comprehension. This finding echoes the positive results and comments in Takala's (2006) study in that students of different proficiency all showed positive improvement on the posttest after reciprocal teaching intervention.

Even though the participants in both groups made significant progress in their reading comprehension after the intervention, the differences of mean scores of the pretest and the posttest in the higher achiever group and the lower achiever group were 17.81 and 23.75 respectively (See Table 6). In terms of the gain of the means, the lower achiever group seemed to show a little more improvement than the higher achiever group. One explanation for this may lie in the means of the pretest. The mean scores of the pretest in lower achiever group and higher achiever group were 28.44 and 71.88, which left the former much more room for improvement. Besides, some lower achievers who gave up answering the questions on the pretest regained confidence and interests in reading during the intervention. Afterward they tried to complete the posttest in time. Therefore, lower achiever group was more likely to outperform the higher achiever group in gains in reading comprehension tests.

In fact, an exploration on the participants' improvement in anchor questions provides more aspects to investigate their comprehension of texts. The three anchor questions explore not only whether the reading comprehension might be promoted but how the four reading strategies might facilitate their reading comprehension. As indicated in the previous section (See Table 7), in terms of the anchor questions, the reciprocal teaching intervention also had a positive influence on reading comprehension on both groups.

As indicated by Table 8, the most salient progress in anchor questions fell on Question 4, “*What has the weather probably been like?*”. This inference question required the participants to utilize the context to clarify the idea of the weather in the article. On the posttest, more than half of the participants in the higher achiever group and nearly 40% of the participants in the lower achiever group made progress on this question. This result suggested that the strategy of clarifying help participants to use the context clues to tackle the unclear idea. The finding is consistent with the participants’ self-evaluation (See Table 10) in that the strategy of clarifying was voted as the most helpful strategy among the four reading strategies.

Perception of reciprocal reaching instruction

Besides the effects on promoting reading comprehension, reciprocal teaching instruction showed plenty of merits evidenced in the participants’ responses to the Perception Questionnaire (See Appendix F). First, reciprocal teaching created a positive learning environment in which students help each other and learn English with more interests and less pressure. The participants always showed great involvement in group discussion while their interests in group discussion motivated them to get more engaged. Second, different from traditional teaching method, reciprocal teaching represented an alternative for students to learn English. This point may be interpreted in two aspects. First, as some participants described, they learned not only from what the teacher said but also what their peers did. The instructor is no longer the only dominate role who teaches in class. The peers may be another source which students can also learn from. Second, as some higher achievers mentioned, they made progress not only in reading comprehension but also in listening, speaking and writing. In fact, some of the higher achievers really tried to conduct the discussion in English, but most of the lower achievers didn’t. This difference may be one of the

reasons why higher achievers improved the other three skills while lower achievers didn't. This finding showed that four skills may not be taught only through textbooks, workbooks or listening CDs but also the interaction and discussion among students. Last but not least, reciprocal teaching led the students to independent learning. The students were no longer a passive listener but an active reader who knew what to do when their comprehension failed. All in all, these findings are in accord with the positive results of the previous studies which claimed reciprocal teaching to be effective in EFL classrooms in Taiwan (Chou, 2008; Shiau, 2010; Wu, 2012).

Furthermore, to enhance the previous findings, a detailed examination of practice of four reading strategies is provided based on the statistical data collected from Item Two to Item Four in Perception Questionnaire (See Appendix E). In the present study, predicting was considered the easiest reading strategy among the four. There are a number of possible explanations for this result. One of them is that it was the first strategy demonstrated in the guided practice, so participants were much more impressed with it and had more time to get used to it. Another reason is that predicting required little English competence to start. Even though a lower achiever was poor at English, he or she could utilize the picture or the title to make as precise predictions as a higher achiever did. The other explanation would be the characteristic of prediction, which is more open-ended in nature. Compared with the other three reading strategies, predicting seemed to be correct-answer-free. Even if participants didn't make a precise prediction, it had little influence on reading comprehension, and they still had a chance to comprehend the text with the other strategies.

Unlike the response to the easiest reading strategy, the two groups showed difference in opinions toward Item 3, "the most difficult reading strategy." The lower achiever group gave their votes to summarizing while the higher group to questioning. One possible reason for the different results of the responses may be related to the

participants' proficiency levels. Most of the participants in the higher achiever group were able to understand more than half of the text and to locate the topic sentence. It was usually an easy task for them to tell the main idea from the details and organize them in a summary. On the other hand, in terms of the lower achievers, they may do predicting and clarifying well. But if they missed a key point in summarizing, this could lead them to a wrong conclusion which was totally divergent from the correct one. Thus, the load of summarizing appeared to be relatively heavy for a lower achiever to carry out.

Besides, the nature of summarizing may account for the difficulties that the lower achievers faced during reading. Producing a summary in English is challenging for students (Chern, 2005; Shiau, 2010) since summarizing required both inputs and outputs. The inputs referred to the ability to differentiate the major points from the minor details whereas the outputs meant the competence to organize the key points and produce a few sentences. Both of the tasks appeared to be hard for the lower achievers with limited English competence. In brief, after the easy process of predicting and clarifying, lower achievers always got stuck with summarizing. On the other hand, they spent lots of time on summaries, and little time was left for them to experience the difficulties of questioning.

In contrast to the strategy of summarizing, the strategy of questioning was thought to be the most difficult one in the higher achiever group. This could be interpreted in three dimensions. First, generating a question may be a complex and advanced performance for an EFL learner. In addition to the ability to understand the text, it also required the English competence to turn an indicative into an interrogative. Since the BCT has been administered in the form of multiple choices for more than ten years, some students tended to emphasize reading and ignore speaking and writing. In terms of information collecting, they might be good at receiving, but poor at

producing. Therefore, producing a question seemed to be perplexing to some higher achievers.

Next, many of the higher achievers might not be used to raising questions in class. The typical characteristics of higher achievers in junior high school in Taiwan included sitting quietly in the classroom, listening carefully to the teacher, taking notes quickly on the textbook, etc. Instead of proposing questions actively, students in Taiwan were used to passively answering questions from the teachers. In the present study, many participants did not get accustomed to the change of roles. As a result, they felt discouraged in class. However, this problem could have been solved if the participants had been given more time to practice. With sufficient practice, the participants may alter their preferred learning styles and benefit more from learning by asking questions.

Finally, some higher achievers considered questioning difficult because they set high standards for themselves. After the researcher's demonstration of generating "fat questions (i.e. good questions,)" some higher achievers wanted to imitate the type of question. However, it was not easy for a beginner to produce a fat question in a short time. Due to the time constraint and their self-set high criteria, they critically thought their performance on questioning was not good enough. To sum up, the two groups in the present study differed in opinions to the most difficult strategy; however, the result of selecting questioning and summarizing as the most difficult strategies supports previous studies (Parlinsar & Brown, 1984; Rosenshine & Meister, 1994) in that these two strategies required students to undergo deeper processing in which comprehension difficulties may arise and be noticed.

As for the most helpful strategy, both groups agreed on the strategy of clarifying. One possible reason for the consistency could be participants' beliefs in the power of vocabulary. Generally speaking, participants tended to think that vocabulary

was the basis for their reading comprehension. They believed that once they knew every word in the article, they could have a good command of the text and comprehend it with ease. Since the issue of unknown words could be efficiently solved by the strategy of clarifying, there should be no doubt for it to be the most useful strategy. In fact, similar findings were discussed in previous studies (Chern, 2005; Shiao, 2010). EFL learners in high schools in Taiwan, regardless of proficiency levels, always had a myth of the importance of vocabulary. However, with implementation of twelve-year compulsory education in the near future, the pressure from the entrance examinations should be eliminated, and the over-emphasized vocabulary learning could be balanced.

Another explanation for the selection could lie in the nature of clarifying. Clarifying was relatively easier to evaluate. It was easy to confirm if the clarification was correct, while it took more efforts to evaluate the summary or the question. Because the participants could tell whether the strategy of clarifying worked after the teacher explained the article, they might feel more certain about its effects. In the end, they were confident in its efficiency and showed more appreciation for the strategy.

Feasibility of reciprocal teaching in EFL classrooms in Taiwan.

Recently, we have seen mounting evidence of the practicability of Taiwanese EFL learners' incorporating reciprocal teaching into their reading process (Chern, 2005; Chou, 2008; Su, 2010; Wu, 2012). However, little attention was paid to examine the difference between the effects of reciprocal teaching on EFL learners with different English proficiency. The findings in the present study suggest that reciprocal teaching can be tailor-made for students of different competence and may be put into practice in regular English classrooms in Taiwanese junior high schools.

As indicated in the previous discussion, two findings evidenced the value of

adopting reciprocal teaching in EFL classrooms in Taiwan. One of the findings showed that reciprocal teaching shape the way to promoting of the participants' reading comprehension no matter in the higher achiever group or the lower one. The other finding indicated that most participants could detect the benefit of the four reading strategies to some extent and expressed their appreciation of reciprocal teaching by showing expectance toward the use of the four strategies in the future. With obvious evidences, reciprocal teaching can be concluded to be worth implementing in EFL classrooms.

Since reciprocal teaching is worthwhile, how could it be effectively carried out in real teaching scenarios? Two factors should be taken into consideration: students' needs and concrete incentives.

First, students' needs refer to their responses indicating the troubles they had during the intervention. Students of different proficiency levels may have different kinds of troubles and require different assistance. Teachers may adjust the frequency of the use of the four reciprocal teaching strategies after the students are familiar with them. For example, because the strategy of summarizing was believed to be the toughest by the lower achiever group, teachers should take time giving a clearer explanation of summarizing and offering some procedural prompts (e.g., start with "I learned ...in this paragraph" or "First..., next..., then..., and finally....") when teaching summarizing to students of lower proficiency. Concrete guides like these could be helpful to them. On the other hand, since the strategy of questioning appeared to be most frustrating to higher achievers, teachers may spend more time providing them with more samples in the texts they were familiar with. For instance, teachers can show them the comprehension questions in the textbooks or questions on the examination paper. Thus, higher achievers could get a clearer picture of a good question and produce questions of this kind. Besides, longer period of time and

various kinds of materials could be offered, since some of the higher achievers commented on the need for sufficient time and different genres.

The other element is the concrete reward system during the intervention. According to the researcher's observation, concrete rewards were important to facilitate the reciprocal teaching intervention. In the beginning of the treatment, participants were not familiar with the four reading strategies. Hence, they did not perform well on using the four strategies and felt bored with them. The class seemed to be a tiring burden to some of the participants, especially those in the lower achiever group. Noticing the phenomenon, the researcher began to motivate them by giving rewards. From Session 4, the reward system was established to provide incentives for participation. Every group in which the group members were devoted to the discussion and finished the worksheet well could get a stamp. When a group collected five stamps, each member could draw lots and win a prize. To engage all participants, the researcher didn't set a top limit to the number of stamps each group can receive. Since then, participants in both groups had been highly motivated to read via the four strategies and eager to express their ideas. The use of concrete rewards originally resulted from the concern toward the lower achiever group, but it eventually triggered positive learning environments in both groups.

This unexpected result may be explained in the following. First, encouragement is always necessary for improvement in the process of learning. Students receiving praise perform better than they used to. Incentives could be one form of encouragement. Second, reading comprehension was the ultimate goal for reading via reciprocal teaching; however, it was too vague to imagine and too difficult to achieve for a junior high school EFL student. Rewards were much more concrete and substantial for beginners of reciprocal teaching intervention as they offer immediate feedbacks. Third, rewards provide a target for groups to compete for. Participants in

the present study enjoyed working in groups and rewards were like trophies which motivated the groups to work harder for their pride and prizes. In short, rewards turned an ordinary class into an interesting game which the participants were fond of.

The issues of time and materials.

Two unexpected issues raised in the responses to the perception questionnaire are explained below.

One of the issues is relevant to the request for longer time for reciprocal teaching. As shown in the participants' response to the questionnaire, the issue of time was proposed by participants in both groups. Some of them made the statement because they credited reciprocal teaching for bringing life and energy to English classes. Learning via reciprocal teaching was innovative and interesting to them. Besides, they had more chances to interact not only with the text but also with other members in the classroom, including their peers and the teacher. They enjoyed the class so much that they urged for more classes conducted in this way. Some participants proposed the same opinion for different reasons. Reciprocal teaching was thought to be helpful but difficult to them. More time was needed for them to practice and internalize the four reading strategies. Then, they may use the strategies correctly and spontaneously. This suggestion parallels the previous research in that enough time for students to practice the four strategies is the key to successful learning via reciprocal teaching (Chou, 2008; Clark, 2003; Hashey & Connars, 2003).

The other issue may be suggestive of the varieties of the teaching materials. It must be noted that only some high achievers suggested novels be included in part of the reading materials while no lower achievers made such a claim. One possible explanation for this phenomenon is that higher achievers were more capable of reading longer texts and showed more tendencies to challenge themselves by reading

longer stories. To put it in another way, lower achievers often failed to comprehend before they learned to read with the four reading strategies. When they improved gradually with the help of reciprocal teaching, they were quite satisfied with the results. They were not ready to move further before they were sure that they had a good command of all four reading strategies. Additionally, this finding is consistent with Shiau's (2010) study, which put emphasis on the importance of the reading materials by attributing the participants' occasional failure to their unfamiliarity with the characteristics of the story. One possible explanation for this discrepancy is that Shiau's (2010) study aimed to develop thinking by generating questions while the present study was designed to promote reading comprehension by reading. The former is rather output-oriented whereas the latter is input-oriented. Thus, the productive goal requires different types of materials from the receptive one.

Chapter Five Conclusion

The 12-year compulsory education will be implemented in 2014 and it aims to create a quality education environment. Some changes have been made to follow this latest policy. For example, some areas, like Keelung and Taipei, have announced that math literacy and reading literacy would be the two key skills assessed for entry to prestigious high schools. To correspond to the new trend, English teachers have to incorporate new approaches and techniques, like strategy instruction, into the classrooms to prepare students to cope with this change. Among a variety of teaching techniques, reciprocal teaching is famous for fostering and monitoring reading comprehension. In Taiwan, many studies have indicated that reciprocal teaching could enhance students' reading comprehension (Chern, 2005; Chou, 2008; Su, 2010; Wu, 2012). However, few studies have investigated the difference between the effects of reciprocal teaching on students of different proficiency levels. Thus, the present study was designed to explore the difference mentioned above.

Summary of Findings

In this preliminary study, participants' improvement in the reading comprehension tests and their perceptions to the reciprocal teaching treatment were examined. Major findings are provided as follows. First, through comparing the reading comprehension scores on the pretest and the posttest, a significant difference was found in both high and low English proficiency groups. Each group demonstrated a great improvement in their reading comprehension.

In addition, participants could detect benefits and reported them in the perception questionnaire. For instance, some participants learned useful reading strategies and promote their English competence. Other participants who considered

themselves unable to read English were motivated to read again and regained confidence. Some said that they learned about how to learn. Others enjoyed discussing with their peers while still others were aware of independent learning.

Among the four reading strategies, predicting was nominated by both groups as the easiest strategy while clarifying was voted as the most helpful one. However, the two groups held diverse opinions on the most difficult strategy. The higher achiever group believed that questioning was the toughest whereas the lower achiever group considered summarizing the hardest. Though a minority of the subjects showed preference to traditional reading instruction, the majority of the participants in both groups agreed that reciprocal teaching increased their reading comprehension and would like to use the strategies in the future.

Pedagogical Implications

This preliminary study investigated the effects of reciprocal teaching on reading comprehension of students with different competence in English. Based on the findings, some pedagogical implications can be offered for EFL instruction.

First, the finding that both groups of different proficiency made significant improvement on their reading comprehension after the intervention suggests that reciprocal teaching could be and should be considered as an option in regular reading courses. Reciprocal teaching not only helps students to promote their reading comprehension but also equips them with a useful tool to solve the problem in the process of reading, thinking, and learning. Besides, reciprocal teaching is a feasible approach that can be modified to suit the students' needs. In other words, reciprocal teaching can be implemented in various teaching contexts as long as teachers tailor this instructional approach to meet their own needs.

Second, compared with traditional reading instruction, reciprocal teaching is

more student-centered and allows students to discuss freely. To make reciprocal teaching successful, time spent on practice and group work is important. Students need not only to read and think but also share ideas with their group members. Teachers need to provide ample time for students to interact and to encourage them to work through the four reading strategies.

Third, the finding that some higher achievers suggest that novels could be included in the reading materials revealed that the diversity in materials and genre may have an influence on students' engagement in reciprocal teaching. The articles used in the present study were selected from textbooks and magazines because of the tight schedule and the preparation of upcoming BCT. Since the 12-year compulsory education will be implemented in 2014, students' pressure should be eliminated and teaching should be freed from the exam-oriented style. When there is more time and more flexibility for both students and teachers to learn, it may be worth trying to prepare stories that interest teenagers for them to challenge. It is worth noting that teachers may start using new kinds of materials with higher achievers because this suggestion was raised by them.

Suggestions for Future Research

Despite the positive results of this study as to the effect of reciprocal teaching on EFL learners' reading comprehension found in this study, future research is required in a number of directions. Based on the findings of the present study, some suggestions for future research are listed below.

First, as mentioned in the earlier limitation, the lack of control groups in research design might be a shortcoming. For this reason, future research are suggested to adopt a complete experimental-control group design to explore the potential of reciprocal teaching in reading comprehension among students of different proficiency

levels.

Second, since the present study had a small sample size, the findings may not be generalized to other contexts in Taiwan. As a consequence, it would be beneficial to replicate this study on larger and different populations. For instance, future studies can expand participants to more classes and investigate the effectiveness of reciprocal teaching on promoting Taiwanese EFL learners' reading comprehension.

Third, longer time for the intervention might contribute significantly to the efficiency of reciprocal teaching treatment, and this hypothesis needs further exploration. The future studies can plan a longer intervention time frame.

To sum up, the findings of the effects of reciprocal teaching on reading comprehension of students of different English competence in a junior high school in Taiwan are presented. This preliminary study is anticipated to generate more interests and attention in incorporating reciprocal teaching into EFL classrooms.

References

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Alfassi, M., Weiss, I., & Lifshitz, H. (2009). The efficacy of reciprocal teaching in fostering the reading literacy of students with intellectual disabilities. *European Journal of Special Needs Education, 24*(3), 291-305.
- Alvermann, D., & Earle, J. (2003). Comprehension instruction. In A. P. Sweet & C. Snow (Eds.), *Rethinking reading comprehension* (pp. 12-30). New York: Guilford.
- Ash, G. E. (2005). What did Abigail mean? *Educational Leadership, 63*(2), 36-41.
- Bernhardt, E. (2005). Progress and procrastination in second language reading. *Annual Review of Applied Linguistics, 25*, 133-150. doi: 10.1017/S0267190505000073
- Block, E. (1986). The comprehension strategies of second language reader. . *TESOL Quarterly, 20*(3), 463-495.
- Boulware-Gooden, R., Carreker, S., Thornhill, A., & Joshi, R. M. (2007). Instruction of Metacognitive Strategies Enhances Reading Comprehension and Vocabulary Achievement of Third-Grader Students. *The Reading Teacher, 61*(1), 70-77.
- Brown, H. D. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. New York: Longman.
- Carrell, P. L. (1985). Facilitating ESL reading by teaching text structure. *TESOL Quarterly, 19*(4), 727-752.
- Carrell, P. L. (1989). Metacognitive awareness and second language reading. *The Modern Language Journal, 73*(2), 121-134.
- Carrell, P. L. (1991). Strategic reading. In J. E. Alatis & A. H. Tan (Eds.), *Georgetown university round table on language and linguistics 1991* (pp. 167-178). Washington, D.C.: Georgetown University Press.
- Carver, R. P. (1987). Should reading comprehension skills be taught? In J. E. Readence, R. S. Baldwin, J. P. Konopak & H. Newton (Eds.), *Research literacy: Margin perspectives: Thirty-sixth yearbook of the National Reading Conference* (pp. 115-126). Rochester, NY: National Reading Conference.
- Chen, C. (2003). *Reading instruction in junior high school: How do junior high school English teachers instruct reading?* Unpublished master's thesis, National Taiwan Normal University, Taiwan.
- Chern, C. (2005). The role of junior high school EFL reading and instruction in Nine

- Year Integrated Curriculum In W. Chang (Ed.), *The challenge and solution of English instruction in Nine Year Integrated Curriculum*. Taipei: NTNU.
- Chou, H. (2008). *Effects of Reciprocal Teaching on Reading Comprehension and Strategy Use: A study at an EFL Junior High School in Taiwan*. Master of Arts, National Changhua University of Education, Changhua.
- Chuang, C. P. (2010). *Semantic mapping strategy training in EFL reading instruction*. Master's thesis, National Changhua University of Education, Taiwan.
- Cohen, A. D. (1990). *Language learning : Insights for learners, teachers, and researchers*. Boston, Mass.: Heinle & Heinle Publishers.
- Denton, C. A., & Fletcher, J. M. (2003). Scaling reading interventions. In B. R. Foorman (Ed.), *Preventing and remediating reading difficulties: Bring science to scale* (pp. 445-464). Timonium, MD: York Press.
- Devine, T. G., & Kania, J. S. (2003). Studying: Skills, strategies and systems. In J. Flood, D. Lapp, J. R. Squire & J. M. Jensen (Eds.), *Handbook of research on teaching the English language arts* (pp. 942-954). Mahwah, N.J.: L. Erlbaum Associates.
- Drukin, D. (1978/1979). What classroom observation reveals about reading comprehension instruction. *Reading Research Quarterly*, 14(4), 481-533.
- Dymock, S. (2005). Teaching Expository text structure awareness. *The Reading Teacher*, 59(2), 177-181.
- Dymock, S. (2007). Comprehension Strategy Instruction: Teaching Narrative Text Structure Awareness. *The Reading Teacher*, 61(2), 161-167.
- Fisher, D., Frey, N., & Lapp, D. (2008). Shared readings: Modeling comprehension, vocabulary, text structures and text features for older readers. *The Reading Teacher*, 61(7), 548-556.
- Fitzgerald, J. (1995). English as a second language learners' cognitive reading processes: A review of research in the United States. *Review of Educational Research*, 76(2), 145-190.
- Gambrell, L. B., & Dromsky, A. (2000). Fostering reading comprehension. In D. S. Strickland & L. M. Morrow (Eds.), *Beginning reading and writing* (pp. 143-153). New York: Teachers College Press.
- Garner, R. (1987). *Metacognition and reading comprehension*. Norwood, NJ: Ablex.
- Goodman, A. (2005). The middle school high five: Strategies can triumph. *Voices from the Middle*, 13(2), 12-19.
- Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6(1), 126-135.
- Goodman, K. S. (1988). The reading process. In P. L. Carrell, J. Devine & D. E. Eskey (Eds.), *Interactive approaches to second language reading*. New York:

Cambridge University Press.

- Hashey, J. M., & Connors, D. J. (2003). Learning from our journey: Reciprocal teaching action research. *The Reading Teacher*, 57(3), 224-232.
- Herrmann, B. A. (1988). Two approaches for helping poor readers become more strategic. *The Reading Teacher*, 42(1), 24-28.
- Hosefeld, C. (1977). A preliminary investigation of the reading strategies of successful and unsuccessful second language learners. *System*, 5(2), 110-123.
- Hsiao, T. Y., & Oxford, R. L. (2002). Comparing theories of language learning strategies: A confirmatory factor analysis. *The Modern Language Journal*, 86(3), 368-383.
- Hsu, P. (2009). *An observation of a typical English reading class in senior high school*. Unpublished master's thesis, National Changhua University of Education, Taiwan.
- Hsu, Y. K., & Chen, Y. H. (2007). EFL Teachers' perceptions and practices regarding the implementation of remedial instruction for underachievers. *English Teaching and Learning*, 31(2), 1-43.
- Kelly, M., Moore, D. W., & Tuck, B. F. (1994). Reciprocal teaching in a regular primary school classroom. *The Journal of Educational Research*, 88(1), 53-61.
- King, C. M., & Johnson, L. M. P. (1999). Constructing meaning via reciprocal teaching. *Reading Research & Instruction*, 38(3), 169-186.
- Kletzien, S. B. (1992). Proficient and less proficient comprehenders' strategy use for different top-level structures. *Journal of Reading Behavior*, 24(2), 191-215.
- Layton, A., Robinson, J., & Lawson, M. (1998). The relationship between syntactic awareness and reading performance. *Journal of Research in Reading*, 21(1), 5-23.
- Long, J. D., & Long, E. W. (1987). Enhancing student achievement through metacomprehension training. *Journal of Developmental Education*, 11(1), 2-5.
- Lykken, D. T. (1968). Statistical significance in psychological research. *Psychological Bulletin*, 70, 151-159.
- Lysynchuk, L. M., Pressley, M., & Vye, N. J. (1990). Reciprocal teaching improves standardized reading comprehension performance in poor comprehenders. *The Elementary School Journal*, 90(5), 469-484.
- Miller, C. D., Miller, L. F., & Rosen, L. A. (1988). Modified reciprocal teaching in a regular classroom. *Journal of Experiential Education*, 56(4), 183-186.
- Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249-259.
- Molden, K. (2007). Critical literacy, the right answer for the reading classroom: Strategies to move beyond comprehension for reading improvement. *Reading*

- Improvement*, 44(1), 50-56.
- Myers, P. A. (2005). The princess storyteller, Clara clarifier, Quincy questioner, and the wizard: Reciprocal teaching adapted for kindergarten students. *The Reading Teacher*, 59(4), 314-324.
- Oczkus, L. D. (2003). *Reciprocal teaching at work: Strategies for improving reading comprehension*. Newark, DE: International Reading Association.
- Onofrey, K. A., & Theurer, J. L. (2007). What's a teacher to do: Suggestions for comprehension strategy instruction. *The Reading Teacher*, 60(7), 681-684.
- Palincsar, A. S. (1982). *Improving the reading comprehension of junior high school students through the reciprocal teaching of comprehension-monitoring strategies*. Unpublished Doctoral Dissertation, University of Illinois at Urbana-Champaign.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal Teaching of comprehension-fostering & comprehension-monitoring activities. *Cognition & Instruction*, 1(2), 117-172.
- Palincsar, A. S., David, Y., & Brown, A. L. (1989). *Reciprocal teaching: A manual prepared to assist with staff development for educators interested in reciprocal teaching*. Unpublished manual. Ann Arbor, MI: University of Michigan.
- Palincsar, A. S., & Klenk, L. (1992). Fostering literacy learning in supportive context. *Journal of Learning Disabilities*, 25, 211-225.
- Paris, S. G., Wasik, B. A., & Turner, J. C. (1991). The development of strategic readers. In B. Barr, M. L. Kamil, P. Mosenthal & P. D. Pearson (Eds.), *Handbook of reading research* (pp. 609-640). Mahwah, NJ: Lawrence Erlbaum.
- Paris, S. G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B. F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 15-51). Hillsdale, NJ: Erlbaum.
- Paul, R., & Elder, L. (2001). *Critical thinking, tools for taking charge of your learning and your life*. Upper Saddle River, N.J. : Prentice Hall.
- Pearson, P. D. (1985). Changing the face of reading comprehension instruction. *The Reading Teacher*, 38(8), 724-738.
- Pilonieta, P., & Medina, A. L. (2009). Reciprocal teaching for the primary grades: "We can do it, too!". *The Reading Teacher*, 63(2), 120-129.
- Pressley, M. (2000). What should comprehension instruction be the instruction of? In M. L. Kamil, P. Mosenthal, P. D. Pearson & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 545-561). Mahwah, NJ: Erlbaum.
- Pressley, M. (2002). *Reading instruction that works: The case for balanced teaching*. New York: Guilford.

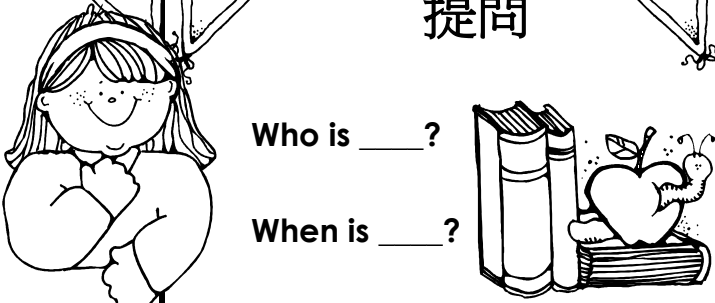
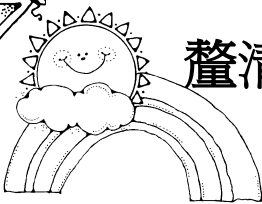
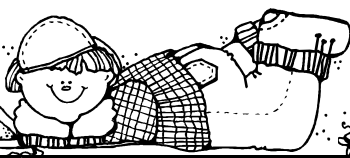
- Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching* (3rd ed.). New York: Guilford.
- Pressley, M., Wharton-McDonald, R., Mistretta-Hampston, J., & Echevarria, M. (1998). Literacy instruction in 10 fourth- and fifth-grade classrooms in upstate New York. *Scientific Studies of Reading*, 2(2), 159-194. .
- Risko, V. J., Walker-Dalhouse, D., Bridges, E. S., & Wilson, A. (2011). Drawing on text features for reading comprehension and composing. *The Reading Teacher*, 64(5), 376-378.
- Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of the research. . *Review of Educational Research*, 64(4), 479-530. .
- Samuels, S. J. (1993). *What research has to say about reading instruction* (second ed.). Delaware: International Reading Association.
- Schoenfeld, A. H. (1987). What's all the fuss about metacognition? In A. H. Schoenfeld (Ed.), *Cognitive science and mathematics education*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Schramm, K. (2008). Reading and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 231-243). Cambridge: Cambridge University Press.
- Shiau, J. C. (2010). *Using Reciprocal Teaching to Develop Thinking in a Senior High EFL Classroom in Taiwan*. Published Master Thesis, National Taiwan Normal University, Taipei.
- Sinatra, R. C., Stahl-Gemake, J., & Burg, D. N. (1984). Improving reading comprehension of disabled readers through semantic mapping. *The Reading Teacher*, 38(1), 22-29.
- Snow, C. (2002). Reading for understanding: Towards an R & D program in reading comprehension. Retrieved March 11, 2012, from www.rand.org/multi/achievementforall/reading/readreport.html
- Sporer, N., Brunstein, J. C., & Kieschke, U. (2009). Improving students' reading comprehension skills: Effects of stratgy instruction and reciprocal teaching. *Learning and Instruction*, 19(3), 272-286.
- Stricklin, K. (2011). Hands-on reciprocal teaching: a comprehension technique. *The Reading Teacher*, 64(8), 620-625.
- Su, W. (2010). *Technological University Students' English Reading Comprehension in Taiwan: A Reciprocal Teaching Approach*. Master of Arts, Chaoyang University of Technology, Taichung.
- Sweet, A. P., & Snow, C. E. (2003). *Rethinking reading comprehension*. New York: Guilford.
- Takala, M. (2006). The effects of reciprocal teaching on reading comprehension in

- mainstream and special (SLI) education. *Scandinavian Journal of Educational Research*, 50(5), 559-576.
- Taylor, B. M., Peterson, D. S., Pearson, P. D., & Rodriguez, M. C. (2002). Looking inside classrooms: Reflecting on the "how" as well as the "what" in effective reading instruction. *The Reading Teacher* 56(3), 270-279.
- The National Reading Panel. (2000). *Teaching children to read: An evidence-based assesement of the scientific research literature on reading and its implications for rading instruction*. Bethesda, MD: National Institution of Child Health and Human Development.
- Walczyk, J. J., & Griffith-Ross, D. A. (2007). How important is reading skill fluency for comprehension? *The Reading Teacher*, 60(6), 560-569.
- Williams, J. A. (2010). Take on the role of questioner: Revisiting reciprocal teaching. *THE Reading Teacher* 64(4), 278-281.
- Wood, D. J., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17, 89-100.
- Wren, S. (2002). Ten myths of reading instruction. *SEDL Letter*, 14(3), 3-8.
- Wu, C. (2002). *The study on high school trainees' theoretical orientations toward reading instruction and reading instructional practices*. Unpublished master's thesis, National Taiwan Normal University, Taiwan.
- Wu, C. (2012). *Reciprocal Teaching for Low Achievers in an EFL context*. Master, National Taiwan Normal University, Taiwan.

Appendices

Appendix A: Guides for Different Roles in Reciprocal Teaching

(adapted from <http://www.sanchezclass.com/docs/reciprocal-worksheet.pdf>)

預測 I think...because... I predict ...because... I think I will learn...because...	提問 Who is ____? When is ____? What is/does ____? Where is ____? 
釐清疑慮  I don't understand the _____ (word, phrase, sentence, part...) in line ____, so I _____.	摘要 In my words, this paragraph is about I learned ... from this paragraph... First... Next... Then... Finally... 
(Spare)	(Spare)

Appendix B: The Reciprocal Teaching Worksheet (A shrunk size from the original)

The Reciprocal Teaching Worksheet Class: _____ Group: _____ Name: _____

Solar Power

Ted's uncle lives in the country and has a small solar power system in his house. He uses solar power for heating water every day. It is not surprising that his gas bill has been cut down a lot because of the useful system.

When we visited Uncle Louis last weekend, he said that the use of solar power was not a new idea in Taiwan. For example, solar power is used to take salt from the sea in Tainan. Besides, people on Orchid Island are also using sunlight to dry fish.

Uncle Louis is sure that the age of solar power has arrived already. In fact, some cities in Taiwan are using solar lamps in public places. There are also more and more solar buildings in big cities. All these are the right things to do. The high electricity costs can be cut down sharply in the long run. He thinks solar power will also help to save our Earth in the future.

一 預測：依標題及前文來預測後文

1. 依標題及前文預測第一段 _____	3. 讀完第二段，預測第三段 _____
2. 讀完第一段，預測第二段 _____	2. 讀完第三段，預測第四段 _____

二 釐清疑惑：使用上下文推敲或拆解單字等方式，解決不懂字義、片語或句子。

疑惑之處	釐清方式
1. _____	1. ☐ 運用上下文 ☐ 拆解單字 ☐ 其他 _____
2. _____	2. ☐ 運用上下文 ☐ 拆解單字 ☐ 其他 _____
3. _____	3. ☐ 運用上下文 ☐ 拆解單字 ☐ 其他 _____
4. _____	4. ☐ 運用上下文 ☐ 拆解單字 ☐ 其他 _____

三 摘要：主要大意，重點即可。

四 提問：Who? Where? When?

Why? What? How?

第一段摘要： _____ _____	第一段提問： _____ _____
第二段摘要： _____ _____	第二段提問： _____ _____
第三段摘要： _____ _____	第三段提問： _____ _____
第四段摘要： _____ _____	第四段提問： _____ _____

Appendix C: Sample of Instruction

Title: Solar Power

Paragraph 1

Ted's uncle has a small **solar** power **system** in his house. He uses solar power for **heating** water. It is not surprising that his **gas bill** has been cut down a lot because of the system.

(Unknown words are bold-faced and underlined for clarification.)

Predicting
The teacher demonstrates how to read to make predictions. The teacher invites the students to read the title and to observe the picture. Then, they can guess what will happen in the story. The teacher will use the procedure prompts to lead students to monitor and foster the reasoning process. Some possible questions or prediction the teacher might propose are listed in the following. The procedure prompts used are italicized and underlined. e.g. (Prediction based on the title or prior knowledge) What can I know from the title of the article? Does the title give us any clues about the text? <i><u>I predict</u></i> it is about some kind of energy <i><u>because</u></i> the word, “power”, means energy. e.g. (Prediction based on illustration) What can I know from the picture? Does the picture give us any clues about the text? According to the picture, the sun is shining in the sky. <i><u>I think</u></i> this article is about the sun <i><u>because of</u></i> the sun.
Clarifying
The teacher tells the students that it is common for them to encounter problems while reading. The problems can often be solved with suitable strategies, such as using the context or prior knowledge. e.g. (clarification based on the context or their prior knowledge) In the first paragraph, <i><u>I don't understand the word</u></i> “heating” in line two, <i><u>so I use</u></i> the context. I know “power” means energy. What can energy do to “water”? <i><u>I use</u></i> my prior knowledge and guess the word might mean making the water hot.

Summarizing

The teacher starts with introducing the ideas of key words and topic sentences. The two ideas help the students locate the gist of a paragraph.

e.g. (key words to and topic sentence to make a summary)

What may be the most important idea to put in a summary? The topic sentence in this paragraph is “ Ted’s uncle has a small solar power system in his house.” “Solar power” appears most frequently both in the title and in the topic sentence. Any words related to the key words and necessary to be included in the summary? Say, what can the system do? One is heating water. The other is cutting down his gas bill. Now I put the key words all together in a sentence. *In my words, this paragraph is about* Ted’s uncle who has a solar power system to heat water and to cut down his gas bill.

Questioning

The teacher demonstrates how to ask two kinds of questions and show the difference between them. For each kind of question, one example is given.

(e.g. a skinny question)

Q: *What* does Ted’s uncle have?

A: A solar power system.

→ I don’t need to think. I can find the short answer directly in the text.

(e.g. a fat question)

Q: *What* can a solar power system do for people?

A: It can heat water and the gas bill will be cut down.

→ I need to integrate the last two sentences based on the experience of Ted’s uncle to get the answer.

Appendix D: Lesson Plans

Lesson Plan for Predicting Strategy (Session 3)

Participants	Ninth graders	Time	45 minutes
Goal	Students (Ss) can understand and apply predicting strategy to the reading passages.		
Objectives	1. Ss will know how to make a prediction based on the title or pictures. 2. Ss will know how to make a prediction based the previous passage(s). 3. Ss will know they can make a prediction based on their prior knowledge.		
Materials	A descriptive article entitled <i>Modern Cellphones</i>		
Procedures	Pre-reading activities (5 minutes)		
	After reviewing the definition of predicting, the teacher demonstrates when and how to use it by predicting with the title.		
	While-reading activities (35 minutes)		
	First the teacher asks for volunteers to make predictions about the first paragraph. Next, both the teacher and other students give comments on the predictions. If they don't think the prediction is correct, they can revise it. After everyone expresses their opinions, the teacher guides Ss to read the first paragraph aloud to check the prediction. The same steps are repeated until they finish the last paragraph. (Some possible questions or prediction the teacher might propose are listed in the following.) <u>e.g. (Prediction based on the title or the pictures)</u> What can I know from the title of the article, <i>Modern Cellphones</i>? Does the title give us any clues about the story? <u>e.g. (Prediction based on the previous passage)</u> After reading the first paragraph, what do you expect to see in the next paragraph? The first paragraph ends with "...make people's life more convenient and colorful." Can you think of any example which shows cell phones make people's life easier or more interesting? <u>e.g. (Prediction based on prior knowledge)</u> For Paragraph 2, what do you think a salesman may do with his cellphone? How about a businessman? What about ordinary people like us?		
	Post-reading activities (5 minutes)		
	The teacher wraps up the session by either reviewing the target strategy or inviting students to summarize what they learn about the strategy.		

Lesson Plan for Clarifying Strategy (Session 4)

Participants	Ninth graders	Time	45 minutes
Goal	Ss can understand and apply clarifying strategy to the reading passages.		
Objectives	1. Ss will know it is common to encounter problems while reading. 2. Ss will use clarifying strategy for an unknown word or an uncertain idea with the context or prior knowledge when encountering problems.		
Materials	A descriptive article entitled <i>Astronauts</i>		
Procedures	Pre-reading activities (5 minutes)		
	After reviewing the definition of clarifying, the teacher demonstrates when and how to use it by clarifying the new word in the title.		
	While-reading activities (35 minutes)		
	First, the teacher asks Ss to read the first paragraph with clarifying strategy by themselves. Then, the teacher invites volunteers to share the problems they encounter while reading and how they solve them. The teacher praises them when they get the correct answer. On the other hand, she provides guidance when necessary. The same steps are repeated for the next two paragraphs. 1. Clarification about the new word in the title Look at the title, “The Astronaut’s Life in Outer Space.” There is a new word, “astronaut”, right? We don’t know the meaning of this new word. But, look at the word following it. It’s “life.” So, we can tell that the “astronaut” has a life. It may refer to a person or an animal. Besides, we know what “Outer Space” means. Then, try to relate “Astronaut” to the place. Now, you may have the answer! 2. Clarification about the unclear idea After reading the second paragraph by themselves, Ss may feel confused with the meaning of “tie their sleeping bags.” They know that “tie” means to make a knot, but it doesn’t make sense to make a knot on their sleeping bags. Then, the teacher has to make clarification for them by trying to put “tie their sleeping bags to the walls” together and then explain it.		
	Post-reading activities (5 minutes)		
	To wrap up this session, the teacher invites one or two students to make a summary of what they have learned that day. This summarizing technique will be related to the target strategy in the next session.		

Lesson Plan for Summarizing Strategy (Session 5)

Participants	Ninth graders	Time	45 minutes
Goal	Ss can understand and apply summarizing strategy to the reading passages.		
Objectives	1. Ss will understand the meaning of a summary. 2. Ss will know the difference between a topic sentence and supporting details. 3. Ss will apply summarizing strategy to the reading passages.		
Materials	A descriptive article entitled <i>Honest Abe</i>		
Procedures	Pre-reading activities (5 minutes)		
	The teacher first reminded the students with what they did in the end of the previous session, i.e. making a summary. She also reviewed the definition of it.		
	While-reading activities (35 minutes)		
	After giving a brief review of summarizing, the teacher talks about the ideas of a topic sentence and supporting details. Then, she guides students to read the first paragraph of the article and demonstrates how to summarize it. Next, all of the students read the second paragraph together, and some of them will be chosen to share their summaries with the class. The teacher and students discuss which summary is closest to the gist of the article. The same steps will be repeated for the last paragraph.		
	1. <u>Locating the topic sentence</u> The teacher leads Ss to underline the topic sentence of each paragraph in red and tells them there is always some important information in a topic sentence. 2. <u>Discussion about what the main idea is</u> After reading the second paragraph, the teacher guides Ss to sort out what point is so important that they have to put it in the summary. 3. <u>Writing a summary</u> The teacher guides Ss to organize those major ideas by using one or two sentences.		
	Post-reading activities (5 minutes)		
	The teacher wraps up the session by reviewing what Ss have learned in this session.		

Lesson Plan for Questioning Strategy (Session 6)

Participants	Ninth graders	Time	45 minutes
Goal	Ss can understand and apply questioning strategy to the reading passages.		
Objectives	1. Ss will understand the meaning of questioning strategy. 2. Ss will know the difference between a fat question and a thin question. 3. Ss will apply questioning strategy to the reading passages.		
Materials	A descriptive article entitled <i>Guinness World Records</i>		
Procedures	Pre-reading activities (5 minutes)		
	The teacher reviewed the definition of questioning and when and how to use it.		
	While-reading activities (35 minutes)		
	The teacher guides Ss to read the first paragraph aloud and demonstrates to generate two fat/good questions and two thin/bad ones. Next, the teacher invites Ss to discuss the difference between the two kinds of questions. Then, the Ss read the second paragraph and share their own questions with the class. The same steps will be repeated for the last paragraph.		
	1. <u>Difference between fat questions and thin ones</u> The teacher writes down some common formats of questions on the blackboard and asks Ss which is more difficult and why. Then, she summarizes that fat questions are questions requires deeper thinking. 2. <u>Generating questions</u> The teacher demonstrates how to generate four kinds of questions. One example is provided for each kind of question. (1) Yes/No questions Is <i>Guinness World Records</i> popular with Americans? (2) Wh- questions What is <u><i>Guinness World Records</i></u>? (3) Factual questions When did <i>Guinness World Records</i> come out? (4) Inferential questions Ivy has a four-month-old baby weighting 5.27 kilograms. Will the record of this baby be found in <i>Guinness World Records</i>?		
	Post-reading activities (5 minutes)		
	The teacher wraps up the session by reviewing what Ss have learned in this session.		

Appendix E: Reading Comprehension Test

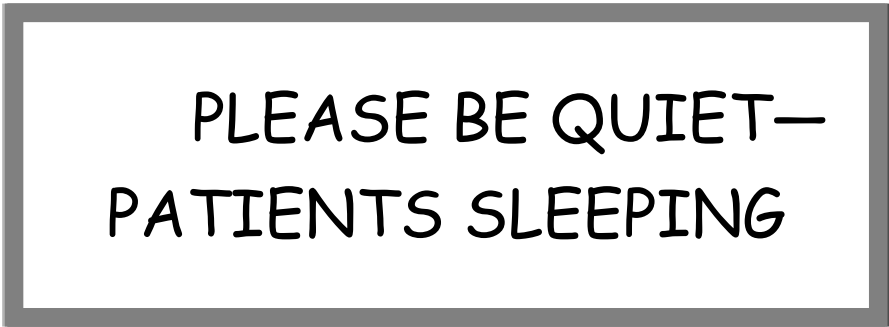
Pretest

☐ **燴賤** 班級：____ 座號：____ 姓名：____ 得分：____

每題 **10** 分

本部份共 10 題，包括數段短文，每段短文後有 1~3 個相關問題，
請就試題裡 A、B、C、D 四個選項中選出最適合者，標示在括弧中。

Question 1



PLEASE BE QUIET—
PATIENTS SLEEPING

- ()1. Where would you most likely see this sign?
- A. In a camping area
 - B. In a doctor's office
 - C. In a library
 - D. In a hospital

Questions 2~4

March 24, 2000

Dear Grandma and Grandpa,

Thank you so much for the sweater you sent me for Christmas! It fits perfectly, and purple is my favorite color! It's very warm, too – just perfect for the weather we've been having here recently. All of my classmates want one like it!

Cathy really likes the doll you gave her. She plays with it every day, and she tries to take it everywhere!

I hope you are both doing well.

See you this summer!

Sincerely,

Billy

- ()2.What is the main reason why Billy wrote this letter?
- A. To thank his grandparents for the gifts they sent
 - B. To tell his grandparents about the weather there
 - C. To tell his grandparents what Cathy does with the doll
 - D. To thank his grandparents for visiting them at Christmas
- ()3.What does Billy **NOT** say about his sweater?
- A. He likes the color.
 - B. He wears it to school.
 - C. Cathy likes it too.
 - D. It keeps him warm.
- ()4.What has the weather probably been like?
- A. Warm
 - B. Cold
 - C. Rainy
 - D. Foggy

MUSIC TOWN GRAND OPENING

Music Town has finally arrived in Taiwan! Don't miss our Grand Opening celebration, starting this weekend! For nine days only, you'll enjoy savings of 15 to 30 percent on all of your favorite music. This is the place that offers the largest selection of CDs and cassette tapes on the island - classical, jazz, pop, blues, rock and roll, and more.

Be our one-thousandth customer, and win great prizes!

- () 5. Why is Music Town celebrating?
- A. It is opening a larger store.
 - B. It is opening a new CD section.
 - C. It is opening again after a long holiday.
 - D. It is opening its first store in Taiwan.
- () 6. How long will the sale last?
- A. A month
 - B. More than two weeks
 - C. More than one week
 - D. A week
- () 7. According to the advertisement, what does Music Town **NOT** promise to do during the sale?
- A. Deliver CDs and cassette tapes free
 - B. Give gifts to its one-thousandth customer
 - C. Offer a wide variety of music
 - D. Lower its prices

Questions 8-10

To: All Food Service Employees
From: L. R. Wang, Manager
Subject: Serving Customers

I am proud of our fast food restaurant, and I think that all of
(5) our employees work hard. But some of our counter workers are forgetting something important. You need to be not only fast and exact, but also friendly.

Taking food orders again and again can make you tired, and even bored. This is natural. But don't let these feelings affect the
(10) way you behave toward customers. Remember that THE CUSTOMER COMES FIRST. We consider him to be very important, and we are happy to provide great service for him. So always give your customers a sunny smile. Show them that they are special to us, and they will come back again.

- ()8. Why did the manager write this memo?
- A. Employees were too slow.
 - B. Employees weren't friendly enough.
 - C. Employees forgot to give change.
 - D. Employees gave great service.
- ()9. What does the manager say about repeating a job many times?
- A. Being busy makes the work more fun.
 - B. The work should become easier and easier.
 - C. Practicing more helps employees improve.
 - D. Employees can slowly lose their energy.
- ()10. What does the word "natural" in line 9 mean?
- A. Green
 - B. Common
 - C. Good for health
 - D. Warm and bright

試題結束

Appendix E: Reading Comprehension Test

Posttest

閱讀理解二 班級：_____ 座號：_____ 姓名：_____ 得分：_____

每題 10 分

本部份共 10 題，包括數段短文，每段短文後有 1~3 個相關問題，
請就試題裡 A、B、C、D 四個選項中選出最適合者，標示在括弧中。

Questions 1



- ()1.What does this sign mean?
- A. Stay on the line.
 - B. Drive inside the line.
 - C. Keep the line straight.
 - D. Stand in back of the line.

Questions 2-4

March 24, 2000

Dear Grandma and Grandpa,

Thank you so much for the sweater you sent me for Christmas! It fits perfectly, and purple is my favorite color! It's very warm, too – just perfect for the weather we've been having here recently. All of my classmates want one like it!

Cathy really likes the doll you gave her. She plays with it every day, and she tries to take it everywhere!

I hope you are both doing well.

See you this summer!

Sincerely,

Billy

- () 2. What is the main reason why Billy wrote this letter?
- A. To thank his grandparents for the gifts they sent
 - B. To tell his grandparents about the weather there
 - C. To tell his grandparents what Cathy does with the doll
 - D. To thank his grandparents for visiting them at Christmas
- () 3. What does Billy **NOT** say about his sweater?
- A. He likes the color.
 - B. He wears it to school.
 - C. Cathy likes it too.
 - D. It keeps him warm.
- () 4. What has the weather probably been like?
- A. Warm
 - B. Cold
 - C. Rainy
 - D. Foggy

Questions 5-7

SOBIG MARKET 50% OFF on Big Name Sports Glasses

High-fashion sunglasses in super colors, like rich red, beautiful blue, and great green! Perfect for tennis, running, or just spending time in the sun. All in this season's HOT shapes, square and oval.

- () 5. What is the purpose of this ad?
- A. To sell an exercise machine
 - B. To sell a package tour
 - C. To sell big-name clothes
 - D. To sell sunglasses
- () 6. What does “HOT” mean here?
- A. Warm
 - B. Angry
 - C. Popular
 - D. Expensive
- () 7. What is the last word, “oval”?
- A. A shape
 - B. A color
 - C. A size
 - D. A number

Questions 8-10

The Martin family took a two-week vacation last summer. The day before the trip, all of the family members helped with the preparations. Mr. Martin asked the neighbors, the Smiths, to check the mailbox every day and take out any letters or advertisements. After lunch, Mrs. Martin took all the extra food out of the refrigerator; she gave some to the Smiths, and she threw away the rest. Paul Martin put several cans of dog food in a bag, and he took his big dog Roxy over to his friend's house. Mary and Susie Martin cleaned the whole house. They swept and washed the floors in all of the rooms, dusted the furniture, and cleaned the bathroom.

That evening, the Martin family ate dinner at a restaurant. When they arrived home, Mr. Martin told the family to take off their clothes and put on T-shirts and shorts. Then his youngest daughter Cindy began to wash and dry everyone's clothes.

"Now," said Mr. Martin, "we can begin to pack our suitcases for the trip."

- () 8. What is a good title for this story?
- A. Family Holiday Fun
 - B. Preparing to Leave Home
 - C. A Trip to the Store
 - D. A Party for the Neighbors
- () 9. How many people are there in the Martin Family?
- A. Eight
 - B. Seven
 - C. Five
 - D. Six
- () 10. Why did the family change their clothes?
- A. To clean the house
 - B. To wash the clothes
 - C. To prepare for visitors
 - D. To go to a restaurant

試題結束

Appendix F: The Perception Questionnaire

Class : _____ Name : _____ No. : _____

Questionnaire

Hello, everyone! Let's think about how we read the nine articles via the four reading strategies in class. Please write down as much as you can.

1. What do you learn most from the class? Please explain.

2. Which strategy do you think is the easiest for you to learn? (Put a check in front of the strategy that is the easiest for you.) Please elaborate on your choice.

____ Predicting ____ Clarifying ____ Summarizing ____ Questioning
because _____

3. Which strategy do you think is the most difficult for you to learn? (Put a check in front of the strategy that is the easiest for you.) Please elaborate on your choice.

____ Predicting ____ Clarifying ____ Summarizing ____ Questioning
because _____

4. Which strategy do you think is the helpful for you to learn? (Put a check in front of the strategy that is the easiest for you.) Please elaborate on your choice.

____ Predicting ____ Clarifying ____ Summarizing ____ Questioning
because _____

5. Do you think the four strategies help your reading comprehension? Please explain.

6. Do you think the four strategies make you more interested in reading? Please explain.

7. Do you want the teacher to continue teaching this way? Please explain. If possible, feel free to write down some suggestions for future instruction.

Appendix G: The Perception Questionnaire (in Chinese)

班級：_____ 姓名：_____ 座號：_____

問卷調查

各位同學大家好！為了了解大家學習的情況，請你回想我們在課堂上利用四個閱讀策略來閱讀故事的經驗，並回答以下問題。這些問題都沒有標準答案，請依你個人的經驗填寫即可。請仔細思考後，盡量表達自己的意見，寫得越詳細越好喔！

1. 你覺得從課堂上學到最多的、印象最深刻的是什麼？請說明。

2. 下面四個步驟中，你覺得「最簡單」的是哪一個？請打 v 並說明理由。

_____ 預測 _____ 釐清 _____ 摘要 _____ 提問

理由：_____

3. 下面四個步驟中，你覺得「最困難」的是哪一個？請打 v 並說明理由。

_____ 預測 _____ 釐清 _____ 摘要 _____ 提問

理由：_____

4. 下面四個步驟中，你覺得對理解文意「最有幫助」的是哪一個？請打 v 並說明理由。

_____ 預測 _____ 釐清 _____ 摘要 _____ 提問

理由：_____

5. 你覺得這樣的學習方法有讓你的英語閱讀理解能力進步了嗎？請說明理由。

6. 你覺得這樣的學習方法會讓你更喜歡閱讀英語文章嗎？請說明理由。

7. 你希望老師繼續用這樣的教學方式教英文嗎？請說明理由。

如果有任何建議，也歡迎提出喔！
